Ground Contamination Assessment

Trimite
Arundel Road
Uxbridge

ISSUE 01

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Prepared for: Mentmore Investments LLP

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1.0 INTRODUCTION

1.1 Background

Concept Site Investigations has been instructed by Mentmore Investments LLP to carry out an assessment of ground & groundwater contamination at the site based on the finding of previous ground investigations (carried out by others) and provide recommendations in respect of the proposed development of warehouses at the site known as Trimite, Arundel Way, Uxbridge Middlesex, UB8 2SD (Figure 1). This report comprises an initial appraisal based on the work carried out by Environ between 2007 and 2011 in order to support the planning application. It is proposed that further ground investigation will be undertaken and an updated assessment and remediation strategy will be produced.

This report makes reference to and takes into account the finding of the following reports carried out by Environ UK Ltd:

- Phase I & II Environmental Assessment, November 2007 (Environ, Report Ref: 67-C12466 / 67-C12520).
- Additional Environmental Assessment, July 2008. (Environ, Report Ref.67-C12790)
- Phase II Site Investigation, July 2008 (Environ Report Ref: 67-C13446)
- Detailed Qualitative Risk Assessment (DQRA), October 2011 (Environ, Report Ref: UK16-17036)

In addition to reviewing the reports above Concept has obtained a new Landmark Envirocheck report in order to check the current environmental setting with respect to environmental data available for the site and local area. The Envirocheck report is included in Appendix B.

The DRQA Report, which includes a summary of the finding of the previous Environ reports listed above, and The Phase I & II report which provides considerable detail on the condition of the site at that time, are included in Appendix A of this report.

A reconnaissance of the site and its environs was carried out by Concept on the 9th January 2013. Observations made during the reconnaissance on the current status on the site are incorporated herein where relevant. Figure 2 includes a selection of photographs from the site reconnaissance.

1.2 Limitations

This report has been prepared for and on behalf of Mentmore Investments LLP in response to their particular requirements. Reasonable skill and care has been exercised within the timescales available and in accordance with the technical requirements of the brief. The opinions provided in this report are derived from a review of records and information provided by third parties and site inspection/verification carried out by Concept. No letter of reliance or warrantees have been provided in respect of third party information and Concept cannot accept any responsibility as to the validity or correctness of any third part data referred to in the production of this report. Notwithstanding the efforts made by the professional team in undertaking this assessment, such a study does not constitute a detailed investigation and it is possible that conditions other than that summarised in this report may exist at the site.

2.0 THE SITE

2.1 Location

The site is located approximately 1km south-west of Uxbridge town centre at National grid reference 504810, 183140 and occupies an area of approximately 7.3 acres (Figure 1). The River Colne is situated some 150m west of the site. The site is located in an area developed for mixed uses and is part of a wider industrial estate.

2.2 Site Description

Various buildings (including the main reception/office building, engineering workshops, production areas, tank farms, despatch buildings and stores) are located across the site, covering approximately 60% of the site in total. Currently, Trimite, a paint manufacturer, still occupies the buildings in the centre of the site. Three large structures to the northwest and small structures in the northeast corner (formerly used by Trimite) are vacant and will be demolished.

The majority of the site area is covered with buildings or hardcover in poor condition. Soil is exposed at the surface in the majority of the area in the southwest corner of the site. The southernmost section of this area is used for vehicle parking. A small strip of land close to the eastern site boundary also comprises exposed soil.

An overview of current site is illustrated in Figure 2.

2.3 Surrounding Land use

Light industrial units are located on neighbouring properties to the north, south, east and west. Residential properties are located to the north-east. The site is bound to the north by Ashley Road, beyond which to the north-east are residential properties; to the east by Wallingford Road and industrial properties, beyond which lie further industrial units to the south by Salisbury Road, beyond which lie industrial properties; and to the west by Arundel Road, beyond which lie industrial properties. Various light industrial/commercial trades are present in the area adjacent to the site in the south east corner, and include a packaging company a timber supplier, a ductwork manufacturers a vehicle workshop and a garage. The nearest residential properties are located some 20m from the north-eastern site boundary.

2.4 Proposed Development

The proposed development comprises the demolition of the existing building, structures and decommissioning of tanks on the site and the construction of nine variable sized warehouse units part brick clad to 10m eves (Figure 3). The foundations are likely to be strip footings or pile and ground beam. The client initially aims to demolish existing structures in the northeast section of the site and the three structures in the west Corner, and proposes to firstly construct Unit‘s 1 and 2 subject to site clearance and planning permission. Proposed Unit 8 is landlocked and not currently owned by the client who is in the process of acquiring it.

2.5 Site History

The History of the site and its environs has been reviewed in order to summarise the previous uses of the site and changes in land-use with time. Reference has been made to the following reports:

- Phase I & II Environmental Assessment, November 2007 (Environ, Report Ref: 67-C12466 / 67-C12520).
- Additional Environmental Assessment, July 2008. (Environ, Report Ref.67-C12790)

All distances and directions are relative to the site unless otherwise stated. A summary of the principal changes is given in Table 1 below.

Table 1 – Summary of the history of the site

Date	Map Scale/Source	Description of Trimite site and environs
1881	1:10,560 Scale OS Map	The site is largely undeveloped with the exception of a small building located in the north east corner of the site. A public house is located adjacent to the northern boundary of the site, and a canal is shown some 30m to the east. A gas works is located some 60m east of the site, with residential development immediately to the north of this.
1887	1:2,500 Scale OS Map	The site appears to be relatively unchanged. A sewage works is now shown some 90m south east of the site with a number of large structures to the north of the site, some of which are later identified as nurseries (1890s).
1896-99	1:2,500 Scale OS Map	The building in the north east corner of the site has been extended. The gas works to the east of the site has also been extended to the east.
1900	1:2,500 & 1:10,560 Scale OS Maps	Filter beds from the sewage works now encroach upon a small part of the south eastern corner of the site (approx. 5% of the site area). The gas works to the east have also been extended further to the east. An old gravel pit is shown some 200m northwest of the site.
1934	1:2,500 & 1:10,560 Scale OS Maps	The filter beds have been further extended to the north and west and now encroach further onto the southern part of the site occupying approximately 25% of the site area. Smaller structures are also shown in the eastern part of the site. Electricity pylons transect the site across the north east corner. The gas works have been further extended to the east with the addition of more gasometers and tanks. The gravel pit shown on the 1900 maps is no longer shown, although another pit is shown some 200m to the west of the site.

Date	Map Scale/Source	Description of Trimite site and environs
		The mill to the east of the site has been replaced by residential housing.
1960	1:10,560 Scale OS Map	The site has been redeveloped with a number of industrial buildings identified as factories, works and a builders yard. The sewage works has also been replaced by industrial properties. Various works and factories are identified within 100m of the site.
1968-72	1:2,500 Scale OS Maps	Buildings in the north west and north east sections of the site are identified paint works (*Trimite*). Trimite is described as a manufacturer of pre-treatment chemicals for metals and plastics. A print works and electrical engineering works is shown in the eastern area of the site, and an engineering works (*Metro Engineering and Plating*), chemical works (Allied Chemicals) and builder's yard in the southern section of the site. The engineering and plating works was later acquired by Trimite (date unknown), although according to anecdotal evidence from a site contact, the building was never used by Trimite.
1992	1:1,1250 Scale OS Maps	Several building on site appear to have been redeveloped or rebuilt.
2006	1:1,1250 Scale OS Maps	The site and its immediate environs appear to be relatively unchanged.
2014	Site Walkover	The site and its immediate environs appear to be relatively unchanged. Paint making activities have been significantly scaled down, and are now limited to the central portion of the site. The former electrical engineering works (electroplating) is no longer present and the area is vacant or used for vehicle parking. (Figure 2).

Date	Map Scale/Source	Description of Trimite site and environs
		The three structures to the northwest of the site are now unoccupied, and scheduled for demolition during February 2014. UST's from Tank Farm 3 were being removed from the ground during the site walkover (Figure 2). Smaller structures in the northeast corner of the site are also due for demolition pending the removal of asbestos containing materials, and satisfactory results of air monitoring.

In summary, the historical data show that the site was located on largely undeveloped land up until the start of the 20th Century, when a sewage works, located off site, was extended in phases to occupy up to 25% by the mid-20th Century. A gas works was also located off site, and extended close to, although not encroaching onto the site. By the 1960's the site and area had undergone major development, with the removal of the gas works, and addition of a number of industrial structures including factories and yards, and later industrial coating manufacturing (Trimite), electrical engineering works (Metro) and chemical works (Allied Chemicals) with a number of associated above ground storage tanks (AST) and underground storage tanks (UST). The site underwent a further phase of redevelopment in the early 1990's. Allied Chemicals operations ceased (date unknown) and the site was obtained and used by Trimite. The electroplating works were demolished between 2008 and 2011 and that area has remained vacant since then. Trimite operations have been significantly scaled down in the last three years and the site was recently purchased by Mentmore LLP who have begun cleaning and removing underground and above ground tanks and demolition in preparation for development (subject to planning).

3.0 ENVIRONMENTAL SETTING

3.1 Introduction

The environmental setting of the site is based on publically available environmental data for the site, previous investigation reports, referenced in Section 1.1. which were commissioned by the previous occupier of the site, and the findings of a recent site walkover at the site

carried out by Concept. In addition Concept has reviewed the environmental databases provided in the Envirocheck report.

3.2 Sensitive / Industrial Uses of the site and Neighbouring Land

This section provides a summary of the land use of the site based on a site Inspection carried out in 2007, as detailed in the Environ. Report Phase I & II Environmental Assessment, November 2007 (Environ, Report Ref: 67-C12466 / 67-C12520) which has been updated with details of a site reconnaissance carried out by Concept on the 9th January 2014.

The site is predominantly occupied by structures, UST's and AST's, and storage areas related to a paint making facility (Trimite). An area in the southwest corner of the site was previously used as an electroplating factory. That building has been demolished. This area comprises permeable-semi permeable ground (no hard cover), and is currently used for parking.

The Trimite site also encompasses the area of the site adjacent and to the east of this, formerly operated by Allied Chemicals and is still currently occupied by Trimite.

UST's/AST's

Three tank farms with a number of UST's and AST's were identified (see Figure 2) and have been extensively described in previous reports. Tank farm 1 is located in the centre of the site and currently comprises nine ASTs with a combined capacity of 100,200 litres. Tank farm 2 is located in the north east Section of the site and comprises 24 ASTs with a combined capacity of 230,140 litres. An additional 13 UST are also located at Tank farm 2 with a combined capacity of 181,600 litres. Tank farm 3 is located on the western boundary of the site, north of the former electroplating factory and comprises six USTs, with a combined storage capacity of 272,400 litres. All the tank farms were used to store solvents and resins for the paint making process including phenyl mercuric acetate (PMA) methyl isobutyl ketone, methyl ethyl ketone, iso propyl alcohol, toluene, trichloroethene, xylene, and acetone. The Environ report Phase I & II Environmental Assessment, November 2007 describes those tanks in more detail.

The Environ report also describes the USTs present on the site as follows:

- Five USTs were used for diesel and petrol storage (three described as disused in 2007) and were located in the main access road to the north of the site. The two operational diesel USTs were used for refuelling pumps.
- Six UST were located in the centre of the site immediately to the northeast of the former Allied Chemicals. At the time of the 2007 inspection, one UST was decommissioned, three disused with unknown previous use, two were operational, one was used for pH adjustment as part of a discharge consent and another used as temporary storage of liquid caustic waste.
- The content of 13 USTs was unknown. These were located in the east and north of the former Allied Chemical works

During the recent site reconnaissance Tank Farm 3 USTs were in the process of being removed from the ground (Figure 2). The client has verified that these were certified as cleaned prior to removal. All other USTs and ASTs appear to remain in place. Anecdotal evidence from current Trimite employees suggests that all tanks on site have been emptied, and are no longer used in the paint making process, which has been significantly scaled down in the past three years. However no tanks are known to have been removed by Trimite. Consent to remove all other USTs and ASTs with the exception of the five fuel UST's in the main access road, have been received by the client from Hillingdon Borough Council, and all tanks will be certified as clean prior to removal.

Chemical, Waste Storage and Discharge Areas

Drummed storage is present at various locations across the site. Environ stated in their report that in some cases this was carried out in partially bunded areas. During the recent site reconnaissance all drums were stored without bunded containment on wooden pallets (presumably to facilitate movement of drums to mixing areas with forklift trucks). The following chemicals were noted in temporary storage in drums across the site during the recent walkover:

- Acrylics and paints
- Unithane
- Rheolate
- Iso Propanol
- Various Resins
- Polyester

- Cyclohexanone
- Dimetyllaminoethanol
- Xylene
- Butyl Acetate
- N-Butanol

Areas designated for waste storage are located to the east of the site. Waste generated included general waste, metal, liquid and hazardous wastes. Waste storage was predominantly located on hard standing, although some cracks in the surfacing were noted in these areas. A significant number of intermediate bulk containers (IBC) were also present (Figure 2), and anecdotal evidence obtained during the recent (2014) reconnaissance suggests that these have been present in this area for more than three years. None of the IBCs or drums inspected by Concept appeared to be leaking.

The Environ Phase I & II report also noted some storage of waste paint and drums on an area of soft cover in the eastern section of the site. This was not seen during the recent site reconnaissance.

It was previously noted that the site had a discharge consent from Thames Water for discharge of trade effluent produced at the site. Discharge for trade effluent comprising waste liquids from car washing, laboratory, cooling and contaminated surface water are located at the sewer on Cowley Mill Road and Salisbury Road. A drainage channel was noted in the northeast of the site was being excavated and repaired during the 2007 inspection (Not seen during the recent reconnaissance)

The current Envirocheck report suggests that are no Environment agency registered discharge consents on site (i.e. those to surface or groundwater), the nearest is reported to 229m north of the site but that is now revoked. The closest apparently active discharge to surface water is for sewage discharge to surface water 267m north west of the site.

The site is registered with the Environment Agency (EA) as a producer of hazardous waste.

Electricity Substations and Switch rooms

Two utility sub stations and eight switch rooms were recorded as present associated with many of the structures across the site (north, northwest and south west) of the site at the time of the Environ inspection. These may contain polychlorinated biphpenyl (PCB's), although

the site contact consulted during the Environ Inspection suggested that PCB's were unlikely to be present. No evidence that these had been removed or altered was noted during the recent reconnaissance.

Environmental Registers

During the previous studies it was stated that the Local Authority did not hold any records of landfill sites within 250m of the site. One former Landfill site was identified by the Environment Agency within 250m of the site on Slough Road used for excavation and construction materials. There were no active landfills recorded within 250m of the site. The Landmark Report examined by Environ also identified inactive landfill sites within 250m of the site all likely to relate to the Woodland Park Landfill comprising inactive and active operations (circa. 2007) located 115m southwest and 460m south of the site respectively. The inactive site is listed as handling asbestos, contaminated rubbish, scrap metal and treated timber, and the active as handling no-biodegradable and non-construction wastes. They also state that a permitted waste management facility was located some 310m south of the site handling large quantities of non-bio degradable, commercial, industrial and garden wastes.

The recent Envirocheck report commissioned for this study identifies an historic landfill located 121m southwest of the site (Cape products) was previous permitted to deposit inert, industrial, commercial, household and special (now referred to as hazardous) waste. This same site is listed under a separate entry as being 117m from the site and that entry states the site was authorised for a range of wastes included asbestos and contaminated but generally non-hazardous wastes but prohibited from disposing of oily waste. This appears to have ceased operation in 1993. A second inert waste site is identified 185m from the site which ceased operation in in 1992. There is a range of other waste facilities listed but all over 250m from the site boundary.

The site was identified by Hillingdon Borough Council for review as part of the Contaminated Land Inspection Strategy under Part 2A of the Environmental Protection Act 1990 based on the history and previous use of the site. However the site is not listed as having any contaminated register entries or notices.

There is one Local Authority Pollution Prevention and Control (LAPPC) related to the activities carried out on site (registered to Trimite). The Envirocheck report identifies a second LAPPC 6m northwest registered to APW Electronics and another 88m southeast to Nirmal

Coachworks. A further two LAPPC entries are listed approximately 140 to 150m from the site boundary.

There are currently no Control of Major Hazardous Sites (COMAH) within 500m of the site. A Notification of Installations Handling Hazardous Substances (NIHHS) consent is located at a Transco holder station approximately 230m east of the site for storage of flammable gas.

Environ identified a fuel station is listed as located 273m from the site (in circa. 2007). The current Envirocheck report confirm the previous record as Dagenham Motors, Uxbridge but the entry is shown as obsolete.

Environmentally Sensitive Areas

The Envirocheck report confirms there are no records of nationally designated ecological or environmentally sites such as Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR), or Special Areas of Conservation etc within 1km of the site. There are two areas of adopted green belt identified 82m south west and 152m south west of the site. All other similar designations are over 250m from the site boundary. The site is located within a Department for Environment, Food and Rural Affairs (DEFRA) designated nitrate vulnerable zone.

3.4 Previous Ground Investigations

Four phases of ground investigation have been undertaken on the site. One investigation carried out by Ground Exploration Ltd, which is referenced in other reports, was not available for review in this report, neither was the data from that investigation used in Environs subsequent assessment. The three phases of ground investigation referenced in this report Include:

- Phase I & II Environmental Assessment, November 2007 (Environ, Report Ref: 67-C12466 / 67-C12520).
- Additional Environmental Assessment, July 2008. (Environ, Report Ref.67-C12790)
- Phase II Site Investigation, July 2008 (Environ Report Ref: 67-C13446)

Details from these reports are included in Section 4.3. The data from these investigations is used in subsequent recommendations made in this report in Section 6.0.

4.0 GROUND CONDITIONS

4.1 Geology

The British Geological Survey (NERC) 1:50,000 scale geology viewer of Britain shows the site to be situated on Alluvium overlying London Clay. A borehole log from the BGS website located close to the north of the site (TQ08SW435) indicates 3m of Made Ground comprising a gravelly clay with brick fragments, overlying 1.8m of silty gravelly clay (Alluvium) in turn overlying a grey/blue slightly silty clay (London Clay). The London Clay is underlain by the Reading Beds, with the Upper Chalk below this. The London Clay and Reading Beds are understood to be at least 50m thick. An Inlier of Shepperton Gravel (Sand and Gravel) is located to the west of the River Colne.

The ground investigations carried out previously by Environ largely confirmed the findings of the BGS data, although Alluvium was found to be absent in one location in a borehole in the main access road to the west of the site (it is noted that this borehole refused at 2.50m depth). Table 2 summarises the Geological conditions encountered during the various Phases of Investigation carried out by Environ:

Table 2 – Summary of the geology Recorded on the Site

Strata	Depth to top (mbgl)	Thickness (m)	Comments
Made Ground	0.1m to 0.3m	Generally up to 1.6m thick, proven to at least 2.5m in one location;	Surfacing generally reinforced concrete or tarmacadam up to 0.3m thick. Made Ground generally comprises gravel/gravel and cobble, gravelly clay, sandy clay/clayey sand with variable anthropogenic fragments, including brick, concrete, tarmacadam, clinker, ash, porcelain and timber.
Alluvium	0.4m to 1.8m	Up to 6.3m thick	Gravelly Clay/Sandy Gravel with cobbles of flint in some locations. .
London Clay	4.6-6.8m	Proven to 6.8m	Stiff greenish grey Clay

4.2 Hydrogeology and hydrology

The nearest surface water feature is the Grand Union Canal, located some 45m east of the site. The River Colne is located approximately 150m to the east of the site and flows in a southerly direction. The current Envirocheck identifies that the EA General Quality Assessment (GQA) Scheme classified these water bodies as Category D (fair) and Category A (very good) respectively. The GQA scheme has been phased out to allow the EA to provide a more sophisticated assessment of the whole water environment in accordance with the European Water Framework Directive (WFD).

The site is identified by the EA as within an area at risk from flooding with an annual probability of 0.1% (1 in 1000).

The Envirocheck report identifies that there were two groundwater abstractions registered to Cape Building Products located 333m and 414m south and south west of the site respectively. These are shown as commencing in 1989, it is not clear if they are current. A surface water abstraction is listed 688m north west for irrigation. There are a range of other abstractions identified in the Envirocheck report between 1km and 2km from the site. The most recently commenced groundwater abstractions (2007 and 2008)or listed as between 1.5km and 1.9km from the site from 2007 and 2008.

The Envirocheck report lists seven pollution incidents within 250m of the site, although none associated with the site. The nearest recorded incident occurred 42m northeast of the site and involved a release of oils at Cowley Mill in 1995 described as a minor incident. The next closest incident was 142m south west of the site at Riverside Way described as chemicals (unknown) in 1996 and was classified as category 2 (significant). All the incidents within 250m of the site occurred a considerable time ago (before 1999).

The site does not lie within a source protection zone and none identified within 500m of the site. The EA classifies the shallow ground water (Alluvium) as being a Secondary A aquifer. These are defined as permeable layers capable of supporting water supplies at a local rather than strategic level and in some cases forming an important source of base flow to rivers. A Principal aquifer in the superficial deposits is identified approximately 100m to the west of the site. The Bedrock aquifer classification (the London Clay) is classified as unproductive strata (previously referred to as a non-aquifer)

Groundwater levels recorded at the site in monitoring wells installed recorded water ranging between 1.22m and 1.753m below ground level, resting within the Made Ground or within the upper alluvial soil. The BGS borehole to the north indicates a standing water level of approximately 1.70mbgl. The Groundwater elevations indicated a general north east to south west trend, with groundwater flow towards the River Colne to the west.

4.3 Ground & Groundwater Conditions

Introduction

The following is a relatively short summary of all reports on ground investigations carried out by Environ in September 2007, December 2007 and June 2008 (See Section 3.4) and subsequent groundwater sampling and analysis carried out in August 2011. The scope of works was designed with reference to the conceptual site model (CSM) developed by Environ based on potential historic and (then) current sources of contamination, and the soil and groundwater conditions encountered at various stages of investigation. Environ noted that the scope was restricted in some areas due to access and other restriction present on the then active site. The various investigations targeted those areas that were considered by Environ to have a greater potential for historic ground contamination but also (according to them) providing reasonable coverage across the site. The supplementary investigation (June 2008) was intended to delineate the previously identified contamination zones. In summary the scope of works included:

- 22 window sample hole to a maximum depth of 6.0m below ground level.
- 10 hollow stem rotary/sonic drilling boreholes to a maximum depth of 6.0m below ground level (to prove the top of the London Clay).
- Installation of 26 groundwater monitoring wells (10 in boreholes and 16 in window sample boreholes) with response zones within the alluvium with the exception of WS108 and WS109 (response zone within the Made Ground and Alluvium).
- Soil sampling at regular intervals (generally 0.5m) with photoionisation detector (PID) screening to test for volatiles during sampling.
- 57 soils samples and 51 groundwater samples were analysed for a range of determinands including heavy metals, sulphate, cyanide, petroleum hydrocarbons (TPH), volatile organic compounds (VOC), semi volatile hydrocarbons (SVOC), polyaromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB).
- An additional 24 water samples were taken in order to provide data for an updated DRQA in August 2011. One off the samples was collected from location WS6 for

product ID following observation of light and dense non aqueous phase liquids (LNAPL and DNAPL).

Observations of contamination

The Environ November 2007 report describes extensive evidence of contamination identified during the ground investigation phase. These have not be reproduced in full in this report but reference can be made to section 5.3 of that report in Appendix A. Of particular note are:

- Frequent hydrocarbons odours at nine locations, sometimes reported as solvent odours, often in the shallow soils but sometimes up to 3m bgl, including in the Alluvial sands and gravels.
- Free phase hydrocarbons at three locations
- Occasional oily sheens and black hydrocarbon staining
- Sometime very elevated in-situ vapour readings often between 100ppm and 1000ppm and sometime between 1000ppm and greater than 4000ppm. The highest readings were usually between 1m and 2m bgl in the Alluvial gravel and cobbles.

Assessment methodology

The soil results were assessed in accordance with generic assessment criteria (GAC) for assessing long term risks to human health based on generic scenarios using the contaminated land exposure assessment (CLEA) methodology and guidance for a commercial land use with taking account of publications and guidance up to February 2010. Reference was made to the following reports:

- Chartered Institute of Environmental Health (CIEH)/Land Quality Management (LQM) (Version 2, 2009), GAC, including addendums up to 27 January 2010.
- Contaminated Land: Applications in Real Environments (CL:AIRE) and partners GAC, Including addendums up to 27 January 2010.

These references are still current.

Groundwater results were initially assessed using UK guidelines including the Water Supply (Water Quality) (England) Regulations 2000 (known as the drinking water standards, or DWS) and environmental quality standards (EQS). For those determinants which did not have a UK drinking water or EQS reference was made to the World Health Organisation guidelines for

drinking water quality and the US regional screening levels (April 2009). Those international standards have no legal status in the UK and would need to be reconsidered in the current time based on the EA's implementation of the WFD.

Environ also developed a GAC for assessing the vapour pathway from groundwater to human receptors using the RBCA Tool Kit V2.5 model. Following their generic assessment Environ undertook a DQRA for controlled waters for those contaminants shown to exceeded generic guidelines. Their risk assessment considered the potential for pollution of controlled waters only, i.e. the River Colne, the risk to the shallow groundwater was excluded as it was not considered a sensitive receptor. That would need to be reconsidered and discussed with the EA in light of the implementation of the WFD which prohibits the discernible release of hazardous substances to groundwater.

Environ identified some soil concentrations that exceeded the Environ human health GAC, summarised in the following table:

Table 3: Summary of Soil GAC Exceedances

Contaminant	No. of Samples	Max. Conc. (mg/kg)	Location of Sample with Max. Conc.	Environ GAC mg/kg)	No. of Exceedances ENVIRON GAC
Lead	37	2,700	WS105	750	3 (BH1 0.5m,BH1 1.0m, WS105 0.3m)
PCB's (Sum of ICES Congeners)	10	2	WS103	0.879	2 (BH10 0.5m, WS103 0.5m)
Petroleum Hydrocarbons					
Aliphatic >C8-C10	37	270	WS7	79.2	1 (WS7 1.0m)
Aliphatic >C10-C12	37	1,700	WS7	47.7	1 (WS7 1.0m)
Aliphatic >C12-C16	37	1,700	WS7	27.3	4 (WS5 0.5m, WS7 1.0m, WS12 1.2m, BH7 1.0m)
Aromatic >C10-C12	37	2,600	WS7	362	1 (WS7 1.0m)
Aromatic >C12-C16	37	610	BH7	168	2 (WS7 1.0m, BH7 1.0m)
Volatile Organic Compounds (VOCs)					
1,3,5-Trimethylbenzene	37	13	WS7	12.7	1 (WS7 1.0m)
1,2,4-Trimethylbenzen	37	68	WS7	22.9	1 (WS7 1.0m)

Contaminant	No. of Samples	Max. Conc. (mg/kg)	Location of Sample with Max. Conc.	Environ GAC mg/kg)	No. of Exceedances ENVIRON GAC
e					
Notes: ENVIRON GAC is based on continued use of the site for COMMERCIAL purposes and does not take into account future potential change of use.					

Table 4.1 - Detailed Qualitative Risk Assessment, October 2011 (Environ, Report Ref: UK16-17036)

Soil – Inorganics

Environ summarised the findings of the soil results as not identifying evidence of a widespread source of soil contamination at the site, and that where exceedances occurred they were most likely localised hotspots at shallow depth within the soil. They stated that lead was detected at elevated concentrations (above the GAC of 750mg/kg) in two different locations to the far northwest (BH1) and in the centre of the site (WS105). Environ noted that this was most likely associated with fill material identified in these locations and lead was not considered further with regard to associated risks to receptors as they were considered at that time to be isolated hotspots. It is noted that some of the potential fill areas to the northwest of the site were not fully characterised and therefore may require further assessment.

The EA guidance upon which the Environ lead GAC was based with withdrawn by the EA many years ago. Concept has developed assessment criteria for assessing concentrations of lead since that time. The current value used to assess the significance of lead with respect to long term human health exposure in a commercial/ industrial setting using the CLEA v1.06 model varies dependent on specific factors and ranges between approximately 6000mgkg to 7000mg/kg. As such the results reported by Environ are well below that threshold. However, the health criteria underpinning that assessment was recently withdrawn and no replacement has been yet been agreed. It is likely the assessment level with drop. Guidance is expected to be published later in 2014 based on a Defra research project and the assessment will need to be revisited.

Environ stated that asbestos was not detected in any of the eleven samples analysed from the site and they did not consider asbestos in their assessment. It is noted that in the 2007 report they only tested 11 samples and the methodology was described as a ‘general screening’. Asbestos analysis methodologies have become more developed since then and the significant of asbestos in soil is recognised as more significant. In the laboratory tables the

method is described as “001a” and their method description is described as “visual screening of soil samples for fibrous material”. Accreditation for such tests was withdrawn in 2011 and it would no longer be regarded as acceptable to use such a method. It will be necessary to undertake further investigation for asbestos in soils prior to development. Extensive new guidance on asbestos in soils will be published in March 2014, with more due later in the year.

Soil - organics

Speciated TPH, aliphatic and aromatic compounds (from C_8 to C_{16}) were identified in elevated concentrations in four locations, three in the central southern area of the site (Formerly Allied Chemicals), and one associated with the presence of free phase hydrocarbons (WS7) toward the east, adjacent to Tank Farm 2. Environ noted that there was no positive correlation between these “hotspots” and hydrocarbons detected in the groundwater samples analysed in August 2011 (described later in this report).

Volatile organic compounds (VOC) were detected in elevated concentrations in one location (WS7), likely to be associated with the elevated TPH. Environ Identified generally low concentration of VOC/Semi-VOC’s (SVOC) across the site, and stated that where encountered they were likely to be associated with the free phase hydrocarbons present in the soil.

Environ concluded that the most likely source of the free-phase hydrocarbons at WS7 and therefore also the VOC hotspot in this location) is Tank Farm 2

Elevated polychlorinated biphenyls (PCB) above the assessment criteria used were identified by Environ in two of ten samples analysed, located in the centre of the site, a few metres to the northeast of Tank Farm 1. Environ were unable to identify a potential source for PCB’s and no PCB’s were detected in the groundwater. Environ stated that based on this, the impact from PCB’s on the environment was considered minimal.

Similar to inorganics the amount of testing carried out in soils was limited due to site accessibility and in some areas of the site no sampling and analysis of soils was carried out. It will be necessary to provide more comprehensive coverage to inform development and the remediation scheme.

Water Sampling

Two phase of low flow, groundwater sampling were undertaken by Environ, one in June 2008 where 24 samples were collected and analysed and August 2011, where 24 samples were collected and analysed from 23 locations. Three of the previous window locations (WS6, WS10 and WS102) were not found the second time.

A summary of results was based on the results of the most recent sampling exercise are illustrated in Table 4 below:

Table 4 – Summary of Water (GAC Exceedances – August 2011)

Table 4.2: Summary of Water GAC Exceedances (August 2011 Samples)						
Contamin-ant	No of Samples	Max Conc. In Water (µg/l) (Location)	ENVIRON Water GAC (µg/l)		Summary of ENVIRON GAC Exceedances (No, of samples which exceed GAC)	
			Human Health (1)	Controlled Waters	Human Health (1)	Controlled Waters
Inorganics						
Arsenic	24	146.4 (BH1)	>Sol (2)	50	0	1
Cadmium	24	2.2 (BH1)	>Sol (2)	0.25 (3)	0	3
Iron	24	30,080 (BH1)	>Sol (2)	1000	0	17
Lead	24	101 (BH1)	NC	7.2	0	2
Nickel	24	142 (WS11)	>Sol (2)	20	0	1
Zinc	24	2,449 (BH1)	>Sol (2)	125 (3)	0	1
Chromium	24	26.2 (WS11)	>Sol (2)	4.7	0	13
Hexavalent Chromium	24	50 (WS105)	>Sol (2)	3.4	0	4
Ammoniacal Nitrogen as NH_4 (mg/L)	24	2.51 (BH1)	NC	0.6	0	9

Cont'd

Contamin-ant	No of Samples	Max Conc. In Water (µg/l) (Location)	ENVIRON Water GAC (µg/l)		Summary of ENVIRON GAC Exceedances (No, of samples which exceed GAC)	
			Human Health (1)	Controlled Waters	Human Health (1)	Controlled Waters
Polycyclic Aromatic Hydrocarbons						
Naphthalene	24	199.15 (BH1)	>Sol (2)	2.4	0	5
Anthracene	24	2.62 (BH1)	>Sol (2)	0.1	0	1
Fluoranthene	24	2.21 (BH1)	>Sol (2)	0.1	0	1
Petroleum Range Hydrocarbons						
Toluene	24	2,216 (WS4)	>Sol (2)	50	0	4
Ethylbenzene	24	842 (WS4)	>Sol (2)	20	0	8
Combined Xylenes	24	3,779 (WS4)	>Sol (2)	30	0	7
Aromatic Hydrocarbons C_7-C_8	24	2,607 (WS4)	>Sol (2)	50	0	4
Volatile Organic Compounds						
1,1,1-Trichloroethane	24	101 (BH3)	>Sol (2)	100	0	1
Trichloroethene	24	1,000 (WS4)	150,000	10	0	1
Vinyl Chloride	24	450 (WS5)	2,400	0.5	0	9
1,1-Dichloroethene	24	17 (BH2)	>Sol (2)	30	0	0
1,1-Dichloroethane	24	2,716 (BH2)	NC	2.4 (4)	0	10
Cis-1,2-Dichloroethene	24	11,774 (WS4)	NC	50 (4)	0	6
1,2,4-Trimethylbenzene	24	327 (BH2)	450,000	15 (5)	0	5
1,4-Dichlorobenzene	24	415 (BH2)	>Sol (2)	300	0	1
1,2-Dichlorobenzene	24	1,887 (BH2)	>Sol (2)	20	0	8

Cont'd

Contamin-ant	No of Samples	Max Conc. In Water (µg/l) (Location)	ENVIRON Water GAC (µg/l)		Summary of ENVIRON GAC Exceedances (No, of samples which exceed GAC)	
			Human Health (1)	Controlled Waters	Human Health (1)	Controlled Waters

Notes:
(1) Commercial End Use ENVIRON GACs unless stated
(2) GAC exceeds limit of solubility
(3) Environmental Quality Standards (EQS) based on EC Dangerous Substances Directive (76/464/EEC). Based on hardness of 250mg/l $CaCO_3$
(4) In the absence of UK published groundwater standards, international standards have been used (where available).
NC – No Criteria

Table 4.2 - Detailed Qualitative Risk Assessment, October 2011 (Environ, Report Ref: UK16-17036)

Water – Inorganics

Arsenic, Cadmiun, Iron, lead zinc and ammoniacal nitrogen exceeded Environs respective GAC's in some locations with respect to controlled waters, although with maximum concentrations in BH1 to the west of the site. Environ stated that this was most likely associated with the anticipated fill material in this area. Total Chromium was detected in 13 locations exceeding Environs GAC's with a maximum reported concentration of 26.2 µg/l in WS11 in the southwest corner of the site. It was stated that this was most likely associated with the former electroplating works.

Hexavalent Chromium exceeded Environs GAC in four locations with a maximum reported concentration in WS105, adjacent to Tank Farm 1. Similarly, the maximum hexavalent chromium concentration in soil was also found in this location (although below GAC used for soil). Environ stated that this was possibly related to pigment used in paint.

Water – Organics

Three PAH compounds, naphthalene, anthracene and fluoranthene were detected at concentrations exceeding the GACs in five locations for naphthalene, and one each for the other compounds. Maximum concentrations were reported in BH1, and it was stated this was likely from a source related to waste fill material in this location.

Toluene, ethylbenzene, xlylenes and aromatic hydrocarbons in the aromatic C_7- C_8 band were detected at concentrations exceed the respective GAC's in some locations, although at maximum concentration in WS4, adjacent to Tank Farm 1 for all determinands

A number of volatile organic compound, and chlorinated compounds were detected at concentration exceed their respective GAC's controlled waters (refer to Table for individual compounds). Many of these compounds are typically associated solvent blending activities as part of the paint production carried out on site. The highest respective concentrations were recorded in a number of locations located in the southern central portion of the site, with particularly high concentrations of trichloroethene (1,000 µg/l) and Cis-1,2-dichloroethene (11,774 µg/l) in WS4, adjacent to Tank Farm 1.

A summary of maps indicating areas affected by groundwater based are illustrated in the Environ Report in Appendix A (Figure 7A to 7E).

Of particular note, Environ reported concentration of VOC in groundwater significantly lower than analytical data from June 2008, with the exception of chlorinated alkanes and isomers of benzene (perchloroethylene (PCE) and trichloroethene. (TCE)). Environ interpreted the decreasing trend in the distribution and concentration of chlorinated alkenes and their breakdown products as a result of groundwater transport away from the site and natural degradation processes. PCE detected in groundwater in 2008 were not detected in samples analysed in 2011. Environ noted that there was a marked increase in concentrations of chlorinated alkenes and chlorinated alkanes in the location of BH2 to the south of the site, and attributed this to a potential secondary source in this area of the site. Environ stated that the general decrease in BTEX compounds with the exception of the latter, also suggests that a general reduction of source/input and natural attenuation of these contaminants was occurring through biologically mediated process and transport and dispersion of groundwater.

Free Phase or Non Aqueous Phase Liquid

Light non-aqueous phase liquid (NAPL) was identified during investigations carried out in 2007 by Environ. As follows:

- WS7 (adjacent to Tank Farm 2); 0.01m thickness of LNAPL detected in open borehole annulus (no monitoring instrument installed). Subsequent borehole installed with instrument in BH8, adjacent to WS7 detected no LNAPL.

- WS6 (adjacent to Tank Farm 2); LNAPL detected in WS6 during three phases of monitoring between September 2008 and August 2011, with a maximum thickness of 0.017m in 2008.
- WS5 (approx. 25m south of Tank Farm 1); between 0.0005m and 0.001m of LNAPL detected between October and December 2007.
- Possible, unknown thickness of LNAPL detected in WS12 (southern boundary of the site) which was not verified as instrument signal not reliable.

LNAPL was not detected in any subsequent monitoring visits with the exception of WS6, where the thickness detected was very small. Environ suggested that this inferred that there was not a continuous body of LNAPL present in the groundwater. Sample of the LNAPL was in June 2008 and was found to be consistent with a mixture of petrol and degraded kerosene, with a large peak eluting between C_{24} and C_{25}. This was supported by the analysis of a sample taken from this location in 2011, described as a biodegraded kerosene.

Dense non-aqueous phase liquids (DNAPL) was not encountered during the site investigations or measures during monitoring visits. Environ applied the "1% of solubility rule" to assess the likely hood of the presence of DNAPL. Based on the dissolved concentrations of contaminants in the groundwater test results, they concluded that a DNAPL source was unlikely to be present on site.

Summary of Condition of Monitoring Wells (January 2014)

A total of 18 groundwater monitoring wells were located during the walkover on the 09/01/2014, and where inspected appeared to be in fair condition. Single valve gas bungs were present on some installations (e.g. BH8, WS105 and WS4) where inspected. A further 5 locations were not found during the walkover (WS1, WS9, WS10 WS11 and BH5), although it is possible that they may still be present, but covered with vegetation, materials or debris. Only one location (BH2) was verified to be destroyed with no stopcock cover present.

Gas Monitoring

Gas monitoring was only carried out during the September to October phase of investigation although the methodology was not stated. It appears a single measurement of gases was taken in each borehole instrument. The results were reported by Environ as follows:

Table 5 – Summary of Land Gas concentrations

Location	Methane CH_4	Carbon dioxide CO_2	Oxygen O_2	Carbon monoxide (ppm)	Hydrogen sulphide (ppm)	Atmospheric Pressure (mb)	Flow (litre/ hr)
WS1	0	3.4	13.6	1	0.1	1019	<0.1
WS4	0.8	11.5	3.9	6	0.2	1017	<0.1
WS5	0	9.2	7.5	3	0.2	1017	<0.1
WS6	76.8	9.9	3.6	6	0.8	1023	<0.1
WS9	0	1.3	19.1	6	0.2	1017	<0.1
WS10	0	1.4	16.8	1	0	1017	<0.1
WS11	0	4.6	14.5	3	0.1	1020	<0.1
WS12	0	5.3	11.2	3	0.2	1019	<0.1
Notes: All concentrations in % unless stated otherwise							

Table 5.1 - Phase I & II Environmental Assessment, November 2007 (Environ, Report Ref: 67-C12466 / 67-C12520).

It seems that gas monitoring was carried out on only one occasion which does not meet the minimum frequency required to provide a meaningful assessment.

The elevated concentrations of methane (WS6) and CO2 (WS4, WS5, WS6 and WS12) were described by Environ as being “extremely localised”, with methane only detected in two of the wells. Elevated CO_2 concentrations were attributed to the observed groundwater plume. Elevated methane in WS6 was also attributed by Environ to the presence and breakdown of LNAPL (See above).

Notwithstanding this, it is noted that areas of potential fill in the western section the site have not been fully characterised and the presence of possible putrescible waste could result in the generation of methane and carbon dioxide. The degradation of the hydrocarbons in soil and groundwater could also be attributed to the elevated concentrations.

It will be necessary to undertake further ground gas and vapour monitoring to determine the gas regime and allow design of appropriate protection for buildings.

5.0 Conceptual Model

5.1 Introduction

Land contamination is regulated under a number of different regimes including environmental protection, waste management, planning and development control, pollution prevention and control, and health and safety.

The National Planning Policy Framework (NPPF) sets out that a developer is responsible for ensuring that development is safe and suitable for use for the purpose for which it is intended. This includes dealing with historic contamination of the ground to the satisfaction of the local authority and Environment Agency. The NPPF defines site investigation information as including a risk assessment of land potentially affected by contamination. It states that all investigations of land potentially affected by contamination should be carried out in accordance with established procedures.

The UK framework for the assessment of contaminated land is based on the principle of a “suitable for use” approach to contaminated land, where remediation or mitigation is only required if there are unacceptable risks to health or controlled waters (such as surface water or groundwater) and ecological receptors, taking into account the use of the land and the environmental setting. The assessment is based on three key elements of a source, pathway and receptor (SPR) model in order to define ‘plausible pollutant linkage’ (PPL) between sources and receptors.

The Environ reports have set out various conceptual models representing the various stages of investigation and assessment they have undertaken. The investigations they undertaken were completed a considerable time ago, and were limited to some extent by access constraints. As such issues such as groundwater contamination identified by those investigations may have changed over the previous seven or eight years since the early investigations or in the last three years since their most recent monitoring. This report does not reproduce a detailed conceptual model rather identifies the key pertinent points that will need to be addressed by further investigation and assessment.

5.2 Sources

The various site reconnaissance undertaken by Environ and Concept have identified a wide range of primary contamination sources and activities associated with the site that existed at

that time. This has included a large number of AST and UST containing various fuels and chemicals. These have been described in the various reports in Appendix A and earlier in this report. In summary the primary sources have included:

- A large number of AST and UST storing a wide range of hydrocarbons and other chemicals including solvents and resins for the paint making process such as phenyl mercuric acetate (PMA) methyl isobutyl ketone, methyl ethyl ketone, iso propyl alcohol, toluene, trichloroethene, xylene, and acetone;
- Some UST were previously used for the storage of diesel and petrol and other activities such as pH adjustment or storage of waste liquids; and
- More recently most chemical storage has been undertaken using drums and IBC for a range of chemicals such as resins and solvents. The recent reconnaissance suggests this has not been bunded storage.

The site to be developed by Mentmore is currently undergoing a period of decommissioning whereby all drums and tanks will eventually be removed from the development areas before each area is developed. Trimite are understood to be responsible for removing the drums and IBCs.

The local authority has provided consent for the removal of all AST/UST and at the time of the recent reconnaissance all tanks except three has been cleaned and would be removed from site. The fuel tanks in the main roadway to the west of the site will remain in the short term to allow access to and from the site. As such by the time the site is developed all primary sources of contamination will have been removed.

The site was a chemical works for many years and the investigations undertaken by Environ indicate the activities undertaken and storage and use of chemicals has resulted in contamination of the soils and groundwater below the site. The main issues identified and described by Environ included:

- An area of in-fill in the north-west of the site;
- LNAPL in the vicinity of Tank Farm 2;
- A number of locations (described as ‘hotspots’ by Environ including BH7 in the vicinity of UST, WS5 in the vicinity of UST and the down gradient WS12;
- Various areas of groundwater contamination (described below); and
- General made Ground around the site, up to 2.5m thick.

Environ considered the soil sources to be isolated hotspots. However their investigation was targeted and some areas of the site have not been investigated at all. It will therefore be necessary to perform more detailed investigation to confirm the location and extent of potential soil contamination. No asbestos was identified in the investigations undertaken although a limited amount of samples were tested and the method used is no longer accredited may easily produce false negative results.

Environ undertook a detailed quantitative risk assessment (DQRA) of the potential soil and groundwater data and identified groundwater contamination. Their assessment was primarily aimed at the then current use of the site. For that reason they did not assess a number of the issues identified as they assumed that they would be addressed during future development and remediation. Environ state that several identified contaminants were detected at concentrations in the groundwater exceeding their initial DQRA which was designed to be protective of the River Colne, based on zoning the site into 5 different source areas. The contaminants exceeding their criteria included;

- Zone 1; trichloroethene, cis-1,2 dichloroethene, vinyl chloride and xylenes;
- Zone 2; naphthalene, cadmium, lead;
- Zone 3; 1,1-dichloroethane, 1,2,4-trimethylbenzene and 1,2-dichlorobenzene;
- Zone 4; chromium
- Zone 5; xylenes

The source zones are shown in Figure 6 of the 2011 report in Appendix A. Environ suggest the potential extent of the potential contamination plumes in a series of figures 7A to 7A. While these may be reasonable based on the assumptions and purpose of their assessment, given the sometime large spacing between their investigation locations and the time passed since their monitoring was undertaken, further investigation will be required to redefine the contamination sources on site.

Environ concluded in 2011 that at that time there was a plume of chlorinated and non-chlorinated organic solvents in the groundwater. The considered the source to be an area around their exploratory WS4, located adjacent to Tank Farm 1 and Mill Rooms 1 and 2.
They suggested there was evidence that the plume extends in a south-westerly direction associated with the direction of groundwater flow. Concentrations of the solvents in the groundwater plume were assessed to decrease and are measureable at the down-gradient

site boundary suggesting the plume is migrating off-site. Environ suggested there was evidence that the contaminants might be degrading.

Environ note that significant decreases in dissolved concentrations of chlorinated hydrocarbons and BTEX compounds were identified between 2008 and 2011. It is possible that further decreases have occurred since then.

It is noted that the surrounding area has also been subject to historic industrial use and it is reasonable to assume that a wide range of other primary sources of contamination may (tanks and industrial processes) have and still exist in the area. In particular there was historically a gasworks to the east of the site. These site frequently result in contamination of the ground and groundwater. In addition a sewage works was located to the south and more recently the site is mostly surrounded by an industrial park which is likely to have included fuel and chemical storage (with the potential for associated contamination

5.3 Proposed development

The proposed development comprises the demolition of all buildings on site then construction of nine variable sized warehouses. The foundation solution is not yet fixed and may be either strip footings or pile and ground beam. Following development the site will be entirely hardstanding and comprise an office/warehouse use. If some landscaping is provided it is assumed this will be minor and peripheral, with imported soils and included shrubs/grass or tree pits (this should be confirmed in the final assessment). Information on the level strategy and amount of in ground excavation is not currently available and will need to be considered in the light of the previous and proposed investigations to determine how likely the various source areas may be disturbed during development or removed from site. We currently assume the hard cover is impermeable and that infiltration drainage will not be incorporated within the development.

5.4 Potential Receptors

The following potential receptors have been identified during the construction and operation phases of the development:

- construction workers (particularly groundworkers) and neighbours during construction (occupants of adjacent residences, employees of adjacent businesses and general public);

- site users after development including workers and visitors;
- maintenance/utility workers after development;
- groundwater in the aquifer during and after development;
- Surface water in the River Colne; and
- building materials and services in contact with aggressive ground conditions.

5.5 Assessment of plausible pollutant linkages (PPL)

The associated risk classifications used in this assessment are shown in Table 6. The assessment takes into consideration the proposed development and the linkages that may be present during the construction and operational phases.

Table 6 – Risk Classification

Risk classification	Description of risk
Very high	There is a high probability that severe harm could arise to a receptor from an identified hazard, or there is evidence that severe harm to a designated receptor is currently happening. The risk, if realised, is likely to result in substantial liability. Remediation is likely to be required.
High	Harm is likely to arise to a receptor from an identified hazard. Realisation of the risk is likely to present a substation liability. Remedial works may be necessary.
Moderate	It is possible that harm could arise to a receptor from an identified hazard. However, it is either relatively unlikely that any such harm could occur, or if any harm were to occur it is more likely that the harm would be relatively mild. Some remedial works or preventative measures may be required.
Low	It is possible that harm could arise to a receptor from an identified hazard but it likely that this harm, if realised, would typically be mild. Some preventative measures to further reduce the risk may be required.
Very low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised the consequence would at worst normally be mild or not noticed. Remediation and/ or mitigation is unlikely to be required.
Negligible	No conceptual link between a potential source and receptor identified.

Consideration of the PPL associated with the potential sources of contamination and identified receptors is outlined in Table 7 below. The assessment below is based on information available from previous investigations and assessments. It will be necessary to undertake further investigation and assessment based on the current regulatory regime and reassess the classification provided.

Table 7 – Plausible Pollutant Linkages (PPL)

Receptors	Pathways	PPL	Risk classification
Human health			
Site workers (during construction)	Ingestion of soils, dust and/or groundwater. Dermal contact with soils, dust and/or groundwater. Inhalation of dust, fibres and/or vapour.	Yes Workers are likely to come into direct contact with the soil and potentially contaminated groundwater when carrying out groundworks, particularly during the foundation excavation and earthworks Workers may be exposed to gases and vapours either outside or when working in confined spaces.	**Moderate** The investigations have identified some elevated concentrations in soil and water. High levels of volatiles were reported during investigation The risk can reduce to very low following further investigation, assessment and appropriate mitigation during the construction phase.
Visitors (during construction)		Yes Soil and water may be exposed during visits.	**Low** Visitors are less likely to directly contact soils although may be exposed to dust and vapour. Good control and site management can reduce this to very low
Neighbours (during construction)	Inhalation of dust and vapour emitted directly from the site. Dermal contact with dust.	Yes Neighbours may be exposed to fugitive dust and fibres.	**Low** This can be reduced to very low (as above).
Future site users workers and visitors (during operation)	Ingestion of soils, dust and/or groundwater. Dermal contact with soils, dust and/or groundwater.	No The site will be entirely hard covered. If landscaping is provided it will include imported soils and tree pits.	Negligible There will be no directly linkage between site user and soil on site.
	Inhalation of ground gases and vapours.	Yes The investigation has identified a range of vapour sources and elevated methane (which might have been the result of vapour affecting the monitor) Vapour may ingress to buildings and confined spaces.	**Moderate** The building construction is likely to be relatively robust. However some ingress may occur. It will be necessary to properly investigation the sources identified and assess if any further vapour or gas protection is required. Following design and construction the risk will be reduced to

Receptors	Pathways	PPL	Risk classification
			negligible. (i.e. no PPL)
Future maintenance workers (during operation)	Ingestion of soils, dust and/or groundwater. Dermal contact with soils and/or groundwater. Inhalation of dust, fibres and/or vapour.	Yes Maintenance works may come into direct contact with the soil and potentially contaminated groundwater (and vapours) when carrying out groundworks although such exposure is likely to be short and minor.	**Low** The investigations have identified some elevated concentrations in soil and water. High levels of volatiles were reported during investigation The risk can reduce to very low by good construction practice, a permit to dig system and good control.
Neighbours after development	Inhalation of vapour	Yes The Environ report suggests a plume of solvents may be moving of site in a south westerly directly. Contaminated water may pass below buildings and release vapours which may ingress into neighbour's buildings.	**Low** Environ suggest the contaminants are degrading. The area to the south west is commercial and industrial (rather than residential). It will be necessary to investigate the current levels at the boundary and remediation may be required to reduce liability.
Controlled waters			
Groundwater in the Secondary aquifer during development	Further contamination due to leakage from primary sources such as tanks during construction stage.	Yes Tanks are currently been cleaned and removed. All drums will be removed.	**Low** It is assumed that good practice is being followed during decommissioning. The removal of all tanks should be verified and recorded and undertaken in accordance with EA pollution prevention guidance.
	Contamination of the groundwater due to mobilisation of contamination due to earthworks and foundation works	Yes Existing investigation has identified LNAP and free phase hydrocarbons in the soils	**Moderate** It will be necessary to complete further investigation and assessment. Foundation works and earthworks will require control and verification. Some remediation may be required during or prior to earthworks (for instance verify soil conditions).
River Colne during development	Contamination due to leakage from primary sources such as tanks during construction	Yes but limited Tanks are currently been cleaned and removed. All drums will	**Very low** It is assumed that good practice is being followed during decommissioning

Receptors	Pathways	PPL	Risk classification
	stage via groundwater to the River	be removed.	
	Contamination due to mobilisation of contamination due to earthworks and foundation works	Yes but limited Existing investigation has identified LNAP and free phase hydrocarbons in the soils	**Low** It will be necessary to complete further investigation and assessment. Foundation works and earthworks will require control and verification**.**
Groundwater in the Secondary aquifer during operation	Further release of NAPL from soils to water or release of LNAPL on water into solution. Leaching of soluble contaminants from soil into water such as lead and cadmium	Yes but limited. Following development all primary sources (tanks etc) will be removed. The site will be extensively covered in hardstanding and it is assumed infiltration will be negligible. The groundwater has already been impacted by contamination	**Low** The Environ report suggests the aquifer is not a sensitive receptor and is already impacted. It will be necessary to complete further investigation and assessment. If significant contamination is identified (that will not otherwise be dealt with during development) then some remediation may be required. The WFD prohibits the discernible release of hazardous substances to groundwater
River Colne after development	Transport of dissolved contamination via groundwater to the River Colne Transport of LNAPL off site to the River.	The existing studies have identified the groundwater is impact with chlorinated and unchlorinated solvents and LNAPL. Groundwater flow is towards the river and a plume has been identified. The concentrations were above limits set by Environ based on DQRA for an off-site compliance point.	**Moderate to high** It will be necessary to complete further investigation and assessment to confirm current condition. Environ state their DQRA was relatively conservative. Hydrocarbons may have degraded or reduced since the previous investigation. However groundwater remediation may be required if unacceptable risk is confirmed.
Buildings and services			
Below-ground building materials and services	Direct contact with contaminated soils and groundwater.	Yes Foundations and services may be in contact with contaminated soils, NAPL and hydrocarbon vapours	**Low** Building materials and services will be specified based on the results of the investigation. The water company may require special protection for potable water supply

Receptors	Pathways	PPL	Risk classification
Ecological receptors			
Designated ecological receptors during and after development	Potential harm to designated ecological receptors from soil and water contamination	No No nationally designated ecological receptors have been identified.	**Negligible**
Plants on site after development	Uptake of phytotoxic contaminants through root system. Effects of vapours and gases on plants.	Yes but very limited Very little or no soft landscaping proposed. If provided will be in imported sub soil and topsoil	**Low** Review scheme in light of further investigation. Additional depths of soil or barriers may be required.

6.0 Conclusions and Recommendations

6.1 Summary

This report has provided an assessment of ground & groundwater contamination at the site based on the finding of previous ground investigations (carried out by others). That has included a review of the data and findings of previous phases of investigation and assessment.

The site has previously had a number of potentially contaminated uses. Filter beds from a sewage works were shown on about 25% of the site in the 1930s. In the 1960s the site was developed with a range of industrial uses. Principally the site has been used by a company called Trimite, shown as a paint works and a manufacturer of pre-treatment chemicals for plastics and metals. A print works and electrical engineering works were present in the eastern area of the site, and an engineering works (Metro Engineering and Plating), chemical works (Allied Chemicals) and builder's yard were located in the southern section of the site. Trimite eventually purchased much of the site.

A large number of AST, UST and other drummed storage of chemicals, fuels and wastes have been present on site.

The proposed development comprises the demolition of the existing building, structures and decommissioning of tanks on the site and the construction of nine variable sized warehouse units. The site will be hard cover commercial use. Decommissioning, cleaning and removing the tanks is currently taking place, and some buildings are undergoing demolition in preparation for development (subject to planning).

Three phases of investigation and monitoring have been undertaken by Environ on behalf of their client Trimite. Environ has undertaken a substantial piece of work and presented a range of generic and detailed site specific assessments. During the investigations there were frequent observations of significant contamination including NAPL and odours and high levels of measured vapours in soils and groundwater (the Secondary aquifer). Chemical testing of soil, groundwater and ground gas has indicated some significant contamination of the site associated with metals, hydrocarbons, vapours and gas. Environ concluded that there were some hotspots of contamination on site requiring remediation and potentially a plume of chlorinated and chlorinated hydrocarbons moving in a south westerly direction towards the River Colne. They undertook a DQRA and identified that concentrations may be significant

(i.e. the hydrocarbon plume might cause contamination of the River). However Environ note that significant decreases in dissolved concentrations of chlorinated hydrocarbons and BTEX compounds were identified between 2008 and 2011. It is possible that further decreases have occurred since then.

National planning policy and statutory guidance makes developers responsible for dealing with contamination on site, providing a safe development and preventing pollution of controlled waters (surface and groundwater). It is likely that some form of further remediation and/or mitigation will be required to get regulatory approval for the development.

A summary of the risk assessment provided based on the conceptual model and previous investigations and findings is provided below in Table 8:

Table 8 - Summary of Risks

Risk Description	Risk Classification
Potential for contamination on site	High
Risk of harm to human health during development	Moderate to low
Risk of harm to human health during operation	Negligible to moderate (vapour/gases only)
Risk of pollution of groundwater	Moderate
Risk of pollution of surface water	Moderate to high
Risk of damage to building materials and services	Low
Risk of harm to ecological receptors	Negligible to low

6.2 Planning consent conditions

It is likely that the local authority will include a set of planning consent conditions associated with ground contamination. Typically these are written as pre-commencement conditions and each one is required to be agreed in writing with the local authority technical officer. As groundwater is an issue on the site it is likely that the EA will be consulted and their approval of any scheme required. The specific wording of the conditions tends to vary around the UK but typically include:

1. Desk study, conceptual model and preliminary risk assessment
2. A detailed scheme of investigation (to be agreed in advance of the investigation)
3. A risk assessment and remediation strategy
4. A verification plan

5. On completion a verification report along with a long term monitoring plan

Recently the EA has started charging for certain pre-planning consultations and reviews.

It may be that discharge of conditions can be associated with phases of the development if that is required.

6.3 Further ground investigation

In their report Environ state their investigation was targeted and access too many parts of the site was limited. Their ground investigation locations and monitoring points are shown in their reports in Appendix A. The spacing between their holes ranged from around 25m to over 75m and were dictated by locations of buildings.

It will be necessary to undertake further investigations to confirm the current status of the site and fill data gaps. This will likely include

- Where possible utilise existing standpipes if not damaged or lost. The gaps between locations should be investigated to increase the density of sampling and monitoring.
- Groundwater monitoring should be undertaken over time to assist a remodelling of site conditions. Care will be required due to potential LNAPL in the water.
- In particular boundary monitoring should be undertaken, and possibly off-site downstream monitoring might be considered if practical to inform an updated controlled waters risk assessment. An understanding of the local groundwater quality may help inform the risk assessment and minimise unsustainable remediation measures.
- It is likely that between 15 and 20 new locations will be required with testing of soils and water.
- More detailed ground gas and vapour monitoring is required.
- An up to date asbestos soil testing method is required.
- Specific testing may be required to identify the most suitable remediation option, which may include monitored natural attenuation or treatment of soil or water. It is recommended that some early consultation with remediation companies is undertaken to inform the scope of works.

The results of the investigation will be used to reassess the previous data, update the risk assessment and conceptual model and develop a remediation strategy if appropriate. It is recommended that the scope of investigation is agreed in advance with the local authority and Environment Agency.

6.4 Development and Remediation Strategy

Introduction

This section provides some outline recommendations regarding development of the site and the potential for remediation. Environ in their report set out a number of options and potential costs. This is not presented in detail at this time but will be revisited based on the outcome of the proposed ground investigation.

Health and safety

Construction workers are likely to come into contact with the soil, water, NAPL and vapours during construction. The works should be undertaken in a fashion to prevent the creation of dusts. Sufficient hygiene units and safety equipment should be provided for works with contaminated soils and groundwater. Suitably competent personnel should advise on and supervise the works.

NAPL and dissolved phase contaminants have been identified in the groundwater. Prevention measures should be implemented to ensure minimal contact of operatives with groundwater during the foundation works and dewatering process. If dewatering occurs it may be necessary to treat water before discharge.

Groundwater monitoring standpipes installed during the intrusive ground investigation. Those boreholes will require decommissioning prior to excavations.

Certain historic hydrocarbons can be particularly odorous when excavated and it may be necessary to have odour control measures in place before these are handled, to prevent off-site nuisance. LNAPL, and DNAPL may give of vapours for which workplace exposure limits (WEL) apply. It will be necessary to control exposure of construction workers, visitors and neighbours to hydrocarbon vapours.

Materials management and waste

It will be necessary to manage the arisings to avoid cross contamination with other arisings and prevent contamination of the ground or run-off. If the soils are to be temporarily stockpiled these will require appropriate control and management. A small LNAPL smear zone may be encountered at the top of the Alluvium and these soils will need to be similarly managed.

Topsoil, subsoil and engineered fill imported for use at the site would be certified as chemically suitable for purpose. Samples of imported topsoil and secondary aggregates would be taken and scheduled for laboratory testing to verify certification. All supplier and verification chemical results would be collated.

Concept has not undertaken a detailed assessment of the previous data in order to inform waste classification for surplus soils. However some of the maximum concentrations of metals and hydrocarbons report by Environ n in their report are above hazardous waste thresholds. If hazardous wastes are generated it will be necessary to register the site in advance with the EA.

Remediation Options

If the proposed ground investigation confirms significant contamination is present then a remediation options appraisal will be required to develop the most appropriate technique(s). There is a wide range of potential remedial solutions which will be dependent on the specific conditions encountered on site, the types of contaminants, and other factors such as available space, programme, and budgetary restriction along with social and environmental factors.

The foreword of English Partnership's Best Practice Note 27 Contamination and Dereliction Remediation Costs (2008) states, "up to date and comprehensive information is essential, to reduce the risk of grossly underestimating the costs of remediation. In this regard nothing can compete with a recent and well executed site investigation that has been designed with full regard for the land use history of the site".

Various options were considered in the Environ report and one or a combination of the following techniques may be suitable.

- selective excavation and removal from site (source removal)
- in-situ stabilisation

- monitored natural attenuation
- pump & treat
- in-situ treatment by airsparging and with oxygen release compound or additives
- in-situ treatment with chemical additives such as hydrogen release compound hrc
- permeable reactive barrier

Naturally occurring processes may occur that can reduce and degrade contaminants of concern including dilution; sorption; volatilisation and biodegradation. Monitored natural attenuation (MNA) is where the aquifer is further assessed to ascertain whether conditions exist to degrade a contaminant plume within an agreed time limit. Typically the dissolved oxygen content, pH, redox potential, microbial count, electron donor species present, clay content, and temperature would be measured to characterise the aquifer. As well as the technical reliability of the natural attenuation process; practicability; economic; and regulatory constraints are also considered. MNA might follow initial remediation to lower concentrations or remove NAPL for instance. MNA requires a long term commitment in terms of both the monitoring scheme (3 to 5 years or more) and financial commitment, which can limit the application of this technique.

Soil vapour extraction (SVE) and air sparging are effective remediation technologies for soil and groundwater remediation. Air sparging can be used in conjunction with SVE (dual SVE) whereby air (or sometimes ozone) is pumped into the ground to mobilise organic vapours and assist with aerobic degradation of organic contaminants. Sparging is useful for deeper contaminated soils or soils with low permeability. In some cases in-situ heating or injection of steam is used in a similar manner to mobilise less volatile organic contaminants of concern.

Other options that might be considered but are not mentioned in previously include:

- In-situ and ex-situ thermal techniques. For instance electrical resistance heating may be a viable option if programme is a driver;
- Screening, complex sorting or xx-situ soil washing, especially if it is already proposed to excavate soils and move them around the site.
- In situ and ex situ bioremediation including enhanced bioremediation although this option is much less likely.;

The UK Sustainable Remediation Forum (SuRF-UK) has published a framework for assessing sustainable remediation; describing how it links with the relevant regulatory

guidance; the factors to be considered and describing sustainability appraisal tools to evaluate the wider benefits and impacts of remediation. There is great benefit in early consideration of developing sustainable solutions in remediation options during the project. Remediation in its widest definition includes actions to assess potentially contaminated sites, or break a source-pathway-receptor linkage and as such includes a wide range of risk management techniques. This approach complements the use of risk assessment and risk management in decision making for contaminated land management.

Pipe materials for services

The UK Water Industry Research Ltd (UKWIR) has published a series of booklets regarding pipe selection on brownfield sites. The water company should be consulted regarding the pipe material specification of potable water supply pipes. It is possible that they will require precautions associated with the contaminants identified on site

Verification strategy

A verification report will be required following completion of the remediation works. The specific nature of the report will depend on the amount of remediation required and findings of the proposed investigation. Typically a verification report may include the following items:

- details of works carried out and objectives of remediation;
- details and justification of any changes from the original remediation strategy;
- lines of evidence to demonstrate the success of specific remediation objectives;
- records of safety briefings and control measures monitoring;
- records of odour and dust control;
- confirmation of materials resistance to contamination;
- foundation assessment confirming methods to prevent cross-contamination
- demonstration of compliance and description of validation methods;
- laboratory and in-situ results;
- monitoring results for groundwater if undertaken including interface probing;
- plans showing treatment/ management/ stockpile areas and details of any differences from the original remediation strategy;
- photographic and other media records;
- records of all tank decommissioning;
- waste management details and records;

- on-going environmental monitoring or works to be carried out;
- details of any unexpected contamination and how it was dealt with;
- confirmation that remediation objectives have been met; and
- a description of final site conditions.

The verification report should describe the works that have been undertaken on the site, report the chemical analysis for waste streams and materials used within the works, and outline the changes to ground conditions as a result of the remediation works. It is recommended that the verification report forms part of any Operating & Maintenance Manual for the future site operator, to allow them to address any residual risks. The report should include a post construction environmental risk assessment undertaken by an appropriately qualified environmental consultant demonstrating that the site does not pose unacceptable risks to controlled waters, human health or other receptors.

Operation and Maintenance

If contamination is to remain on site a permit to work system shall be instigated for all intrusive maintenance workers proposed during operation of the site in the areas identified as containing residual ground potentially containing contaminants..

FIGURE 1 – SITE LOCATION

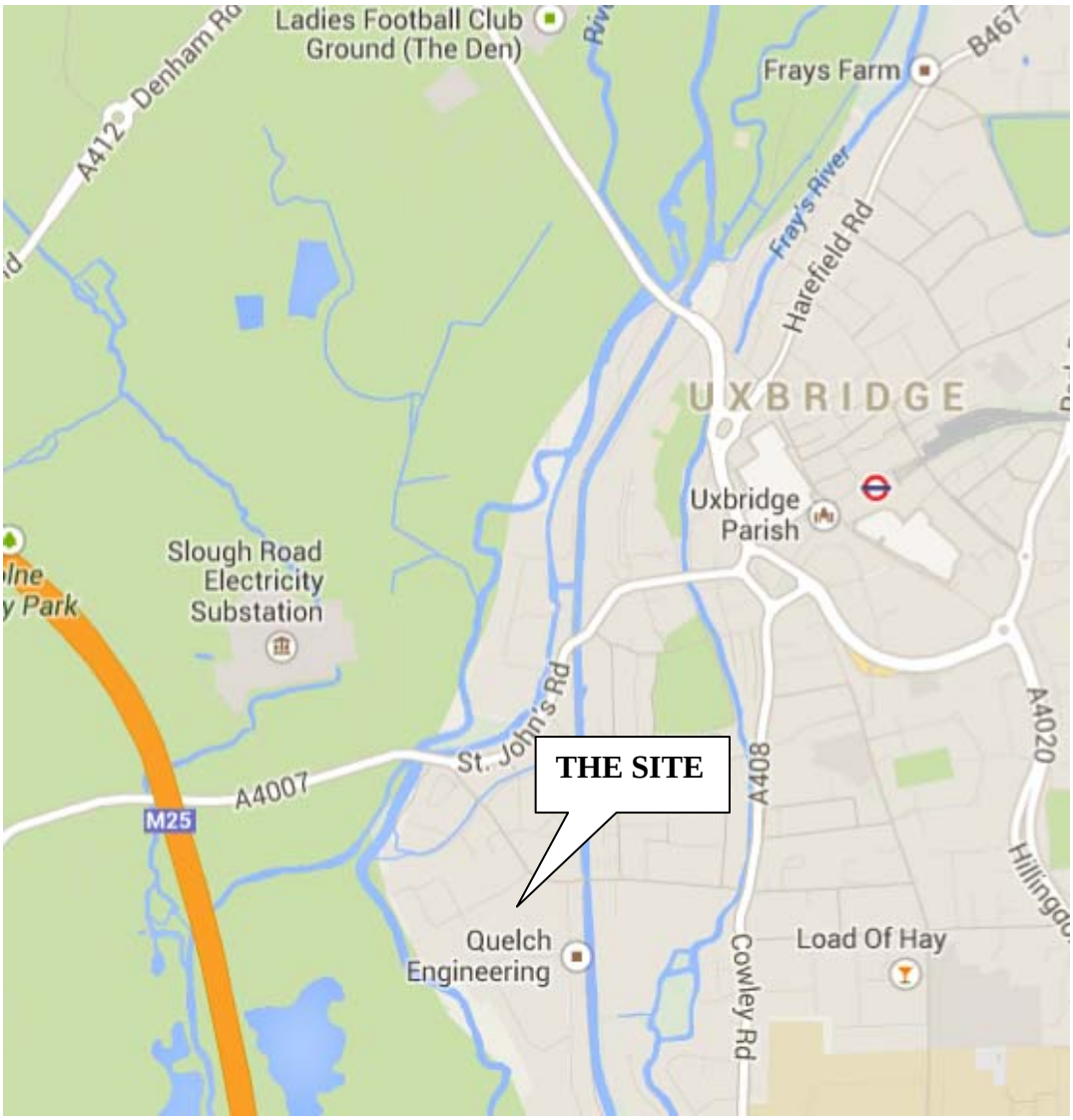
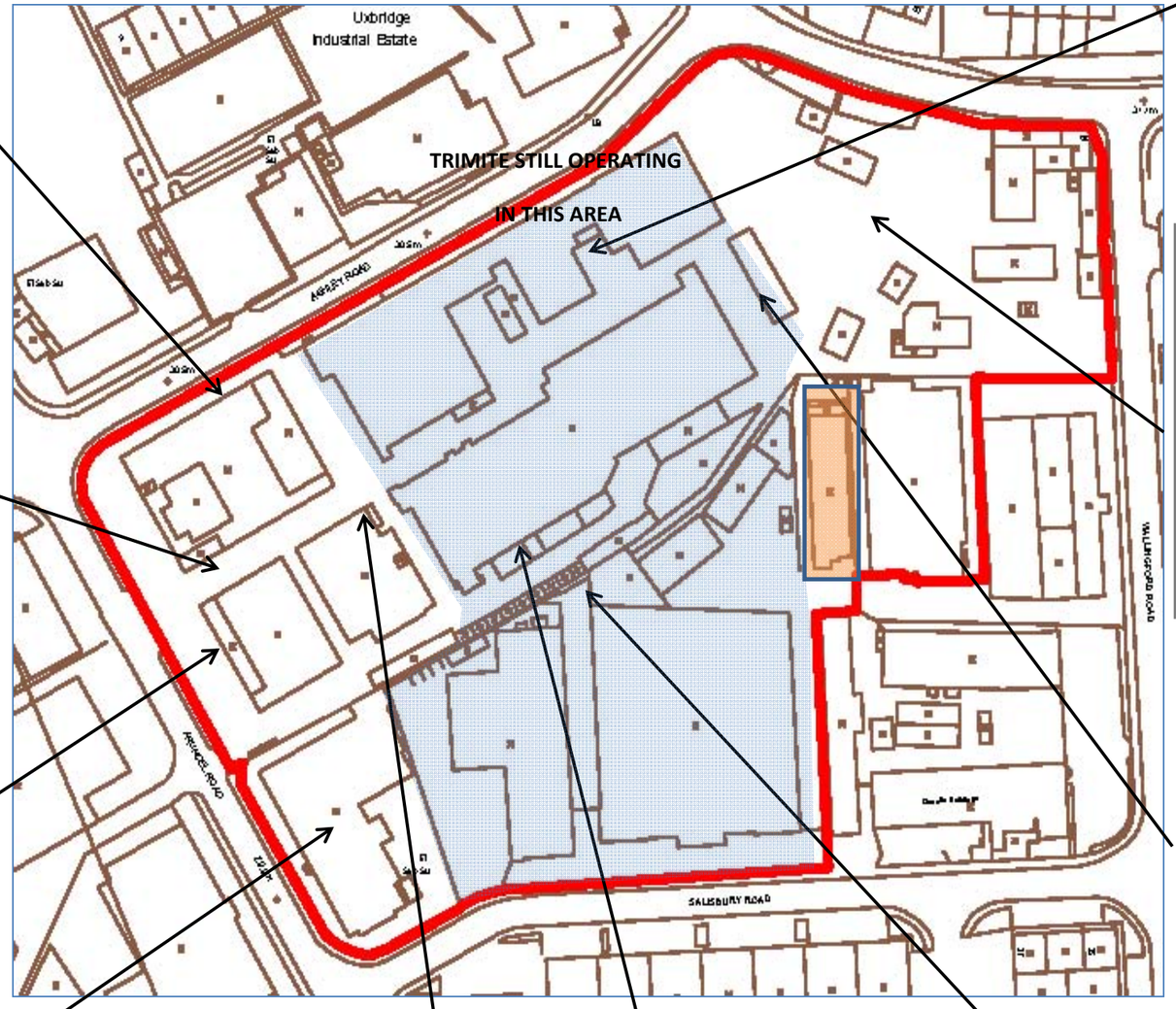


Figure 2 – Site Reconnaissance

TRIMITE – SITE WALKOVER RECORD - 9th JANUARY 2014

Overflow Waste IBC Storage – View SW







Drum Storage



Fuel UST's



IBC Storage area - View looking NW



Removal of UST's - (**Tank Farm 3**)



Tank Farm 2 AST's – View W



Area of soft cover used for parking



Fuel AST - View SW



Tank Farm 1 – View NE



Former Solvent UST's – View E

Figure 3 – Proposed Development



Unit 5
12500ft2
yard 7000ft2

Unit 6 10000ft2
yard 7265ft2
(less some landscaping)

Unit 7 6700ft2
yard 5400ft2

unit 8 10000ft2
yard 9291ft2

unit 9 10000ft2
yard 12400ft2
(less some landscaping)

Total building ft2
49200ft2

APPENDIX A - 1

Phase I & II Environmental Assessment, November 2007 (Environ, Report Ref: 67-C12466 / 67-C12520).7

Phase I & II Environmental Assessment

Trimite, Arundel Road,

Uxbridge

For

REIT Asset Management

By

ENVIRON UK Limited
Sterling House
The Bourse, Boar Lane
Leeds, LS1 5EQ
Tel: 0113 245 7552

November 2007 *67-C12466 & 67-C12520*

Contract No:	*67-C12466 / 67-C12520*
Issue:	*1*
Author (signature):	*Jesse Davies / Joanna McKay* 
Project Manager/Director (signature):	*Sue Bullock* 
Date:	*1st November 2007*

This report has been prepared by ENVIRON with all reasonable skill, care and diligence, and taking account of the Services and the Terms agreed between ENVIRON and the Client. This report is confidential to the client, and ENVIRON accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by ENVIRON beforehand. Any such party relies upon the report at their own risk.

ENVIRON disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the Services.

VERSION CONTROL RECORD

ISSUE	DESCRIPTION OF STATUS	DATE	REVIEWER INITIALS	AUTHORS INITIALS
A-I	Internal Drafts	09/10/07	SLB	JM / JD
1	First Release to client	01/11/07	SLB	JM / JD

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EXECUTIVE SUMMARY

ENVIRON UK Limited (ENVIRON) was commissioned by REIT Asset Management (the 'client') to undertake a Phase I Environmental Review and Phase II Intrusive Environmental Site Assessment at Trimite, Arundel Road, Uxbridge, UB8 2SD (the "site"). The review is required for finance purposes following the client's purchase of the site.

The site is currently occupied by various buildings including a paint factory, office areas, and storage buildings, which collectively occupy approximately 60% of the total site area. The remaining site area is occupied by hardstanding, in use as open storage areas, access roadways across the site, and car parking. There is small area of soft cover on-site (approximately 5%) which is used for the handling and storage of wastes including drums of liquid wastes. The site was developed for its current use at some time between 1934 and 1960, with redevelopment of parts of the site having occurred until the present day. The site is currently occupied by Trimite Ltd for the manufacture of industrial coatings and pre-treatment chemicals for metal and plastics. Historically, filter beds associated with a nearby sewage works were present in the south-east of the site (between approximately 1900 and 1960), an Engineering and Plating Works was present in the south-west of the site (from approximately 1960 - this was acquired by Trimite, although the date of acquisition is unknown), and a Chemical Works was present in the southern area of the site (from approximately 1960 - this was also subsequently acquired by Trimite, although the date of acquisition is unknown). Paint manufacturing has been carried out at the site for approximately 50 years, with several major bulk storage tank farms including numerous current and former underground and above ground storage tanks (containing fuels, solvents and caustic) on-site from the time of the original development of the site.

The Phase II site investigation identified significant impacts of a range of organic contaminants (including TPH, phenol and chlorinated solvents) to shallow perched groundwater associated with the Alluvium and indicates the potential for both light and dense non-aqueous phase liquids (TPH and chlorinated solvents) to be present. Available information indicates that a plume containing a mixture of these organic parameters is migrating off-site. The local authority has advised that the site has been identified for review as part of the Contaminated Land inspection strategy under Part IIA, but that the current site use (as a paint works) makes it a relatively low priority site for review in the absence of any specific contamination issues.

The assessment has considered the risks to human health and the environment while the site continues in its current industrial use. Potential pollutant linkages have been identified between the identified groundwater contamination and the following receptors:

- **Human Health** (**of site users/operatives and construction workers**) – he presence of hardcover across the majority of the site limits the potential for exposure of workers to contaminants in soils during normal operations. However, there is potential for ingress of organic vapours (e.g. chlorinated solvents) from groundwater into indoor air spaces and outdoor air, and further evaluation is necessary to demonstrate whether the risk associated with this pathway is acceptable.

- **Groundwater** – free product of NAPL (dense and light), if present, could act as an ongoing source of groundwater contamination. Further investigation is required to evaluate presence or absence of NAPL. The shallow perched groundwater is impacted by a range of chemicals, most notably TPH (including BTE and PAHs), chlorinated solvents and phenol. The perched groundwater is not an important resource in itself; although it will provide some recharge to local surface waters (see below). Deeper groundwater within the Upper Chalk Major Aquifer has not been assessed by this investigation, but it is considered likely that the London Clay and Reading Beds provide some degree of protection to this aquifer;

- **Surface water** receptors – The River Colne is located 160m to the west of the site. The nearest surface water abstraction (Fish Farming) is 1km downstream. Perched groundwater from the site will migrate towards and discharge into the river, and the presence of contaminants including TPH (PAHs and BTEX) and chlorinated solvents within the groundwater at the site present a theoretical risk to this resource. Although dispersion and dilution of contaminants will occur, further evaluation is necessary to demonstrate whether the risk associated with this pathway is acceptable; and

- **Third Party Land** is likely to be affected by organic compounds (TPH and chlorinated solvents) migrating in the direction of groundwater flow. In addition, due to the potential for further biodegradation to occur, it cannot be assumed that concentrations of all contaminants in groundwater will necessarily decrease as the plume migrates away from the source (i.e. concentrations of some degradation products may increase for a period). Risks to downgradient users include inhalation of vapours from groundwater that have migrated to indoor and outdoor air, and more direct contact during subsurface works. Further evaluation is necessary to demonstrate whether the risk associated with this pathway is acceptable.

The site investigation was designed to provide a general overview of ground contamination at the site, and did not involve a detailed site characterisation. In common with other industrial facilities with a significant history of operation, it is likely that localized hot spots of contamination exist that were not identified by this investigation

The laboratory MDL for several parameters detected exceeded the screening criteria [Nitrate (MDL – 0.5mg/l, EQS – 0.15mg/l), total Cyanide (MDL – 0.02mg/l, EQS – 0.001mg/l), Benzo(a)pyrene (MDL – 0.0001mg/l, DWS 0.00001mg/l), Benzene (MDL 0.005mg/l, DWS – 0.001mg/l, although the EQS is 0.03mg/l), Arsenic (MDL – 0.005mg/l. DWS – 0.0001mg/l, although the EQS is 0.05mg/l) and Biphenyl (MDL – 0.04mg/l, EQS – 0.025mg/l)].

The assessment has considered the risks to human health and the environment while the site continues in its current industrial use; however, the human health risks associated with volatile compounds in groundwater has not been considered, therefore any subsequent risk assessment would require a detailed assessment of this identified pollutant linkage.

In accordance with health and safety requirements, project specific measures are required to evaluate and protect the health of workers involved in construction and maintenance activities involving soil or sub-surface works across the site.

The scope of the site investigation was reduced due to the difficult ground conditions encountered in the field. Accordingly, the sampling density is lower than planned at the outset of the investigation. In addition, none of the installed monitoring wells penetrate the full thickness of the Alluvium, again due to the difficult drilling conditions, and therefore no assessment can be made regarding the presence or absence of free-phase DNAPLs on-site or the thickness of the clay beneath the site.

RECOMMENDATIONS

Groundwater contamination by TPH (including BTEX and PAHs) and chlorinated solvents has been identified at the down-gradient (south western) site boundary (WS1, WS11 and WS12) suggesting that cross boundary migration of contaminants is occurring. The likelihood of action by regulators or third parties is considered moderate to high based on available information. The Local Authority has advised that the site has been identified for inspection as part of its Contaminated Land Strategy; although its current site use makes it a relatively low priority site for review in the absence of any specific contamination issues, and further assessment to evaluate the risk of off-site migration would be prudent. Such further investigation would ideally involve the following elements:

- Further intrusive investigation to assess the conditions at the base of the Alluvium (specifically the presence of free-phase DNAPL) and demonstrate that there is adequate thickness of London Clay to limit the vertical migration of shallow sources of contaminants, also to confirm presence and extent of LNAPL. It would also be desirable to increase the sample density across the site and characterise the vertical and lateral profile of the groundwater plume through the installation of multi-level wells in order to provide further information regarding the extent to which biodegradation is occurring at the site;

- Further monitoring to provide additional information with which to evaluate the concentration of contaminants in groundwater, and the presence of land gas;

- Detailed Quantitative Risk Assessment (DQRA) to evaluate the risk to on-site and off-site users and local water resources from the presence of TPH (BTEX and PAHs) and chlorinated solvents at the site, with particular reference to the human health risk associated with volatile organic compounds in groundwater, as this has not been considered by this assessment. This should include a detailed assessment of parameters identified as having laboratory MDLs greater than applicable screening criteria (Nitrate, Arsenic, Cyanide, Biphenyl, Benzene and Benzo(a)pyrene) in order to ensure that these parameters are properly considered; and

- Development of a strategy for the management of groundwater contamination at the site.

The presence of hardcover across the majority of the site limits the potential for exposure of workers to contaminants in soils during normal operations. However, there is a small area used for storage of wastes that is not hardcovered. Although the risks to human health are not considered to be significant, and the likelihood of action by regulators is low, provision of hardcover across these areas would further limit the potential for exposure in this area.

In the event that the site was to be redeveloped, the risk to future users would need to be evaluated. Further works could be required to ensure that ground conditions were suitable for the intended use. Assuming the site was redeveloped for commercial use, such measures could include:

- Remediation of localised hot spots of contamination (e.g. free phase product);
- Appropriate precautionary measures to prevent ingress of soil gases (i.e. carbon dioxide) into new buildings and structures;
- Protection of drinking water pipes from the ingress of contamination.

1.0 INTRODUCTION

1.1 BACKGROUND

ENVIRON UK Limited (ENVIRON) was commissioned by REIT Asset Management (the 'client') to undertake a Phase I Environmental Review and Phase II Intrusive Environmental Site Assessment at Trimite, Arundel Road, Uxbridge, UB8 2SD (the "site"). The review is required for finance purposes following the client's purchase of the site.

1.2 OBJECTIVES

The objectives of the review were to provide a characterisation of ground conditions and land gas at the site, in order to broadly assess the potential liabilities, if any, associated with ground contamination at the site and in the vicinity, and the implications for future ownership and redevelopment. For example, this includes the possibility of investigation and clean-up actions being enforced by the regulatory authorities or other parties.

1.3 SCOPE OF WORK

In order to achieve this objective, several separate work elements were required:

- Completion of a focused desk-top review;
- Site walk-over inspection;
- Identification and completion of a programme of soil, water and gas sampling and analysis in order to provide a broad characterisation of ground conditions, and to assess the nature and extent of soil and groundwater contamination (if any) at the site. The scope of works included drilling of 12 No. window sample locations; and
- Evaluation of the results of the desk-top review and intrusive investigation with regard to the current and likely future regulatory context, and identification of the potential for liability relating to ground contamination for future ownership of the site.

In particular, this includes identification of potential requirements for remedial action while the site remains in its current use, and associated cost implications.

2.0 THE SITE

2.1 INTRODUCTION

The site is located within Uxbridge Industrial Estate, in the Uxbridge area of London, National Grid Reference 504810, 183140 (see Figure 1, Annex A). The site is accessed from Arundel Road to the south-west of the site. The full site address is:

Trimite
Arundel Road
Uxbridge
UB8 2SD

The site is irregular in shape and occupies an area of approximately 2.96 hectares, at an elevation of around 35m above Ordnance Datum (AOD). Land in the vicinity of the site is generally flat.

The site is currently occupied by various buildings including a paint factory, office areas, and storage buildings, which collectively occupy approximately 60% of the total site area. The remaining site area is occupied by hardstanding, in use as open storage areas, access roadways across the site and car parking. There is small area of soft cover on-site (approximately 5%) which is used for the handling and storage of wastes including drums of liquid wastes. The site is leased and occupied by Trimite Ltd, a coatings manufacturer.

The site is bound:

- To the north by Ashley Road, beyond which to the north-east are residential properties;
- To the east by Wallingford Road and industrial properties;
- To the south by Salisbury Road, beyond which are further industrial properties; and
- To the west by Arundel Road, beyond which are further industrial and commercial properties.

2.2 SITE INSPECTION

2.2.1 Introduction

The following information was derived from a site inspection undertaken by Joanna McKay of ENVIRON on 15th August 2007. The majority of internal areas across the site were unable to be accessed by ENVIRON during the visit due to restriction of access to hazardous areas on-site, at the request of site management. Discussions were held with Trimite Group Engineering Manager, Tony Marshall.

Photographs taken during the site inspection are presented in Annex F.

2.2.2 Site Operations

The site is currently occupied by a paint production facility. A number of buildings are present at the site and activities carried out include the following:

- Ten areas of the site have been classified by Trimite as 'hazardous areas' due to the presence of explosive atmospheres. Activities carried out in these areas include colour matching, storage and dispersion of paint products, solvent and fuel storage in the No.1 and No.2 tank farms, two mill rooms, solvent blending and filling, weight colour mixing, dispatch and finished goods storage.
- Other operations carried out at the site include laboratory sample preparation and laboratory work, quality assurance and product advisory, maintenance, printing and packing.
- A number of storage areas are present at the site, including areas designated for the storage of raw materials, unspecified 'special products', cellulose nitrate, finished goods, laboratory storage; electrical equipment and general storage. In addition, three tank farms are present at the site for the storage of solvents, diesel and resin in both underground and above ground tanks.
- Petrol and diesel pumps are present at the site for vehicle refuelling and an area in the south west of the site is used for vehicle washing.
- A three-storey office building is present at the site which also has a canteen, first aid room, security and changing room facilities.

The site has its own fire team on-site and spill kits are present across the site in case of minor leaks and spillages.

2.2.3 Environmental Investigations

The site contact reported that there have been no known previous intrusive investigations or remedial action undertaken for the site.

2.2.4 Building Construction and Asbestos Containing Materials (ACM)

The Control of Asbestos at Work Regulations 2002 and 2006, require those parties ("duty holders") who have control over the maintenance of buildings, to "ensure that a suitable and sufficient assessment is carried out as to whether asbestos is or is liable to be present in the premises". There was a requirement to implement management plans for this assessment by 21 May 2004. The duty holder shall ensure that:-

(a) account is taken of building plans or other relevant information and of the age of the premises; and
(b) an inspection is made of those parts of the premises which are reasonably accessible.

An in-house asbestos survey was completed for the site by Trimite Ltd in 2000 and an asbestos register is held at the site. The survey identified the 34 No. ACMs to be present at the site, including the following:

- asbestos cement roof, down pipes and guttering of various older ancillary buildings at the site;
- asbestos gaskets in the boiler house; and
- exhaust lagging to a fork lift truck.

It is understood that the asbestos register held at site is reviewed annually to assess the condition and any requirement for further action to ensure the ACM's are maintained in good condition. According to the site contact, a number of asbestos cement roofs have been replaced at the site, the last one replaced was in 2003. The in-house asbestos survey and asbestos management plan held at the site is likely to be sufficient to comply with Regulation 4 of the Control of Asbestos Regulations 2006.

2.2.5 Storage of Chemicals and Hazardous Substances

There are three tank farms present at the site, containing a total of 33 No. above ground storage tanks and 24 No. underground storage tanks currently in use for the storage of solvents (including chlorinated solvents and methyl ethyl ketone), diesel, resins, and also mixing tanks. In addition, approximately 9 No. additional underground tanks are understood from the site contact to be disused and have been decommissioned. The locations of the tank farms are shown in Figure 2, Annex A. The tanks are discussed further below.

It is understood from the site contact that the majority of the above ground and underground storage tanks present at the site are over 30 years old and Trimite are currently in the process of updating the tanks as part of a redevelopment plan. The storage tanks are understood to be integrity tested every two years by E&A Pumps. A selection of test certificates were observed by ENVIRON, dated July 2007. 26 certificates relating to testing of 13 tanks and 13 lines were observed. All lines were tight to the US EPA 0.38 litres / hour level. 12 tanks were passed as tight to the US EPA 0.38 litres / hour level at 100% fill level. 1 tank passed as tight at 36% fill level; this represents a potential failure above the 36% fill level. The tank was Tank Number 38, which is a UST located in Tank Farm No.2, and is currently used to store Butyl Acetate. No further details are known regarding the tank condition or actions taken.

Underground Storage Tanks (UST)

According to information provided by the site contact there are 13 No. USTs located at Tank Farm No.2 and 6 No. UST's located at Tank Farm No.3, for the storage of solvents and resins. No UST's are understood to be present in Tank Farm No. 1. The capacity and content of these tanks is provided in the table below:

Underground Storage Tanks held in Tank Farm No.2 and No.3			
Location	**Tank Reference No.**	**Capacity (litres)**	**Product**
Tank Farm No. 2	31	18,160	Xylene
	32	18,160	Xylene
	33	18,160	PMA
	34	9,080	PMA
	34A	9,080	Acetone
	35	18,160	MIBK
	36	18,160	Butyl Alcohol
	37	18,160	MEK
	38	18,160	Butyl Acetate
	39	9,080	White Spirit

	39A	9,080	IPA
	40	9,080	Napatha 20/85
	40A	9,080	Toluene
Tank Farm No. 3	48	45,400	MIBK
	49	45,400	Xylene
	50	45,400	MEK
	51	45,400	Butyl Alcohol
	52	45,400	Acetone
	53	45,400	Butyl Acetate
Notes: PMA= Phenylmercuric acetate MIBK= Methyl isobutyl ketone MEK = Methyl ethyl ketone IPA = Iso propyl alcohol			

It is understood from the site contact that in addition to the USTs located in Tank Farm No.2 and No.3, the following USTs also exist on-site:

- A UST tank farm located in the main access roadway to the site in the north-eastern area of the site, comprising 2 No. operational diesel USTs which are used for the refuelling pumps, and 3 No. disused diesel and petrol USTs,;
- A UST tank farm comprising 6 No. USTs located immediately to the north-east of the former Allied Chemicals building, reportedly disused. 1 No. of these tanks was observed to have been decommissioned with the access chamber having been concrete filled. 3 No. of these tanks were observed to be in place and disused and 1 No. of these tanks was observed to be in use for the temporary storage of liquid caustic waste and 1 No. tank used for pH adjustment as part of the sites trade effluent discharge consent. No further information regarding these tanks was provided by site personnel;
- A UST tank farm located immediately to the east of the former Allied Chemicals building, comprising 3 No. USTs. No information regarding this tank farm was available; and
- A UST tank farm located immediately to the north of the former Allied Chemicals building, comprising approximately 10 No. USTs (based on the observed tank access chamber covers). 9 No. fill points were observed positioned on a wall adjacent to the location of the USTs. No information regarding this tank farm was available.

There are 9 No. disused USTs present at the site. It is understood from the site contact that these tanks have been decommissioned. However, no further information regarding the former use of the tanks, integrity testing or decommissioning were known.

Above Ground Storage Tanks (AST)

According to information provided by the site contact there are 9 No. ASTs located at Tank Farm No.1 and 24 No. AST's located at Tank Farm No.2 for the storage of solvents, resins and for use as mixing tanks. No AST's are understood to be held in Tank Farm No.3. All ASTs observed during the site inspection were located in external areas with secondary containment on concrete hardstanding. The capacity and content of these tanks is provided in the table below:

Above Ground Storage Tanks held in Tank Farm No.1 and No.2			
Location	**Tank Reference No.**	**Capacity (litres)**	**Product**
Tank Farm No. 1	1	20,000	Vilkyd 139
	2	32,500	Vilkyd 170
	10	5,675	Shut
	10A	5,675	Reclaim/103
	11	13,670	Trichloroethene
	12	5,675	J103
	12A	5,675	J103
	13	5,675	ST60
	13A	5,675	ST60
Tank Farm No. 2	21	13,620	Xylene
	21A	13,620	PMA
	22	13,620	Caromax 19
	22A	13,620	Toluene
	23	6,810	SBP6
	23A	6,810	Caromax 18
	23B	6,810	White Spirit
	23C	6,810	IPA
	24	6,810	Napatha 20/85
	24A	6,810	Shut
	24B	6,810	BAS40
	24C	6,810	ST60
	25	6,610	Acetone
	25A	6,810	Dowanol PM
	25B	6,810	Butyl Alcohol
	25C	6,810	MEK
	26	13,620	Eythyl Acetate
	26A	13,620	IMS99
	27	13,620	Shut
	27A	13,620	CT30
	28	13,020	Mix Tank
	28A	13,020	Mix Tank
	29	6,810	Recsolvent
	29A	6,810	Butyl Acetate
Notes: PMA= Phenylmercuric acetate MEK = Methyl ethyl ketone IPA = Iso propyl alcohol			

Drum and IBC Storage

Extensive drummed storage is carried out across the site and partially bunded external areas have been designated for 205 litre drum storage. A number of waste IBC's are also stored at the site.

Localised staining was generally observed on the external concrete and asphalt hardstanding across much of the site. The concrete floor was observed to be in a fair to good condition in most areas, however some cracks in the concrete were observed.

2.2.6 Emissions to Air

The site has a current LA-PPC permit for manufacturing coating materials from London Borough of Hillingdon (PPC Permit No; EPA/B3/10/V1/P1) which was issued to Trimite Ltd in February 2003 and is valid until 31st October 2007. The conditions of the permit include the following:

- maintain a solvent management plan which demonstrates compliance with VOC requirements;
- the installation shall use the 'total emission limit' of 3% of organic solvent input to comply with Solvent Emission Directive;
- all emissions to air shall be free from persistent visible emissions and droplets and there shall be no offensive odour beyond the site boundary;
- the installation complies with emission limits according to Process Guidance Note PG6/44(04) and a monitoring protocol is followed;
- in case of abnormal emissions or malfunction, the operator shall investigate and undertake remedial action, adjust the process to minimise emissions, record the events and actions in a log book and inform the Regulator;
- a record of all visual assessments, filter replacements and servicing is kept;
- maintenance and VOC operational procedures are carried out in accordance with Operators documented procedures;
- an appropriate discharge velocity is maintained for the stacks, vents and process exhausts;
- an appropriate environmental management system (EMS) shall be maintained for activities covered in the Permit;
- an effective preventative maintenance programme shall be employed to prevent and minimise emissions to air; and

- staff at the site has appropriate training, supervision and instructions as specified in Process Guidance Note PG6/44(04).

No relevant issues with regard to the potential for ground contamination were noted.

2.2.7 Water and Wastewater

A vehicle wash area is present in the south west of the site and internal container cleaning is carried out in the north of the site.

The site has a discharge consent from Thames Water Utilities Ltd for the discharge of trade effluent produced at the site (T.E Case No: TMOG1342). Discharge points for trade effluent comprising waste liquids from car washing, laboratory, cooling water and contaminated surface water are located at the sewer on Cowley Mill Road and Salisbury Road. It is understood from the site contact that Thames Water was reviewing the discharge consent at the time of the site inspection.

It is reported that 3 No. interceptors accept the surface water and process water at the site. The interceptors are located at Tank Farm No.2, Tank Farm No.3 and adjacent to the internal container cleaning building. Drains and interceptors present at the site are maintained by Carcarc Ltd, who also dispose of waste liquids produced at the site. Thames Water regularly monitors the waste water streams from the site as part of the discharge consent.

At the time of the site visit, an unknown drainage channel had been excavated in the north east of the site and was in the process of being repaired.

2.2.8 Waste Storage

All waste generated at the site, including general waste, metal waste, liquid waste and hazardous waste, is collected by Carcarc Ltd for disposal. The waste storage areas were predominately located externally on concrete hardstanding. Some storage and handling of waste paints and drums was observed on an area of soft cover in the eastern area of the site. The site is registered with the EA as a producer of hazardous waste, registration reference NAK 582.

2.2.9 PCBs

Under the Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (England and Wales) Regulations 2000, it is an offence for a person to hold PCB contaminated equipment after 31st July 2000 unless registered with the Environment Agency. For the purposes of the Regulations, contaminated equipment is defined as equipment containing a volume of contaminated material more than 5dm^3 or a concentration exceeding 50ppm. PCBs include polychlorinated biphenyls, polychlorinated terphenyls, monomethyl-dibromo-diphenyl methane, monomethyl-dichloro-diphenyl methane and monomethyl-tetrachlorodiphenyl methane.

The site contact reported that 2 No. utility sub-stations and 8 No. switch rooms are present at the site. The site contact informed ENVIRON that the oil in the equipment was unlikely to contain polychlorinated biphenyls (PCBs). Confirmation of ownership of the sub-stations and switch rooms should be sought, and it is recommended that the oil is tested for the presence of PCBs.

2.2.10 Ozone Depleting Substances (ODS)

Two chillers are present at the site for cooling process water. These chillers use the refrigerant R22 (ozone depleting substance). Air conditioning units serve a number of the Trimite offices and the computer room. These use the refrigerants R407C (non-ozone depleting substances).

The chillers are maintained and serviced by Tricool and the air conditioning units are maintained and serviced by Calpine Grant.

The manufacture and re-cycling of ozone depleting substances (including R22) is to be banned from 2015. Under the new EC Regulation No 2037/2000 on Substances that Deplete the Ozone Layer with immediate effect, all Ozone Depleting Substances used in air conditioning equipment must be recovered during servicing and maintenance.

2.2.11 Complaints

According to the site contacts there have been no complaints recorded which relate to noise, odour or vibration on-site.

2.2.12 Potential for Contamination Identified from the Site Inspection

The Site

There is potential for contamination to be present on site from current and former hazardous material storage and handling on the site, including the bulk storage of solvents (including chlorinated solvents and methyl ethyl ketone), resins, diesel and mixing tanks in 34 No. ASTs and 24 No. USTs. There was also evidence of staining across the site area. Given the length of time that paint manufacturing has taken place at the site and potentially hazardous materials and wastes (including solvents, pigments and inks) stored and handled on-site over that period, the potential for ground contamination is considered moderate to high.

The Surroundings

The site is located in an industrial & residential setting. In general terms, surrounding land uses would be considered to have a similar potential to the subject site with regard to contamination.

2.3 SITE HISTORY & REGULATORY ENQUIRIES

2.3.1 Historical Map Review

A review of the previous land uses at the site was carried out by inspecting historical maps. This has enabled an assessment to be made of the potential for contamination to have been caused by former activities both on-site and in the surrounding areas.

The reviewed available maps are detailed in the table below. Selected historical maps are presented in Annex A.

Site History		
Date	**Features On-Site**	**Features Off-Site**
1881/83 1:10,560	The site appears to be occupied by undeveloped land, with a small building located in the north-eastern corner of the site.	A Gas Works is located 60m east of the site and an area of residential development adjacent to the northern boundary. A Public House is located adjacent to the north-east corner of the site. A Canal is located 30m east of the site in a north/south orientation. A Mill is depicted 450m east and the edge of land associated with a Military Barracks 500m east of the site.
1885/92 1:2,500	The site appears relatively unchanged.	The surroundings in the vicinity of the site appear largely unchanged.
1887 1:10,560 1888 1:2,500	The site appears relatively unchanged.	A Sewage Works building is located 90m south-east of the site and several large unidentified buildings built to the north of the site.
1896/99 1:2,500	The unidentified building has been extended	The Gas Works to the east of the site has been extended further to the east. Some of the properties to the north of the site are identified as a Nursery.
1900 1:10,560 1914 1:2,500	Filter Beds from the Sewage Works to the south of the site occupy a small part of the south-east corner of the site (approx 5% site area)	The Sewage Works to the south of the site has been extended and associated Filter Beds extend onto the south-east corner of the site. The Gas Works to the east of the site has been extended again to the east. An Old Gravel Pit is depicted 220m to the north-west of the site.
1920 1:10,560 1925/32 1:10,560	The site appears relatively unchanged.	The surroundings in the vicinity of the site appear largely unchanged.
1934 1:2,500	The Filter/Sludge Beds have been extended and now occupy approximately 20-25% of the site area in the southern part of the site. Several small buildings are located in the eastern area and Electricity Pylons run across the north-east corner of the site.	The Filter/Sludge Beds of the Sewage Works to the south of the site have been extended further to the north and west. The Gas Works to the east has been extended to the east with further gasometers and tanks indicated. Several Tramways have been constructed adjacent to the works. The Former Gravel Pit to the north-east of the site is not depicted, and a further Pit is located 200m to the west.
1934 1:10,560	The site appears relatively unchanged.	The Mill to the far east of the site has been replaced by residential properties.
1960 1:10,560	The site has been redeveloped with several industrial buildings annotated as Factories, Works and a Builders Yard.	The Sewage Works to the south of the site has been replaced by industrial properties. Various Works and Factories are located within 100m of the site.
1968/72 1:1,250	The on-site buildings are annotated as a Paint Works, in the north-west and north-eastern areas of the site, A Print Works and Electrical Engineering Works in the eastern area and an Engineering Works, Chemical Works and Builders Yard in the southern area of the site.	The Works in close vicinity to the site are mainly Engineering and Printing Works.

Site History		
Date	**Features On-Site**	**Features Off-Site**
1978/79 1:1,250	The site appears relatively unchanged.	Several buildings at the Gas Works have been demolished, and it is annotated as a Gas Holder Station
1986/89 1:2,500	The on-site buildings are labelled as Works and the site is part of the surrounding Uxbridge Industrial Estate.	A Trading Estate is located 200m north-west of the site
1988 1:10,000	The site appears relatively unchanged.	A large Gravel Pit is located 210m south-west of the site and another 450m south of the site.
1992 1:1,250	Several of the on-site buildings appear to have been rebuilt, suggesting partial redevelopment.	The surroundings in the vicinity of the site appear largely unchanged.
1994/95 1:1,250	The site appears relatively unchanged.	The surroundings in the vicinity of the site appear largely unchanged.
1999 1:10,000	The site appears relatively unchanged.	The Gravel Pits are no longer depicted, presumably infilled; a large lake is located in the position of the Pit to the west.
2006 1:10,000	The site appears relatively unchanged.	The surroundings in the vicinity of the site appear largely unchanged.

2.3.2 Anecdotal Information

According to the site contact, a derelict building present in the south west of the site was historically occupied by Metro Engineering & Plating Co. Ltd. This area of the site has reportedly never been in use by Trimite since the date of acquisition. No further information regarding historical activities carried out by Metro Engineering was provided by the site contact.

A second part of the site, located in the south-eastern area of the site was also historically separate from the Trimite operations and was acquired by Trimite at some time in the past. This area of the site was reportedly operated by Allied Chemicals, and incorporated the large building in the south-eastern corner of the present Trimite site and the 3 No. UST tank farms located adjacent to this building.

2.3.3 Information from the Local Planning Department

ENVIRON contacted the planning department of the London Borough of Hillingdon for information on the planning history of the site. There were a number of planning records relating to the site going back to 1977. The records are summarised below:

- 9117/R/77/0690 – Private / Public utilities – boiler room, lifts etc. Decision Date: 07/09/1977. Approved.

- 9117/W/79/0445 – Industrial Development. Decision Date: 27/04/1980. Approved.

- 9117/AB/79/2286 – Extension / Alteration to Industrial premises Decision Date: 16/01/1980. Approved Limited Time.

- 9117/AK/84/1298 – Extension / Alteration to Industrial premises Decision Date: 03/12/1984. Approved.

- 9117/DS/2003/23 – Danger Removed- Damaged wall after vehicle impact. Works carried out to support wall and prevent further collapse.

2.3.4 Information from the Local Authority Environmental Health Department

The Environmental Protection Unit of Hillingdon Borough Council was contacted regarding environmental issues associated with the site. The response, dated 31st August 2007, is summarised below:

- The Environmental Protection Unit does not have a site file for Trimite, and are not aware of any contamination issues associated with the site.

- The site has been identified for review as part of the Contaminated Land inspection strategy under Part IIA, due to its long history of industrial usage and its potential to contaminate. Ordnance survey historical maps show part of the site was occupied by a sewage works, before the site was redeveloped into an industrial estate showing factories and various works on-site; later maps identify the use as a paint works. A Part B process authorisation file for the site identifies the storage and use of large quantities of chemicals for the manufacture of paints at the site including a number of solvents and liquid resins, which are noted as being delivered by road tankers. Measures have been put in place to reduce emissions of volatile organic compounds into the air (however, due to the odorous nature of the solvents there is sometimes a distinctive odour in the area). The current site use (as it remains a paint works) makes it a relatively low priority site for review in the absence of any specific contamination issues.

- The council do not hold any records of landfill sites within 250m of the subject site within Hillingdon Borough. However the borough boundary with South Buckinghamshire District Council is located approximately 150m south-west of the

subject site. It is believed that land within South Buckinghamshire may have been landfilled; information on this has been provided by the Environment Agency.

2.3.5 Information from the Environment Agency

The Environment Agency was contacted regarding environmental issues associated with the site. The response, dated 19th September 2007, is summarised below:

- There is one former landfill located within 250m of the subject site. This was located on Slough Road, Iver Heath, at grid reference 504400, 182600, to the south-west of the subject site. The license was issued in 1978 and surrendered in 1993. The site accepted excavation and construction products. No further details are known. There are no active landfill sites within 250m of the subject site.

- The nearest GQA graded water course is the Grand Union Canal (Cowley Reach) located approximately 45m east. In 2006 this watercourse was graded under the EA General Quality Assessment scheme (chemical) as Category C (Fairly Good). The River Colne is also located within 250m of the subject site, and for the stretch from the River Misbourne to Uxbridge was classified under the EA GQA scheme as Category B (Good) in 2006.

- The site is located within a Flood Zone 2 of the Colne River; a Flood Zone 2 has a 1 in 1000-year flood return period, so has an annual probability of 0.1%. There are no records of the site having been affected by flooding in the past.

- According to information provided by the Environment Agency, there have been 12 old pollution incidents within 250m of the subject site. There has also been one recent incident, located approximately 150m south-west of the site, which occurred in November 2004. A representative of the Environment Agency attended the incident. No further details were provided.

- The site does not lie within a groundwater Source Protection Zone. The agency does not hold any data on groundwater quality beneath the site, but the assumption is that it may be poor. The groundwater flow of the Major Aquifer beneath the site is a regional flow to the south-east.

- According to EA records there are 10 groundwater abstraction licences within a 2.5km radius of the subject site. However, there are no sensitive abstractions within a 2km

radius. There is one surface water abstraction licence within 2.5km, although not for a sensitive usage.

- There is a site holding an Integrated Pollution Prevention & Control (IPPC) Authorisation located within 100m of the subject site. This is held by West Middlesex Surface Treatments Ltd for processes involving surface treating of metals and plastics. The license was issued in April 2006.

- There have been no prosecutions associated with the site operations.

2.3.6 Information from the Petroleum Officer

The London Fire and Emergency Planning Authority were contacted regarding whether there has ever been any petroleum storage on the site. The response, dated 7th September 2007, states that the premises had formerly been licensed to store petroleum spirit, with the last license having been issued from January 2000 until December 2002. A change of regulations with the introduction of the Dangerous Substances & Explosive Atmosphere Regulations (DSEAR) 2002, the enforcing authority changed and the licensing regime also ended.

According to information provided by the London Fire and Emergency Planning Authority there are eleven underground tanks, and thirty nine above ground tanks, some of which have multiple compartments. The tank schedule provided by the London Fire and Emergency Planning Authority is included in Annex G. The Authority does not hold any information on file in relation to known leaks or spills at the subject site; and there are no details of decommissioning, tank integrity tests or vapour recovery information held on file.

2.4 ENVIRONMENTAL DATABASE

The Landmark database has been inspected with regards to environmental issues associated with the site and surrounding area. Relevant records can be summarised as follows:

- There are a number of records of landfills within 250m of the site (i.e. within the Planning Consultation Zone) as detailed below. These all appear to relate to the Woodlands Park Landfill and it is likely that some of these records coincide or overlap.

- The Woodland Park Landfill is situated within the area of Woodland Park and Iver Heath former BGS Recorded Mineral Sites, for the opencast mining of sand and gravel. The landfill comprises:

  - Currently inactive areas listed as former Registered Landfills, handling large quantities of various wastes including; asbestos, contaminated rubbish, metal scrap and treated timber from 1980 and are indicated as being located 115m south-west of the site. There are no areas of active landfilling within 250m of the site; and

  - Currently active areas operated by Cape Plc, the nearest is a Licensed Waste Management Facility Landfill, handling Non-biodegradable, non-construction wastes from 1987. This area is located 460m south of the subject site at its closest point. The other active area is listed as a Registered Landfill Site, dated January 1997, 585m south of the subject site, handling only inert wastes.

- There is one record of a currently Licensed Waste Management Facility within a 500m radius of the site; operated by Uxbridge Environmental Services Ltd, 310m south of the site as a transfer station handling large quantities of non-biodegradable commercial and industrial wastes and garden wastes;

- There are no current Integrated Pollution Prevention and Control (IPPC) Part A1 Authorisations located at the site; there are three within a 500m radius. The nearest is located 70m west of the site held by West Middlesex for processes involving surface treating of metals and plastics;

- There are no Local Authority Integrated Pollution Prevention and Control (LA-IPPC) Part A2 Authorisations within 500m of the site;

- There is one Local Authority Integrated Pollution Prevention and Control (LAPPC) Part B Authorisation located on-site; registered to Trimite Ltd for the manufacturing of coating materials;

- There is one location listed as having a Notification of Installations Handling Hazardous Substances (NIHHS) Consent and holding a Planning Hazardous Substance Consent within 500m of the site. This is located at Transco Holder Station approximately 230m east of the site for storage of flammable gases. A further site

holding a Planning Hazardous Substance Consent is located within 500m of the site; at British Gas Plc 400m south;

- There are no records of sites with Statutory Protection for Nature Conservation (such as LNR, NNR, SSSI, Ramsar, SAC, SPA) within a 1km radius of the site;

- There have been no prosecutions relating to authorised processes at the site. There has been one prosecution within 1km of the site; located 870m north of the site, at Union Business Park on 10th May 2004, for failing to comply with packaging waste regulations; and

- There is one listing for a fuel station within 500m of the site; operated by Dagenham Motors Uxbridge as an active petrol filling station 275m north of the site.

2.5 GEOLOGY, HYDROGEOLOGY, HYDROLOGY & SENSITIVE LAND USE

Desk-based research of the local geology, hydrogeology and hydrology was carried out in order to establish the potential for migration of contamination onto or away from the site, and to assess the surface and groundwater sensitivity of the site area.

Information on the geological stratigraphy underlying the site was obtained from a number of sources, namely:

- Published geological map produced by the British Geological Survey (BGS) Sheet 255, Beaconsfield, Solid & Drift Edition;
- BGS Borehole Logs TQ08SE247 and TQ08SW435, obtained by ENVIRON.
- Policy and Practice for the Protection of Groundwater, Groundwater Vulnerability 1:100,000 Map Series, Sheet 39, West London; produced by the Environment Agency;
- Policy and Practice for the Protection of Groundwater, Thames Regional Appendix, published by the NRA;
- Radon Atlas of England and Wales, 2002, published by the National Radiological Protection Board; and
- Dealing with radon emissions in respect of new development, 2000, published by the Department of the Environment Transport and Regions and the British Geological Survey.

2.5.1 Geology

According to the relevant BGS map (Sheet 255, Beaconsfield, 1:50,000 Solid and Drift Edition), the site is underlain by drift deposits of Alluvium (river sand and gravels, with clay in this area). Beneath the drift deposits, the site is underlain by solid geology of London Clay (stiff blue/grey clays), which is further underlain by Reading Beds (mottled clay with sand and pebbles at base). Upper Chalk is present beneath the Reading Beds.

Information obtained from two BGS Boreholes provides detail of the thickness of the deposits in the vicinity of the site. Borehole TQ08SE247, located 20m north-west of the site and drilled in April 1984, encountered Made Ground to a depth of 3m bgl, consisting of flagstones and gravel overlying very soft brown, grey/blue clay with occasional brick fragments. Water was struck within the made ground at approximately 2.75m bgl. Beneath the Made Ground, Alluvium comprising very soft blue/grey silty clay with some gravel and fine silty sand partings was encountered to a depth of approximately 4.5m bgl. London Clay was encountered below the Alluvium to a depth of 6.5m bgl where the borehole terminated.

Borehole TQ08SW435 was located 500m north-east of the site and drilled using a Shell and Auger rig in January 1965. Depths were recorded in feet and have been converted into metres for this report. Made ground was encountered to a depth 1.2m bgl, underlain by dense sand and gravel to a depth of 5.4m bgl. Beneath the sand and gravel, firm grey silty clay was encountered to 7.5m bgl below which stiff to hard brown, blue and red sandy clay was present to a depth of 10.5m bgl where the borehole terminated. Groundwater was struck at 1.7m bgl.

According to data issued by the National Radiological Protection Board (2002), the site lies lie in an area where less than 1% of homes exceed the Action Level for radon (200Bq m^{-3} averaged over a year). According to information published by the Department of the Environment, Transport and the Regions and the British Geological Survey (2000) no radon protective measures are necessary in the construction of new dwellings.

2.5.2 Hydrogeology

According to the Policy and Practice for the Protection of Groundwater, Thames Regional Appendix, the Environment Agency classifies the Alluvium as being of variable permeability,

depending on the underlying strata. The London Clay and Reading Beds are classified as Non-Aquifers and the Upper Chalk as a Major Aquifer. Shallow groundwater was encountered in both Borehole Logs provided by BGS, however migration of contaminants (if present) vertically into sensitive geology beneath, may be limited by low permeability deposits. Major Aquifers are highly permeable and able to support large abstractions.

The Groundwater Vulnerability Map of the area (Sheet 39, West London) identifies the site as being situated on a Major Aquifer (relating to the Upper Chalk), with soils of high (HU) leaching potential. These are soils which have been given a worst case vulnerability classification until proven otherwise. In practice, as noted above, it is likely that the clays beneath the site will prevent migration of shallow sources of contamination to the chalk.

According to the Landmark Environmental Database, there are four groundwater abstraction licenses (with 8 abstraction points) operating within a 2km radius of the site, as detailed below.

Licensed Groundwater Abstractions Within 2km of the Site			
Licence Holder	**Distance from Site**	**Abstraction source**	**Purpose of Abstraction**
Cape Building Products Ltd	335m S 415m SW	Boreholes A and B Iver Lane	Process Water
Mr DE Jones	1.05km W	Well, Iver Heath	General Farming and Domestic
Smiths Nurseries Ltd	1.7km N 1.9km N 1.9km N	Wells A, B and C, New Denham	Spray Irrigation
Arlington Business Parks Gp Ltd	1.90km N 1.98km N	Borehole A 100 Acres, Denham	General Washing/Process Washing

According to an EA data source the site does not lie within a groundwater Source Protection Zone (SPZ).

2.5.3 Hydrology

The nearest identified surface watercourse to the site is the Grand Union Canal approximately 45m east of the site. In addition River Colne is located approximately 160m west of the site. The Canal (Cowley Reach) was categorised under the Environment Agency GQA scheme as Category C (Fairly Good) between 2004 and 2006 and the River Colne (between Misbourne and Uxbridge) as Category B (Good).

An Environment Agency data source indicates that site is located within an area at risk from flooding, according to the data source the site has a significant chance of flooding each year; greater than 1.3% (1 in 75). The regulatory response from the Environment Agency identified the site as being located in an area with an annual probability of 0.1% (1 in 1000). It is considered that the regulatory response from the EA will offer a more accurate assessment of the actual flood risk at the subject site.

According to the Landmark Environmental Database, there are three surface water abstraction licenses (with four abstraction points) within a 2km radius of the site, as detailed below.

Licensed Surface Water Abstractions Within 2km of the Site			
Licence Holder	**Distance from Site**	**Abstraction source**	**Purpose of Abstraction**
Mr DE Jones	660m NW 1.26km NW	River Alderbourne	Agriculture: Spray Irrigation
Mr ML Nunn	1.13km S	River Colne	Fish Farming
Dr JPV Rigby	1.47km S	Huntsmoor Weir	Production of Energy: Hydroelectric power generation

According to the Environmental Database, there have been no pollution incidents associated with the site. However, are eight incidents recorded within a 500m radius of the site; the nearest occurred approximately 40m north-east of the site in March 1995 and involved a release into an unknown watercourse, likely to have been the Grand Union Canal. The incident was classified as a Category 3 (Minor) incident. No further details are given;

There are no Discharge Consents associated with the site. However, there are five within a 500m radius; the nearest is operated by Allan H.Webb & Co Limited approximately 265m north-west of the site for discharge of treated effluent into the River Colne. There is an additional discharge which has not been authorised yet, located at the site for Trimite Limited, dated April 2007. No further information is given.

2.5.4 Sensitive Land Use

The site is located in a generally mixed industrial and residential area; the nearest residential properties are located beyond the Ashley Road to the immediate north-east of the site.

According to the MAGIC database, there are no designated ecologically sensitive sites within 1km of the subject site.

3.0 CONCEPTUAL SITE MODEL (CSM) (PRE-INVESTIGATION)

3.1 INTRODUCTION

This section summarises the conceptual site model (CSM) (pre-investigation), detailing the identified potential sources of contamination, likely pathways and potential risks to receptors at the site. The CSM has been summarised in Table 3.1.

3.2 POTENTIAL SOURCES OF CONTAMINATION

The following potential sources of contamination were identified from the review of existing information on the site:

3.2.1 On-site sources

- Current and former hazardous material storage including the bulk storage of solvents (including chlorinated solvents and methyl ethyl ketone), resins, diesel and mixing tanks in approximately 34 No. ASTs and 24 No. USTs. It is understood that the site has been a paint production facility for approximately 50 years; with the USTs and ASTs operational for over 30 years.

- Vehicle and container washing is carried out on-site, with interceptors accepting surface water and process water.

- Extensive drummed storage is carried out across the site, and partially bunded external areas have been designated for drum storage.

- Historical uses of the site including for Filter Beds, Engineering & Plating Works and Chemical works.

3.2.2 Off-site sources

- The Gas works located 60m east of the site from the late 19th century to the present.

- Former landfilled areas located within 250m of the site.

These primary sources of contamination may have resulted in contaminated soils and groundwater and/or the presence of free-phase product within the soils or above or below groundwater, each of which could act as secondary sources of contamination.

3.3 POTENTIAL PATHWAYS FOR CONTAMINATION

The following potential pathways have been identified at the site:

- potential shallow soil impacts or impacted shallow groundwater migrating into deeper groundwater bodies within the Upper Chalk Major Aquifer, although this may be limited by low permeability deposits of London Clay and Reading Beds;

- impacted shallow groundwater migrating laterally off-site (or onto site from third-party land);

- migration of surface water run-off, or shallow groundwater, towards off-site surface watercourses (i.e. Grand Union Canal approximately 45m east and the River Colne 160m west);

- generation of landfill gases from areas of infill (if any) and migration from off-site or on-site sources into on-site buildings, or off-site onto third party land;

- dust generation and direct contact with soils (will be limited by presence of hardstanding across the site during normal operations); and

- evaporation of chemicals from soil, groundwater or free product and migration of vapours, including intrusion and accumulation in buildings.

3.4 RECEPTORS

The following receptors have been identified:

- shallow groundwater within the Made Ground / Alluvium;
- deeper groundwater within the Upper Chalk Major Aquifer;

- one industrial water abstraction (for process water) located within 1km of the site; and one sensitive abstraction for farming and domestic located 1.05 km from the site;
- Grand Union Canal approximately 45m east and the River Colne 160m west. Contaminated groundwater could migrate towards, and discharge into these watercourses. It is expected dilution would occur.
- Construction workers (on-site and neighbouring industrial properties);
- Current site users/maintenance workers (on-site and neighbouring industrial sites); and
- Occupants of residential properties adjacent to site.

3.5 CONCEPTUAL SITE MODEL SUMMARY

It has been assumed that the site will continue in its present use; future land-use has not been considered in this assessment.

Source	***Pathway[1]***	***Receptor[2]***	***Risk of Pollutant Linkage[3]***
Current use of site as paint production facility. Potential on-site contamination sources include: 34 above ground storage tanks, 33 underground storage tanks. 9 former underground storage tanks. Bunded drum storage and vehicle wash areas. Potential spillages / releases from ASTs or USTs.	Leaching to Groundwater & Groundwater Flow.	Shallow groundwater as controlled water: Alluvium and Clay overlying Major Aquifer.	***High.*** Significant contamination sources and shallow groundwater present within vicinity of the site. Low permeability deposits may reduce the migration of contaminants to deeper geology however.
		Surface water as controlled water via connectivity with shallow groundwater flow	***Moderate to High.*** Significant contamination sources and shallow groundwater present within vicinity of the site.
	Surface water run-off.	Surface water as controlled water: Canal 45m and River 160m from site.	***Moderate.*** Significant contamination sources. Storage tanks are bunded and interceptors present on-site.
	Migration of vapours (VOCs) to indoor / outdoor air.	Site users and neighbours.	***Moderate***. Significant presence of VOCs on-site, although no available information to indicate release, & hardstanding would limit migration.
	Exposed ground – windblown dust or direct contact with soil.	Site users and neighbours.	***Low***. Site covered with concrete hardstanding.
		Construction / Maintenance Workers	***Moderate to High***, excavation works at the site (such as the current drainage repair works) may present a risk from contact with solvents, metals and hydrocarbons (if present) in soils and groundwater.

1 Pathway: mechanism or route by which a contaminant comes into contact with, or otherwise effects, a receptor.

2 Receptor: persons, living organisms, ecological systems and controlled waters that could be adversely affected by the contaminants.

3 Risk: probability of the occurrence of, and magnitude or the consequences of, an unwanted adverse effect on a receptor.

Former on-site potential sources of contamination include; use of part of site as a Sewage Works. Factories, and various works units in the early 20th century, and Print Works, Engineering Works and a Chemical Works during 1970's. Potential releases from chemicals / solvents stored on-site.	Leaching to Groundwater & Groundwater Flow.	Groundwater as controlled water: Alluvium and clay overlying Major Aquifer.	***High.*** Significant potential former contamination sources, low permeability drift deposits may partially reduce the migration of contaminants.
		Surface water as controlled water via connectivity with shallow groundwater flow	***Moderate to High.*** Significant potential former contamination sources and shallow groundwater present within vicinity of the site.
	Migration of vapours (VOCs) to indoor / outdoor air.	Site users and neighbours.	***Low to Moderate***. Former presence of VOCs on-site is likely, although no available information to indicate release, & hardstanding would limit migration.
	Windblown dust or direct contact with soil.	Site users and neighbours.	***Low.*** Site covered with concrete hardstanding.
		Construction / Maintenance Workers	***Moderate to High***, excavation works at the site (such as the current drainage repair works) may present a risk from contact with solvents, metals and hydrocarbons (if present) in soils and groundwater.
Potential off-site sources of contamination include; a Gas Works, a Sewage Works and landfilling.	Leaching onto site in Groundwater & Groundwater Flow.	Groundwater as controlled water: Alluvium and clay overlying Major Aquifer.	***Moderate***. Potential sources of off-site contamination exist which have the potential to impact the site.
	Land gas migration onto site.	Site buildings, users and neighbours.	***Low***. Landfill thought to contain inert waste and therefore not generate land gas.

4.0 SITE INVESTIGATION STRATEGY

4.1 INTRODUCTION

A site investigation strategy was developed based on the findings of the Phase I Review. The investigation was focussed solely on the external yard areas of the site, and was designed to provide site wide coverage as well as targeting specific identified potential sources of contamination (e.g. USTs, ASTs and production areas).

An intrusive investigation was undertaken at the site between 21st September and 24th September 2007, with follow-up groundwater and land gas monitoring conducted on 9th October 2007.

4.2 AIMS & OBJECTIVES

The overall aim of the project was to provide a reliable assessment of the potential liability associated with the presence of potential soil and water contamination at the facilities. The assessment was carried out using a risk-based approach, in line with current UK guidance for the assessment of potentially contaminated land.

Ground investigation works were considered by ENVIRON to be necessary to characterise ground conditions at the facilities following the completion of the Phase I Review. As such the investigation aimed to:

- provide an adequate sampling density with reasonable cross site coverage to provide adequate characterisation of shallow soil and groundwater conditions across the site;
- evaluate key areas of potential concern at the facility. In particular, this included the evaluation of ASTs, USTs and production areas as potential sources of soil and groundwater impacts;
- provide an assessment of site boundary conditions;
- assess the risk to key receptors at the facilities. In particular, this included risk to surface water and groundwater receptors; and

- confirm land gas conditions.

4.3 INVESTIGATION METHODOLOGY

The methodology of the site investigation is described in the following sections.

4.3.1 Investigation Components

The investigation comprised the following:

- One (1) day of utility service location detection and borehole position clearance performed by a specialist service location contractor with supervision by ENVIRON personnel;

- the excavation of twelve (12) boreholes by windowless sampling methods to depths of between 0.8m and 6.0m below ground level (bgl), and the installation of monitoring wells in eight (8) of these excavations;

- the logging, sampling and on-site screening of soil samples for volatile organic compounds (VOCs) at regular intervals throughout the soil profile by dynamic headspace PID analysis;

- monitoring of groundwater elevations and collection of groundwater samples from the monitoring wells for subsequent laboratory analysis;

- measurement of land gases within monitoring wells installed on-site; and

- the submission of selected soil and groundwater samples to an accredited independent laboratory for the analyses of a range of compounds which are likely to be associated with former and current activities on-site.

4.3.2 Borehole Location Rationale

The intrusive investigation positions were located in order to assess both the shallow ground conditions across the site, and to target specific potential sources of impacts to shallow soils and/or groundwater (specifically ASTs, USTs and production areas). All exploratory positions

were located externally to the buildings. It is noted that the original scope of the investigation was revised in the field after difficult drilling conditions (dense gravel and cobble sized clasts of very hard flints in a silty/sandy matrix) were encountered, in order to enable the investigation to be completed within the timeframe agreed with the tenant.

Prior to any intrusive investigation, a utility search for the presence of site services was carried out by obtaining service utility plans and the undertaking of a survey of the site by a service tracing specialist. The main limitations on the location of the positions on the site were the locations of underground services and site operations. It was agreed with site management that any drilling locations considered likely to disrupt normal operations were to be excavated outside the normal operational hours on-site (i.e. Saturday afternoon and Sunday). No excavation locations were located within buildings or within tank farms on-site, therefore no restriction was placed on drilling locations by the presence of flammable atmospheres and associated restrictions (only production areas and tank farms on-site are designated as hazardous areas due to the presence of flammable atmospheres). The locations of all exploratory positions were agreed with site personnel prior to excavation.

Each location was subsequently scanned by ENVIRON personnel using a cable avoidance tool (CAT) immediately prior to excavation. A plan showing the location of each position is provided as Figure 2 (Annex A).

4.3.3 Borehole Excavation

Details of the sub-surface soils encountered in the window sample holes, and monitoring well installations can be found in the excavation logs, presented as Annex B.

All twelve (12) window sample positions were excavated using windowless sampling techniques to depths of between 0.8m and 6.0m bgl.

Eight (8) of the window sample positions were installed as monitoring wells to the base of the boreholes to facilitate the monitoring of groundwater levels, land gas concentrations and the collection of groundwater samples. All wells were installed with 50mm diameter uPVC well casing and sealed above the screened section with bentonite surrounding the well casing and within the sacrificial casing, in order to provide a hydraulic seal to ground level. Due to the difficult ground conditions encountered for borehole excavation, only one (1) window sample (WS1) penetrated the full thickness of the Alluvial Gravel unit (to a depth of 5.8m bgl in this

location). Due to the collapse of this borehole below 5.0m bgl the monitoring well installed in this location did not penetrate the full thickness of the Alluvial Gravel unit.

4.3.4 Sample Acquisition and On-Site Analysis

Soils

Soil arisings were examined visually and unusual odours were also noted. The soils encountered were logged broadly in accordance with BS 5930:1999, and soil samples were obtained at regular intervals throughout the soil profile for on-site dynamic headspace screening for the presence of soil VOCs (no dynamic headspace testing was undertaken on samples from the rotary boreholes due to the highly disturbed nature of the samples retrieved). Dynamic headspace analysis refers to the manual agitation of a bagged soil sample to facilitate the volatilisation of organic compounds present in the soil into the headspace above (i.e. soil gas) which is then analysed using a photo-ionisation detector (PID).

The PID screens for a wide range of volatile organic compounds including hydrocarbon compounds and certain chlorinated solvents, but does not indicate a specific compound. The measurements obtained by the instrument in parts per million by volume (ppmv) provide a semi-quantitative indication of the concentration of hydrocarbon vapours that are present in the soil pore spaces. The results of the 'headspace' testing are presented within the excavation logs (Annex B).

Selected soil samples were taken from the excavations based on their visual appearance and observations of potential contamination. Samples of any unusual strata were also retained (no samples were retained from the rotary boreholes due to the highly disturbed nature of the samples retrieved). Retained samples were placed immediately into containers appropriate to the type of analysis being undertaken and stored in cool boxes maintained at a low temperature, to avoid the loss of volatile compounds. Samples were submitted to an accredited independent laboratory for analysis. The results of the soil analysis are discussed in Section 6.0.

The soil logging and results of the sample 'headspace' analysis are presented in Annex B and are discussed in Section 5.0.

Groundwater

Resting groundwater levels were measured on 24th September and 10th October 2007. Prior to monitoring and sampling being undertaken the monitoring wells were developed by pumping approximately ten times the well volume on 9th October 2007. Samples of groundwater were collected from all eight (8) wells using dedicated disposable bailers, placed directly into containers appropriate to the type of analysis being undertaken and stored in cool boxes maintained at a low temperature, to avoid the loss of volatile compounds. Samples were submitted to an accredited independent laboratory for analysis. The results of the groundwater analysis are discussed in Section 6.0.

5.0 FIELD OBSERVATIONS

5.1 GROUND CONDITIONS

The geology encountered at the site was found to be broadly consistent with published information outlined in Section 2.0, and is summarised in Table 5.1 below. Details of the ground conditions encountered are contained within the borehole logs in Annex B.

Table 5.1: Summary Of Site Geology

Strata	***Description***	***Depth encountered (m bgl)***	***Thickness (m)***
Surfacing	*Reinforced Concrete or Bituminiferous Tarmacadam (where present)*	*From surface*	*Up to 0.4m thick*
Made Ground	*Gravel, Gravel and Cobbles, gravelly Clay, sandy Clay, or clayey Sand*	*0.2m – 2.5m*	*Up to 2.3m thick*
Alluvium	*Gravelly CLAY (where present) and Sandy GRAVEL and COBBLES of Flint*	*0.9m – 5.8m*	*Up to 4.9m thick*
London Clay	*Recovered as stiff green-grey smooth CLAY (encountered only in WS1)*	*5.8m – 6.0m*	*Proved to 6.0m bgl*

5.2 GROUNDWATER

Groundwater was encountered in eleven (11) of the twelve (12) window samples (all except WS2) during drilling at depths of between 0.5m and 2.5m bgl. Groundwater was found to have collected in all eight (8) installed monitoring wells by the time of monitoring. A summary of the groundwater observations made during the monitoring visit on 24th September and 10th October 2007 is presented in Table 5.2 below, and full details of groundwater observations are contained within the borehole logs presented as Annex B.

Table 5.2: Groundwater Monitoring Data									
Location	***Ground Elevation relative to Arbitrary Site Datum (ASD)***	***Resting Product Depth (m bgl)***		***Resting Groundwater Depth (m bgl)***		***Groundwater Elevation (m ASD)***		***Product Thickness (m)***	
		24/09/07	***10/10/07***	***24/09/07***	***10/10/07***	***24/09/07***	***10/10/07***	***24/09/07***	***10/10/07***
WS1	30.013	-	-	1.597	1.490	28.416	28.523	-	-
WS4	29.999	-	-	1.252	1.170	28.747	28.829	-	-
WS5	29.873	-	1.1	1.201	1.1005	28.672	28.768	-	0.0005
WS6	30.042	1.16	-	1.162	1.080	30.042	28.962	0.002	-
WS9	30.282	-	-	1.320	1.300	28.962	28.982	-	-
WS10	1.65	-	-	1.650	1.550	28.923	29.023	-	-
WS11	29.887	-	-	1.500	1.420	28.387	28.467	-	-
WS12	30.070	-	-	1.390	1.330	28.680	28.740	-	-

Based on the above measurements, groundwater flow is approximately from the north-east towards the south-west of the site, as shown in Figure 3 (Annex A). Based on these observations, ENVIRON considers that a continuous groundwater body exists at the site, associated with the Alluvium, and this is likely to be in hydraulic continuity with the River Colne. Anecdotal evidence based on observations of groundwater flow in excavations on-site by Tony Marshall and observations made by ENVIRON personnel of likely permeability of the Alluvium and of groundwater recharge during well development and purging suggest that the groundwater flow rate is likely to be high. No permeability or hydraulic conductivity testing was performed as part of this investigation.

5.3 FIELD EVIDENCE OF POTENTIAL CONTAMINATION

Visual and/or olfactory evidence of the possible presence of contamination was noted as part of the soil logging process during the intrusive investigation.

Observations of note are summarised in Table 5.3 below:

Table 5.3: Field Observations of Contamination	
Location	***Observation***
WS1	Clinker fragments within Made Ground (0.1m – 0.7m bgl). Hydrocarbon odour (described as "sweet" from 2.2m bgl) within Alluvial Gravel and Cobbles (1.9m – 5.8m bgl).
WS2	Organic odour within Alluvial Clay (0.4m – 0.7m bgl).
WS3	Clinker fragments within Made Ground (0.6m – 2.4m bgl). Hydrocarbon odour (described as "degraded diesel") within Made Ground (0.6m – 2.5m bgl).
WS4	Clinker within Made Ground (0.2m – 0.5m bgl). Strong solvent odour (described as "degraded solvent odour" from 2.7m bgl) associated with groundwater within Alluvial Gravel and Cobbles (1.4m – 4.0m bgl).
WS5	Black staining and Hydrocarbon odour within Made Ground (0.4m – 0.7m bgl).
WS6	Hydrocarbon odour within Made Ground (0.2m – 0.7m bgl). Solvent odour within Made Ground (0.7m – 0.8m bgl). Solvent odour throughout Alluvial Gravel and Cobbles, and black staining and evidence of hydrocarbon/solvent impact associated with groundwater within Alluvial Gravel and Cobbles (1.3m – 3.0m bgl).
WS7	Hydrocarbon odour within Made Ground. Strong solvent odour throughout Alluvial Gravel and Cobbles, and heavy impact with oily sheen associated with groundwater within Alluvial Gravel and Cobbles (1.3m – 2.0m bgl).
WS10	Ash and clinker fragments within Made Ground (0.0m – 0.3m bgl).
WS12	Solvent odour and oily sheen associated with groundwater within Alluvial Gravel and Cobbles (1.4m – 3.0m bgl).

Free-phase hydrocarbons were detected at the time of drilling in WS7. Approximately 0.01m thickness of free-phase hydrocarbons were measured in the open hole in this location prior to backfilling (no well was installed in this location due to the collapse of the borehole). Free-phase hydrocarbons were also detected during two subsequent groundwater monitoring exercises in WS6 (0.002m thickness) during the 24th September 2007 monitoring exercise and in WS5 (0.0005m thickness) during the 10th October 2007 monitoring exercise.

Observations of potential impacts were made during groundwater purging and sampling on 9th October and 10th October 2007, including:-

- a slight oily sheen with an associated hydrocarbon odour was noted for WS1;

- a strong hydrocarbon odour was noted for WS5;
- a slight oily sheen with an associated strong hydrocarbon odour was noted for WS6;
- a very slight hydrocarbon odour was noted for WS11; and
- an oily sheen with an associated strong hydrocarbon odour was noted for WS12.

The PID screening results are presented within the borehole logs (Annex B). Elevated readings (i.e. above background levels of 10ppmv) were detected in forty-three (43) of the sixty-three (63) soil samples screened, as detailed in Table 5.4 below.

Table 5.4 Elevated Headspace Readings

Borehole	***Depth (bgl)***	***PID Reading (ppmv)***	***Lithology***
WS1	1.5	15	Alluvial Gravel and Cobbles
	1.7	28	Alluvial Gravel and Cobbles
	3.0	12.1	Alluvial Gravel and Cobbles
WS2	0.8	12.2	Alluvial Gravel and Cobbles
WS4	0.2	173	Made Ground comprising dark brown gravelly Clay
	0.5	18.7	Made Ground comprising dark brown gravelly Clay
	1.0	12.9	Alluvial Gravel and Cobbles
	1.5	1520	Alluvial Gravel and Cobbles
	1.75	>4000	Alluvial Gravel and Cobbles
	2.0	1260	Alluvial Gravel and Cobbles
	2.5	555	Alluvial Gravel and Cobbles
	3.0	221	Alluvial Gravel and Cobbles
WS5	0.4	657	Made Ground comprising sandy Gravel and Cobbles
	1.0	599	Alluvial Gravel and Cobbles
	1.5	1030	Alluvial Gravel and Cobbles
	2.0	1410	Alluvial Gravel and Cobbles
	2.5	918	Alluvial Gravel and Cobbles
	3.0	50	Alluvial Gravel and Cobbles
WS6	0.5	819	Made Ground comprising slightly sandy Clay
	1.0	749	Alluvial Gravel and Cobbles
	1.5	451	Alluvial Gravel and Cobbles
WS7	0.5	565	Made Ground comprising slightly sandy Clay
	1.0	>4000	Alluvial Gravel and Cobbles

Table 5.4 Elevated Headspace Readings			
Borehole	***Depth (bgl)***	***PID Reading (ppmv)***	***Lithology***
	1.5	>4000	Alluvial Gravel and Cobbles
WS8	0.25	72	Made Ground comprising very gravelly Clay
	0.5	54	Alluvial Gravel and Cobbles
	1.0	28	Alluvial Gravel and Cobbles
	1.5	42	Alluvial Gravel and Cobbles
WS9	0.5	105	Made Ground comprising Gravel and Cobbles
	1.0	86	Alluvial Sand
	1.5	30	Alluvial Gravel and Cobbles
	2.0	430	Alluvial Gravel and Cobbles
WS10	0.5	13.1	Made Ground comprising Sand with brick fragments
	1.0	16	Alluvial Gravel and Cobbles
	1.5	18	Alluvial Gravel and Cobbles
	2.0	13.2	Alluvial Gravel and Cobbles
WS11	1.5	20.1	Alluvial Gravel and Cobbles
	2.0	27.2	Alluvial Gravel and Cobbles
	2.5	36	Alluvial Gravel and Cobbles
WS12	0.5	12.7	Made Ground comprising gravelly Clay
	1.0	15.7	Alluvial Gravel and Cobbles
	1.5	451	Alluvial Gravel and Cobbles
	2.0	255	Alluvial Gravel and Cobbles

Full details of the observed evidence of contamination can be found in the borehole logs, presented as Annex B.

5.4 LAND GAS MONITORING

5.4.1 Introduction

Land gas screening was undertaken on one occasion by ENVIRON in all of the eight (8) monitoring wells installed at the site (WS1, WS4, WS5, WS6, WS9, WS10, WS11, and WS12). The wells were monitored for methane, carbon dioxide, oxygen, carbon monoxide, hydrogen sulphide, flow rate and atmospheric pressure using a portable infra-red gas analyser and flow-meter (Analox).

Land gas monitoring data has been compared to guidelines presented within the following documents, details of which can be found in Annex C:-

- The building regulations (BRE), 2004 Edition, Approved Document C;
- Reliability and Risk in Gas Protection Design, Wilson and Card, 1999; and
- Protecting Developments from Methane, CIRIA Report 149, 1995.

5.4.2 Results of Land Gas Monitoring

The results of the land gas monitoring are shown in Table 5.1 below.

Table 5.5 Gas Monitoring – 9th October 2007

Location	CH_4	CO_2	O_2	CO (ppm)	H_2S (ppm)	Atmospheric Pressure (mb)	Flow (litre/hr)
WS1	0	3.4	13.6	1	0.1	1019	0
WS4	0.8	11.5	3.9	6	0.2	1017	0
WS5	0	9.2	7.5	3	0.2	1017	0
WS6	76.8	9.9	3.6	6	0.8	1023	0
WS9	0	1.3	19.1	6	0.2	1017	0
WS10	0	1.4	16.8	1	0	1017	0
WS11	0	4.6	14.5	3	0.1	1020	0
WS12	0	5.3	11.2	3	0.2	1019	0

Notes:
All concentrations in % unless stated otherwise

Methane

Methane was detected above the instrument detection limit in two (2) monitoring wells during the monitoring visit, at concentrations of 0.8% (WS4) and 76.8% (WS6). Given the field observations of free product during the first groundwater monitoring exercise and a strong oily sheen during the second groundwater monitoring exercise in WS6, ENVIRON considers that the extremely elevated concentration of Methane in this location is a by-product of the degradation of the observed hydrocarbon impact, and is not thought to be indicative of a land-gas issue on-site.

The Building Regulations, Approved Document C states that where methane concentrations do not exceed 1% and that the floor of the building to be constructed is suspended and ventilated, no further protection needs to be provided. Above 1% by volume there is a need to consider measures to prevent gas ingress into new buildings. The concentration of methane detected at WS8 slightly exceeds the Building Regulations guideline and therefore further

action may be required in the event that this area is developed with buildings, dependant on the construction of the floor slab.

Carbon Dioxide

Carbon Dioxide was detected in all eight (8) monitoring wells at concentrations of between 1.3% (WS9) and 11.5% (WS4). Approved Document C states that there is a need to consider possible measures to prevent gas ingress into new buildings if concentrations of carbon dioxide above 1.5% are detected in the ground and that measures are definitely required at concentrations above 5%. Carbon Dioxide concentrations exceeded 5% by volume on 10th October 2007 in WS4, WS5, WS6, and WS12, and may be related to the degradation of observed hydrocarbon impacts in these locations. These elevated concentrations mean prevention measures may need to be considered during redevelopment.

Oxygen

Oxygen concentrations across the site during the monitoring visit ranged between 3.6% by volume (WS6) and 19.1% by volume (WS9). Significantly reduced concentrations of oxygen (<10%) were detected in WS4, WS5, and WS6, ranging from 3.6% by volume (WS6) and 7.5% by volume (WS5). These significantly depleted concentrations of oxygen are likely to be related to the degradation of observed hydrocarbon impacts at these locations. There is a potential risk of asphyxiation to future site workers whilst working in confined spaces and possible prevention measures may need to be considered.

Flow Rates

No gas flow was recorded at any of the monitoring wells during the land gas monitoring exercise. The absence of significant flow indicates that carbon dioxide or methane are not being actively generated and are not under significant pressure. The atmospheric pressure fell slightly during the monitoring exercise from 1020mBar to 1017mBar (gas monitoring was conducted for WS6 on 10th October, as this monitoring well was flooded at during the land gas monitoring exercise on 9th October 2007).

5.4.3 Significance of Land Gas Monitoring

Given the concentrations of land gases detected (maximum methane concentration of 76.8% and maximum carbon dioxide concentration of 11.5%); the site would be classed in accordance with the CIRIA Characteristic 6 under present conditions. Accordingly, the gas protection measures would be a likely requirement of the regulatory Authorities in the event that the site was redeveloped (see Section 7.0).

6.0 CHEMICAL ANALYSIS

6.1 ANALYTICAL STRATEGY

The analytical strategy was designed to provide an assessment of the presence of a common range of potential contaminants that could be associated with the uses at the site. The full analytical suites can be found in Annex D.

Table 6.1: Analytical Suites

Analytical Suite	Rationale	No. of soil samples submitted	No. of groundwater samples submitted
ACM Asbestos Containing Materials	General screening to assess the content of made ground.	11	-
General Suite: pH, total cyanide, total phenol and monohydric phenol, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, water soluble sulphate and zinc.	General analysis of fill material and deeper natural deposits used to ascertain impacts from the identified potential sources on-site, and to achieve general site coverage.	23	8
TPH: Total Petroleum Hydrocarbons with aliphatic and aromatic carbon banding >C6-C8, >C8-C10, >C10-12, >C12-C16, >C16-C21, >C21-C40.	Specific breakdown analysis used to characterise impacts from fuels and oils in relation to the identified potential sources on-site and site activities.	11	8
PAH: Poly-cyclic Aromatic Hydrocarbons.	Analysis of the US EPA target 16 species to achieve general site coverage.	11	8
VOC / SVOC: Volatile and Semi-Volatile Organic Compounds	Targeted analysis for the presence of a wide variety of potential contaminants including solvents and fuel constituents.	11	8
TOC Total Organic Carbon	Soil characteristic used in risk assessment modelling.	2	-
Major ions	Groundwater specific analysis used to characterise and compare different groundwater bodies	-	8

6.2 CRITERIA FOR INTERPRETATION

The legislative background and the criteria used for screening the chemical analytical results are outlined in Annex C. In summary, analytical results have been screened using CLEA Soil Guideline Values (SGVs), the Chartered Institute of Environmental Health's General Assessment Criteria (GACs) and also Site Specific Assessment Criteria (SSAC). The

screening criteria assume that the site is used for general industrial or commercial use, and are not applicable for other uses. GACs were selected based upon 1% soil organic matter (site specific data derived from analytical results from non-impacted material). This assessment is considered to be a Tier 1 screening, and depending on the results of this Tier 1 screening, further tiers of assessment, including detailed risk assessment may be deemed to be necessary.

In the absence of UK guidelines for groundwater for the context of assessing 'contaminated land', groundwater results have been assessed against UK DWS (Drinking Water Quality standards) and EQS (Environmental Quality Standards) as preliminary screening levels.

6.3 ASSESSMENT OF SOIL RESULTS

The results of the soil laboratory analyses and guideline criteria exceedences are discussed below, with a full summary of analytical results given in Tables 6.2 and 6.3, below. The full analytical certificates are presented as Annex E. A detailed description of the exceedences of screening guideline for individual parameters is presented as Annex D.

6.4.1 Inorganic Parameters

Concentrations of determinands detected above their respective laboratory method detection limits (MDLs) have been screened using CLEA SGVs and CIEH GACs where available.

No exceedences of guideline screening criteria were detected for any of the inorganic parameters analysed in any of the twenty-three (23) samples analysed.

No asbestos fibres were detected in any of the eleven (11) samples analysed.

Table 6.2: Summary of Inorganic Soil Analytical Results					
Parameter	***Concentration Range***	***Location of Maximum Concentration***	***Guideline Values (mg/kg)***		***Number and Location of samples exceeding Guideline***
			CLEA SGV/ CIEH GAC	***SSAC***	
pH (value)	7.1 – 8.7	WS12 @ 0.5m (min) WS10 @ 0.2m (max)	-	-	-
Arsenic	<3 – 22	WS6 @ 1.0m	500[1]	-	0
Cadmium	<0.5 – 1.2	WS12 @ 0.1m	1400[1]	-	0
Chromium	<10 – 40	WS10 @ 0.2m	5000[1]	-	0
Copper	<5 – 150	WS10 @ 0.2m	45,700[2]	-	0
Lead	<10 – 280	WS12 @ 0.5m	750[1]	-	0
Nickel	5.1 – 150	WS10 @ 0.2m	5000[1]	-	0
Zinc	<10 – 320	WS11 @ 1.0m	188,000[2]	-	0
Water Soluble Sulphate (g/l)	<0.02 – 0.56	WS3 @ 1.0m	-	-	-
FOC (fraction)	<0.001 – 0.001	WS8 @ 0.5m	-	-	-
Concentration in mg/kg except pH, FOC, and Water Soluble Sulphate [1] = CLEA SGV – Commercial/Industrial land use [2] = CIEH GAC – Commercial/Industrial land use					

6.4.2 Organic Parameters

Targeted Compounds

Concentrations of determinands detected above their respective MDLs have been screened using CLEA SGVs, CIEH GACs, and SSACs where available.

Total Petroleum Hydrocarbons (**TPH**) in the **$C_5 – C_{35}$** range were detected in 21 of the 23 samples analysed, at concentrations of between 5.6mg/kg (WS10 at 0.2m bgl) and 7,200mg/kg (WS7 at 1.0m bgl), which broadly reflects the field observations of contamination and on-site headspace PID analysis results.

Exceedences of the GAC screening criteria for both **Petrol Range Organics** (**PRO**) in the **$C_5 – C_{10}$** range and **Diesel Range Organics** (**DRO**) in the **$C_{10} – C_{35}$** range were detected in 2 of the 23 samples analysed (WS4 at 1.75m and WS7 at 1.0m bgl). These are considered to be potentially significant impacts. Exceedences of the SSAC screening criteria for **DRO** were also detected in 3 additional samples (WS5 at 0.5m, WS5 at 1.2m, and WS12 at 1.5m bgl).

One or more **BTEX** (**Benzene, Toluene, Ethylbenzene and Xylenes**) compounds were detected in 5 of the23 samples analysed. This finding correlates well with field observations and the results of the on-site PID headspace analysis. Exceedences of the SSACs were

recorded for BTEX compounds in 3 samples from two locations (WS4 at 1.75m, WS7 at 0.5m, and WS7 at 1.0m bgl). None of the detected concentrations exceed the SGVs (Ethylbenzene – 48,000mg/kg and Toluene – 150mg/kg), where available for comparison.

The presence of elevated concentrations of BTEX compounds correlates well with the detected elevated concentrations of PRO and DRO (BTEX compounds are common constituents of fuel hydrocarbons), which suggests a fuel hydrocarbon as the most likely source of the identified impacts in the central and north-eastern areas of the site (WS4 and WS7).

Total Polycyclic Aromatic Hydrocarbons (**PAHs**) were detected at concentrations above laboratory method detection limits in eleven (11) of the twenty-three (23) samples analysed. Exceedences of the SSACs were recorded in 10 samples (WS1 at 0.5m, WS4 at 0.2m, WS4 at 1.75m, WS5 at 0.5m, WS5 at 1.2m, WS7 at 1.0m, WS11 at 0.5m, WS11 at 1.0m, WS12 at 0.5m, and WS12 at 1.5m).

The SSACs for PAHs are considered conservative; the SSACs are driven by the presence of a surface water receptor (River Colne) located 160m from the site, and the RBCA model incorporates a number of conservative assumptions in relation to this pathway (for example, it does not take into account degradation of the contaminant). In practice, PAHs are generally relatively immobile, and more likely to sorb to soils than to migrate in groundwater. None of the detected concentrations exceed the GAC, which is designed to be protective of human health, for Benzo(a)pyrene of 29.7mg/kg. Furthermore, the concentrations of PAHs observed in soils at the site are not considered uncommon for an industrial facility.

Elevated concentrations of various volatile organic compounds (**VOCs** and semi-volatile organic compounds **(SVOC)** were detected in soils, including but not limited to Trichloroethene (TCE), benzene analogues, methyl phenol, phthalates, anthraquinone, and methylnaphthalene. In the absence of UK specific screening criteria for these compounds, a number of compounds detected above their respective laboratory MDLs have been compared against their respective closest analogue compound (e.g. methylnaphthalene has been compared against the GAC for Naphthalene and trimethylbenzene has been compared against the SSAC for benzene). Several of these compounds were detected at concentrations exceeding their analogue's screening criteria as summarised in Table 6.3, below. In general, use of analogues such as benzene, which has a very low SSAC (due to its toxicity and mobility), means that these screening criteria should be conservative (i.e. over cautious). Furthermore, the SSAC are again driven by consideration of the River Colne, whereby a

number of the assumptions relating to the migration of chemicals from the site to the river are likely to be overly conservative. This means that, overall; there is a high degree of caution built into this part of the screening process. Although not directly relevant in the UK regulatory context, reference to Preliminary Remediation Goals (designed to be protective of human health) for soils in industrial use (US EPA Region 9), indicates the concentrations measured are generally less than these screening levels. Again, elevated concentrations of VOCs and SVOCs centre on sampling locations WS4, WS5 and WS7 and, to a lesser degree, WS12.

Table 6.3: Summary of Soil Organic Analytical Results

Parameter	*Concentration Range (mg/kg)*	*Location of Maximum Concentration*	*Guideline Values (mg/kg)*		*No. & Location of samples exceeding Guideline Values*
			GAC/ SGV	*SSAC*	
TPH by CWG Methodology					
Aliphatics >C_5-C_6	<0.01 – 5.5	WS7 @ 1.0m	95.3[1]	>sol	0
Aliphatics >C_6-C_8	<0.01 – 14	WS4 @ 1.75m	242[1]	60	0
Aliphatics >C_8-C_{10}	**<0.01 – 320**	**WS4 @ 1.75m**	**65.9[1]**	**>sol**	**2 – WS4 @ 1.75m & WS7 @ 1.0m (GAC)**
Aliphatics >C_{10} – C_{12}	<0.01 – 1,700	WS7 @ 1.0m	29,900[1]	>sol	0
Aliphatics >C_{12} – C_{16}	<5 – 2,400	WS12 @ 1.5m	29,900[1]	>sol	0
Aliphatics >C_{16} – C_{21}	<5 – 1,700	WS12 @ 1.5m	617,000[3]	>sol	0
Aliphatics >C_{21} – C_{35}	<5 – 870	WS4 @ 1.75m		>sol	0
Aromatics >C_6-C_7	<0.01 – 0.01	WS4 @ 0.2m	26.9[1]	1.1	0
Aromatics >C_7-C_8	<0.01 – 0.02	WS7 @ 1.0m	30.4[1]	2.8	0
Aromatics >C_8-C_{10}	**<0.01 – 510**	**WS7 @ 1.0m**	**107[1]**	**15**	**3 – WS4 @ 1.75m, WS5 @ 1.2m & WS7 @ 1.0m (SSAC) 2 – WS4 @ 1.75m & WS7 @ 1.0m (GAC)**
Aromatics >C_{10}-C_{12}	**<0.01 – 2,600**	**WS7 @ 1.0m**	**625[1]**	**24**	**3 – WS4 @ 1.75m, WS5 @ 1.2m & WS7 @ 1.0m (SSAC) 2 – WS4 @ 1.75m & WS7 @ 1.0m (GAC)**
Aromatics >C_{12}-C_{16}	**<5 – 470**	**WS5 @ 1.2m**	**12,200[1]**	**47**	**5 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 1.0m & WS12 @ 1.5m (SSAC)**
Aromatics >C_{16}-C_{21}	<5 – 460	WS12 @ 1.5m	9,190[1]	>sol	0
Aromatics>C_{21}-C_{35}	<5 – 320	WS1 @ 0.5m	9,250[1]	>sol	0
BTEX Compounds					
Benzene	<0.01 – 0.012	WS4 @ 0.2m	-	0.013	-
Toluene	<0.01 – 1.4	WS4 @ 1.75m	150[2]	2.1	0
Ethylbenzene	**<0.01 – 19**	**WS7 @ 1.0m**	**48,000[2]**	**0.073**	**3 – WS4 @ 1.75m, WS7 @ 0.5m & WS7 @ 1.0m (SSAC)**
p & m Xylenes	**<0.01 – 77**	**WS7 @ 1.0m**	**-**	**1.6**	**3 – WS4 @ 1.75m, WS7 @ 0.5m & WS7 @ 1.0m (SSAC)**
o Xylene	**<0.01 – 7.9**	**WS7 @ 1.0m**	**-**	**0.96**	**2 – WS4 @ 1.75m &**

Table 6.3: Summary of Soil Organic Analytical Results					
Parameter	***Concentration Range (mg/kg)***	***Location of Maximum Concentration***	***Guideline Values (mg/kg)***		***No. & Location of samples exceeding Guideline Values***
			GAC/ SGV	***SSAC***	
					WS7 @ 1.0m (SSAC)
1,3,5-Trimethylbenzene	<0.01 – 19	WS4 @ 1.75m	-	-	-
1,2,4-Trimethylbenaene	<0.01 – 68	WS7 @ 1.0m	-	-	-
PAHs					
Naphthalene	**<0.1 – 12**	**WS7 @ 1.0m**	**290[1]**	**2.5**	**4 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m & WS7 @ 1.0m (SSAC)**
Acenaphthylene	**<0.1 – 1.5**	**WS1 @ 0.5m**	**-**	**0.18**	**5 – WS1 @ 0.5m, WS4 @ 1.75m, WS5 @ 1.2m, WS11 @ 0.5m & WS12 @ 0.5m - SSAC**
Acenaphthene	**<0.1 – 0.67**	**WS12 @ 1.5m**	**-**	**0.27**	**4 – WS4 @ 1.75m, WS5 @ 1.2m, WS11 @ 1.0m & WS12 @ 1.5m (SSAC)**
Fluorene	**<0.1 – 2.2**	**WS12 @ 1.5m**	**59,000[1]**	**0.0017**	**8 – WS1 @ 0.5m, WS4 @ 0.2m, WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 1.0m, WS11 @ 1.0m & WS12 @ 1.5m (SSAC)**
Phenanthrene	**<0.1 – 3.5**	**WS11 @ 1.0m**	**-**	**0.86**	**5 – WS1 @ 0.5m, WS4 @ 0.2m, WS11 @ 0.5m, WS11 @ 1.0m & WS12 @ 1.5m (SSAC)**
Anthracene	**<0.1 – 2.2**	**WS1 @ 0.5m**	**-**	**1.1**	**1 – WS1 @ 0.5m (SSAC)**
Fluoranthene	**<0.1 – 14**	**WS1 @ 0.5m**	**-**	**4**	**3 – WS1 @ 0.5m, WS11 @ 0.5m & WS11 @ 1.0m (SSAC)**
Pyrene	**<0.1 – 14**	**WS1 @ 0.5m**	**-**	**3.9**	**2 – WS1 @ 0.5m & WS11 @ 0.5m (SSAC)**
Benzo(a) anthracene	<0.1 – 9.1	WS1 @ 0.5m	-	>sol	0
Chrysene	<0.1 – 7.4	WS1 @ 0.5m	-	>sol	0
Benzo(b)-fluoranthene	<0.1 – 14	WS1 @ 0.5m	-	>sol	0
Benzo(k) fluoranthene	<0.1 – 5.2	WS1 @ 0.5m	-	>sol	0
Benzo(a)pyrene	**<0.1 – 11**	**WS104 @ 0.2m**	**29.7[1]**	**0.64**	**5 – WS1 @ 0.5m, WS4 @ 0.2m, WS11 @ 0.5m, WS11 @ 1.0m & WS12 @ 0.5m (SSAC)**
Indeno(1,2,3-cd)pyrene	<0.1 – 6.5	WS1 @ 0.5m	-	>sol	0
Dibenzo(a,h) anthracene	<0.1 – 1.7	WS1 @ 0.5m	29.7[1]	2.4	0
Benzo(g,h,i) perylene	<0.1 – 7.4	WS1 @ 0.5m	-	>sol	0
VOC Suite					
Trichloroethene	<0.025 – 0.064	WS11 @ 1.0m	6.42[1]	0.41	0
Isopropyl-benzene	**<0.025 – 1.6**	**WS7 @ 1.0m**	**-**	**0.013[4]**	**3 – WS4 @ 1.75m, WS7 @ 0.5m & WS7 @ 1.0m (Benzene SSAC)**
n-propylbenzene	**<0.025 – 2.4**	**WS7 @ 1.0m**	**-**	**0.013[4]**	**4 – WS4 @ 1.75m,**

Table 6.3: Summary of Soil Organic Analytical Results					
Parameter	***Concentration Range (mg/kg)***	***Location of Maximum Concentration***	***Guideline Values (mg/kg)***		***No. & Location of samples exceeding Guideline Values***
			GAC/ SGV	***SSAC***	
					WS5 @ 0.5m, WS7 @ 0.5m & WS7 @ 1.0m (Benzene SSAC)
1,3,5 Trimethylbenzene	**<0.025 – 14**	**WS7 @ 1.0m**	**-**	**0.013[4]**	**5 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 0.5m & WS7 @ 1.0m (Benzene SSAC)**
Tert-Butylbenzene	**<0.025 – 0.57**	**WS4 @ 1.75**	**-**	**0.013[4]**	**1 – WS4 @ 1.75m (Benzene SSAC)**
1,2,4 Trimethylbenzene	**<0.025 – 37**	**WS7 @ 1.0m**	**-**	**0.013[4]**	**5 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 0.5m & WS7 @ 1.0m (Benzene SSAC)**
Sec-Butylbenzene	**<0.025 – 1.3**	**WS7 @ 1.0m**	**-**	**0.013[4]**	**3 – WS4 @ 1.75m, WS5 @ 0.5m & WS7 @ 1.0m (Benzene SSAC)**
1,3 Dichlorobenzene	**<0.025 – 0.57**	**WS5 @ 1.2m**	**-**	**0.013[4]**	**3 – WS4 @ 1.75m, WS5 @ 0.5m & WS5 @ 1.2m (Benzene SSAC)**
1,4 Dichlorobenzene	**<0.025 – 7.5**	**WS5 @ 1.2m**	**-**	**0.013[4]**	**3 – WS4 @ 1.75m, WS5 @ 0.5m & WS5 @ 1.2m (Benzene SSAC)**
4-Isopropyltoluene	**<0.025 – 8.7**	**WS7 @ 1.0m**	**150[5]**	**-**	**5 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 0.5m & WS7 @ 1.0m (Toluene SSAC)**
1,2 Dichlorobenzene	**<0.025 – 18**	**WS5 @ 1.2m**	**-**	**0.013[4]**	**4 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m & WS6 @ 0.5m**
SVOC Suite					
2-Methylphenol	<0.2 – 0.24	WS5 @ 0.5m	21,900[6]		-
4-Methylphenol	<0.2 – 0.43	WS5 @ 0.5m	21,900[6]	-	-
2,4-Dimethylphenol	<0.2 – 1.0	WS5 @ 0.5m	21,900[6]	-	-
Di-n-butyl phthalate	<0.15 – 5.5	WS7 @ 1.0m	-	-	-
Butyl benzyl phthalate	<0.15 – 1.9	WS7 @ 1.0m	-	-	-
1,3-Dichlorobenzene	**<0.2 – 1.4**	**WS5 @ 1.2m**	**-**	**0.013[4]**	**3 – WS5 @ 0.5m, WS5 @ 1.2m & WS12 @ 1.5m (Benzene SSAC)**
1,2-Dichlorobenzene	**<0.15 – 73**	**WS5 @ 1.2m**	**-**	**0.013[4]**	**4 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m & WS12 @ 1.5m (Benzene SSAC)**
1,4-Dichlorobenzene	**<0.2 – 23**	**WS5 @ 1.2m**	**-**	**0.013[4]**	**4 – WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m & WS12 @ 1.5m (Benzene SSAC)**
Anthraquinone	<0.15 – 0.79	WS1 @ 0.5m	-	-	-
Aniline	<0.15 – 0.22	WS9 @ 1.0m	-	-	-
2-Methylnaphthalene	<0.15 – 51	WS5 @ 1.2m	290[7]	-	0
Bis (2-ethylhexyl) phthalate	<0.3 – 1.1	WS4 @ 1.75m	-	-	-
Carbazole	<0.1 – 0.24	WS1 @ 0.5m	-	-	-

Table 6.3: Summary of Soil Organic Analytical Results					
Parameter	***Concentration Range (mg/kg)***	***Location of Maximum Concentration***	***Guideline Values (mg/kg)***		***No. & Location of samples exceeding Guideline Values***
			GAC/ SGV	***SSAC***	
Dibenzofuran	<0.15 – 0.25	WS1 @ 0.5m	-	-	-
Biphenyl	<0.15 – 1.3	WS7 @ 1.0m	-	-	-

Notes:
[1] CIEH GAC
[2] CLEA SGV
[3] CIEH GAC for combined Aliphatics >C_{16} – C_{35}
[4] Benzene SSAC used in the absence of parameter specific guideline
[5] Toluene SGV used in the absence of parameter specific guideline
[6] Phenol SGV used in the absence of parameter specific guideline
[7] Naphthalene GAC used in the absence of parameter specific guideline
CIEH GAC – values based on residential land use with gardens, TOC of 1%, and a sandy soil with pH7
>sol – screening criteria greater than constituent solubility value

Tentatively Identified Compounds (TICs)

Analysis for TICs is a semi-quantitative procedure involving the comparison of unidentified peaks produced by Gas Chromatography – Mass Spectrometry of samples with a library of contaminants to determine the presence of compounds not identified by the targeted VOC/SVOC analysis.

A large number of TICs were detected in selected soil samples from the site (samples only from WS1, WS4, WS5,WS7, and WS12), most of which were analogues of benzene and toluene, alkanes (straight chain hydrocarbon compounds also known as aliphatic hydrocarbons) or analogues thereof. Many of these compounds have been detected in either the TPH CWG or the VOC/SVOC analytical suites and are not discussed further. A summary list of TICs detected in soil is presented in Annex D.

6.5 ASSESSMENT OF GROUNDWATER RESULTS

The results of the groundwater laboratory analysis are summarised below, with the full analytical certificates provided as Annex D and a summary of all exceedences of screening criteria provided as Annex E. Groundwater results have been assessed against UK Drinking Water Standards (DWS) and the Environmental Quality Standards (EQS) for freshwater ecosystems, due to the sensitivity of the site with respect to controlled waters. EQS values for a range of parameters are dependent on the hardness of the water. Hardness analysis of groundwater samples from the site gave a range of 140mg/l – 310mg/l hardness as $CaCO_3$

with an average of 226.25mg/l hardness as $CaCO_3$. As such, the 200mg/l – 250mg/l EQS band was selected for hardness related parameters.

These standards do not directly consider the potential risk to human health from inhalation of vapours generated from groundwater sources. This pathway is relevant where volatile chemicals are present in groundwater. Accordingly, it is necessary to consider the risk to human health associated with inhalation of vapours from groundwater for any such chemicals.

In the absence of UK DWS for each of the individual speciated PAHs (with the exception of Benzo(a)pyrene), the published standard for total PAHs has been used as the assessment standard for each individual speciated PAH. This can be considered to be a conservative screening approach for this group of compounds. The EQS value has also been considered for Naphthalene.

Groundwater samples were collected from each of the eight (8) monitoring wells on-site (WS1, WS4, WS5, WS6, WS9, WS10, WS11 and WS12) on 10th October 2007 using monitoring well dedicated disposable bailers.

6.5.1 Inorganic Parameters

Two (2) samples (WS4 and WS5) were recorded as having a **pH** value outside the acceptable range as presented in the DWS guidelines (pH6.5 – pH10.0).

Several metallic parameters were detected at concentrations exceeding the screening criteria, namely:-

- **Arsenic** was not detected at concentrations exceeding the EQS (0.05mg/l) in any of the eight (8) samples analysed; however, detected concentrations exceeded the DWS (0.0001mg/l) in four (4) samples (WS5, WS6, WS9 and WS12). WS9 is located at the up-gradient site boundary, and the presence of Arsenic in this location may suggests a potential off-site source or wider presence of elevated concentrations of arsenic in groundwater in the vicinity of the site (possibly associated with the former Gas Works located to the east of the site);

- **Boron** was detected at a concentration exceeding the EQS in one (1) sample (WS5); and

- **Iron** was detected at concentrations exceeding both the EQS (1mg/l) and DWS (0.2mg/l) in two (2) of these samples (WS4 and WS6). Iron was also detected at a concentration exceeding the DWS (0.2mg/l) in one additional sample (WS5).

Nitrogen compounds were detected at concentrations exceeding the screening criteria in one or more samples:-

- **Nitrate (as N)** was detected at concentrations exceeding the EQS value for **Nitrate** (0.015mg/l) in two (2) of the eight (8) samples analysed (WS9 and WS10), both of which are up-gradient wells and this impact may be related to historical land use in up-gradient of the site (e.g. a former Gas Works located to the east of the site); and

- **Ammoniacal Nitrogen (as NH_4)** was detected at concentrations exceeding the DWS value for **Ammonium (NH_4)** (0.5mg/l) in one (1) of the eight (8) samples analysed (WS11).

Table 6.4: Summary of Inorganic Groundwater Analytical Results					
Parameter	***Concentration Range***	***Location of Maximum Concentration***	***Guideline Values (mg/l)***		***Number and Location of samples exceeding Guideline***
			EQS	***DWS***	
pH (value)	**6.0 – 7.1**	**WS4 (min) WS9 & WS12 (max)**	**6.0 – 9.0**	**6.5 – 10**	**2 – WS4 & WS5 (DWS)**
Arsenic	**<0.005 – 0.02**	**WS5**	**0.05**	**0.0001**	**4 – WS5, WS6, WS9 & WS12 (DWS)**
Boron	**0.13 – 4.9**	**WS5**	**2**	**1**	**1 – WS5 (DWS & EQS)**
Cadmium	<0.001 – 0.002	WS5	0.005	0.005	0
Chromium	<0.005 – 0.011	WS4 & WS6	0.05	0.05	0
Copper	<0.005 – 0.008	WS11	0.01	2	0
Iron (III)	**<0.02 – 13**	**WS4**	**1**	**0.2**	**3 – WS4, WS5 & WS6 (DWS) 2 – WS4 & WS6 (EQS)**
Magnesium	2.4 – 4.6	WS10	-	-	-
Nickel	<0.005 – 0.072	WS11	0.2	0.02	0
Calcium	82 – 110	WS6, WS9, WS10 & WS12	-	-	-
Potassium	6.9 – 9.5	WS5	-	-	-
Sodium	34 – 100	WS5	-	200	0
Zinc	<0.005 – 0.008	WS10 & WS11	0.075	-	0
Nitrate as N	**<0.5 – 2.5**	**WS10**	**0.015**	**-**	**2 – WS9 & WS10 (EQS)**
Ammoniacal Nitrogen as NH_4	**<0.065 – 6.6**	**WS6**	**-**	**0.5**	**1 – WS6 (DWS)**
Chloride	26 – 130	WS4	250	250	0
Alkalinity as $CaCO_3$	140 – 310	WS6	-	-	-
Sulphate	<10 – 58	WS10	-	-	-
Concentration in mg/l except pH					

6.5.2 Organic Parameters

Targeted Compounds

Total Monohydric Phenols were detected at concentrations exceeding the screening criteria in three (3) samples (WS4, WS5 and WS6). The maximum detected concentration was 0.11mg/l, compared with the EQS of 0.03mg/l.

In the absence of a current EQS or 2000 UK DWS screening criteria for **TPH ($C_5 – C_{35}$),** the Water Supply (Water Quality) Regulations (1989) (as amended) for dissolved or emulsified hydrocarbons has been used (0.01 mg/l).Concentrations of **TPH ($C_5 – C_{35}$)** exceeding the

1989 DWS were detected in seven (7) samples (WS1, WS4, WS5, WS6, WS10, WS11 and WS12). The highest **TPH ($C_5 - C_{35}$)** concentration (124.8mg/l) was detected in the sample from WS5, which is located adjacent to and down-gradient of three disused USTs associated with the former Allied Chemicals facility in the southern-central area of the site, and a very thin layer of free-phase hydrocarbon was detected in this location during the second groundwater monitoring exercise, but not the first. No information relating the use of these USTs was available at the time of this review; however, these USTs are considered to be the most likely source of this significant **TPH** impact.

As well as the WS5 result, significantly elevated **TPH ($C_5 - C_{35}$)** impacts were also detected in the following samples:

- a TPH concentration of 15.03mg/l was detected in the sample from WS6, which is thought to be related either to Tank Farm No.2 or the oil/water interceptor in this location. Free-phase hydrocarbons were detected during the first groundwater monitoring exercise but not the second, although some doubt regarding the validity of this detection existed at the time of monitoring as this detection could not be reproduced;

- a TPH concentration of 55.95mg/l was detected in the sample from WS4, which is likely to be related to the two additional disused UST farms in the southern-central area of the site; and

- a TPH concentration of 14.17mg/l was detected in the sample from WS12 for which no known source has been identified (a gas fired boiler house exists in the former Allied Chemicals building adjacent to this location, which may at some point have been powered by liquid hydrocarbon fuel with associated bulk fuel storage; however, this has not be confirmed).

The detection of **TPH ($C_5 - C_{35}$)** in samples from the down-gradient site boundary (WS1, WS11 and WS12) suggests that the identified impacts from various sources on-site have formed a groundwater plume comprising several sources which may be migrating off-site.

Concentrations of toluene, xylenes and ethylbenzene in four (4) samples exceeding the respective EQSs were detected in four (4) samples (WS4, WS5, WS6 and WS12). Maximum concentrations detected were 4.3mg/l toluene (WS4), 5.3mg/l xylenes (WS4) and 1.3mg/l ethylbenzene (WS4). These compounds were also detected in soils at two of these locations

(WS4 and WS5). Trimethylbenzene isomers were also detected at these locations, and benzene was detected only in WS4, although not at a concentration exceeding the EQS.

Exceedences of screening criteria for **PAHs** were detected in four samples (WS4, WS5, WS6 and WS12). However, the application of the DWS guideline value for total PAHs to individual speciated PAHs is very conservative in the context of this site, given its environmental setting and current use. **PAH** were detected in the groundwater sample from WS9 (the up-gradient well on-site) at concentrations equal to the screening criteria (0.0001mg/l). This appears to be a localised occurrence, and may be evidence of groundwater impact associated with the historical use of the surrounding area of the site (e.g. a former Gas Works located to the east of the site).

Elevated concentrations of various **VOCs** and **SVOCs** were detected, including but not limited to chlorinated alkanes (1,1,1 trichloroethane, dichloromethane and chloroethane), chlorinated alkenes (trichloroethene, 1,1- and cis and trans 1,2-dichloroethene and chloroethene), chlorinated benzene and phenol, phthalate and naphthalene analogues.

In particular, these include elevated concentrations of various chlorinated solvents that may have been used within paints or paint thinners, or for degreasing purposes in the past. These include trichloroethene (TCE) alongside much lower concentrations of dichloromethane and 1,1,1 trichloroethane. **Trichloroethene** (**TCE**) was detected in six (6) samples (WS1, WS4, WS5, WS6, WS11 and WS12), and at concentrations exceeding the screening criteria in two (2) of these [WS4 (maximum concentration detected – 25mg/l) and WS11].

As well as these chemicals, significant concentrations of their degradation products were measured in groundwater at the site, in several cases at concentrations greater than those of the parent compound. For example, ***cis*-1,2 dichloroethene** (***cis*-1,2 DCE**), the principal biological degradation product of TCE, was detected in all eight (8) samples, with a maximum concentration of 84mg/l (WS4). The presence of elevated concentrations of *cis*-1,2 DCE associated with detected concentrations of TCE strongly suggests that biological degradation of TCE (by reductive dechlorination) is occurring on-site. **Vinyl chloride** (**VC** or **chloroethene**), a biological degradation product of *cis*-1,2 DCE, was detected in 6 samples (WS1, WS4, WS5, WS6, WS11 and WS12), all of which exceed the screening criteria. The presence of these compounds, and the relatively high concentration of some of them, indicates that biodegradation of the chlorinated solvents is occurring naturally at the site.

Other isomers of DCE detected at low concentrations include **1,1 dichloroethene** (**1,1 DCE**) and ***trans*-1,2 dichloroethene** (***trans*-1,2 DCE**). 1,1 DCE is the DCE isomer most commonly

found in manufactured DCE, although it can also be produced from the chemical degradation of **Trichloroethane**, which is not known to have been used or stored on-site (although it formerly was a widely used industrial solvent) but was detected at low concentrations in two samples from the site (WS4 and WS5). *trans*-1,2 DCE (detected in wells with identified chlorinated solvent impacts only, at a maximum concentration of 0.11mg/l in WS4) may be produced by the chemical (i.e. not biologically mediated) degradation of TCE, however the comparatively low concentrations of *trans*-1,2 DCE detected relative to the concentrations of *cis*-1,2 DCE suggests that biological reductive dechlorination is the dominant process for the degradation of chlorinated solvents.

The greatest concentrations of these chemicals appear to be centred on WS4 and WS5. Concentrations in upgradient wells (WS9 and WS10) are low or below detection limits, while concentrations in downgradient wells are increased. This indicates that the original source of the contamination is likely to be in the centre of the site, and migration of the contaminants towards the south-east is occurring. TCE was detected at one down-gradient site boundary monitoring well (WS11) at a concentration exceeding the EQS (0.01mg/l).

Table 6.5: Summary of Organic Groundwater Analytical Results

Parameter	*Concentration Range (mg/l)*	*Location of Maximum Concentration*	*Guideline Values (mg/kg)*		*No. & Location of samples exceeding Guideline Values*
			EQS	*DWS*	
TPH by CWG Methodology					
Aliphatics >C_5-C_6	<0.01 – 2.5	WS6	-	-	-
Aliphatics >C_6-C_8	<0.01 – 33	WS5	-	-	-
Aliphatics >C_8-C_{10}	<0.01 – 6.5	WS5	-	-	-
Aliphatics >C_{10} – C_{12}	<0.01 – 18	WS5	-	-	-
Aliphatics >C_{12} – C_{16}	<0.01 – 3.2	WS5	-	-	-
Aliphatics >C_{16} – C_{21}	<0.01 – 7.7	WS5	-	-	-
Aliphatics >C_{21} – C_{35}	<0.01 – 1.3	WS5	-	-	-
Aromatics >C_7-C_8	<0.01 – 4.3	WS4	-	-	-
Aromatics >C_8-C_{10}	<0.01 – 11	WS5	-	-	-
Aromatics >C_{10}-C_{12}	<0.01 – 27	WS5	-	-	-
Aromatics >C_{12}-C_{16}	<0.01 – 7.6	WS5	-	-	-
Aromatics >C_{16}-C_{21}	<0.01 – 5.6	WS5	-	-	-
Aromatics>C_{21}-C_{35}	<0.01 – 1.8	WS5	-	-	-
Phenols					
Total Monohydric Phenols	**<0.01 – 0.11**	**WS4**	**0.03**	**-**	**3 – WS4, WS5 & WS6 (EQS)**
BTEX Compounds					
Benzene	**<0.001 – 0.003**	**WS4**	**0.03**	**0.001**	**1 – WS4 (DWS)**
Toluene	**<0.005 – 4.3**	**WS4**	**0.05**	**-**	**3 – WS4, WS5 & WS6 (EQS)**
Ethylbenzene	**<0.005 – 1.3**	**WS4**	**0.02**	**-**	**4 – WS4, WS5, WS6 & WS12**

Table 6.5: Summary of Organic Groundwater Analytical Results					
Parameter	***Concentration Range (mg/l)***	***Location of Maximum Concentration***	***Guideline Values (mg/kg)***		***No. & Location of samples exceeding Guideline Values***
			EQS	***DWS***	
p & m Xylenes	**<0.005 – 4.0**	**WS4**	**0.03**	**-**	**4 – WS4, WS5, WS6 & WS12 (combined EQS)**
o Xylene	**<0.005 – 1.3**	**WS4**		**-**	
1,3,5-Trimethylbenzene	**<0.005 – 0.23**	**WS4**	**0.03[1]**	**0.001[1]**	**4 – WS4, WS5, WS6 & WS12 (DWS) 2 – WS4 & WS5 (EQS)**
1,2,4-Trimethylbenzene	**<0.005 – 0.74**	**WS5**	**0.03[1]**	**0.001[1]**	**4 – WS4, WS5, WS6 & WS12 (DWS) 3 – WS4, WS5 & WS6 (EQS)**
PAHs					
Naphthalene	**<0.0001 – 0.31**	**WS5**	**0.01**	**0.0001**	**5 – WS4, WS5, WS6, WS9 & WS12 (DWS) 2 – WS5 & WS12 (EQS)**
Acenaphthylene	**<0.0001 – 0.0057**	**WS5**	**-**	**0.0001**	**1 – WS5 (DWS)**
Acenaphthene	**<0.0001 – 0.015**	**WS5**	**-**	**0.0001**	**4 – WS4, WS5, WS6 & WS12 (DWS)**
Fluorene	**<0.0001 – 0.018**	**WS12**	**-**	**0.0001**	**4 – WS4, WS5, WS6 & WS12 (DWS)**
Phenanthrene	**<0.0001 – 0.034**	**WS12**	**-**	**0.0001**	**4 – WS4, WS5, WS6 & WS12 (DWS)**
Anthracene	**<0.0001 – 0.0046**	**WS12**	**-**	**0.0001**	**2 – WS5 & WS12 (DWS)**
Fluoranthene	**<0.0001 – 0.0041**	**WS12**	**-**	**0.0001**	**4 – WS4, WS5, WS6 & WS12 (DWS)**
Pyrene	**<0.0001 – 0.017**	**WS12**	**-**	**0.0001**	**4 – WS4, WS5, WS6 & WS12 (DWS)**
Benzo(a) anthracene	**<0.0001 – 0.0021**	**WS12**	**-**	**0.0001**	**3 – WS5, WS6 & WS12 (DWS)**
Chrysene	**<0.0001 – 0.0014**	**WS12**	**-**	**0.0001**	**3 – WS5, WS6 & WS12 (DWS)**
Benzo(b)-fluoranthene	**<0.0001 – 0.0009**	**WS6**	**-**	**0.0001**	**3 – WS5, WS6 & WS12 (DWS)**
Benzo(k) fluoranthene	**<0.0001 – 0.0004**	**WS6**	**-**	**0.0001**	**2 – WS5 & WS6 (DWS)**
Benzo(a)pyrene	**<0.0001 – 0.0008**	**WS6**	**-**	**0.00001**	**2 – WS5 & WS6 (DWS)**
Indeno(1,2,3-cd)pyrene	**<0.0001 – 0.0005**	**WS6**	**-**	**0.0001**	**2 – WS5 & WS6 (DWS)**
Dibenzo(a,h) anthracene	**<0.0001 – 0.0001**	**WS6**	**-**	**0.0001**	**1 – WS6 (DWS)**
Benzo(g,h,i) perylene	**<0.0001 – 0.0008**	**WS6**	**-**	**0.0001**	**2 – WS5 & WS6 (DWS)**
VOC Suite					
Vinyl Chloride	**<0.01 – 0.49**	**WS4**	**-**	**0.0005**	**6 – WS1, WS4, WS5, WS6, WS11 & WS12 (DWS)**
Chloroethane	<0.001 – 0.14	WS11	-	-	-
1,1 Dichloroethene	<0.001 – 0.075	WS4	-	-	-
Dichloromethane	<0.001 – 0.18	WS4	-	-	-
Trans-1,2 Dichloroethene	<0.001 – 0.11	WS4	-	-	-
1,1-Dichloroethane	<0.001 – 0.29	WS11	-	-	-
Cis-1,2 Dichloroethene	0.006 – 84	WS4	-	-	-
1,1,1-Trichloroethane	<0.001 – 0.01	WS5	-	-	-
Trichloroethene	**0.001 – 25**	**WS4**	**0.01**	**0.01**	**2 – WS4 & WS11 (EQS & DWS)**
Chlorobenzene	<0.001 – 0.019	WS12	-	-	-

Table 6.5: Summary of Organic Groundwater Analytical Results					
Parameter	***Concentration Range (mg/l)***	***Location of Maximum Concentration***	***Guideline Values (mg/kg)***		***No. & Location of samples exceeding Guideline Values***
			EQS	***DWS***	
1,3 Dichlorobenzene	**<0.001 – 0.18**	**WS5**	**0.02**	**-**	**3 – WS4, WS5 & WS12 (combined EQS)**
1,4 Dichlorobenzene	**<0.001 – 2.5**	**WS5**		**-**	
1,2 Dichlorobenzene	**<0.001 – 6.3**	**WS5**		**-**	
SVOC Suite					
2-Methylphenol	<0.02 – 0.024	WS4	0.03[2]	-	0
4-Methylphenol	**<0.02 – 37**	**WS4**	**0.03[2]**	**-**	**1 – WS4 (Phenol EQS)**
Di-n-butyl phthalate	**<0.03 – 0.083**	**WS5**	**0.008**	**-**	**1 – WS5 (EQS)**
Bis (2-ethylhexyl) phthalate	<0.05 – 90	WS5	-	-	-
2-Methylnaphthalene	**<0.05 – 6.7**	**WS5**	**0.01[3]**	**0.0001[3]**	**3 – WS4, WS5 & WS12 (Naphthalene EQS & DWS)**
Biphenyl	**<0.04 – 0.12**	**WS5**	**0.025**	**-**	**1 – WS5 (EQS)**

Notes:
[1] Benzene EQS used in the absence of parameter specific guideline
[2] Phenol EQS used in the absence of parameter specific guideline
[3] Naphthalene EQS used in the absence of parameter specific guidelines

Tentatively Identified Compounds (TICs)

Analysis for TICs is a semi-quantitative procedure involving the comparison of unidentified peaks produced by Gas Chromatography – Mass Spectrometry of samples with a library of contaminants to determine the presence of compounds not identified by the targeted VOC/SVOC analysis.

A large number of TICs were detected in selected groundwater samples from the site (WS4, WS5, WS6, WS10 and WS12), most of which were analogues of naphthalene, benzene and toluene, alkanes (straight chain hydrocarbon compounds, also known as aliphatic hydrocarbons) or analogues thereof. Many of these compounds have been detected in either the TPH CWG or the VOC/SVOC analytical suites and are not discussed further. A summary list of TICs detected in soil is presented in Annex D.

7.0 QUALITATIVE RISK ASSESSMENT

7.1 INTRODUCTION

A conceptual model is an essential element of any site-specific environmental risk assessment. In this context, they are often simple representations of the hypothesised relationships between sources, pathways and receptors. For the purpose of this report, a basic conceptual model has been developed based on the presentation and interpretation of information regarding the site gathered during the environmental review and site investigation process. This allows the identification of potential pollutant linkages and, therefore, an interpretation of the potential for significant harm and/or pollution of controlled waters in relation to a site. Based on this interpretation, the implications for potential liability associated with soil or water contamination at the site can be evaluated.

The site is irregular in shape and occupies an area of approximately 2.96 hectares at an elevation of around 35m above Ordnance Datum (AOD) The investigation was focussed solely on the external yard areas of the site, and aimed to provide a broad characterisation of shallow soil and groundwater conditions on-site with particular focus on evaluating the potential for ASTs, USTs and production areas to be sources of soil and groundwater impacts, and site boundary conditions.

The site is located within a residential and industrial area; the nearest houses are located adjacent and north-east of the site. The nearest houses to the south-west of the site are located 1.1km distant. The nearest identified surface watercourse to the site is the Grand Union Canal approximately 45m east of the site. In addition River Colne is located approximately 160m west of the site.

There are no groundwater abstractions for sensitive uses within a 1km radius of the site.

7.2 GROUND CONDITIONS

7.2.1 Soil

The site is underlain by:

- Made Ground deposits generally comprising reinforced concrete or tarmac surfacing (limited areas of unsurfaced ground are also present on-site), Gravel, gravelly Clay, sandy Clay and clayey Sand proven to be at least 2.5m thick in one location (WS3);

- Alluvium, comprising gravelly Clay (in some locations) and sandy Gravel and Cobbles of Flint (encountered across the site) was encountered to depths of up to 5.8m (WS1); and

- London Clay (recovered as stiff green-grey smooth Clay) was encountered in one location (WS1) underlying the Alluvium at a depth of 5.8m. None of the remaining eleven exploratory locations penetrated the full thickness of the Alluvial Gravel and Cobbles; however, based on the observed ground conditions in WS1 and published geological records it is likely that this represents the approximate thickness of the Alluvial Gravel and Cobbles. The London Clay is further underlain by Reading Beds (mottled clay with sand and pebbles at base) and Upper Chalk

Visual and/or olfactory evidence of possible contamination including clinker and ash in made ground and observations of hydrocarbon and solvent impacts were noted during the intrusive investigation to depths of up to 3.0m bgl in nine of the twelve locations excavated.

Elevated concentrations of **total petroleum hydrocarbons (including petrol range and diesel range fractions)** in soils with respect to Tier 1 screening criteria were detected in samples of Alluvial Gravel and Cobbles from three locations (WS4, WS5 and WS7). Elevated concentrations of **PAHs** were detected predominantly in samples of Made Ground from six locations (WS1, WS4, WS5, WS7, WS11 and WS12); however, the screening criteria for PAHs are considered to be conservative and the concentrations of PAHs recorded at the site are considered to be typical of industrial facilities.

Significant concentrations of volatile organic compounds, including chlorinated solvents, were not detected in soil samples from the site.

7.2.2 Groundwater

Groundwater was encountered across the site associated with the Alluvial Gravel and Cobbles at depths of between 1.1m and 1.5m bgl, and a groundwater flow direction to the south-west has been inferred from the groundwater elevation data. None of the eight installed monitoring wells penetrated the full thickness of the Alluvial Sands and Gravels.

Elevated concentrations of various substances were detected in groundwater. In particular, inorganic chemicals whose concentrations in groundwater exceeded the conservative Tier 1 screening criteria in discrete locations across the site include **arsenic**, **boron**, **iron**, and **Nitrate**.

Free-phase hydrocarbon product was encountered in two monitoring wells (WS5 and WS6) during two separate monitoring exercises and in one additional location (WS7) at the time of drilling. Other evidence of hydrocarbon impacts to groundwater (such as oily sheens and/or observations of hydrocarbon odours) was also noted in WS1, WS11 and WS12. Elevated concentrations of TPH were measured in WS1, WS4, WS5, WS6, WS10, WS11 and WS12. WS1, WS11 and WS12 are located on the down-gradient boundary of the site. The presence of TPH in these wells at concentrations of 3.23mg/l, 1.02mg/l and 14.17mg/l respectively indicates that contamination from the site is likely to be migrating off-site.

Elevated levels of TPH (characterised predominantly as petroleum range product**),** BTEX compounds and PAHs and phenol which exceeded screening criteria were measured in three samples (WS4, WS5 and WS6). Considering these findings and the site layout, it is likely that a groundwater plume originating both in the vicinity of Tank Farm 2 and the disused USTs in the central-southern area of the site extends to the south-west, including the area covered by these three wells.

Exceedences of screening criteria for TPH, BTEX compounds and **PAHs** were also detected in the sample from WS12. It is possible that the groundwater plume described above includes WS12. However, the **TPH** impact associated with this sample was characterised as predominantly diesel range product, which may indicate an alternate source (considered likely to be associated with the former Allied Chemicals Facility adjacent to this location). As noted above**,** TPH impacts were detected at the two additional down-gradient site boundary monitoring wells (WS1 and WS11). The sample from WS1 was characterised as predominantly diesel range, while the sample from WS11 was characterised as predominantly

petrol range indicating there may be several different sources of TPH contamination across the site.

There is also a chlorinated solvent groundwater plume (including TCE, DCE, Vinyl Chloride and Dichlorobenzene**)** on-site. The location and extent of this plume appears to be similar to TPH/phenol plume. The chlorinated solvent plume extends to all three down-gradient site boundary monitoring wells (WS1, WS11 and WS12), suggesting that groundwater chlorinated solvent impacts are currently migrating off-site. Concentrations of Vinyl Chloride and TCE currently exceed the screening criteria in one or more of the down-gradient site boundary monitoring wells. The maximum concentration of Vinyl Chloride and TCE at the downgradient site boundary is 0.13mg/l and 0.028mg/l respectively.

With regard to the presence of significant concentrations of dissolved phase chlorinated solvents, it is possible that non-aqueous (or free-phase) solvents may also exist on-site. Due to the relative density of these substances, if present, they would tend to sink to the base of the aquifer (in this case, the Alluvial Gravel and Cobbles). None of the installed monitoring wells penetrate the full thickness of the Alluvial Gravel and Cobbles on-site (due to difficulties penetrating the cobbles in the alluvium during drilling), and as such no definitive assessment of the presence or absence of dense non-aqueous phase liquids (DNAPLs) can be made based upon the results of this investigation. However, in the assessment of groundwater analytical results a comparison between observed dissolved concentrations of a solvent and the solubility of each individual solvent can be made to provide a crude tool for assessing whether NAPL is likely to be present. Where NAPLs are present in solution at concentrations exceeding 1% of their solubility, it is more likely that a free-phase NAPL is present (this is a purely indicative test and may not be used to definitively determine the presence or absence of free-phase NAPLs):

- the solubility of **TCE** is 1,100mg/l at 25°C, and the maximum dissolved concentration detected as part of this investigation was 25mg/l (WS4). TCE is present in the dissolved phase at 2.27% of the solubility of TCE, therefore, using the 1% rule, a free-phase DNAPL source of TCE has an increased likelihood of being present on-site; and

- the solubility of ***cis*-1,2 DCE** is 3,500mg/l at 25°C, and the maximum dissolved concentration detected as part of this investigation was 84mg/l (WS4). *cis*-1,2 DCE is present in the dissolved phase at 2.4% of the solubility of *cis*-1,2 DCE, therefore

using the 1% rule a free-phase DNAPL source of *cis*-1,2 DCE has an increased likelihood of being present on-site.

7.2.3 Land Gas

Significantly elevated concentrations of **Methane** (WS6 only) and **Carbon Dioxide** (in WS4, WS5, WS6, and WS12) were detected at the site. Significantly depleted concentrations of **Oxygen** were detected in three locations (WS4, WS5 and WS6).These land gas conditions are considered likely to be related to the degradation of the observed hydrocarbon impacts to soil and groundwater at the site.

7.2.4 Principal Sources of Contamination

The presence of elevated concentrations (with respect to Tier 1 screening criteria) of **TPH** within the Alluvial Gravel and Cobbles and **PAHs** within both the Made Ground and Alluvial Gravel and Cobbles, and a range of inorganic and organic parameters in groundwater associated with the Alluvial Gravel and Cobbles can be attributed to the following principal identified sources of contamination:

- There is evidence of localised **TPH** and **PAH** contamination in soils, with free phase petroleum hydrocarbon product noted in three discrete locations. In general, this appeared to be limited to hot spot areas, although Made Ground across the site is impacted with PAHs, with direct observations of ash and clinker in several locations. It is likely, with reference to the different characteristics of the TPH identified across the site that there have been several sources of TPH contamination; and

- Bulk storage of **hydrocarbons** (such as petrol, d**iesel** and **naphtha**), unchlorinated and **chlorinated solvents** and **reclaimed solvents** in ASTs and USTs on-site are considered to be the likely source of the observed hydrocarbon and solvent impacts to soil and groundwater, and solvent impacts to groundwater. The potential for dense free phase product to be present at the base of the perched groundwater cannot be discounted. TCE is currently stored on-site in an AST in Tank Farm No. 1 and this is the most likely source of the identified **TCE**, **DCE** and **Vinyl Chloride** plume; however, given the presence of chlorinated solvents (particularly *cis*-1,2 DCE) in wells up-gradient of Tank Farm 1 (WS6, WS9 and WS10) it is considered likely that additional sources exist on-site (possibly site drainage, catch pits and/or process

areas). Significant concentrations of solvents were not measured in soils at the site. It is possible that a there is localised soil contamination that was not identified during this investigation. However, it is also likely that these compounds would have a limited tendency to sorb to the Flint Gravel and Cobbles, such that they have leached rapidly to groundwater following release, with limited residual presence in soils.

The site investigation was designed to provide an overview of ground contamination at the site, and did not involve a detailed site characterisation. In common with other industrial facilities with a significant history of operation, it is likely that localized hot spots of contamination exist that were not identified by this investigation.

7.3 MIGRATION PATHWAYS, EXPOSURE POINTS & RECEPTORS

7.3.1 Potential Risks to Site Users

Potential pollutant linkages exist on-site for the exposure of site users (workers) to those chemicals in soil and groundwater whose concentrations exceeded the Tier 1 screening criteria. These include TPH and BTEX compounds identified in soils at the site, and **arsenic**, pH, boron, iron, ammoniacal nitrogen, PAHs, BTEX, and chlorinated solvents in groundwater..

The site is largely covered with buildings and hardstanding, and this will reduce the potential for exposure to contaminated soils or dust during normal operations (i.e. excluding sub-surface works). Risks to human health from exposure to the metals and PAHs (i.e. chemicals of low volatility) identified in soil and groundwater are therefore considered to be low. However, a small area of the site (c. 5%) used for storage of drums of waste is not hardsurfaced and, although the risks to human health are not considered to be significant, there is increased potential for exposure to contaminants in soils in this area. Provision of hardcover in these areas would limit the potential for exposure during normal operations.

Volatile chemicals may also vaporise from soil or groundwater and migrate into outdoor and indoor air, with the potential to accumulate in buildings. Although there are only low concentrations of volatile chemicals in soils, concentrations of vinyl chloride, trichloroethene and *cis*-1,2- DCE in particular in groundwater are more elevated and result in a theoretical risk at the Tier 1 screening stage. In high concentrations and sustained contact, solvents can permeate plastic drinking water pipes, and contaminate drinking water supplies.

Elevated concentrations of carbon dioxide were detected at the site, with methane being measured at significant concentrations at one location. Overall, the risk of significant accumulations of land gases in buildings is considered low while the site remains in its current use.

7.3.2 Potential Risks to Construction Workers and Ground Workers (e.g. Maintenance)

Future redevelopment, improvements or refurbishment of the site may involve excavations, during which the identified contaminants in the soil may be disturbed, particularly at the groundwork stage, causing risks to workers through direct contact, inhalation and volatilisation. Given the presence of shallow groundwater, a direct pathway between potential groundwater contamination and construction and ground workers is considered to be present. Excavation work at the site also increases the likelihood of workers inhaling soil dusts. The contaminants of concern comprise **TPH** and **BTEX** compounds identified in soils at the site, and **pH**, **Arsenic**, **Boron**, **Iron**, **Nitrate**, **Ammoniacal Nitrogen** (**as NH_4**), **Phenols, PAHs**, **BTEX**, and **chlorinated solvents** identified in groundwater samples from the site; however, it is considered to be likely that any risks to ground workers present on-site can be mitigated by conducting a suitable and sufficient Health and Safety Risk Assessment, the provision and use of appropriate Protective Personal Equipment (PPE) by all operatives, and effective management controls on the exposure of ground workers to groundwater.

The site investigation findings should be considered within the appropriate health and safety management and risk assessment in order that construction workers and site maintenance staff have access to information on ground conditions prior to any ground works on-site. The health and safety procedures required by construction workers are likely to be typical of those for Brownfield land and not particularly onerous e.g. Personal Protective Equipment (PPE), regular monitoring and the adoption of sound hygiene facilities/standards etc.

7.3.3 Potential Risks to Groundwater and Surface Water Resources

Elevated concentrations of TPH, PAHs and BTEX compounds identified in shallow soils at the site present a potential risk to groundwater through leaching, although this may be limited to a degree by the presence of hardstanding across approximately 95% of the site area. Free phase TPH product was present in three locations, and this will provide an ongoing source to groundwater. In addition, the potential for free-phase dense non-aqueous liquids (chlorinated solvents) at the base of the perched groundwater has not been discounted.

Elevated concentrations of arsenic, boron, iron, ammoniacal nitrogen, phenols, PAHs, BTEX, and chlorinated solvents and a single low pH value were identified in groundwater at the site with respect to screening criteria designed to be protective of controlled water receptors. Concentrations of arsenic, boron, iron and ammoniacal nitrogen (and extreme pH) are localised in extent and do not generally exceed the respective EQS. Accordingly, the risk to surface waters from these parameters is considered low.

Shallow groundwater was found to be resting at depths of between 1.1m and 1.5m bgl across the site within the Alluvial Gravel and Cobbles. It is likely that the London Clay and Reading Beds provide some protection to deeper groundwater within the underlying Upper Chalk Major Aquifer; however, the thickness of the London Clay and Reading Beds in the vicinity of the site was not proven during the investigation and was not available from BGS records.

The nearest identified surface watercourse to the site is the Grand Union Canal approximately 45m east of the site. In addition the River Colne is located approximately 160m west of the site.

The presence of TPH, BTEX, PAH, phenol and chlorinated solvent plumes extending from a source zone on-site, across the site to the down-gradient site boundary monitoring wells indicates that these contaminants are migrating off-site, towards the river. The presence of BTEX, PAHs, and chlorinated solvents in the down-gradient site boundary monitoring wells at concentrations exceeding the EQS demonstrates that the off-site migration of these contaminants may be affecting groundwater quality off-site.

7.3.4 Potential Risks to Off-Site Users and Third Party Land

The groundwater plume containing TPH, BTEX, PAH, phenol and chlorinated solvent centred on the site extends to the down-gradient site boundary monitoring wells, indicating that off-site migration of these contaminants in groundwater is occurring. Accordingly, there is potential for these contaminants to impact human health and property off-site. In particular, chemicals may vaporise from groundwater and migrate into buildings or outdoor air. In addition, due to the potential for further biodegradation to occur, it cannot be assumed that concentrations of all contaminants in groundwater will necessarily decrease as the plume migrates away from the source (i.e. concentrations of some degradation products may increase for a period). Construction workers may also come into contact with contaminated groundwater during sub-surface works.

Land down gradient (south and west) is in commercial use. The nearest sensitive use is located 1.1km distant, and is located on the opposite bank of the River Colne. Accordingly, there is potential for occupants of these commercial properties (workers) to be exposed to volatile chemicals in groundwater. To evaluate the risk of off-site migration, further monitoring should be carried out in this location.

7.3.5 Building Materials and Services

The elevated inorganic contaminants detected within the Made Ground and perched groundwater are not of a nature which may cause the deterioration of building structures. The risks to building materials and services from these contaminants are considered to be low.

However, some hydrocarbon and solvent contaminants have the potential to affect building materials, and have the ability to permeate plastic services including water supply pipes. In the event of future development any gas permeable pipes should be placed in clean service corridors or be protected against the ingress of contamination.

7.4 CONCEPTUAL SITE MODEL SUMMARY – POST INVESTIGATION

Table 7.1 : Conceptual Site Model

Source	*Pathway*	*Receptor*	*Potential Pollutant Linkage*
Made Ground materials across the site. Widespread elevated concentrations of PAHs	Inhalation, ingestion and dermal contact.	Human Health (current site occupants)	Elevated concentrations of PAHs within the Made Ground are believed to be related to discrete areas of heavy end hydrocarbon impacts and deposits of ash and clinker. The majority of the site is hardsurfaced. The absence of hardsurfacing in part of the north-eastern area of the site means there is a potential pollutant linkage in this area. The potential for human health impact for current site occupants is therefore considered to be *moderate* in areas of the site without adequate hardcovering, reduced to *low* following hardsurfacing in these areas.
		Human Health (construction workers)	There is potential for construction workers to come into contact with elevated concentrations of PAHs during future excavations. Use of suitable PPE and appropriate working methods will mitigate these risks. The potential for human health impact for construction workers is *moderate* reduced to *low* using appropriate PPE and working methods.
	Leaching to groundwater	Groundwater underlying the site	Shallow groundwater within Alluvium may be impacted by the leaching of sorbed PAHs from Made Ground soils; however, releases from diesel and/or naphtha in USTs, ASTs and handling on-site represent the more likely primary source of the identified PAH groundwater impacts. There are no licensed groundwater abstractions within 1km of the site. The perched groundwater is not an important resource. The risk to perched groundwater from the contamination within the historical fill materials is considered low to *moderate*.
Groundwater Plume / NAPL Elevated concentrations of TPH, BTEX, PAHs, Phenols and Chlorinated Solvents detected in groundwater plume extending to down-gradient site boundary. Potential for presence of free phase chlorinated solvents at the base of the perched groundwater.	Migration of groundwater towards surface water courses.	Nearest surface water body is the River Colne approximately 160m west.	A perched groundwater plume containing TPH (including BTEX and PAHs) and chlorinated solvents at concentrations exceeding the EQS at the site boundary is likely to be migrating off-site. One licensed surface water abstraction from the River Colne for sensitive use exists (Fish Farming, approximately 1.1km to the south). The likelihood of perched groundwater and/or BTEX impacting on the River Colne is considered *moderate.*
	Inhalation, ingestion and dermal contact.	Human Health (current site occupants)	Chlorinated solvents in shallow groundwater may vaporise and migrate into buildings and outdoor air, where they can be inhaled by workers. The potential for human health impact for current and future site occupants is therefore considered to be *moderate*.
		Human Health (construction workers)	Construction workers can come into contact with contaminated soils and groundwater during subsurface works. The potential for human health impact for construction workers is *moderate* reduced to *low* using appropriate PPE and working methods.
	Off-site migration of impacted groundwater	Adjacent land and properties and their users	Potential impacts to groundwater have been identified, with a perched groundwater plume containing TPH (including BTEX and PAHs) and chlorinated solvents migrating off-site. Further investigation is required to

			evaluate whether DNAP is migrating off-site. Potential exposure of site workers to vapours in indoor and outdoor air, and by direct contact with groundwater during subsurface works. Solvents may also permeate plastic services (see below). Generally the risk to adjacent land from perched groundwater underlying the site is considered *moderate* to *high*.
	Damage to building structures and services from contaminants	Building materials and services	The elevated contaminants detected within the Made Ground and groundwater may have the ability to permeate plastic pipes. Therefore, in the event of future development, any permeable pipes should be placed in clean service corridors or protected against the ingress of organic contamination. If the mains water supply is constructed of plastic pipes, the identified organic contaminants may be infiltrating the site potable water supply. Risk is considered *moderate*.
Land Gases Elevated concentrations of methane, CO_2 and depleted Oxygen in land gas	Migration of land gases	On-site buildings and site users	Elevated concentrations of carbon dioxide and methane were detected at the site. These concentrations are localised and likely to be associated with the degradation of organic contaminants within the Made Ground and groundwater. Low gas flow rates indicate that land gases are not being actively produced. The risk of land gases accumulating in confined spaces is considered *low*.

8.0 CONCLUSIONS & RECOMMENDATIONS

8.1 CONCLUSIONS

ENVIRON UK Limited (ENVIRON) was commissioned by REIT Asset Management (the 'client') to undertake a Phase I Environmental Review and Phase II Intrusive Environmental Site Assessment at Trimite, Arundel Road, Uxbridge, UB8 2SD (the "site"). The review is required for finance purposes following the client's purchase of the site.

The site is currently occupied by various buildings including a paint factory, office areas, and storage buildings, which collectively occupy approximately 60% of the total site area. The remaining site area is occupied by hardstanding, in use as open storage areas, access roadways across the site, and car parking. There is small area of soft cover on-site (approximately 5%) which is used for the handling and storage of wastes including drums of liquid wastes. The site was developed for its current use at some time between 1934 and 1960, with redevelopment of parts of the site having occurred until the present day. The site is currently occupied by Trimite Ltd for the manufacture of industrial coatings and pre-treatment chemicals for metal and plastics. Historically, filter beds associated with a nearby sewage works were present in the south-east of the site (between approximately 1900 and 1960), an Engineering and Plating Works was present in the south-west of the site (from approximately 1960 - this was acquired by Trimite, although the date of acquisition is unknown), and a Chemical Works was present in the southern area of the site (from approximately 1960 - this was also subsequently acquired by Trimite, although the date of acquisition is unknown). Paint manufacturing has been carried out at the site for approximately 50 years, with several major bulk storage tank farms including numerous current and former underground and above ground storage tanks (containing fuels, solvents and caustic) on-site from the time of the original development of the site.

The Phase II site investigation identified significant impacts of a range of organic contaminants (including TPH, phenol and chlorinated solvents) to shallow perched groundwater associated with the Alluvium and indicates the potential for both light and dense non-aqueous phase liquids (TPH and chlorinated solvents) to be present. Available information indicates that a plume containing a mixture of these organic parameters is migrating off-site. The local authority has advised that the site has been identified for review as part of the Contaminated Land inspection strategy under Part IIA, but that the current site

use (as a paint works) makes it a relatively low priority site for review in the absence of any specific contamination issues.

The assessment has considered the risks to human health and the environment while the site continues in its current industrial use. Potential pollutant linkages have been identified between the identified groundwater contamination and the following receptors:

- **Human Health** (**of site users/operatives and construction workers**) – the presence of hardcover across the majority of the site limits the potential for exposure of workers to contaminants in soils during normal operations. However, there is potential for ingress of organic vapours (e.g. chlorinated solvents) from groundwater into indoor air spaces and outdoor air, and further evaluation is necessary to demonstrate whether the risk associated with this pathway is acceptable.

- **Groundwater** – free product of NAPL (dense and light), if present, could act as an ongoing source of groundwater contamination. Further investigation is required to evaluate presence or absence of NAPL. The shallow perched groundwater is impacted by a range of chemicals, most notably TPH (including BTE and PAHs), chlorinated solvents and phenol. The perched groundwater is not an important resource in itself; although it will provide some recharge to local surface waters (see below). Deeper groundwater within the Upper Chalk Major Aquifer has not been assessed by this investigation, but it is considered likely that the London Clay and Reading Beds provide some degree of protection to this aquifer;

- **Surface water** receptors – The River Colne is located 160m to the west of the site. The nearest surface water abstraction (Fish Farming) is 1km downstream. Perched groundwater from the site will migrate towards and discharge into the river, and the presence of contaminants including TPH (PAHs and BTEX) and chlorinated solvents within the groundwater at the site present a theoretical risk to this resource. Although dispersion and dilution of contaminants will occur, further evaluation is necessary to demonstrate whether the risk associated with this pathway is acceptable; and

- **Third Party Land** – is likely to be affected by organic compounds (TPH and chlorinated solvents) migrating in the direction of groundwater flow. In addition, due to the potential for further biodegradation to occur, it cannot be assumed that concentrations of all contaminants in groundwater will necessarily decrease as the plume migrates away from the source (i.e. concentrations of some degradation

products may increase for a period). Risks to downgradient users include inhalation of vapours from groundwater that have migrated to indoor and outdoor air, and more direct contact during subsurface works. Further evaluation is necessary to demonstrate whether the risk associated with this pathway is acceptable.

The site investigation was designed to provide a general overview of ground contamination at the site, and did not involve a detailed site characterisation. In common with other industrial facilities with a significant history of operation, it is likely that localized hot spots of contamination exist that were not identified by this investigation

The laboratory MDL for several parameters detected exceeded the screening criteria [Nitrate (MDL – 0.5mg/l, EQS – 0.15mg/l), total Cyanide (MDL – 0.02mg/l, EQS – 0.001mg/l), Benzo(a)pyrene (MDL – 0.0001mg/l, DWS 0.00001mg/l), Benzene (MDL 0.005mg/l, DWS – 0.001mg/l, although the EQS is 0.03mg/l), Arsenic (MDL – 0.005mg/l. DWS – 0.0001mg/l, although the EQS is 0.05mg/l) and Biphenyl (MDL – 0.04mg/l, EQS – 0.025mg/l)].

The assessment has considered the risks to human health and the environment while the site continues in its current industrial use; however, the human health risks associated with volatile compounds in groundwater has not been considered, therefore any subsequent risk assessment would require a detailed assessment of this identified pollutant linkage.

In accordance with health and safety requirements, project specific measures are required to evaluate and protect the health of workers involved in construction and maintenance activities involving soil or sub-surface works across the site.

The scope of the site investigation was reduced due to the difficult ground conditions encountered in the field. Accordingly, the sampling density is lower than planned at the outset of the investigation. In addition, none of the installed monitoring wells penetrate the full thickness of the Alluvium, again due to the difficult drilling conditions, and therefore no assessment can be made regarding the presence or absence of free-phase DNAPLs on-site or the thickness of the clay beneath the site.

8.2 RECOMMENDATIONS

Groundwater contamination by TPH (including BTEX and PAHs) and chlorinated solvents has been identified at the down-gradient (south western) site boundary (WS1, WS11 and WS12) suggesting that cross boundary migration of contaminants is occurring. The

likelihood of action by regulators or third parties is considered moderate to high based on available information. The Local Authority has advised that the site has been identified for inspection as part of its Contaminated Land Strategy; although its current site use makes it a relatively low priority site for review in the absence of any specific contamination issues, and further assessment to evaluate the risk of off-site migration would be prudent. Such further investigation would ideally involve the following elements:

- Further intrusive investigation to assess the conditions at the base of the Alluvium (specifically the presence of free-phase DNAPL) and demonstrate that there is adequate thickness of London Clay to limit the vertical migration of shallow sources of contaminants, also to confirm presence and extent of LNAPL. It would also be desirable to increase the sample density across the site and characterise the vertical and lateral profile of the groundwater plume through the installation of multi-level wells in order to provide further information regarding the extent to which biodegradation is occurring at the site;

- Further monitoring to provide additional information with which to evaluate the concentration of contaminants in groundwater, and the presence of land gas;

- Detailed Quantitative Risk Assessment (DQRA) to evaluate the risk to on-site and off-site users and local water resources from the presence of TPH (BTEX and PAHs) and chlorinated solvents at the site, with particular reference to the human health risk associated with volatile organic compounds in groundwater, as this has not been considered by this assessment. This should include a detailed assessment of parameters identified as having laboratory MDLs greater than applicable screening criteria (Nitrate, Arsenic, Cyanide, Biphenyl, Benzene and Benzo(a)pyrene) in order to ensure that these parameters are properly considered; and

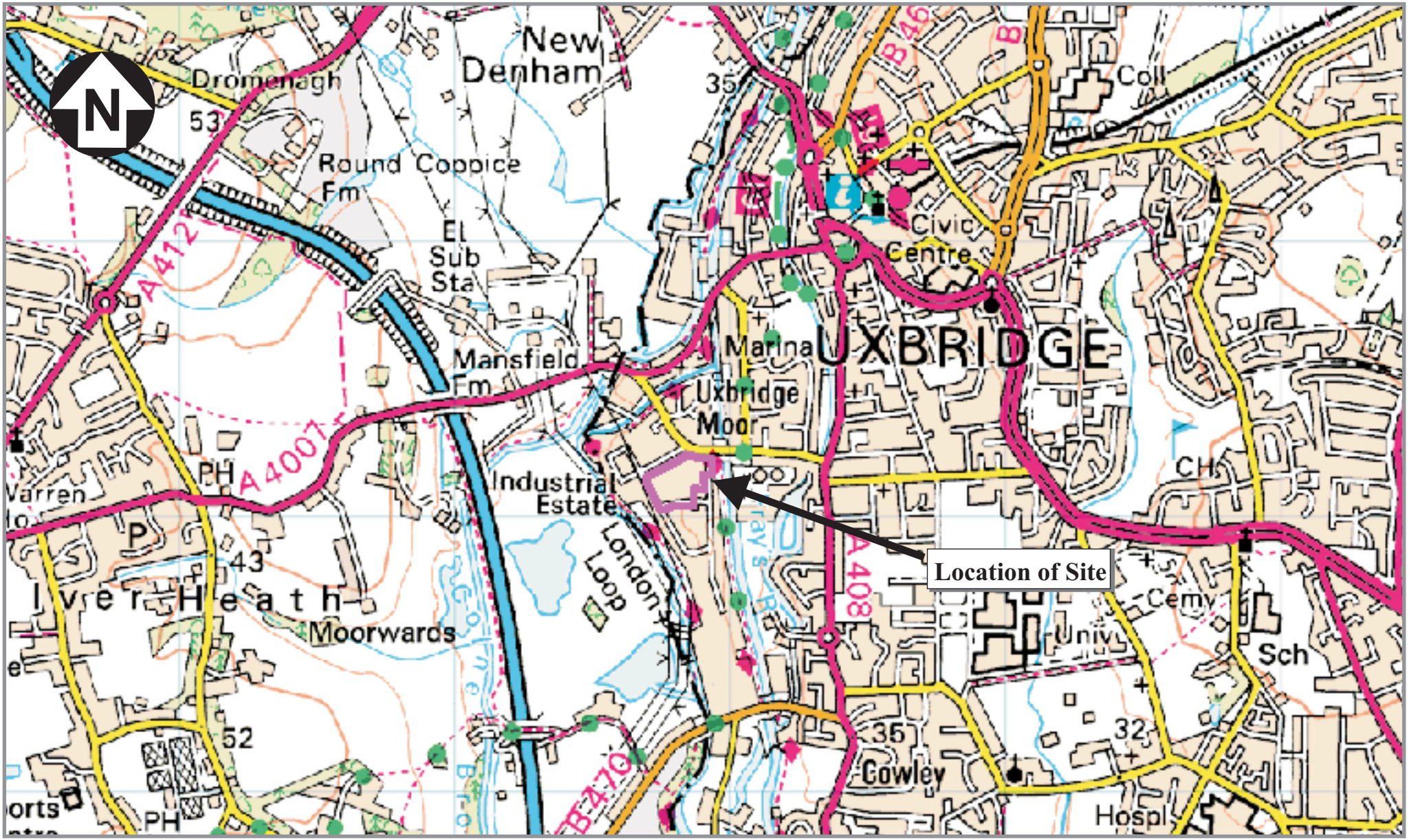
- Development of a strategy for the management of groundwater contamination at the site.

The presence of hardcover across the majority of the site limits the potential for exposure of workers to contaminants in soils during normal operations. However, there is a small area used for storage of wastes that is not hardcovered. Although the risks to human health are not considered to be significant, and the likelihood of action by regulators is low, provision of hardcover across these areas would further limit the potential for exposure in this area.

In the event that the site was to be redeveloped, the risk to future users would need to be evaluated. Further works could be required to ensure that ground conditions were suitable for the intended use. Assuming the site was redeveloped for commercial use, such measures could include:

- Remediation of localised hot spots of contamination (e.g. free phase product);
- Appropriate precautionary measures to prevent ingress of soil gases (i.e. carbon dioxide) into new buildings and structures;
- Protection of drinking water pipes from the ingress of contamination.

ANNEX A: FIGURES



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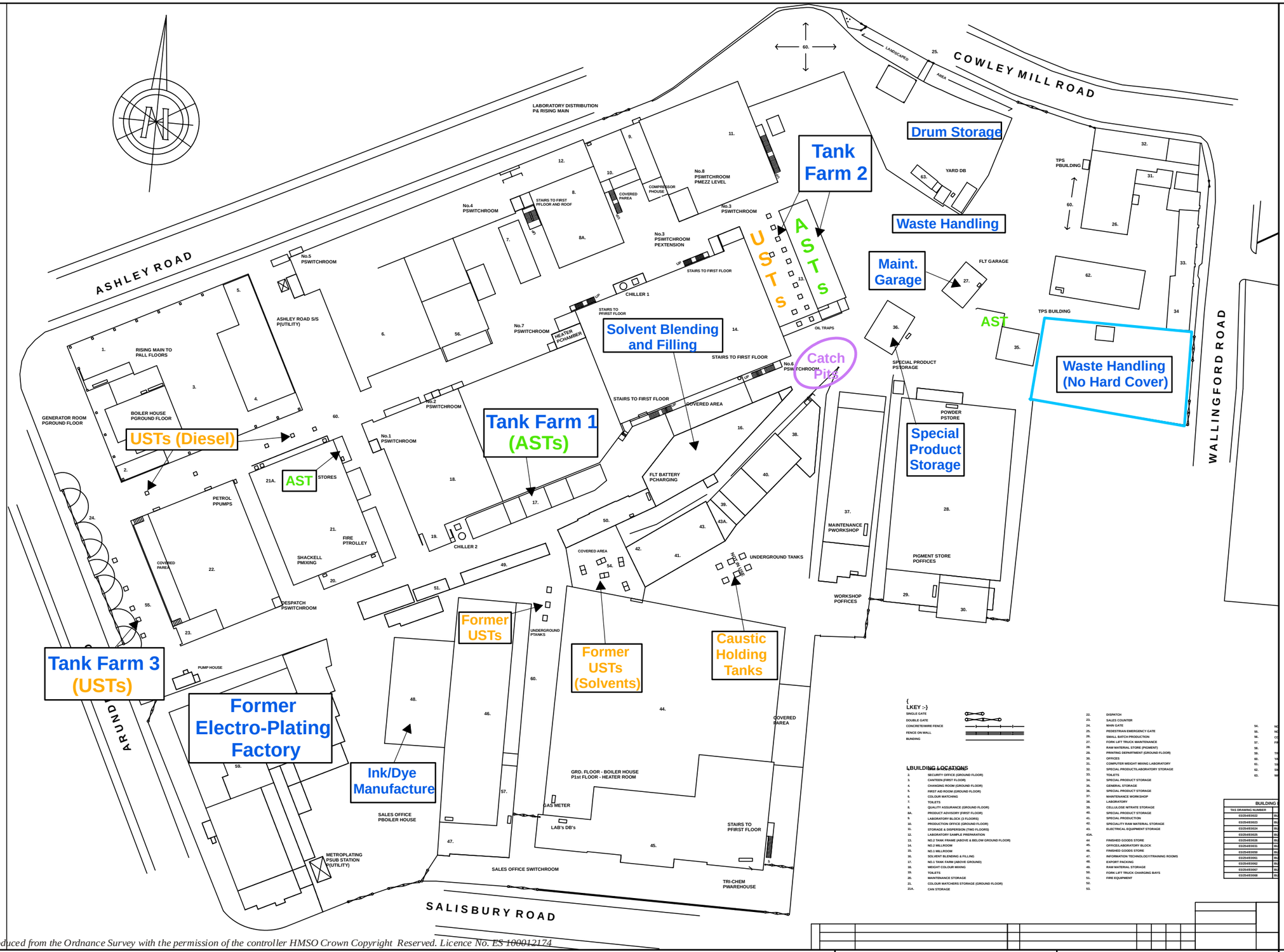
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Figure 1: Site Location Plan
Arundel Road
Uxbridge

Client	**REIT Asset Management**		
Scale	**Not to Scale**	Date	**August 2007**
Project No	**67-C12466**	Drawn by	**SG**

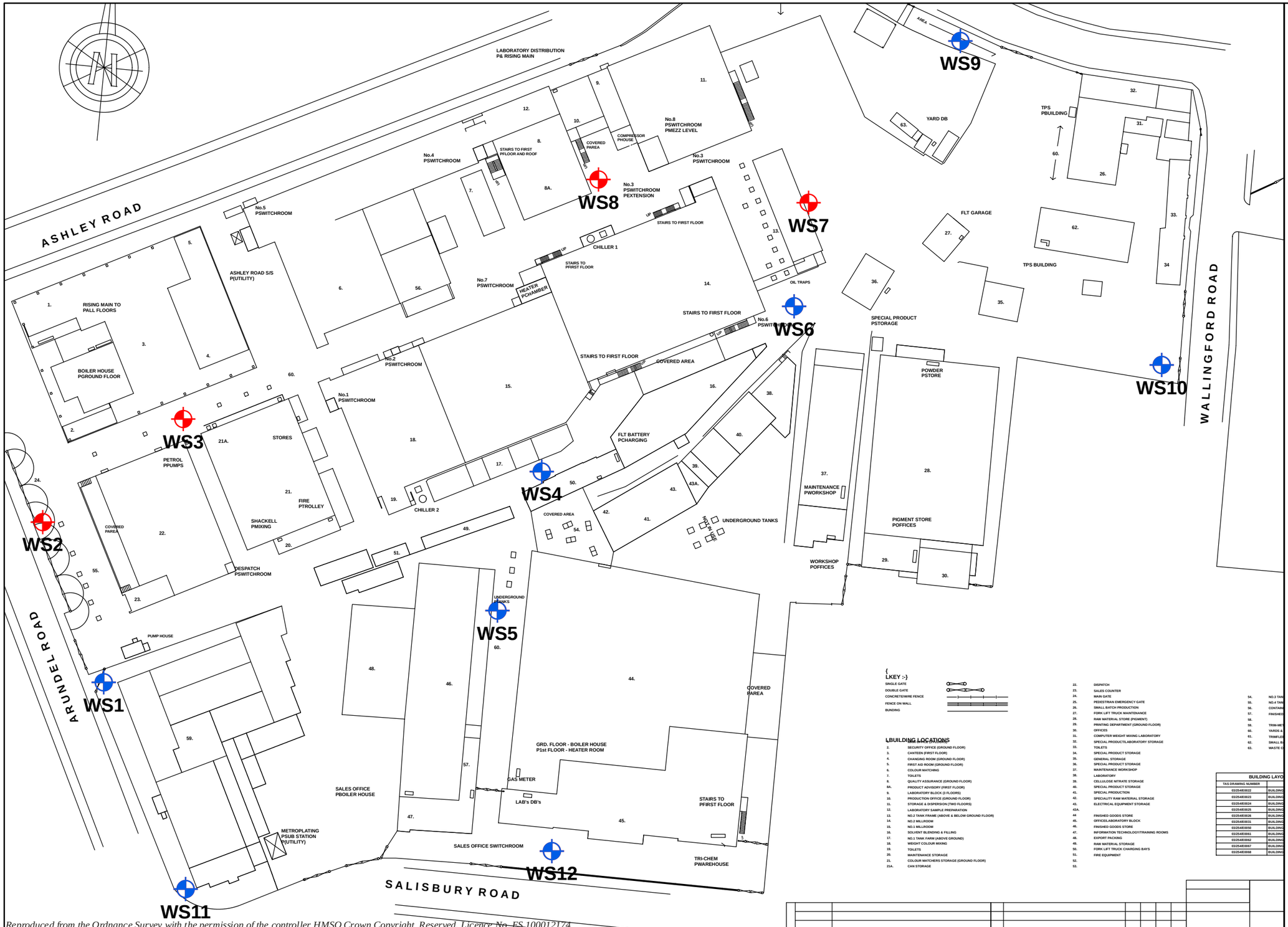


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Figure 2
Site Layout Plan: Trimite, Uxbridge

Project: 67-C12520	Client: REIT Asset Management
Scale: No scale	Drawn By: PA
Date: October 2007	Version: A

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Legend

- Monitoring wells
- BH Locations

{ LKEY :-}

SINGLE GATE
DOUBLE GATE
CONCRETE/WIRE FENCE
FENCE ON WALL
BUNDING

LBUILDING LOCATIONS

2.	SECURITY OFFICE (GROUND FLOOR)
3.	CANTEEN (FIRST FLOOR)
4.	CHANGING ROOM (GROUND FLOOR)
5.	FIRST AID ROOM (GROUND FLOOR)
6.	COLOUR MATCHING
7.	TOILETS
8.	QUALITY ASSURANCE (GROUND FLOOR)
8A.	PRODUCT ADVISORY (FIRST FLOOR)
9.	LABORATORY BLOCK (3 FLOORS)
10.	PRODUCTION OFFICE (GROUND FLOOR)
11.	STORAGE & DISPERSION (TWO FLOORS)
12.	LABORATORY SAMPLE PREPARATION
13.	NO.2 TANK FRAME (ABOVE & BELOW GROUND FLOOR)
14.	NO.2 MILLROOM
15.	NO.1 MILLROOM
16.	SOLVENT BLENDING & FILLING
17.	NO.1 TANK FARM (ABOVE GROUND)
18.	WEIGHT COLOUR MIXING
19.	TOILETS
20.	MAINTENANCE STORAGE
21.	COLOUR MATCHERS STORAGE (GROUND FLOOR)
21A.	CAN STORAGE
22.	DISPATCH
23.	SALES COUNTER
24.	MAIN GATE
25.	PEDESTRIAN EMERGENCY GATE
26.	SMALL BATCH PRODUCTION
27.	FORK LIFT TRUCK MAINTENANCE
28.	RAW MATERIAL STORE (PIGMENT)
29.	PRINTING DEPARTMENT (GROUND FLOOR)
30.	OFFICES
31.	COMPUTER WEIGHT MIXING LABORATORY
32.	SPECIAL PRODUCTLABORATORY STORAGE
33.	TOILETS
34.	SPECIAL PRODUCT STORAGE
35.	GENERAL STORAGE
36.	SPECIAL PRODUCT STORAGE
37.	MAINTENANCE WORKSHOP
38.	LABORATORY
39.	CELLULOSE NITRATE STORAGE
40.	SPECIAL PRODUCT STORAGE
41.	SPECIAL PRODUCTION
42.	SPECIALITY RAW MATERIAL STORAGE
43.	ELECTRICAL EQUIPMENT STORAGE
43A.	
44.	FINISHED GOODS STORE
45.	OFFICESLABORATORY BLOCK
46.	FINISHED GOODS STORE
47.	INFORMATION TECHNOLOGY/TRAINING ROOMS
48.	EXPORT PACKING
49.	RAW MATERIAL STORAGE
50.	FORK LIFT TRUCK CHARGING BAYS
51.	FIRE EQUIPMENT
52.	
53.	
54.	NO.3 TANK
55.	NO.4 TANK
56.	CONTAINE
57.	FINISHED
58.	
59.	TRIM-METE
60.	YARDS &
61.	TRIMFLEE
62.	SMALL BU
63.	WASTE C

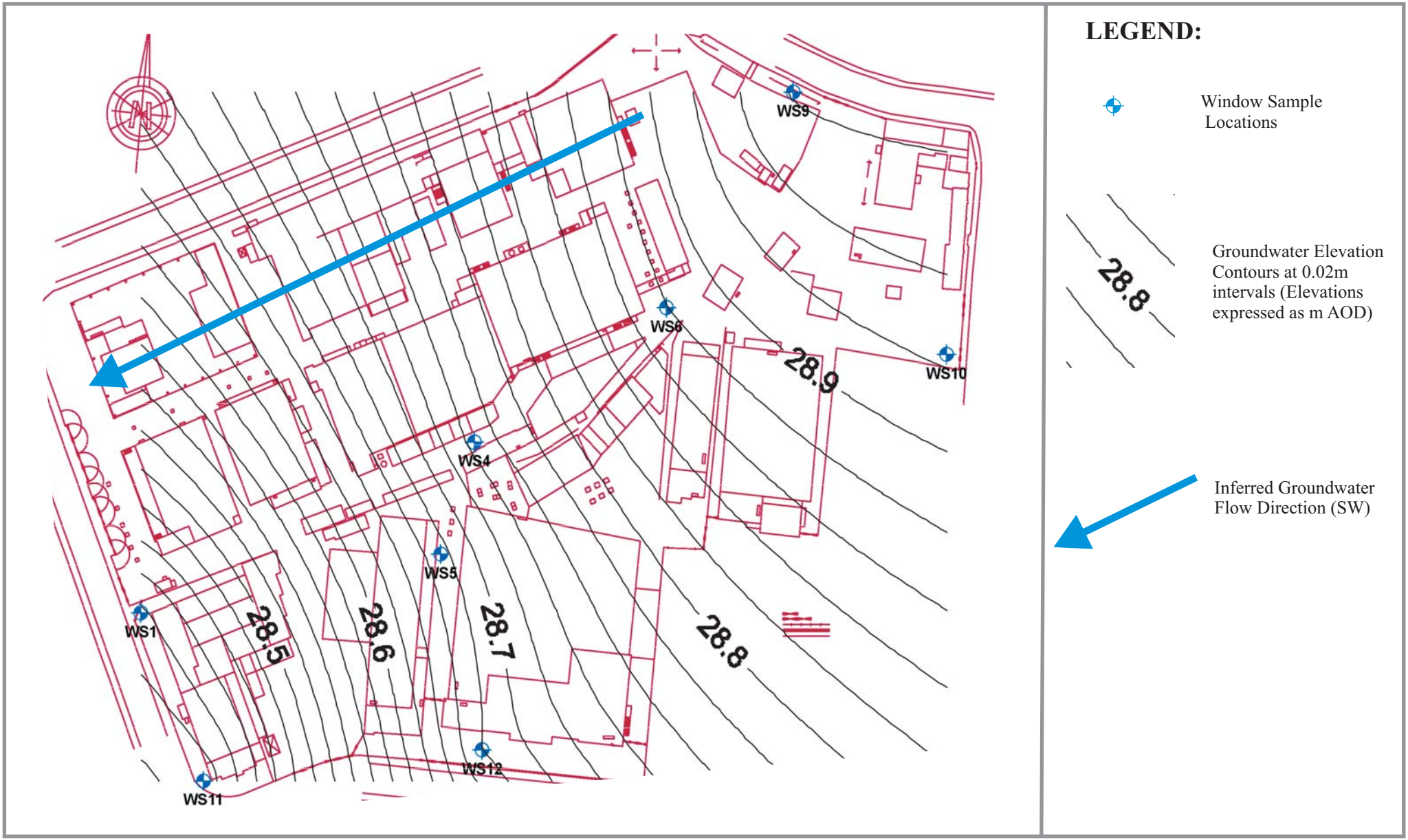
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01254E0031	BUILDING
01254E0050	BUILDING
01254E0041	BUILDING
01254E0042	BUILDING
01254E0067	BUILDING
01254E0068	BUILDING

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Figure 3
Sampling Positions: Trimite, Uxbridge

Project: 67-C12520	Client: REIT Asset Management
Scale: No Scale	Drawn By: PA
Date: October 2007	Version: B

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Figure 4
Groundwater Elevation Contour Plan
Trimite, Uxbridge

Client	**REIT Asset Management**		
Scale	**NTS**	Date	**October 2007**
Project No	**67-C12520**	Drawn by	**JD**

ANNEX B: BOREHOLE LOGS

Project No: 67-C12520 **Window Sample: WS1**

Client: REIT Asset Management **Date:** 21/09/2007

Location: Trimite, Uxbridge **Plant Used:** Competitor 2000

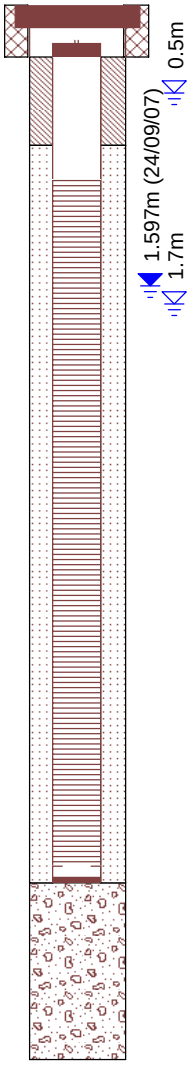
Datum: 30.013 **Logged by:** JD

ENVIRON

SUBSURFACE PROFILE

SAMPLE

Depth	Description	Elevation	Sample	Lab	PID Reading (ppm)
0.0	Ground Surface	30.0			
	MADE GROUND Bituminiferous Tarmacadam				
	MADE GROUND Tan brown sandy gravel of mixed lithologies	29.3	0.5	GS3, VOCs, SVOCs, TICs, & Asbestos	0.00
	MADE GROUND Dark brown sandy clayey Gravel (fine to coarse, rounded to angular of mixed lithologies, predominantly flint and clinker). Becoming wet at 0.5m	29.1	1.0		10.00
1.0	Firm dark brown very gravelly CLAY. Gravel is fine to medium, subangular of flint		1.5		15.00
			1.7	GS3, VOCs, SVOCs, TICs	28.00
2.0	Brown sandy fine to coarse, angular GRAVEL and COBBLES of Flint. Wet from 1.7m with faint Hydrocarbon odour	27.8	2.0		1.00
	Grey-black fine to coarse, subrounded to subangular GRAVEL and COBBLES of Flint. Saturated with faint sweet Hydrocarbon odour		2.5	PSD	2.20
3.0			3.0		12.10
		26.5	3.5		9.00
	Grey-brown sandy fine to coarse, subrounded to subangular GRAVEL and COBBLES of Flint. Saturated with sweet Hydrocarbon odour		4.0		4.30
4.0			4.5		6.90
5.0		24.8	5.0		5.80
	Grey-black fine to coarse, subrounded to subangular GRAVEL and COBBLES of Flint. Saturated with faint sweet Hydrocarbon odour	24.2	5.5		4.30
	Weathered upper surface of LONDON CLAY	24.0	6.0		4.70
6.0	Stiff green-grey smooth CLAY				
	6 m bgl				



Well Installation

Remarks: Hole collapsed to 5.0m

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 **Window Sample: WS2**

Client: REIT Asset Management **Date:** 22/09/2007

Location: Trimite, Uxbridge **Plant Used:** Competitor 2000

Datum: 30.188 **Logged by:** JD

ENVIRON

SUBSURFACE PROFILE			SAMPLE			PID Reading	Well Installation
Depth	Symbol	Description	Elevation	Sample	Lab	ppm 500 1000	
0.0		Ground Surface	30.2				
		MADE GROUND Concrete with Flint gravel	30.0	0.2		7.10	
		MADE GROUND Clayey gravel Hardcore	29.8	0.5	GS3, VOCs, SVOCs, TICs & Asbestos	6.80	
		Soft black, slightly sandy, slightly gravelly CLAY. Gravel is fine to coarse, angular of Flint. Faint organic odour.	29.5	0.8		12.20	
1.0		Brown sandy GRAVEL and COBBLES of Flint. Obstruction at 0.8m assumed to be Flint Cobble					
		0.8 m bgl					
2.0							
3.0							
4.0							
5.0							
6.0							

Remarks: Refusal at 0.8m bgl

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS3***

Client: REIT Asset Management ***Date:*** 22/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE

Depth	Description	Elevation
0.0	Ground Surface	0.0
	MADE GROUND Reinforced Concrete with Flint gravel	-0.2
	MADE GROUND Sandy Gravel Hardcore of mixed lithologies (predominantly Flint)	-0.5
		-0.6
	MADE GROUND Stiff dark brown sandy, very gravelly Clay. Gravel is medium to coarse, subangular of mixed lithologies (predominantly Flint)	
1.0	**MADE GROUND** Firm grey-brown mottled black gravelly Clay. Gravel is fine to medium, subrounded of mixed lithologies (mainly Flint and clinker with occasional brick). Faint Hydrocarbon odour from 0.8m (degraded diesel)	
2.0		-2.4
	MADE GROUND Grey stained black, coarse, subrounded Gravel of Flint. Hydrocarbon odour (degraded diesel). Saturated. Refusal on Timber at 2.5m	-2.5
3.0	2.5 m bgl	
4.0		
5.0		

SAMPLE

Sample	Lab	PID Reading (ppm)
0.5		3.00
1.0	GS3, VOCs, SVOCs, TICs	4.80
1.5		4.40
2.0		5.10
2.5	HOLD	6.00

PID Reading: ppm, 500, 1000

Well Installation



Remarks: Refusal at 2.5m bgl

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 **Window Sample: WS4**

Client: REIT Asset Management **Date:** 22/09/2007

Location: Trimite, Uxbridge **Plant Used:** Competitor 2000

Datum: 29.999 **Logged by:** JD

ENVIRON

SUBSURFACE PROFILE

Depth	Description	Elevation
0.0	Ground Surface	30.0
	MADE GROUND Reinforced Concrete with Flint Gravel	29.8
	MADE GROUND Stiff dark brown gravelly Clay with rootlets and Hydrocarbon odour. Gravel is fine to medium, subangular of Flint and clinker	29.5
1.0	Dense tan GRAVEL and COBBLES of Flint	28.6
	Dense grey-black sandy GRAVEL and COBBLES of Flint. Saturated with very strong solvent type odour	27.3
2.0		
3.0	Dense tan sandy GRAVEL and COBBLES of Flint. Strong degraded solvent odour throughout	26.0
4.0	4 m bgl	
5.0		
6.0		

SAMPLE

Sample	Lab
0.2	GS3, VOCs, SVOCs, TICs, & Asbestos
0.5	
1.0	
1.5	
1.75	GS3, VOCs, SVOCs, TICs
2.0	
2.5	
3.0	PSD

PID Reading

ppm

500 1000

173.00
18.70
12.90
>1500.00
>1500.00
1260.00
555.00
221.00

Well Installation

1.252m (24/09/07)
1.4m

Remarks:

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS5***

Client: REIT Asset Management ***Date:*** 23/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: 29.873 ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE

SAMPLE

Depth	Symbol	Description	Elevation	Sample	Lab	PID Reading (ppm)	Well Installation
0.0		Ground Surface	29.9				
		MADE GROUND Concrete incorporating brick fragments from 0.1m	29.7				
		MADE GROUND Tan sandy Gravel and Cobbles of brick and porcelain. Stained black with Hydrocarbon odour from 0.4m	29.4	0.4	GS3, VOCs, SVOCs, TICs, & Asbestos	657.00	
1.0		**MADE GROUND** Brown mottled black clayey, sandy Gravel and Cobbles of brick and porcelain. Hydrocarbon odour	29.2			599.00	
		Brown sandy GRAVEL and COBBLES of Flint	28.7	1.0	GS3, VOCs, SVOCs, TICs		
2.0		Dark grey sandy GRAVEL and COBBLES of Flint. Water entering at 1.3m		1.5		1030.00	
				2.0		1410.00	
				2.5		918.00	
3.0		3 m bgl	26.9	3.0	HOLD	50.00	1.201m (24/09/07) 1.3m
4.0							
5.0							
6.0							

Remarks:

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS6***

Client: REIT Asset Management ***Date:*** 23/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: 30.042 ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE

Depth	Symbol	Description	Elevation
0.0		Ground Surface	30.0
		MADE GROUND Reinforced Concrete with Flint Gravel	29.8
		MADE GROUND Soft to firm dark brown slightly sandy Clay. Hydrocarbon odour	29.3
1.0		**MADE GROUND** Grey/beige gravelly fine Sand. Gravel is fine to medium, subangular of Flint. Solvent odour	
		Grey very sandy GRAVEL and COBBLES of Flint. Solvent odour throughout. Water entering at 1.3m, black and heavily impacted with hydrocarbons/solvents	
2.0			
			27.0
3.0		3 m bgl	
4.0			
5.0			
6.0			

SAMPLE

Sample	Lab
0.5	GS3, VOCs, SVOCs, TICs, & Asbestos
1.0	GS3, VOCs, SVOCs, TICs
1.5	

PID Reading

ppm

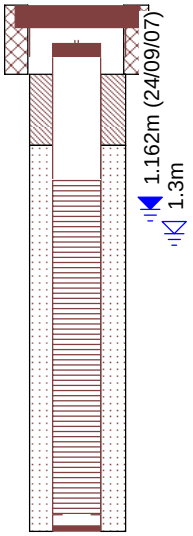
500 1000

819.00

749.00

451.00

Well Installation



Remarks:

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS7***

Client: REIT Asset Management ***Date:*** 23/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE			SAMPLE			PID Reading	Well Installation
Depth	Symbol	Description	Elevation	Sample	Lab	ppm 500 1000	
0.0		Ground Surface	0.0				
		MADE GROUND Reinforced Concrete with Flint Gravel	-0.3				
		MADE GROUND Stiff dark brown slightly sandy Clay. Hydrocarbon odour	-0.7	0.5	GS3, VOCs, SVOCs, TICs, & Asbestos	565.00	
1.0		Grey-tan GRAVEL and COBBLES of Flint. Strong solvent odour	-1.3	1.0	GS3, VOCs, SVOCs, TICs	>1500.00	
		Black slightly sandy GRAVEL and COBBLES of Flint. Saturated and heavily impacted with solvent odour and oily sheen on groundwater in sample liner	-2.0	1.5		>1500.00	1.25m (23/09/07) 1.3m
2.0		2 m bgl					
3.0							
4.0							
5.0							
6.0							

Remarks: Water resting at 1.25m in open hole with 0.01m of free-phase product measurable on surface

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS8***

Client: REIT Asset Management ***Date:*** 23/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE			SAMPLE			PID Reading	Well Installation
Depth	Symbol	Description	Elevation	Sample	Lab	ppm 500 1000	
0.0		Ground Surface	0.0				
		MADE GROUND Reinforced Concrete with Flint Gravel	-0.3	0.25	GS3, VOCs, SVOCs, TICs, & Asbestos	72.20	
		MADE GROUND Firm dark brown very gravelly Clay. Gravel is fine to coarse, subangular of Flint		0.5		54.00	
1.0		**MADE GROUND** Dark brown clayey fine to coarse subangular Gravel of Flint		1.0		28.00	
		Tan sandy GRAVEL and COBBLES of Flint. Saturated from 1.5m	-1.5	1.5	GS3, VOCs, SVOCs, TICs	42.00	1.40m (23/09/07) 1.5m
		No Recovery 1.5m - 2.0m. Assumed to be GRAVEL and COBBLES as above	-2.0				
2.0		2 m bgl					
3.0							
4.0							
5.0							
6.0							

Remarks: Water resting at 1.40m in open hole

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS9***

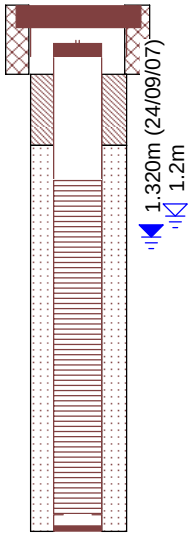
Client: REIT Asset Management ***Date:*** 24/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: 30.282 ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE			SAMPLE			PID Reading	Well Installation
Depth	Symbol	Description	Elevation	Sample	Lab	ppm 500 1000	
0.0		Ground Surface	30.3				
		MADE GROUND Grass over Topsoil	30.1				
		MADE GROUND Brown very sandy Gravel and Cobbles of mixed lithologies including brick and flint	29.6	0.5	GS3, VOCs, SVOCs, TICs, & Asbestos	105.00	
1.0		Tan sandy GRAVEL and COBBLES of Flint	29.3	1.0	GS3, VOCs, SVOCs, TICs	86.00	
		Tan-grey coarse, angular SAND					
		Tan sandy GRAVEL and COBBLES of Flint. Water entering at 1.2m	28.7	1.5		30.00	
2.0		Grey-brown sandy GRAVEL and COBBLES of Flint	27.8	2.0		430.00	
		Grey sandy GRAVEL and COBBLES of Flint	27.3		PSD		
3.0		3 m bgl					
4.0							
5.0							
6.0							



Remarks:

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS10***

Client: REIT Asset Management ***Date:*** 24/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: 30.573 ***Logged by:*** JD

ENVIRON

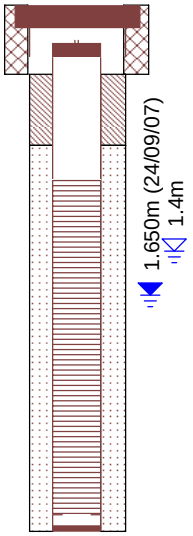
SUBSURFACE PROFILE

SAMPLE

Depth	Description	Elevation	Sample	Lab	PID Reading (ppm)
0.0	Ground Surface	30.6			
	MADE GROUND Grass over ashy clinker gravel	30.3	0.2	GS3, VOCs, SVOCs, TICs, & Asbestos	13.10
	MADE GROUND Dark brown clayey Sand with brick fragments from 0.45m	30.0	0.5		
1.0	Tan sandy GRAVEL and COBBLES of Flint. Saturated from 1.4m		1.0	GS3, VOCs, SVOCs, TICs	16.00
		28.8	1.5		18.00
2.0	Orange-brown sandy GRAVEL and COBBLES of Flint		2.0		13.20
		27.6			
3.0	3 m bgl				
4.0					
5.0					
6.0					

PID Reading scale: 500 1000

Well Installation



Remarks:

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS11***

Client: REIT Asset Management ***Date:*** 24/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: 29.887 ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE

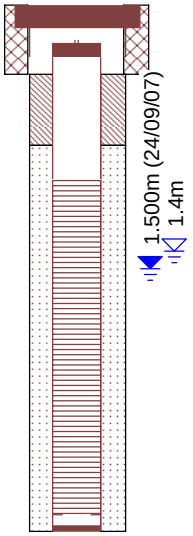
Depth	Description	Elevation
0.0	Ground Surface	29.9
	MADE GROUND Bituminiferous Tarmacadam	29.6
	MADE GROUND Black Gravel of broken Tarmacadam	
	MADE GROUND Orange-brown Gravel of Flint	
1.0	**MADE GROUND** Dark brown clayey fine to coarse, subangular Gravel of Flint and brick	28.7
	Tan-orange sandy GRAVEL and COBBLES of Flint. Saturated from 1.5m	28.3
2.0	Grey GRAVEL and COBBLES of Flint	
3.0	3 m bgl	26.9
4.0		
5.0		
6.0		

SAMPLE

Sample	Lab	PID Reading (ppm)
0.5	GS3, VOCs, SVOCs, TICs, & Asbestos	7.10
1.0	GS3, VOCs, SVOCs, TICs	9.00
1.5		20.10
2.0		27.20
2.5	PSD	36.00
3.0		8.00

PID Reading: ppm, 500, 1000

Well Installation



Remarks:

Checked by: SLB

Sheet: 1 of 1

Project No: 67-C12520 ***Window Sample: WS12***

Client: REIT Asset Management ***Date:*** 24/09/2007

Location: Trimite, Uxbridge ***Plant Used:*** Competitor 2000

Datum: 30.070 ***Logged by:*** JD

ENVIRON

SUBSURFACE PROFILE

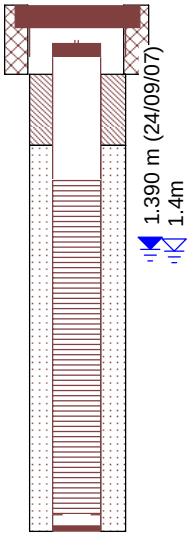
Depth	Symbol	Description	Elevation
0.0		Ground Surface	29.9
		MADE GROUND Bituminiferous Tarmacadam	
		MADE GROUND Concrete	29.4
		MADE GROUND Tan Hardcore Gravel	29.2
1.0		**MADE GROUND** Dark brown clayey coarse, angular Gravel of Flint and brick	28.5
		MADE GROUND Soft dark brown gravelly Clay. Gravel is fine to medium, subangular of flint and brick	
2.0		Tan sandy GRAVEL and COBBLES of Flint	
		Grey GRAVEL and COBBLES of Flint. Saturated with heavy solvent impact. Strong odour and oily sheen on groundwater in sample liner	26.9
3.0		3 m bgl	
4.0			
5.0			
6.0			

SAMPLE

Sample	Lab	PID Reading (ppm)
0.5	GS3, VOCs, SVOCs, TICs, & Asbestos	12.70
1.0	GS3, VOCs, SVOCs, TICs	15.70
1.5	GS3, VOCs, SVOCs, TICs	451.00
2.0		255.00

PID Reading: ppm, 500, 1000

Well Installation



Remarks:

Checked by: SLB

Sheet: 1 of 1

ANNEX C: LEGISLATIVE BACKGROUND FOR SCREENING CRITERIA

Chemical Data

Assessment Criteria

Under the regime for contaminated land set out in Part IIA of the Environmental Protection Act 1990, which came into effect on 1 April 2000, contaminated land is defined as:

"any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that

a) significant harm is being caused or there is a significant possibility of such harm being caused; or
b) pollution of controlled waters is being, or is likely to be caused".

Significance of harm is principally based on risk assessment which can be most easily explained through the diagram below:-

SOURCE >>>> PATHWAY >>>>> RECEPTOR

The relationship between a source, a pathway and a receptor is identified as the 'pollutant linkage' and land should not be identified as contaminated unless all three elements of a pollutant linkage are present and are actually or potentially interrelated.

Guidance identifies that the identification of contaminated land should be "based upon the principles of risk assessment" with the risk defined as the combination of:

- "the probability, or frequency of occurrences of a defined hazard (for example, exposure to a property of a substance with a potential to cause harm); and
- the magnitude (including the seriousness) of the consequences"

Soils

The current UK system for assessing contaminants in soil comprises published Soil Guideline Values (SGVs) which have been derived using the Contaminated Land Exposure Model (CLEA). The CLEA model was produced for the Environment Agency (EA) and the Department of the Environment, Food and Rural Affairs (DEFRA) and released in December 2002. SGVs have been developed from authoritative science, toxicological data and policy judgments and have been published for seven

metal contaminants and three organic contaminants in soil. The guideline values can be used to assess the risks posed to human health from exposure to soil contamination in three different types of land use. These include residential (with and without vegetable growing), allotments and commercial /industrial. The SGVs represent 'intervention values', above which the contaminant may pose an unacceptable health risk and further investigation and/or remediation may be required.

However, since the initial release of the original SGVs in 2002, there has been little further data release. In response to the situation, the Chartered Institute of Environmental Health (CIEH) (whose members include the Local Authority Environmental Officers involved with contaminated land matters) in partnership with Land Quality Management Limited have produced a set of Generic Assessment Criteria (GAC) for 31 contaminants (derived using the CLEA UK model). It is anticipated that these 'look up tables' will be applied by the Local Authorities and an initial screening criteria in order to assess contaminated land.

Data from the Phase II site investigation has been used in an initial 'screening' assessment through the comparison of the analytical results with published UK (CLEA) Soil Guideline Values (SGV), GACs (General Assessment Criteria) or site specific alternatives derived from RBCA using UK CLEA input parameters. Where a potential risk is identified at the screening stage further assessment has been undertaken.

It should be noted that:

- the UK (CLEA) soil guideline values cover only a limited range of contaminants;
- the CIEH GAC have not been issued through the EA or DEFRA;
- the CLEA SGV and GAC guidelines are based on risk to human health (site users) and as such do not take into account potential risks to other receptors (e.g. groundwater, third party land etc.); and
- the CLEA SGV and GAC guideline values are substantially higher than published guidelines for various European and North American countries/regions.

Groundwater

In the absence of UK groundwater standards, the assessment of groundwater results is based primarily on the following:

- UK Drinking Water Quality Guidelines (DWS)

DWSs have been derived under The Water Supply [Water Quality] Regulations 2000, and are applicable for water to be utilised as drinking water.

The DWS values are based on the potential for harm to human health due to their persistency, toxicity or bioaccumulation. Concentrations below the DWS value are not believed to be detrimental to human health; and

- Environmental Quality Standards (EQSs)

EQSs have been derived under the requirements of the Dangerous Substances Directive which classifies substances as List I and List II. Standards for List I substances have been defined in 'daughter' Directives to the EC Dangerous Substances Directive.

The EQSs are only strictly applicable to surface water courses.

The Dangerous Substances Directive required that standards for List II substances are derived by the member states. The UK has set EQSs for List II substances which have been derived by WRc according to the methodology described in Grimwood and Dixon (1997). For each of the List II substances, reports are available which describe the data used to derive the standards and any uncertainties in the derivation.

The environment agencies (i.e. the Environment Agency, SEPA and Environment and Heritage Service, Northern Ireland) have a legal obligation to ensure that statutory EQSs are met.

For the purposes of this assessment, the groundwater data have been discussed in relation to both the DWSs and EQSs due to the site being located over a Major Aquifer, and the presence of the Grand Union Canal, located approximately 45m to the east of the site, and a surface water course (River Colne) located approximately 160m distant from the site. It is considered unlikely that the Grand Union Canal is in hydraulic continuity with shallow groundwater, therefore the River Colne has been selected as the primary surface water receptor for this assessment.

Land Gas

A number of guidance documents have been produced for new developments on gassing sites, including:

- The building regulations (BRE), 2004 Edition, Approved Document C;
- Reliability and Risk in Gas Protection Design, Wilson and Card, 1999; and
- Protecting Developments from Methane, CIRIA Report 149, 1995.

The BRE 2004 Edition is aimed at providing a framework for planners to ensure 'contaminated land' issues are adequately addressed, including guidance for methane and other land gases. The framework includes CIRIA's report 149, which provides further guidance and an initial attempt at characterising gassing sites in terms of volume of gas rather than just concentrations (see Table C1).

TABLE C1: GUIDANCE BASED ON 149, 1995

Characteristic Situation	Methane (%)	Carbon Dioxide (%)	Flow rate (litres/hour)
1	<0.1	<0.1	<0.035
2	<1.0	<1.5	<0.35
3	<5.0	<5.0	<1.75
4	<20	<20	<14
5	>20	>20	<70
6	>20	>20	>70

TABLE C2: GUIDANCE BASED ON WILSON AND CARD, 1999				
Character-istic Situation	**Flow rate (l/hr)**	**Additional limiting factors**	**Typical scope of protection measures***	
			Residential	**Commercial**
1	<0.07	Methane not to exceed 1% by volume and carbon dioxide not to exceed 5% by volume.	No specific precautions	No specific precautions
2	<0.7	Borehole flow rate not to exceed 70litres/hour otherwise increase to Characteristic Situation No. 3.	Well constructed ground or suspended floor slab, waterproofing membrane sealed around penetrations, passively ventilated underfloor sub-space and wall cavities	Reinforced cast in-situ ground slab. All joints and penetrations sealed. Possibly waterproofing membrane. Granular layer below slab and passively vented to atmosphere with interleaved geocomposite strips or pipes.
3	<3.5		Well constructed suspended or ground slab. Gas resistant membrane and passively ventilated under floor subspace.	Reinforced concrete cast in-situ ground slab. All joints and penetrations sealed. Waterproof/gas resistant membrane and passively ventilated under floor subspace
4	<15	Quantitative risk assessment required to evaluate scope of protection measures.	Well constructed suspended or ground slab. Gas resistant membrane and passively ventilated under floor subspace, oversize capping and in ground venting layer.	Reinforced concrete cast in-situ ground slab. All joints and penetrations sealed. Gas resistant membrane and passively ventilated underfloor subspace.
5	<70		Specific gas resistant membrane and ventilated underfloor void, oversize capping and in ground venting layer and in ground venting wells.	Reinforced concrete cast in-situ ground slab. All joints and penetrations sealed. Gas resistant membrane passively ventilated under floor subspace. In ground venting wells.
6	>70		Not suitable unless gas regime is reduced first and quantitative assessment carried out to assess design of protection measures in conjunction with foundation design.	Reinforced concrete cast in-situ ground slab. All joints and penetrations sealed. Gas resistant membrane and actively ventilate underfloor subspace, with monitoring. In ground venting wells.

** For methane and carbon dioxide separately

* This table is given for **illustrative purposes only** – individual site specific designs will be required, taking into account the full guidance and regulations.

ANNEX D: SUMMARY OF ANALYTICAL DATA

Summary of Analytical Data

This section forms a summary of the individual exceedences of guideline screening criteria detected in the laboratory analysis of soil and groundwater samples from the site, as summarised in Section 6.0.

SOIL

Targeted Parameters

Concentrations of determinands detected above their respective MDLs have been screened using CLEA SGVs, CIEH GACs, and SSACs where available (see Annex C).

Total Petroleum Hydrocarbons (**TPH**) in the **$C_5 – C_{35}$** range were detected in twenty-one (21) of the twenty-three (23) samples analysed, at concentrations of between 5.6mg/kg (WS10 @ 0.2m bgl) and 7,200mg/kg (WS7 @ 1.0m bgl), which broadly reflects the field observations of contamination and on-site headspace PID analysis results. Under the TPH Criteria Working Group (CWG) Methodology used, TPH is split into seven (7) carbon bandings of both aliphatic hydrocarbons and aromatic hydrocarbons. The following exceedences of screening criteria were recorded:-

- Two (2) of the twenty-three (23) samples analysed (WS4 @ 1.75m and WS7 @ 1.0m bgl) contained concentrations of **aliphatic hydrocarbons $C_8 – C_{10}$** in excess of the GAC (65.9mg/kg);

- Two (2) of the twenty-three (23) samples analysed (WS4 @ 1.75m and WS7 @ 1.0m bgl) contained concentrations of **aromatic hydrocarbons $C_8 – C_{10}$** in excess of the GAC (107mg/kg). One (1) additional sample (WS5 @ 1.2m bgl) also contained a detected concentration in excess of the SSAC (15mg/kg);

- Two (2) of the twenty-three (23) samples analysed (WS4 @ 1.75m and WS7 @ 1.0m bgl) contained concentrations of **aromatic hydrocarbons $C_{10} – C_{12}$** in excess of the GAC (625mg/kg). One (1) additional sample (WS5 @ 1.2m bgl) also contained a detected concentration in excess of the SSAC (24mg/kg); and

- Five (5) of the twenty-three (23) samples analysed (WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 1.0m, and WS12 @ 1.5m bgl) contained concentrations of **aromatic**

hydrocarbons $C_{12} - C_{16}$ in excess of the SSAC (47mg/kg); however, none of the detected concentrations exceed the GAC (12,200mg/kg).

One or more **BTEX** (**Benzene, Toluene, Ethylbenzene and Xylenes**) compounds were detected in five (5) of the twenty-three (23) samples analysed which correlates well with field observations and the results of the on-site PID headspace analysis. The following exceedences of screening criteria were recorded:-

- Three (3) of the twenty-three (23) samples analysed (WS4 @ 1.75m, WS7 @ 0.5m, and WS7 @ 1.0m bgl) contained concentrations of **Ethylbenzene** in excess of the SSAC (0.073mg/kg); however, none of the detected concentrations exceed the SGV (48,000mg/kg);

- Three (3) of the twenty-three (23) samples analysed (WS4 @ 1.75m, WS7 @ 0.5m, and WS7 @ 1.0m bgl) contained concentrations of **m,p-Xylenes** in excess of the SSAC (1.6mg/kg). No SGV or GAC exists for m,p-Xylenes; and

- Two (2) of the twenty-three (23) samples analysed (WS4 @ 1.75m and WS7 @ 1.0m bgl) contained concentrations of **o-Xylene** in excess of the SSAC (0.96mg/kg). No SGV or GAC exists for o-Xylene.

ENVIRON considers the SSACs for BTEX compounds to be conservative as the SSAC for Ethylbenzene is driven by the soil volatilisation to indoor air pathway and no data for soil concentrations beneath the building footprints on-site was available as part of this investigation and the SSAC for Xylenes is driven by the presence of a surface water receptor (River Colne) located 160m from the site, and the RBCA model does not take into account degradation of the contaminant (dispersion alone is included in the model).

Polycyclic Aromatic Hydrocarbons (**PAHs**) were detected at concentrations above laboratory method detection limits in eleven (11) of the twenty-three (23) samples analysed. The following exceedences of screening criteria were recorded:-

- Four (4) of the twenty-three (23) samples analysed (WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, and WS7 @ 1.0m bgl) contained concentrations of **Naphthalene** in excess of the SSAC (2.5mg/kg); however, none of the detected concentrations exceed the GAC (290mg/kg);

- Five (5) of the twenty-three (23) samples analysed (WS1 @ 0.5m, WS4 @ 1.75m, WS5 @ 1.2m, WS11 @ 0.5m, and WS12 @ 0.5m bgl) contained concentrations of **Acenaphthylene** in excess of the SSAC (0.18mg/kg). No SGV or GAC exists for Acenaphthylene; however, the SSAC is driven by the presence of a surface water receptor (River Colne) located 160m from the site, and the RBCA model does not take into account degradation of the contaminant (dispersion alone is included in the model); therefore ENVIRON considers the SSAC to be conservative;

- Four (4) of the twenty-three (23) samples analysed (WS4 @ 1.75m, WS5 @ 1.2m, WS7 @ 1.0m, WS11 @ 1.0m and WS12 @ 1.5m bgl) contained concentrations of **Acenaphthene** in excess of the SSAC (0.27mg/kg). No SGV or GAC exists for Acenaphthylene;

- Eight (8) of the twenty-three (23) samples analysed (WS1 @ 0.5m, WS4 @ 0.2m, WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 1.0m, WS11 @ 1.0m, and WS12 @ 1.5m bgl) contained concentrations of **Fluorene** in excess of the SSAC (0.0017mg/kg); however, none of the detected concentrations exceed the GAC (59,000mg/kg);

- Five (5) of the twenty-three (23) samples analysed (WS1 @ 0.5m, WS4 @ 0.2m, WS11 @ 0.5m, WS11 @ 1.0m and WS12 @ 1.5m bgl) contained concentrations of **Phenanthrene** in excess of the SSAC (0.86mg/kg);

- One (1) of the twenty-three (23) samples analysed (WS1 @ 0.5m bgl) contained concentrations of **Anthracene** in excess of the SSAC (1.1mg/kg). No SGV or GAC exists for Acenaphthylene;

- Three (3) of the twenty-three (23) samples analysed (WS1 @ 0.5m, WS11 @ 0.5m, and WS11 @ 1.0m bgl) contained concentrations of **Fluoranthene** in excess of the SSAC (4.0mg/kg). No SGV or GAC exists for Acenaphthylene; and

- Two (2) of the twenty-three (23) samples analysed (WS1 @ 0.5m and WS11 @ 0.5m bgl) contained concentrations of **Pyrene** in excess of the SSAC (3.9mg/kg). No SGV or GAC exists for Acenaphthylene.

ENVIRON considers the SSACs for PAHs to be conservative as they are driven by the presence of a surface water receptor (River Colne) located 160m from the site, and the RBCA model does not take into account degradation of the contaminant (dispersion alone is included in the model).

In the absence of UK specific screening criteria for **Benzene** analogues detected as part of the VOC and SVOC suites, where these compounds have been detected at concentrations above their respective laboratory MDLs, they been compared against their respective closest analogue compound for which a screening criteria exists (i.e. **Benzene**). Several of these compounds were detected at concentrations exceeding their analogue's screening criteria; however, these screening criteria are not directly applicable, and are presented for comparative and illustrative purposes only.

The following benzene analogues were detected at concentrations exceeding the **Benzene** screening criteria were detected as part of the VOC and SVOC analytical suites:

- **Isopropylbenzene** was detected at concentrations exceeding the **Benzene** SSAC in three (3) samples (WS4 @ 1.75m, WS7 @ 0.5m and WS7 @ 1.0m bgl);

- **n-propylbenzene** was detected at concentrations exceeding the **Benzene** SSAC in four (4) samples (WS4 @ 1.75m, WS5 @ 0.5m, WS7 @ 0.5m and WS7 @ 1.0m bgl);

- **1,3,5 Trimethylbenzene** was detected at concentrations exceeding the **Benzene** SSAC in five (5) samples (WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 0.5m and WS7 @ 1.0m bgl);

- **tert-butylbenzene** was detected at a concentration exceeding the **Benzene** SSAC in one (1) sample (WS4 @ 1.75m bgl);

- **1,2,4 Trimethylbenzene** was detected at concentrations exceeding the **Benzene** SSAC in five (5) samples (WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m, WS7 @ 0.5m and WS7 @ 1.0m bgl);

- **sec-butylbenzene** was detected at concentrations exceeding the **Benzene** SSAC in three (3) samples (WS4 @ 1.75m, WS5 @ 0.5m and WS7 @1.0m bgl);

- **1,3 Dichlorobenzene** was detected at concentrations exceeding the **Benzene** SSAC in three (3) samples (WS4 @ 1.75m, WS5 @ 0.5m and WS5 @ 1.2m bgl);

- **1,4 Dichlorobenzene** as detected at concentrations exceeding the **Benzene** SSAC in three (3) samples (WS4 @ 1.75m, WS5 @ 0.5m and WS5 @ 1.2m bgl); and

- **1,2 Dichlorobenzene** as detected at concentrations exceeding the **Benzene** SSAC in four (4) samples (WS4 @ 1.75m, WS5 @ 0.5m, WS5 @ 1.2m and WS6 @ 0.5m bgl).

Tentatively Identified Compounds (TICS)

Analysis for TICs is a semi-quantitative procedure involving the comparison of unidentified peaks produced by Gas Chromatography – Mass Spectrometry of samples with a library of contaminants to determine the presence of compounds not identified by the targeted VOC/SVOC analysis. As such, the concentration of contaminants presented by the results of the TICs analysis cannot be relied upon as representative of the true conditions on-site.

The following VOC TICs were detected in soil samples from the site:

- **isooctane** was detected in the sample from WS4 at 1.75m (1.42mg/kg, match quality 91%);
- **octane** was detected in the sample from WS4 at 1.75m (2.66mg/kg, match quality 74%);
- **heptane** was detected in the sample from WS4 at 1.75m (1.49mg/kg, match quality 76%);
- **nonane** was detected in samples from WS4 at 1.75m (2.0mg/kg, match quality 91%), WS5 at 0.5m (0.06mg/kg, match quality 91%), WS5 at 1.2m (0.74mg/kg, match quality 93%), WS7 at 1.0m (2.78mg/kg, match quality 91%), and WS12 at 1.5m (0.27mg/kg, match quality 87%);
- **decane** was detected in the samples from WS5 at 1.2m (1.27mg/kg, match quality 80%) and WS12 at 1.5m (0.64mg/kg, match quality 91%);
- **dodecane** was detected in the samples from WS5 at 0.5m (0.45mg/kg, match quality 86%),WS12 at 1.2m (0.24mg/kg, match quality 97%) and WS12 at 1.5m (0.93mg/kg, match quality 92%);
- **tridecane** was detected in the samples from WS5 at 0.5m (0.31mg/kg, match quality 91%), WS12 at 1.2m (0.18mg/kg, match quality 95%), and WS12 at 1.5m (0.3mg/kg, match quality 96%);
- **tetradecane** was detected in the sample from WS12 at 1.2m (0.1mg/kg, match quality 94%);
- **cyclohexane** was detected in the sample from WS5 at 1.2m (0.64mg/kg, match quality 87%);
- **octadecane** was detected in the sample from WS7 at 1.0m (3.95mg/kg, match quality 72%);
- **hexadecane** was detected in the sample from WS4 at 1.75m (1.75mg/kg, match quality 78%);
- **undecane** was detected in the samples from WS4 at 1.75m (2.46mg/kg, match quality 91%), WS5 at 0.5m (0.28mg/kg , match quality 91%), WS12 at 1.2m (0.04mg/kg, match quality 87%), and WS12 at 1.5m (0.27mg/kg, match quality 94%);
- **nonadecane** was detected in the sample from WS12 at 1.2m (0.03mg/kg, match quality 81%);

- **2-methylnonane** was detected in the samples from WS4 at 1.75m (4.73mg/kg, match quality 87%) and WS5 at 1.2m (1.99mg/kg, match quality 83%);
- **3-methylnonane** was detected in the samples from WS4 at 1.75m (1.89mg/kg, match quality 87%) and WS7 at 1.0m (2.1mg/kg, match quality80%);
- **4-methylnonane** was detected in the sample from WS7 at 1.0m (6.94mg/kg, match quality 87%);
- **3-methyldecane** was detected in the sample from WS12 at 1.5m (0.25mg/kg, match quality 87%);
- **7-methyltridecane** was detected in the sample from WS12 at 1.2m (0.09mg/kg, match quality 81%);
- **3,7-dimethylnonane** was detected in the sample from WS5 at 1.2m (0.58mg/kg, match quality 90%);
- **2,6-dimethylundecane** was detected in the sample from WS12 at 1.2m (0.11mg/kg, match quality 91%);
- **2,6,10-trimethyldodecane** was detected in the sample from WS12 at 1.2m (0.05mg/kg, match quality 72%);
- **oxirane** (also known as Ethylene oxide) was detected in the sample from WS12 at 1.5m (0.33mg/kg, match quality 78%);
- **ethyldimethylthiophene** was detected in the sample from WS4 at 1.75m (0.92mg/kg, match quality 83%);
- **1-ethyl-2-methylbenzene** was detected in the samples from WS4 at 1.75m (2.31mg/kg, match quality 93%), WS5 at 1.2m (1.42mg/kg, match quality 93%) and WS7 at 0.5m (0.05mg/kg, match quality 91%);
- **1-ethyl-3-methylbenzene** was detected in the samples from WS7 at 0.5m (0.15mg/kg, match quality 91%) and WS7 at 1.0m (5.96mg/kg, match quality 91%);
- **2,4-diethyl-1-methylbenzene** was detected in the sample from WS5 at 0.5m (0.19mg/kg, match quality 90%);
- **1-ethyl-3,5-dimethylbenzene** was detected in the samples from WS5 at 0.5m (0.22mg/kg, match quality 78%), and WS5 at 1.2m (1.21mg/kg, match quality 81%);
- **1-ethyl-2,3-dimethylbenzene** was detected in the samples from WS5 at 0.5m (0.14mg/kg, match quality 70%) and WS7 at 1.0m (0.52mg/kg, match quality 87%);
- **1-ethyl-2,4-dimethylbenzene** was detected in the sample from WS5 at 0.5m (0.16mg/kg, match quality 70%);
- **2-ethyl-1,4-dimethylbenzene** was detected in the sample from WS1 at 0.2m (at a concentration of 0.04mg/kg, match quality 97%);
- **1,2,4,5-tetramethylbenzene** was detected in the sample from WS5 at 0.5m (0.17mg/kg, match quality 94%);

- **1-methyl-3-propylbenzene** was detected in the sample from WS5 at 1.2m (0.86mg/kg, match quality 83%);
- **1-bromo-1-fluorobenzene** was detected in the sample from WS7 at 0.5m (0.06mg/kg, match quality 94%);
- **o-methylpropylbenzene** was detected in the sample from WS5 at 0.5m (0.17mg/kg, match quality 83%);
- **2-propyltoluene** was detected in the samples from WS5 at 1.2m (0.9mg/kg, match quality 87%) and WS7 at 1.0m (2.48mg/kg, match quality 76%)
- **m-ethyltoluene** was detected in the sample from WS7 at 0.5m (0.06mg/kg, match quality 94%);
- **o-ethyltoluene** was detected in the sample from, WS7 at 1.0m (4.6m/kg, match quality 93%);
- **p-ethyltoluene** was detected in the sample from WS7 at 1.0m (2.17mg/kg, match quality 91%);
- **paracymene** was detected in the sample from WS5 at 1.2m (1.55mg/kg, match quality 87%); and
- **p-cymene** was detected in the sample from WS7 at 1.0m (2.89mg/kg, match quality 94%).

The following SVOC TICs were detected in soil samples from the site:

- **benzo[def]fluorine** was detected in the sample from WS1 at 0.5m (3.7mg/kg, match quality 89%);
- **benozonaphthofuran** was detected in the sample from WS1 at 0.5m (3.1mg/kg, match quality 93%);
- **chrysofluorene** was detected in the sample from WS1 at 0.5m (37mg/kg, match quality 93%);
- **C3-benzene** was detected in the samples from WS4 at 0.2m (1.9mg/kg, match quality 94%) and WS4 at 1.75m (61.9mg/kg, match quality 94%);
- **1,2,4-trimethylbenzene** was detected in the samples from WS4 at 0.2m (6.9mg/kg, match quality 95%), and WS7 at 1.0m (38.1mg/kg, match quality 95%);
- **1,2,3-trimethylbenzene** was detected in the sample from WS4 at 0.2m (3.4mg/kg, match quality 95%);
- **methylnonane** was detected in the sample from WS4 at 1.75m (65.6mg/kg, match quality 81%);
- **decane** was detected in the samples from WS4 at 1.75m (141.3mg/kg, match quality 97%), WS5 at 0.5m (2.9mg/kg, match quality 97%), and WS5 at 1.2m (60.1mg/kg, match quality 95%);

- **dodecane** was detected in the samples from WS4 at 1.75m (83.5mg/kg, match quality 97%), WS5 at 1.2m (76.7mg/kg, match quality 96%), and WS12 at 1.5m (41.2mg/kg, match quality 97%);
- **tridecane** was detected in the samples from WS4 at 1.75m (61.5mg/kg, match quality 97%), WS5 at 0.5m (7.6mg/kg, match quality 98%), WS5 at 1.2m (61.9mg/kg, match quality 98%), WS12 at 1.2m (12.7mg/kg, match quality 97%), and WS12 at 1.5m (37.8mg/kg, match quality 98%);
- **tetradecane** was detected in the samples from WS4 at 1.75m (27.7mg/kg, match quality 97%), WS5 at 1.2m (36.3mg/kg, match quality 97%), WS7 at 1.0m (29.2mg/kg, match quality 97%), WS12 at 1.2m (13.8mg/kg, match quality 98%), and WS12 at 1.5m (28.3mg/kg, match quality 97%);
- **pentadecane** was detected in the samples from WS5 at 1.2m (27.3mg/kg, match quality 98%), WS7 at 1.0m (12.4mg/kg, match quality 98%), WS12 at 1.2m (14.5mg/kg, match quality 98%), and WS12 at 1.5m (28.7mg/kg, match quality 98%) ;
- **hexadecane** was detected in the samples from WS4 at 1.75m (26.6mg/kg, match quality 97%), WS5 at 0.5m (2.0mg/kg, match quality 97%), WS5 at 1.2m (25.5mg/kg, match quality 98%), WS12 at 1.2m (13.1mg/kg, match quality 98%), and WS12 at 1.5m (24.5mg/kg, match quality 99%);
- **heptadecane** was detected in the samples from WS4 at 1.75m (29.4mg/kg, match quality 97%), WS5 at 0.5m (2.9mg/kg, match quality 98%), and WS12 at 1.2m (13mg/kg, match quality 98%);
- **octadecane** was detected in the samples from WS5 at 0.5m (2.3mg/kg. match quality 99%), WS12 at 1.2m (11.2mg/kg, match quality 99%), and WS12 at 1.5m (19.3mg/kg, match quality 99%);
- **hexadecanoic acid** was detected in the sample from WS5 at 0.5m (12.2mg/kg, match quality 99%);
- **p-Xylene** was detected in the sample from WS7 at 0.5m (18.2mg/kg, match quality 93%);
- **p-cymene** was detected in the sample from WS7 at 1.0m (47mg/kg, match quality 91%); and
- **1-methylnaphthalene** was detected in the sample from WS7 at 1.0m (15.8mg/kg, match quality 93%).

GROUNDWATER

The results of the groundwater laboratory analysis are summarised below, with the full analytical certificates provided as Annex D. Groundwater results have been assessed against UK Drinking Water Standards (DWS) and the Environmental Quality Standards (EQS) for freshwater ecosystems, due to the sensitivity of the site with respect to controlled waters.

There were several parameters detected in one or more samples at concentrations above the laboratory MDL for which the screening criteria are lower than the laboratory MDL (Arsenic, Ammoniacal Nitrogen as N, total Cyanide, Benzo(a)pyrene, Benzene, Vinyl Chloride and Biphenyl). Only samples detected at concentrations above the laboratory MDL have been considered within this assessment.

Groundwater samples were collected from each of the eight (8) monitoring wells on-site (WS1, WS4, WS5, WS6, WS9, WS10, WS11 and WS12) on 10th October 2007 using monitoring well dedicated disposable bailers.

Targeted Parameters

Inorganic Parameters

Two (2) recorded **pH** values (WS4 and WS5) were outside the acceptable range as presented in the DWS guidelines (pH6.5 – pH10.0); however, all of the detected pH values fall within the acceptable range as presented in the EQS guidelines (pH6.0 – pH9.0)

Arsenic was detected at concentrations exceeding the DWS (0.0001mg/l) in four (4) of the eight (8) samples analysed (WS5, WS6, WS9 and WS12), with a maximum concentration of 0.02mg/l detected in the sample from WS5. None of the detected concentrations exceed the EQS (0.05mg/l).

Boron was detected at a concentration exceeding both the EQS (2mg/l) and the DWS (1mg/l) in one (1) of the eight (8) samples analysed (WS5 – 4.9mg/l).

Iron was detected at concentrations exceeding the DWS (0.2mg/l) in three (3) of the eight (8) samples analysed (WS4, WS5 and WS6), with a maximum concentration of 13mg/l detected in the sample from WS4. Two (2) of these samples (WS4 and WS6) also contained concentrations of **Lead** exceeding the EQS (1mg/l).

Ammoniacal Nitrogen (as N) was detected at concentrations exceeding the EQS value for **Nitrate** (0.015mg/l) in four (4) of the eight (8) samples analysed (WS1, WS6, WS9 and WS11), with a maximum concentration of 5.1mg/l detected in the sample from WS6. No DWS value exists for Ammoniacal Nitrogen (as N).

Ammoniacal Nitrogen (as NH_4) was detected at concentrations exceeding the DWS value for **Ammonium (NH_4)** (0.5mg/l) in one (1) of the eight (8) samples analysed (WS11 – 0.34mg/l). No EQS value exists for Ammoniacal Nitrogen (as NH_4).

Organic Parameters

Total Monohydric Phenols were detected at a concentration exceeding the EQS for **Phenol** (0.03mg/l) in three (3) of the eight (8) samples analysed (WS4, WS5 and WS6), with a maximum concentration of 0.11mg/l detected in the sample from WS4. No DWS value exists for Phenol.

TPH ($C_5 – C_{35}$) was detected at concentrations exceeding the MDL (<0.01mg/l) in seven (7) of the eight (8) samples analysed (all apart from WS9, which is an up-gradient well), at concentrations of between 0.48mg/l (WS10) and 124.8mg/l (WS5). Samples from WS1, WS10 and WS12 can be characterised as being predominantly **Diesel Range Organic Compounds** (**$C_{10} – C_{35}$**), while samples from WS4, WS5, WS6 and WS11) can be characterised as being predominantly **Petrol Range Organics**. This characterisation suggests that separate sources exist on-site for the light end (**PRO**) and heavier end (**DRO**) **TPH** impacts.

No UK guidelines currently exist for **TPH** in groundwater, however ENVIRON considers all detected concentrations in excess of 0.01mg/l **TPH** ($C_5 – C_{35}$) to be elevated (WS1, WS4, WS5, WS6, WS10, WS11 and WS12).

Exceedences of screening criteria for **BTEX** compounds were detected in groundwater samples from the site:

- **Toluene** was detected at concentrations exceeding the EQS (0.05mg/l) in three (3) of the eight (8) samples analysed (WS4, WS5 and WS6), with a maximum concentration of 4.3mg/l detected in the sample from WS4. No DWS value exists for Toluene;

- **Ethylbenzene** was detected at concentrations exceeding the EQS (0.02mg/l) in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12), with a maximum concentration of 1.3mg/l detected in the sample from WS4. No DWS value exists for Ethylbenzene; and

- **Xylenes** were detected at concentrations exceeding the EQS for total Xylenes (0.03mg/l) in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12), with a maximum concentration of total Xylenes of 5.3mg/l detected in the sample from WS4. No DWS value exists for Xylenes.

The occurrence of BTEX compounds generally correlates well with the samples characterised as predominantly containing PRO TPH impacts, with the exception of WS11 and WS12. No BTEX compounds were detected in the sample from WS11 despite this sample being characterised as predominantly PRO, and BTEX compounds were detected in the sample from WS12 despite this sample being characterised as predominantly DRO. This pattern of BTEX compound detections suggests that the TPH impacts identified in WS4, WS5 and WS6 is indicative of a petroleum hydrocarbon release while the impact to WS12 is indicative of a diesel or heavy fuel hydrocarbon source.

In the absence of UK DWS for each of the individual speciated PAHs (with the exception of Benzo(a)pyrene), the published standard for total PAHs has been used as the assessment standard for each individual speciated PAH. This can be considered to be a conservative screening approach for this group of compounds. The EQS value has also been considered for Naphthalene. The following exceedences of these screening criteria were detected:

- **Naphthalene** was detected at concentrations exceeding the DWS (0.0001mg/l) in five (5) of the eight (8) samples analysed (WS4, WS5, WS6, WS9 and WS12), with a maximum concentration of 0.31mg/l detected in the sample from WS5. Two (2) of these samples (WS5 and WS12) also contained concentrations of Naphthalene exceeding the EQS (0.01mg/l);

- **Acenaphthylene** was detected at concentrations exceeding the DWS (0.0001mg/l) in two (2) of the eight (8) samples analysed (WS5 and WS12), with a maximum concentration of 0.0057mg/l detected in the sample from WS5. No EQS value exists for Acenaphthylene;

- **Acenaphthene** was detected at concentrations exceeding the DWS (0.0001mg/l) in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12), with a maximum concentration of 0.015mg/l detected in the sample from WS5. No EQS value exists for Acenaphthene;

- **Fluorene** was detected at concentrations exceeding the DWS (0.0001mg/l) in three (3) of the eight (8) samples analysed (WS4, WS5 and WS12), with a maximum concentration of 0.018mg/l detected in the sample from WS12. No EQS exists for Fluorene;

- **Phenanthrene** was detected at concentrations exceeding the DWS (0.0001mg/l) in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12), with a maximum concentration of 0.034mg/l detected in the sample from WS12. No EQS value exists for Phenanthrene;

- **Anthracene** was detected at concentrations exceeding the DWS (0.0001mg/l) in two (2) of the eight (8) samples analysed (WS5 and WS12), with a maximum concentration of 0.0046mg/l detected in the sample from WS12. No EQS value exists for Anthracene;

- **Fluoranthene** was detected at concentrations exceeding the DWS (0.0001mg/l) in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12), with a maximum concentration of 0.0041mg/l detected in the sample from WS12. No EQS value exists for Fluoranthene;

- **Pyrene** was detected at concentrations exceeding the DWS (0.0001mg/l) in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12), with a maximum concentration of 0.017mg/l detected in the sample from WS12. No EQS value exists for Pyrene;

- **Benzo(a)anthracene** was detected at concentrations exceeding the DWS (0.0001mg/l) in three (3) of the eight (8) samples analysed (WS5, WS6 and WS12), with a maximum concentration of 0.0021mg/l detected in the sample from WS12. No EQS value exists for Benzo(a)anthracene;

- **Chrysene** was detected at concentrations exceeding the DWS (0.0001mg/l) in three (3) of the eight (8) samples analysed (WS5, WS6 and WS12), with a maximum concentration of 0.0014mg/l detected in the sample from WS12. No EQS exists for Chrysene;

- **Benzo(b)fluoranthene** was detected at concentrations exceeding the DWS (0.0001mg/l) in three (3) of the eight (8) samples analysed (WS5, WS6 and WS12), with a maximum concentration of 0.0009mg/l detected in the sample from WS6. No EQS value exists for Benzo(b)fluoranthene;

- **Benzo(k)fluoranthene** was detected at concentrations exceeding the DWS (0.0001mg/l) in two (2) of the eight (8) samples analysed (WS5 and WS6), with a maximum concentration of 0.0004m/l detected in the sample from WS6. No EQS value exists for Benzo(k)fluoranthene;

- **Benzo(a)pyrene** was detected at concentrations exceeding the DWS (0.00001mg/l) in two (2) of the eight (8) samples analysed (WS5 and WS6), with a maximum concentration of 0.0008mg/l detected in the sample from WS6. No EQS value exists for Benzo(a)pyrene;
- **Indeno(1,2,3-cd)pyrene** was detected at concentrations exceeding the DWS (0.0001mg/l) in two (2) of the eight (8) samples analysed (WS5and WS6), with a maximum concentration of 0.0005mg/l detected in the sample from WS6. No EQS value exists for Indeno(1,2,3-cd)pyrene;

- **Dibenzo(a,h)anthracene** was detected at a concentration equal to the DWS (0.0001mg/l) in one (1) of the eight (8) samples analysed (WS6 – 0.0001mg/l). No EQS value exists for Dibenzo(a,h)anthracene;

- **Benzo(g,h,i)perylene** was detected at concentrations exceeding the DWS (0.0001mg/l) in two (2) of the eight (8) samples analysed (WS5 and WS6), with a maximum concentration of 0.0008mg/l detected in the sample from WS6. No EQS value exists for Benzo(g,h,i)perylene.

In the absence of UK specific screening criteria for some parameters detected as part of the VOC and SVOC suites, where these compounds have been detected at concentrations above their respective laboratory MDLs, they been compared against their respective closest analogue compound for which a screening criteria exists (e.g. methylnaphthalene has been compared against the GAC for Naphthalene). Several of these compounds were detected at concentrations exceeding their analogue's screening criteria; however, these screening criteria are not directly applicable, and are presented for comparative and illustrative purposes only. Where no screening criteria exist for analogous compounds, ENVIRON has used professional judgement in the assessment of these parameters.

The following exceedences and significantly elevated detected concentrations were detected as part of the VOC and SVOC analytical suites:

- **Chloroethane** was detected at concentrations considered by ENVIRON to be elevated in two (2) samples (WS11 and WS12);

- **1,1-Dichloroethene** was detected at concentrations considered by ENVIRON to be elevated (in the absence of guideline values) in two (2) of the eight (8) samples analysed (WS4 and WS6), with a maximum concentration of 0.075mg/l detected in the sample from WS4;

- **Trans-1,2 Dichloroethene** was detected at concentrations considered by ENVIRON to be elevated (in the absence of guideline values) in two (2) of the eight (8) samples analysed (WS4 and WS5);

- **Benzene** was detected at a concentration exceeding the screening criteria in one (1) of the eight (8) samples analysed (WS4 – 0.003mg/l);

- **Trichloroethene** (**TCE**)was detected in six (6) samples (WS1, WS4, WS5, WS6, WS11 and WS12), and at concentrations exceeding the screening criteria in two (2) of the eight (8) samples analysed (WS4 and WS11);

- **Cis-1,2 Dichloroethene** (**DCE**) was detected in all eight (8) samples, and at concentrations considered by ENVIRON to be elevated (in the absence of guideline values) in six (6) of the eight (8) samples analysed (WS1, WS4, WS5, WS6, WS11 and WS12) to a maximum concentration of 84mg/l (WS4). DCE is a breakdown product of the reductive de-halogenation of **Trichloroethene** (**TCE**), and may indicate that TCE has been present in the past and has degraded to form DCE;

- **Vinyl Chloride** was detected in six (6) samples (WS1, WS4, WS5, WS6, WS11 and WS12) all of which exceed the screening criteria. Vinyl Chloride is a breakdown product of the reductive de-halogenation of **DCE**, and may indicate that either TCE or DCE (or both) have been present as primary chlorinated solvents in the past and has degraded to form Vinyl Chloride;

- **1,3,5 Trimethylbenzene** was detected at concentrations exceeding the screening criteria for **Benzene** in four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12);

- **1,2,4 Trimethylbenzene** was detected at concentrations exceeding the screening criteria for **Benzene i**n four (4) of the eight (8) samples analysed (WS4, WS5, WS6 and WS12);

- **Dichlorobenzene** (total of all three isomers) was detected at concentrations exceeding the screening criteria in three (3) of the eight (8) samples analysed (WS4, WS5 and WS12);

- **4-Methylphenol** was detected at concentrations exceeding the screening criteria for **Phenol** in one (1) of the eight (8) samples analysed (WS4);

- **Di-n-butyl phthalate** was detected at a concentration exceeding the screening criteria in one (1) of the eight (8) samples analysed (WS5);
- **2-Methylnaphthalene** was detected at concentrations exceeding both the screening criteria for **Naphthalene** in three (3) of the eight (8) samples analysed (WS4, WS5 and WS12); and

- **Biphenyl** was detected at a concentration exceeding the screening criteria in one (1) of the eight (8) samples analysed (WS5).

Tentatively Identified Compounds (TICs)

Analysis for TICs is a semi-quantitative procedure involving the comparison of unidentified peaks produced by Gas Chromatography – Mass Spectrometry of samples with a library of contaminants to determine the presence of compounds not identified by the targeted VOC/SVOC analysis. As such, the concentration of contaminants presented by the results of the TICs analysis cannot be relied upon as representative of the true conditions on-site.

The following VOC TICs were detected in groundwater samples from the site:

- **heptane** was detected in the sample from WS5 (1.824mg/l, match quality 72%);
- **octane** was detected in the samples from WS6 (0.02mg/l, match quality 90%) and WS12 (0.02mg/l, match quality 83%);
- **nonane** was detected in the sample from WS5 (1.326mg/l, match quality 90%);
- **undecane** was detected in the samples from WS4 (0.067mg/l, match quality 93%), WS5 (5.152mg/l, match quality 92%), and WS12 (0.336mg/l, match quality 94%);
- **dodecane** was detected in the sample from WS12 (0.325mg/l, match quality 86%);
- **tridecane** was detected in the samples from WS4 (0.047mg/l, match quality 95%), WS5 (2.084mg/l, match quality 93%) and WS12 (0.248mg/l, match quality 96%);
- **tetradecane** was detected in the sample from WS12 (0.224mg/l, match quality 96%);
- **pentadecane** was detected in the sample from WS12 (0.157mg/l, match quality 94%);
- **hexadecane** was detected in the sample from WS12 (0.096mg/l, match quality 97%);
- **2,6-dimethylundecane** was detected in the sample from WS12 (0.152mg/l, match quality 93%);
- **o-ethyltoluene** was detected in the samples from WS4 (0.236mg/l, match quality 91%) and WS6 (0.032mg/l, match quality 83%);
- **m-propyltoluene** was detected in the sample from WS5 (1.473mg/l, match quality 76%);
- **o-dichlorobenzene** was detected in the sample from WS5 (3.928mg/l, match quality 95%);

- **1,2,3-trimethylbenzene** was detected in the samples from WS4 (0.107mg/l, match quality 90%), WS5 (1.841mg/l., match quality 76%), and WS6 (0.04mg/l, match quality 91%);
- **1,2,3,4-tetramethylbenzene** was detected in the sample from WS5 (1.608mg/l, match quality 89%);
- **2-ethyl-1,4-dimethylbenzene** was detected in the sample from WS4 (0.122mg/l, match quality 72%);
- **2-ethyl-1,3-dimethylbenzene** was detected in the sampled from WS6 (0.101mg/l, match quality 76%);
- **m-ethylbenzene** was detected in the sample from WS4 (0.072mg/l, match quality 90%);
- **2-propyltoluene** was detected in the sample from WS4 (0.047mg/l, match quality 86%);
- **m-cymene** was detected in the sample from WS4 (0.082mg/l, match quality 91%);
- **p-cymene** was detected in the sample from WS5 (2.429mg/l, match quality 90%);
- **3-ethyl-o-xylene** was detected in the samples from WS4 (0.06mg/l, match quality 97%) and WS6 (0.05mg/l, match quality 91%);
- **4-ethyl-o-xylene** was detected in the sample from WS4 (0.074mg/l, match quality 94%);
- **1-methylnaphthalene** was detected in the samples from WS5 (1.603mg/l, match quality 94%) and WS6 (0.053mg/l, match quality 90%);
- **2-butanol** was detected in the sample from WS6 (0.247mg/l, match quality 91%);
- **2-pentanone** was detected in the sample from WS6 (3.634mg/l, match quality 94%);
- **1,2,3,4-tetrahydronaphthalene** was detected in the sample from WS6 (0.1mg/l, match quality 76%); and
- **1H-Indene** was detected in the sample from WS12 (0.109mg/l, match quality 70%).

The following SVOC TICs were detected in groundwater samples from the site:

- **decane** was detected in the sample from WS5 (2.2mg/l, match quality 97%);
- **dodecane** was detected in the samples from WS4 (0.36mg/l, match quality 95%) and WS5 (2.3mg/l, match quality 96%);
- **tridecane** was detected in the samples from WS4 (0.26mg/l, match quality 94%), WS5 (2.0mg/l, match quality 97%) and WS12 (1.8mg/l, match quality 95%);
- **tetradecane** was detected in the samples from WS5 (1.1mg/l, match quality 97%) and WS12 (1.5mg/l, match quality 97%);
- **pentadecane** was detected in the samples from WS4 (0.11mg/l, match quality 96%) and WS12 (1.5mg/l, match quality 96%);
- **hexadecane** was detected in the samples from WS4 (0.12mg/l, match quality 96%), WS5 (0.69mg/l, match quality 98%) and WS12 (1.3mg/l, match quality 95%);

- **heptadecane** was detected in the samples from WS4 (0.13mg/l, match quality 98%) and WS12 (1.2mg/l, match quality 98%);
- **octadecane** was detected in the sample from WS12 (1.0mg/l, match quality 98%);
- **nonadecane** was detected in the sample from WS12 (0.93mg/l, match quality 98%);
- **undecane** was detected in the sample from WS12 (1.8mg/l, match quality 97%);
- **dodecane** was detected in the sample from WS12 (1.4mg/l, match quality 94%);
- **Dipropylene glycol methyl ether** was detected in the sample from WS6 (1.5mg/l, match quality 90%);
- **1-(2-Methoxypropoxy)-2-propanol** was detected in the sample from WS6 (3.8mg/l, match quality 90%);
- **1-[1-methyl-2-(2-propenyloxy)ethoxy]-2-Propanol** was detected in the sample from WS6 (1.8mg/l, match quality 83%);
- **Tetraethylene glycol dimethyl ether** was detected in the sample from WS6 (1.8mg/l, match quality 78%);
- **2,4,7,9-TETRAMETHYL-5-DICYNE-4,7-DIOL** was detected in the sample from WS6 (0.12mg/l, match quality 91%); and
- **methyl oleate** was detected in the sample from WS6 (0.03mg/l, match quality 93%).

ANNEX E: ANALYTICAL CERTIFICATES

Jesse Davies
Environ UK Ltd
Sterling House
The Bourse
Boar Lane
Leeds
LS1 5EQ

23 October 2007

TEST REPORT

Our Report Number: 07-39965

Your Order Reference: Instructions of 11/10/2007

8 water samples submitted for analysis on 10/10/2007

Project Name: Trimite - Uxbridge

Project Code: 67-C12520

Laboratory analysis started on 11/10/2007
All laboratory analysis completed by 23 October 2007

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
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
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
Arsenic (Dissolved)	< 0.005	< 0.005	0.020	0.010	0.014	080W[I]	mg/l	0.005
Boron (Dissolved)	0.18	0.15	4.9	0.13	0.17	080W[I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001	< 0.001	0.002	< 0.001	< 0.001	080W[I]	mg/l	0.001
Calcium (Dissolved)	100	97	82	110	110	062W[I]	mg/l	0.5
Chromium (Dissolved)	< 0.005	0.011	0.008	0.011	< 0.005	080W[I]	mg/l	0.005
Copper (Dissolved)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	080W[I]	mg/l	0.005
Iron (Dissolved)	< 0.02	13	0.53	5.2	< 0.02	080W[I]	mg/l	0.02
Lead (Dissolved)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	080W[I]	mg/l	0.005
Magnesium (Dissolved)	4.5	3.5	3.3	2.4	4.2	062W[I]	mg/l	0.1
Mercury (Dissolved)	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	080W[I]	mg/l	0.00005
Nickel (Dissolved)	0.009	0.015	0.007	0.009	0.011	080W[I]	mg/l	0.005
Potassium (Dissolved)	8.4	7.4	9.5	9.3	6.9	062W[I]	mg/l	0.5
Selenium (Dissolved)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	080W[I]	mg/l	0.005
Sodium (Dissolved)	42	46	100	37	56	062W[I]	mg/l	0.5
Zinc (Dissolved)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	080W[I]	mg/l	0.005
Ammoniacal Nitrogen as N	0.23	< 0.05	< 0.05	5.1	0.09	057W[I]	mg/l	0.05
Ammoniacal Nitrogen as NH4	0.30	< 0.065	< 0.065	6.6	0.12	057W[I]	mg/l	0.065
Total Cyanide	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	061W[I]	mg/l	0.02
Chloride	60	130	94	26	69	086W[I]	mg/l	10
Electrical Conductivity	655	713	791	645	744	084W[I]	uS/cm	20
Nitrate as N	< 0.5	< 0.5	< 0.5	< 0.5	0.6	086W[I]	mg/l	0.5
pH	6.9	6.0	6.3	6.5	7.1	084W[I]	pH Units	1
Redox Potential	150	51	31	33	61	INST	mV	-1000
Sulphate as SO4	30	14	13	< 10	41	086W[I]	mg/l	10
Total Alkalinity as CaCO3	240	140	190	310	250	096W[I]	mg/l	20
* * PHENOLS SUITE * *								
Phenol	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	020W[I]	mg/l	0.01
Total Monohydric Phenols	< 0.01	0.11	0.057	0.075	< 0.01	020W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
Arsenic (Dissolved)	< 0.005	< 0.005	0.011			080W[I]	mg/l	0.005
Boron (Dissolved)	0.15	0.26	0.15			080W[I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001	< 0.001	< 0.001			080W[I]	mg/l	0.001
Calcium (Dissolved)	110	85	110			062W[I]	mg/l	0.5
Chromium (Dissolved)	< 0.005	0.007	< 0.005			080W[I]	mg/l	0.005
Copper (Dissolved)	< 0.005	0.008	< 0.005			080W[I]	mg/l	0.005
Iron (Dissolved)	< 0.02	< 0.02	0.04			080W[I]	mg/l	0.02
Lead (Dissolved)	< 0.005	< 0.005	< 0.005			080W[I]	mg/l	0.005
Magnesium (Dissolved)	4.6	3.4	4.5			062W[I]	mg/l	0.1
Mercury (Dissolved)	< 0.00005	< 0.00005	< 0.00005			080W[I]	mg/l	0.00005
Nickel (Dissolved)	0.006	0.072	< 0.005			080W[I]	mg/l	0.005
Potassium (Dissolved)	7.8	7.5	7.9			062W[I]	mg/l	0.5
Selenium (Dissolved)	< 0.005	< 0.005	< 0.005			080W[I]	mg/l	0.005
Sodium (Dissolved)	35	34	45			062W[I]	mg/l	0.5
Zinc (Dissolved)	0.008	0.008	< 0.005			080W[I]	mg/l	0.005
Ammoniacal Nitrogen as N	< 0.05	0.34	< 0.05			057W[I]	mg/l	0.05
Ammoniacal Nitrogen as NH4	< 0.065	0.44	< 0.065			057W[I]	mg/l	0.065
Total Cyanide	< 0.02	< 0.02	< 0.02			061W[I]	mg/l	0.02
Chloride	52	51	60			086W[I]	mg/l	10
Electrical Conductivity	634	544	666			084W[I]	uS/cm	20
Nitrate as N	2.5	< 0.5	< 0.5			086W[I]	mg/l	0.5
pH	6.8	6.6	7.1			084W[I]	pH Units	1
Redox Potential	98	120	83			INST	mV	-1000
Sulphate as SO4	58	< 10	11			086W[I]	mg/l	10
Total Alkalinity as CaCO3	200	210	270			096W[I]	mg/l	20
* * PHENOLS SUITE * *								
Phenol	< 0.01	< 0.01	< 0.01			020W[I]	mg/l	0.01
Total Monohydric Phenols	< 0.01	< 0.01	< 0.01			020W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0001	0.0077	0.31	0.0007	0.0001	022W[I]	mg/l	0.0001
Acenaphthylene	< 0.0001	< 0.0001	0.0057	< 0.0001	< 0.0001	022W[I]	mg/l	0.0001
Acenaphthene	< 0.0001	0.0003	0.015	0.0001	< 0.0001	022W[I]	mg/l	0.0001
Fluorene	< 0.0001	0.0003	0.015	< 0.0001	< 0.0001	022W[I]	mg/l	0.0001
Phenanthrene	< 0.0001	0.0004	0.011	0.0001	< 0.0001	022W[I]	mg/l	0.0001
Anthracene	< 0.0001	< 0.0001	0.0024	< 0.0001	< 0.0001	022W[I]	mg/l	0.0001
Fluoranthene	< 0.0001	0.0001	0.0011	0.0005	< 0.0001	022W[I]	mg/l	0.0001
Pyrene	< 0.0001	0.0001	0.0012	0.0005	< 0.0001	022W[I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0001	< 0.0001	0.0004	0.0005	< 0.0001	022W[I]	mg/l	0.0001
Chrysene	< 0.0001	< 0.0001	0.0007	0.0004	< 0.0001	022W[I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0001	< 0.0001	0.0005	0.0009	< 0.0001	022W[I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0001	< 0.0001	0.0002	0.0004	< 0.0001	022W[I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0001	< 0.0001	0.0001	0.0008	< 0.0001	022W[I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0001	< 0.0001	0.0001	0.0005	< 0.0001	022W[I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001	022W[I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0001	< 0.0001	0.0004	0.0008	< 0.0001	022W[I]	mg/l	0.0001
PAH (Sum of Dutch 10)	ND	0.0082	0.33	0.0045	0.0001	022W[I]	mg/l	0.0001
PAH (Sum of EPA 16)	ND	0.0089	0.37	0.0062	0.0001	022W[I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0001	< 0.0001	0.024			022W[I]	mg/l	0.0001
Acenaphthylene	< 0.0001	< 0.0001	0.0017			022W[I]	mg/l	0.0001
Acenaphthene	< 0.0001	< 0.0001	0.012			022W[I]	mg/l	0.0001
Fluorene	< 0.0001	< 0.0001	0.018			022W[I]	mg/l	0.0001
Phenanthrene	< 0.0001	< 0.0001	0.034			022W[I]	mg/l	0.0001
Anthracene	< 0.0001	< 0.0001	0.0046			022W[I]	mg/l	0.0001
Fluoranthene	< 0.0001	< 0.0001	0.0041			022W[I]	mg/l	0.0001
Pyrene	< 0.0001	< 0.0001	0.017			022W[I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0001	< 0.0001	0.0021			022W[I]	mg/l	0.0001
Chrysene	< 0.0001	< 0.0001	0.0014			022W[I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0001	< 0.0001	0.0002			022W[I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0001	< 0.0001	< 0.0001			022W[I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0001	< 0.0001	< 0.0001			022W[I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0001	< 0.0001	< 0.0001			022W[I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0001	< 0.0001	< 0.0001			022W[I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0001	< 0.0001	< 0.0001			022W[I]	mg/l	0.0001
PAH (Sum of Dutch 10)	ND	ND	0.071			022W[I]	mg/l	0.0001
PAH (Sum of EPA 16)	ND	ND	0.12			022W[I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	2.3	0.62	2.5	< 0.01	CWGW	mg/l	0.01
Aliphatic >C6-C8	0.64	28	33	6.9	< 0.01	CWGW	mg/l	0.01
Aliphatic >C8-C10	< 0.01	2.5	6.5	0.32	< 0.01	CWGW	mg/l	0.01
Aliphatic >C10-C12	< 0.01	2.8	18	0.54	< 0.01	CWGW	mg/l	0.01
Aliphatic >C12-C16	0.51	0.25	3.2	0.15	< 0.01	CWGW	mg/l	0.01
Aliphatic >C16-C21	1.2	0.53	7.7	0.03	< 0.01	CWGW	mg/l	0.01
Aliphatic >C21-C35	0.09	0.87	1.3	0.05	< 0.01	CWGW	mg/l	0.01
Total Aliphatics (C5-C35)	2.44	36.86	70.51	10.51	< 0.01	CWGW	mg/l	0.01
Aromatic C6-C7	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGW	mg/l	0.01
Aromatic >C7-C8	< 0.01	4.3	1.0	2.2	< 0.01	CWGW	mg/l	0.01
Aromatic >C8-C10	< 0.01	10	11	1.3	< 0.01	CWGW	mg/l	0.01
Aromatic >C10-C12	< 0.01	4.1	27	0.81	< 0.01	CWGW	mg/l	0.01
Aromatic >C12-C16	0.09	0.15	7.6	0.13	< 0.01	CWGW	mg/l	0.01
Aromatic >C16-C21	0.42	0.09	5.6	0.02	< 0.01	CWGW	mg/l	0.01
Aromatic >C21-C35	0.28	0.06	1.8	0.07	< 0.01	CWGW	mg/l	0.01
Total Aromatics (C5-C35)	0.79	19.09	54.29	4.52	< 0.01	CWGW	mg/l	0.01
Volatile Hydrocarbons (C5-C12)	0.64	54	97.6	14.59	< 0.01	CWGW	mg/l	0.01
Extractable Hydrocarbons (C12-C35)	2.59	1.95	27.19	0.44	< 0.01	CWGW	mg/l	0.01
Total Hydrocarbons (C5-C35)	3.23	55.95	124.8	15.03	< 0.01	CWGW	mg/l	0.01
MTBE	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	CWGW[I]	mg/l	0.005
Benzene	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	CWGW[I]	mg/l	0.005
Toluene	< 0.005	4.3	1.0	2.2	< 0.005	CWGW[I]	mg/l	0.005
Ethylbenzene	< 0.005	1.3	0.17	0.052	< 0.005	CWGW[I]	mg/l	0.005
m,p-Xylenes	< 0.005	4.0	0.44	0.60	< 0.005	CWGW[I]	mg/l	0.005
o-Xylene	< 0.005	1.3	0.50	0.16	< 0.005	CWGW[I]	mg/l	0.005
1,3,5-Trimethylbenzene	< 0.005	0.23	0.14	0.020	< 0.005	CWGW[I]	mg/l	0.005
1,2,4-Trimethylbenzene	< 0.005	0.56	0.74	0.055	< 0.005	CWGW[I]	mg/l	0.005

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	0.10	0.08			CWGW	mg/l	0.01
Aliphatic >C6-C8	< 0.01	0.91	0.22			CWGW	mg/l	0.01
Aliphatic >C8-C10	< 0.01	< 0.01	0.27			CWGW	mg/l	0.01
Aliphatic >C10-C12	< 0.01	< 0.01	0.86			CWGW	mg/l	0.01
Aliphatic >C12-C16	0.05	< 0.01	2.6			CWGW	mg/l	0.01
Aliphatic >C16-C21	0.18	< 0.01	5.6			CWGW	mg/l	0.01
Aliphatic >C21-C35	0.09	< 0.01	0.76			CWGW	mg/l	0.01
Total Aliphatics (C5-C35)	0.32	1.01	10.43			CWGW	mg/l	0.01
Aromatic C6-C7	< 0.01	< 0.01	< 0.01			CWGW	mg/l	0.01
Aromatic >C7-C8	< 0.01	< 0.01	< 0.01			CWGW	mg/l	0.01
Aromatic >C8-C10	< 0.01	< 0.01	0.48			CWGW	mg/l	0.01
Aromatic >C10-C12	< 0.01	< 0.01	1.3			CWGW	mg/l	0.01
Aromatic >C12-C16	< 0.01	0.01	0.57			CWGW	mg/l	0.01
Aromatic >C16-C21	0.16	< 0.01	1.0			CWGW	mg/l	0.01
Aromatic >C21-C35	< 0.01	< 0.01	0.39			CWGW	mg/l	0.01
Total Aromatics (C5-C35)	0.16	0.01	3.74			CWGW	mg/l	0.01
Volatile Hydrocarbons (C5-C12)	< 0.01	1.01	3.19			CWGW	mg/l	0.01
Extractable Hydrocarbons (C12-C35)	0.48	0.01	10.98			CWGW	mg/l	0.01
Total Hydrocarbons (C5-C35)	0.48	1.02	14.17			CWGW	mg/l	0.01
MTBE	< 0.005	< 0.005	< 0.005			CWGW[I]	mg/l	0.005
Benzene	< 0.005	< 0.005	< 0.005			CWGW[I]	mg/l	0.005
Toluene	< 0.005	< 0.005	< 0.005			CWGW[I]	mg/l	0.005
Ethylbenzene	< 0.005	< 0.005	0.025			CWGW[I]	mg/l	0.005
m,p-Xylenes	< 0.005	< 0.005	0.022			CWGW[I]	mg/l	0.005
o-Xylene	< 0.005	< 0.005	0.019			CWGW[I]	mg/l	0.005
1,3,5-Trimethylbenzene	< 0.005	< 0.005	0.029			CWGW[I]	mg/l	0.005
1,2,4-Trimethylbenzene	< 0.005	< 0.005	0.029			CWGW[I]	mg/l	0.005

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 20	25	2400	< 20	< 20	053W[I]	ug/l	20
2-Chloronaphthalene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Acenaphthylene	< 20	< 20	39	< 20	< 20	053W[I]	ug/l	20
Acenaphthene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Fluorene	< 20	< 20	94	< 20	< 20	053W[I]	ug/l	20
Phenanthrene	< 20	< 20	93	< 20	< 20	053W[I]	ug/l	20
Anthracene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Fluoranthene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Pyrene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Benz(a)anthracene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Chrysene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Benzo(b)fluoranthene	< 25	< 25	< 25	< 25	< 25	053W[I]	ug/l	25
Benzo(k)fluoranthene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Benzo(a)pyrene	< 25	< 25	< 25	< 25	< 25	053W[I]	ug/l	25
Dibenzo(a,h)anthracene	< 40	< 40	< 40	< 40	< 40	053W[I]	ug/l	40
Indeno(1,2,3-cd)pyrene	< 40	< 40	< 40	< 40	< 40	053W[I]	ug/l	40
Benzo(g,h,i)perylene	< 40	< 40	< 40	< 40	< 40	053W[I]	ug/l	40
Phenol	< 20	< 20	‡< 100	< 20	< 20	053W[I]	ug/l	20
2-Chlorophenol	< 20	< 20	‡< 100	< 20	< 20	053W[I]	ug/l	20
2-Methylphenol	< 20	24	‡< 100	< 20	< 20	053W[I]	ug/l	20
4-Methylphenol	< 20	37	‡< 100	< 20	< 20	053W[I]	ug/l	20
2-Nitrophenol	< 20	< 20	‡< 100	< 20	< 20	053W	ug/l	20
2,4-Dimethylphenol	< 20	< 20	‡< 100	< 20	< 20	053W[I]	ug/l	20
2,4-Dichlorophenol	< 20	< 20	‡< 100	< 20	< 20	053W[I]	ug/l	20
2,6-Dichlorophenol	< 20	< 20	‡< 100	< 20	< 20	053W[I]	ug/l	20
4-Chloro-3-methyl phenol	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
2,4,6-Trichlorophenol	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
2,4,5-Trichlorophenol	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
4-Nitrophenol	< 50	< 50	< 50	< 50	< 50	053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 30	< 30	< 30	< 30	< 30	053W	ug/l	30
Pentachlorophenol	< 60	< 60	< 60	< 60	< 60	053W	ug/l	60
Dimethyl Phthalate	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Diethyl Phthalate	< 30	< 30	< 30	< 30	< 30	053W[I]	ug/l	30
Di-n-butyl phthalate	< 30	< 30	83	< 30	< 30	053W[I]	ug/l	30
Butyl benzyl phthalate	< 60	< 60	< 60	< 60	< 60	053W[I]	ug/l	60
Bis(2-chloroethyl)ether	< 15	< 15	< 15	< 15	< 15	053W[I]	ug/l	15
Bis(2-chloroisopropyl)ether	< 10	< 10	‡< 100	< 10	< 10	053W[I]	ug/l	10
4-Chlorophenyl phenyl ether	< 15	< 15	< 15	< 15	< 15	053W[I]	ug/l	15
Bromo phenyl phenyl ether	< 30	< 30	< 30	< 30	< 30	053W[I]	ug/l	30
1,3-Dichlorobenzene	< 15	< 15	‡< 100	< 15	< 15	053W[I]	ug/l	15
1,2-Dichlorobenzene	< 10	39	1100	< 10	< 10	053W[I]	ug/l	10
1,4-Dichlorobenzene	< 10	17	250	< 10	< 10	053W[I]	ug/l	10
Nitrobenzene	< 20	< 20	‡< 100	< 20	< 20	053W[I]	ug/l	20
1,2,4-Trichlorobenzene	< 10	< 10	< 10	< 10	< 10	053W[I]	ug/l	10
2,6-Dinitrotoluene	< 30	< 30	< 30	< 30	< 30	053W[I]	ug/l	30
2,4-Dinitrotoluene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Azobenzene	< 30	< 30	< 30	< 30	< 30	053W[I]	ug/l	30
Hexachlorobenzene	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Hexachloroethane	< 40	< 40	‡< 100	< 40	< 40	053W[I]	ug/l	40
n-Nitro-n-propyl-1-propanamine	< 15	< 15	‡< 100	< 15	< 15	053W[I]	ug/l	15
Isophorone	< 20	< 20	< 20	< 20	< 20	053W[I]	ug/l	20
Bis(2-chloroethoxy)methane	< 15	< 15	< 15	< 15	< 15	053W[I]	ug/l	15
Hexachlorobutadiene	< 10	< 10	< 10	< 10	< 10	053W[I]	ug/l	10
Anthraquinone	< 30	< 30	< 30	< 30	< 30	053W	ug/l	30
Hexachlorocyclopentadiene	< 50	< 50	< 50	< 50	< 50	053W	ug/l	50
Aniline	< 40	< 40	‡< 100	< 40	< 40	053W	ug/l	40
4-nitroaniline	< 50	< 50	‡< 100	< 50	< 50	053W	ug/l	50
3-nitroaniline	< 50	< 50	‡< 100	< 50	< 50	053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
Dibenzofuran	< 50	< 50	< 50	< 50	< 50	053W	ug/l	50
2-nitroaniline	< 50	< 50	‡< 100	< 50	< 50	053W	ug/l	50
Bis (2-ethylhexyl) phthalate	< 50	< 50	90	< 50	< 50	053W	ug/l	50
4-Chloroaniline	< 50	< 50	< 50	< 50	< 50	053W[I]	ug/l	50
Carbazole	< 50	< 50	< 50	< 50	< 50	053W	ug/l	50
2-Methylnapthalene	< 50	72	6700	< 50	< 50	053W	ug/l	50
Biphenyl	< 40	< 40	120	< 40	< 40	053W	ug/l	40
SVOC TIC'S	ND	See TIC's Page	See TIC's Page	See TIC's Page	ND	053W		1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 20	< 20	25			053W[I]	ug/l	20
2-Chloronaphthalene	< 20	< 20	< 20			053W[I]	ug/l	20
Acenaphthylene	< 20	< 20	< 20			053W[I]	ug/l	20
Acenaphthene	< 20	< 20	< 20			053W[I]	ug/l	20
Fluorene	< 20	< 20	< 20			053W[I]	ug/l	20
Phenanthrene	< 20	< 20	< 20			053W[I]	ug/l	20
Anthracene	< 20	< 20	< 20			053W[I]	ug/l	20
Fluoranthene	< 20	< 20	< 20			053W[I]	ug/l	20
Pyrene	< 20	< 20	< 20			053W[I]	ug/l	20
Benz(a)anthracene	< 20	< 20	< 20			053W[I]	ug/l	20
Chrysene	< 20	< 20	< 20			053W[I]	ug/l	20
Benzo(b)fluoranthene	< 25	< 25	< 25			053W[I]	ug/l	25
Benzo(k)fluoranthene	< 20	< 20	< 20			053W[I]	ug/l	20
Benzo(a)pyrene	< 25	< 25	< 25			053W[I]	ug/l	25
Dibenzo(a,h)anthracene	< 40	< 40	< 40			053W[I]	ug/l	40
Indeno(1,2,3-cd)pyrene	< 40	< 40	< 40			053W[I]	ug/l	40
Benzo(g,h,i)perylene	< 40	< 40	< 40			053W[I]	ug/l	40
Phenol	< 20	< 20	< 20			053W[I]	ug/l	20
2-Chlorophenol	< 20	< 20	< 20			053W[I]	ug/l	20
2-Methylphenol	< 20	< 20	< 20			053W[I]	ug/l	20
4-Methylphenol	< 20	< 20	< 20			053W[I]	ug/l	20
2-Nitrophenol	< 20	< 20	< 20			053W	ug/l	20
2,4-Dimethylphenol	< 20	< 20	< 20			053W[I]	ug/l	20
2,4-Dichlorophenol	< 20	< 20	< 20			053W[I]	ug/l	20
2,6-Dichlorophenol	< 20	< 20	< 20			053W[I]	ug/l	20
4-Chloro-3-methyl phenol	< 20	< 20	< 20			053W[I]	ug/l	20
2,4,6-Trichlorophenol	< 20	< 20	< 20			053W[I]	ug/l	20
2,4,5-Trichlorophenol	< 20	< 20	< 20			053W[I]	ug/l	20
4-Nitrophenol	< 50	< 50	< 50			053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 30	< 30	< 30			053W	ug/l	30
Pentachlorophenol	< 60	< 60	< 60			053W	ug/l	60
Dimethyl Phthalate	< 20	< 20	< 20			053W[I]	ug/l	20
Diethyl Phthalate	< 30	< 30	< 30			053W[I]	ug/l	30
Di-n-butyl phthalate	< 30	< 30	< 30			053W[I]	ug/l	30
Butyl benzyl phthalate	< 60	< 60	< 60			053W[I]	ug/l	60
Bis(2-chloroethyl)ether	< 15	< 15	< 15			053W[I]	ug/l	15
Bis(2-chloroisopropyl)ether	< 10	< 10	< 10			053W[I]	ug/l	10
4-Chlorophenyl phenyl ether	< 15	< 15	< 15			053W[I]	ug/l	15
Bromo phenyl phenyl ether	< 30	< 30	< 30			053W[I]	ug/l	30
1,3-Dichlorobenzene	< 15	< 15	< 15			053W[I]	ug/l	15
1,2-Dichlorobenzene	< 10	120	310			053W[I]	ug/l	10
1,4-Dichlorobenzene	< 10	30	96			053W[I]	ug/l	10
Nitrobenzene	< 20	< 20	< 20			053W[I]	ug/l	20
1,2,4-Trichlorobenzene	< 10	< 10	< 10			053W[I]	ug/l	10
2,6-Dinitrotoluene	< 30	< 30	< 30			053W[I]	ug/l	30
2,4-Dinitrotoluene	< 20	< 20	< 20			053W[I]	ug/l	20
Azobenzene	< 30	< 30	< 30			053W[I]	ug/l	30
Hexachlorobenzene	< 20	< 20	< 20			053W[I]	ug/l	20
Hexachloroethane	< 40	< 40	< 40			053W[I]	ug/l	40
n-Nitro-n-propyl-1-propanamine	< 15	< 15	< 15			053W[I]	ug/l	15
Isophorone	< 20	< 20	< 20			053W[I]	ug/l	20
Bis(2-chloroethoxy)methane	< 15	< 15	< 15			053W[I]	ug/l	15
Hexachlorobutadiene	< 10	< 10	< 10			053W[I]	ug/l	10
Anthraquinone	< 30	< 30	< 30			053W	ug/l	30
Hexachlorocyclopentadiene	< 50	< 50	< 50			053W	ug/l	50
Aniline	< 40	< 40	< 40			053W	ug/l	40
4-nitroaniline	< 50	< 50	< 50			053W	ug/l	50
3-nitroaniline	< 50	< 50	< 50			053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
Dibenzofuran	< 50	< 50	< 50			053W	ug/l	50
2-nitroaniline	< 50	< 50	< 50			053W	ug/l	50
Bis (2-ethylhexyl) phthalate	< 50	< 50	< 50			053W	ug/l	50
4-Chloroaniline	< 50	< 50	< 50			053W[I]	ug/l	50
Carbazole	< 50	< 50	< 50			053W	ug/l	50
2-Methylnapthalene	< 50	< 50	110			053W	ug/l	50
Biphenyl	< 40	< 40	< 40			053W	ug/l	40
SVOC TIC'S	See TIC's Page	ND	See TIC's Page			053W		1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS4			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268287					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Dodecane	5.998	0.36	95	053W	mg/l	-
Tridecane	6.759	0.26	94	053W	mg/l	-
Pentadecane	7.822	0.11	96	053W	mg/l	-
Hexadecane	8.231	0.12	96	053W	mg/l	-
Heptadecane	8.664	0.13	98	053W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS5			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268288					
Analysis						
* * SVOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
Decane	4.426	2.2	97	053W	mg/l	-
Dodecane	6.006	2.3	96	053W	mg/l	-
Tridecane	6.772	2	97	053W	mg/l	-
Tetradecane	7.349	1.1	97	053W	mg/l	-
Hexadecane	8.235	0.69	98	053W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS6			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268289					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Dipropylene glycol methyl ether	4.422	1.5	90	053W	mg/l	-
1-(2-Methoxypropoxy)-2-propanol	4.518	3.8	90	053W	mg/l	-
1-[1-methyl-2-(2-propenyloxy)ethoxy]-2-Propanol	6.354	1.8	83	053W	mg/l	-
Tetraethylene glycol dimethyl ether	6.383	1.8	78	053W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS10			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268291					
Analysis						
* * SVOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
2,4,7,9-TETRAMETHYL-5-DICYNE-4,7-DIOL	7.425	0.12	91	053W	mg/l	-
Methyl oleate	10.367	0.03	93	053W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS12			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268293					
Analysis						
* * SVOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
Undecane	5.112	1.8	97	053W	mg/l	-
Dodecane	6.002	1.4	94	053W	mg/l	-
Tridecane	6.763	1.8	95	053W	mg/l	-
Tetradecane	7.345	1.5	97	053W	mg/l	-
Pentadecane	7.826	1.5	96	053W	mg/l	-
Hexadecane	8.235	1.3	95	053W	mg/l	-
Heptadecane	8.664	1.2	98	053W	mg/l	-
Octadecane	9.161	1	98	053W	mg/l	-
Nonadecane	9.618	0.93	98	053W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	0.078	0.49	0.40	0.034	< 0.01	040W[I]	mg/l	0.01
Chloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
1,1-Dichloroethene	0.001	0.075	0.038	< 0.001	< 0.001	040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	040W[I]	mg/l	0.025
Dichloromethane	< 0.050	0.18	< 0.050	< 0.050	< 0.050	040W[I]	mg/l	0.05
Trans-1,2 Dichloroethene	0.003	0.11	0.068	< 0.001	< 0.001	040W[I]	mg/l	0.001
MTBE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	0.006	0.021	< 0.001	< 0.001	040W[I]	mg/l	0.001
Cis-1,2 Dichloroethene	2.3	84	66	0.070	0.011	040W[I]	mg/l	0.001
Chloroform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	0.002	0.010	< 0.001	< 0.001	040W[I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Benzene	< 0.001	0.003	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Trichloroethene	0.007	25	0.007	0.003	0.002	040W[I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Toluene	< 0.001	5.2	1.1	0.99	< 0.001	040W[I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001	0.010	< 0.001	< 0.001	040W[I]	mg/l	0.001
Ethyl Benzene	< 0.001	1.6	0.29	0.007	< 0.001	040W[I]	mg/l	0.001
m,p-Xylenes	< 0.001	5.9	0.62	0.48	< 0.001	040W[I]	mg/l	0.001
Bromoform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W[I]	mg/l	0.001
o-Xylene	< 0.001	1.5	0.78	0.11	< 0.001	040W[I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	0.19	< 0.001	< 0.001	< 0.001	040W	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS1	WS4	WS5	WS6	WS9	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Date Scheduled	10/10/07	10/10/07	10/10/07	10/10/07	10/10/07			
Laboratory Reference No	268286	268287	268288	268289	268290			
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	0.15	0.50	0.008	< 0.001	040W[I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	0.44	0.96	0.036	< 0.001	040W[I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	0.002	0.18	< 0.001	< 0.001	040W[I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	0.013	2.5	0.001	< 0.001	040W[I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	0.030	6.3	0.004	< 0.001	040W[I]	mg/l	0.001
VOC TIC'S	ND	See TIC's Page	See TIC's Page	See TIC's Page	ND	040W		1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	0.098	0.13			040W[I]	mg/l	0.01
Chloroethane	< 0.001	0.14	0.025			040W[I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	0.001	< 0.001			040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025	< 0.025			040W[I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050	< 0.050			040W[I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	0.008	0.005			040W[I]	mg/l	0.001
MTBE	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	0.29	0.26			040W[I]	mg/l	0.001
Cis-1,2 Dichloroethene	0.006	3.2	0.73			040W[I]	mg/l	0.001
Chloroform	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Benzene	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Trichloroethene	0.001	0.028	0.002			040W[I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Toluene	< 0.001	0.001	0.002			040W[I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001	0.019			040W[I]	mg/l	0.001
Ethyl Benzene	< 0.001	< 0.001	0.010			040W[I]	mg/l	0.001
m,p-Xylenes	< 0.001	< 0.001	0.002			040W[I]	mg/l	0.001
Bromoform	< 0.001	< 0.001	< 0.001			040W[I]	mg/l	0.001
o-Xylene	< 0.001	< 0.001	0.012			040W[I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001	< 0.001			040W	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS12			Method No	Units	LOD
Sample Depth (m)	-	-	-					
Date Sampled	10/10/07	10/10/07	10/10/07					
Date Scheduled	10/10/07	10/10/07	10/10/07					
Laboratory Reference No	268291	268292	268293					
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001	0.013			040W[I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	< 0.001	0.010			040W[I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	0.001	0.008			040W[I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001	0.063			040W[I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001	0.20			040W[I]	mg/l	0.001
VOC TIC'S	ND	ND	See TIC's Page			040W		1

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ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS4			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268287					
Analysis						
* * VOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
o-ethyltoluene	5.41	0.236	91	040W	mg/l	-
1,2,3-trimethylbenzene	5.57	0.107	90	040W	mg/l	-
m-ethylbenzene	5.9	0.072	90	040W	mg/l	-
undecane	6.11	0.067	93	040W	mg/l	-
2-propyltoluene	6.15	0.047	86	040W	mg/l	-
m-cymene	6.21	0.082	91	040W	mg/l	-
3-ethyl-o-xylene	6.25	0.06	97	040W	mg/l	-
4-ethyl-o-xylene	6.49	0.074	94	040W	mg/l	-
2-ethyl-1,4-dimethylbenzene	6.72	0.122	72	040W	mg/l	-
tridecane	7.26	0.047	95	040W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS5			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268288					
Analysis						
* * VOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
1,2,3-trimethylbenzene	5.57	1.841	76	040W	mg/l	-
heptane	5.63	1.824	72	040W	mg/l	-
nonane	5.94	1.326	90	040W	mg/l	-
m-propyltoluene	6.01	1.473	76	040W	mg/l	-
o-dichlorobenzene	6.06	3.928	95	040W	mg/l	-
undecane	6.12	5.152	92	040W	mg/l	-
p-cymene	6.21	2.429	90	040W	mg/l	-
1,2,3,4-tetramethylbenzene	6.5	1.608	89	040W	mg/l	-
tridecane	7.26	2.084	93	040W	mg/l	-
1-methylnaphthalene	7.66	1.603	94	040W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS6			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268289					
Analysis						
* * VOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
2-butanol	2.09	0.247	91	040W	mg/l	-
2-pentanone	3.6	3.634	94	040W	mg/l	-
octane	5	0.02	90	040W	mg/l	-
o-ethyltoluene	5.42	0.032	83	040W	mg/l	-
1,2,3-trimethylbenzene	5.57	0.04	91	040W	mg/l	-
3-ethyl-o-xylene	6.25	0.05	91	040W	mg/l	-
2-ethyl-1,3-dimethylbenzene	6.72	0.101	76	040W	mg/l	-
1,2,3,4-tetrahydronaphthalene	6.81	0.1	76	040W	mg/l	-
1-methylnaphthalene	7.65	0.053	90	040W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
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ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-39965
Matrix : Water
Project Code: 67-C12520

Sample Reference	WS12			Method No	Units	LOD
Sample Depth (m)	-					
Date Sampled	10/10/07					
Date Scheduled	10/10/07					
Laboratory Reference No	268293					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
octane	5	0.02	83	040W	mg/l	-
undecane	6.12	0.336	94	040W	mg/l	-
dodecane	6.71	0.325	86	040W	mg/l	-
2,6-dimethylundecane	6.8	0.152	93	040W	mg/l	-
tridecane	7.25	0.248	96	040W	mg/l	-
1H-Indene	7.37	0.109	70	040W	mg/l	-
tetradecane	7.77	0.224	96	040W	mg/l	-
pentadecane	8.25	0.157	94	040W	mg/l	-
hexadecane	8.7	0.096	97	040W	mg/l	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
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ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-39965

Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
INST	In-house method based on Method 2580, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of redox potential in aqueous samples by direct electrometric measurement	
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	
096W	In-house method based on MEWAM "Total Alkalinity of Raw Potable and Waste Waters", HMSO, 1981	Determination of total alkalinity in aqueous samples by titration	
086W	In-house method	Determination of anion content in aqueous samples using ion chromatographic determination with electrical conductivity detector	
084W	In-house method based on Method 2510, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of electrical conductivity of aqueous samples using a conductivity meter	
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)	
062W	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	
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)	
057W	In-house method based on Method 18.13 "Environmental Assessment Guidance" Version 3, Second Site Property, March 2003	Determination of ammoniacal nitrogen in aqueous samples by ion selective electrode	

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-39965

Project Code: 67-C12520

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
053W	In-house method	Determination of semi-volatile organic compounds in aqueous samples by dichloromethane extraction and GC-MS detection	
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	
022W	In-house method	Determination of PAH compounds in aqueous samples by pentane extraction followed by GC-MS detection	
020W	In-house method based on Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of phenols in aqueous samples by HPLC with electrochemical detection	

Jesse Davies
Environ UK Ltd
Sterling House
The Bourse
Boar Lane
Leeds
LS1 5EQ

Date: 19/10/2007

Dear Jesse Davies,

It has been necessary to re-issue the enclosed report:
Our Report Number: 07-39082

The "Re-Issue Details Sheet" lists changes made from the original.

Please destroy the original report which this replaces.

Sincere apologies for any inconvenience caused.



Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

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Re-Issue Details Sheet

Our Report Number: 07-39082 Re-issue No: 1 dated 19/10/2007
Project Name: Trimite - Uxbridge
Project Code: 67-C12520

Date: 19/10/2007

Page	Amendment
8&9	TOC results added for sample no's 264374 & 75 on client request.



Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

PDF created with FinePrint pdfFactory Pro trial version http://www.fineprint.com

Jesse Davies
Environ UK Ltd
Sterling House
The Bourse
Boar Lane
Leeds
LS1 5EQ

17 October 2007

TEST REPORT

Our Report Number: 07-39082 Re-issue No: 1 dated 19/10/2007

Your Order Reference: Instructions of 25/09/2007

27 soil samples submitted for analysis on 24/09/2007

Project Name: Trimite - Uxbridge

Project Code: 67-C12520

Laboratory analysis started on 26/09/2007
All laboratory analysis completed by 11 October 2007

p.p. Steve Parks
Organic Manager
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
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.

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ALcontrol Technichem
Sample Description

Job Number: 07-39082 Re-issue No: 1 dated 19/10/2007
Client: Environ UK Ltd
Project Code: 67-C12520

Matrix: Soil
Project Name: Trimite - Uxbridge

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
264360	WS1	0.5m	21/09/07	Brown sandy clay with gravel
264361	WS1	1.7m	21/09/07	*Brown gravel with sand
264362	WS2	0.5m	22/09/07	Dark brown sandy clay with gravel
264363	WS3	1.0m	22/09/07	Dark brown clay with gravel
264364	WS4	0.2m	22/09/07	Dark brown sandy clay with gravel
264365	WS4	1.75m	22/09/07	*Grey gravel with sand
264366	WS1	2.0-3.0m	22/09/07	-
264367	WS4	3.0-4.0m	22/09/07	-
264368	WS5	0.5m	23/09/07	Brown sandy clay with rubble
264369	WS5	1.2m	23/09/07	*Grey gravel with sand and oil / petroleum
264370	WS6	0.5m	23/09/07	Dark brown clay with gravel
264371	WS6	1.0m	23/09/07	Brown clay with gravel
264372	WS7	0.5m	23/09/07	Brown sandy clay
264373	WS7	1.0m	23/09/07	Brown sand with gravel and oil / petroleum
264374	WS8	0.5m	23/09/07	Brown sand with gravel
264375	WS8	1.5m	23/09/07	*Brown gravel with sand
264376	WS9	0.5m	24/09/07	Brown sand with gravel and brick
264377	WS9	1.0m	24/09/07	Brown sand with gravel
264378	WS9	2.5-3.0m	24/09/07	-
264379	WS10	0.2m	24/09/07	Dark brown sand with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

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ALcontrol Technichem
Sample Description

Job Number: 07-39082 Re-issue No: 1 dated 19/10/2007
Client: Environ UK Ltd
Project Code: 67-C12520

Matrix: Soil
Project Name: Trimite - Uxbridge

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
264380	WS10	1.0m	24/09/07	Brown sand with gravel
264381	WS11	0.5m	24/09/07	Dark brown clay with gravel
264382	WS11	1.0m	24/09/07	Brown clay with gravel
264383	WS11	2.0-3.0m	24/09/07	-
264384	WS12	0.5m	24/09/07	Brown sandy clay with gravel
264385	WS12	1.2m	24/09/07	*Dark grey gravel with sand
264386	WS12	1.5m	24/09/07	*Dark grey gravel with sand and oil / petroleum

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
Moisture Content (Dry Weight)	11.3	7.1	48.5	33.8	37.4		%	0.1
Moisture Content (Wet Weight)	10.1	6.6	32.7	25.3	27.2		%	0.1
Asbestos (Screen)	Absent	-	Absent	-	Absent	001a		
Arsenic	7.9	4.3	11	18	9.4	069S[IM]	mg/kg	3
Cadmium	< 0.5	< 0.5	0.6	< 0.5	0.8	069S[IM]	mg/kg	0.5
Chromium	13	16	25	34	27	069S[IM]	mg/kg	10
Copper	30	8.3	33	28	48	069S[IM]	mg/kg	5
Lead	66	12	140	46	170	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	1.3	0.7	1.5	069S[IM]	mg/kg	0.6
Nickel	17	12	21	45	20	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
W/S Sulphate as SO4	0.04	0.03	0.28	0.56	0.15	074[IM]	g/l	0.02
Zinc	56	26	93	76	150	069S[IM]	mg/kg	10
Total Cyanide	< 1	< 1	< 1	< 1	2.3	061S[IM]	mg/kg	1
pH	8.3	7.7	7.8	7.6	7.6	084S[IM]	pH Units	1
* * PHENOLS SUITE * *								
Phenol	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	< 1	< 1	< 1	< 1	020S[I]	mg/kg	1
Particle Size Distribution $	-	-	-	-	-	MISC		
Organic Carbon	-	-	-	-	-	092[IM]	%	0.1
Fraction Organic Carbon	-	-	-	-	-	092[I]		0.001

[I] ISO 17025 accredited.

[M] MCERTS accredited for sand, loam and clay.

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Table Of Results

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS4	WS1	WS4	WS5	WS5	Method No	Units	LOD
Sample Depth (m)	1.75m	2.0-3.0m	3.0-4.0m	0.5m	1.2m			
Date Sampled	22/09/07	22/09/07	22/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264366	264367	264368	264369			
Analysis								
Moisture Content (Dry Weight)	9.5	-	-	27.6	5.1		%	0.1
Moisture Content (Wet Weight)	8.7	-	-	21.7	4.8		%	0.1
Asbestos (Screen)	-	-	-	Absent	-	001a		
Arsenic	< 3	-	-	10	3.4	069S[IM]	mg/kg	3
Cadmium	< 0.5	-	-	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	< 10	-	-	18	14	069S[IM]	mg/kg	10
Copper	5.9	-	-	34	6.8	069S[IM]	mg/kg	5
Lead	< 10	-	-	83	11	069S[IM]	mg/kg	10
Mercury	< 0.6	-	-	0.8	< 0.6	069S[IM]	mg/kg	0.6
Nickel	7.9	-	-	12	9.1	069S[IM]	mg/kg	4
Selenium	< 2.5	-	-	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
W/S Sulphate as SO4	< 0.02	-	-	0.25	0.02	074[IM]	g/l	0.02
Zinc	< 10	-	-	89	14	069S[IM]	mg/kg	10
Total Cyanide	< 1	-	-	< 1	< 1	061S[IM]	mg/kg	1
pH	7.6	-	-	7.7	7.5	084S[IM]	pH Units	1
* * PHENOLS SUITE * *								
Phenol	< 0.1	-	-	< 0.1	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	-	-	5.0	< 1	020S[I]	mg/kg	1
Particle Size Distribution $	-	Sub-con	Sub-con	-	-	MISC		
Organic Carbon	-	-	-	-	-	092[IM]	%	0.1
Fraction Organic Carbon	-	-	-	-	-	092[I]		0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

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Table Of Results

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS6	WS6	WS7	WS7	WS8	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.0m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264370	264371	264372	264373	264374			
Analysis								
Moisture Content (Dry Weight)	27.9	7.4	29.8	5.5	4.9		%	0.1
Moisture Content (Wet Weight)	21.8	6.9	23.0	5.2	4.7		%	0.1
Asbestos (Screen)	Absent	-	Absent	-	Absent	001a		
Arsenic	8.4	22	9.5	< 3	< 3	069S[IM]	mg/kg	3
Cadmium	< 0.5	< 0.5	0.7	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	21	15	29	11	12	069S[IM]	mg/kg	10
Copper	33	14	30	5.6	7.9	069S[IM]	mg/kg	5
Lead	120	17	180	< 10	12	069S[IM]	mg/kg	10
Mercury	1.0	< 0.6	1.1	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	16	9.5	21	5.8	9.4	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
W/S Sulphate as SO4	0.07	0.03	0.28	< 0.02	0.06	074[IM]	g/l	0.02
Zinc	74	27	95	15	20	069S[IM]	mg/kg	10
Total Cyanide	< 1	< 1	< 1	< 1	< 1	061S[IM]	mg/kg	1
pH	7.8	8.0	7.6	7.2	8.3	084S[IM]	pH Units	1
* * PHENOLS SUITE * *								
Phenol	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	< 1	< 1	< 1	< 1	020S[I]	mg/kg	1
Particle Size Distribution $	-	-	-	-	-	MISC		
Organic Carbon	-	-	-	-	0.11	092[IM]	%	0.1
Fraction Organic Carbon	-	-	-	-	0.001	092[I]		0.001

[I] ISO 17025 accredited.
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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS8	WS9	WS9	WS9	WS10	Method No	Units	LOD
Sample Depth (m)	1.5m	0.5m	1.0m	2.5-3.0m	0.2m			
Date Sampled	23/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264375	264376	264377	264378	264379			
Analysis								
Moisture Content (Dry Weight)	5.4	6.5	6.7	-	8.4		%	0.1
Moisture Content (Wet Weight)	5.1	6.1	6.3	-	7.8		%	0.1
Asbestos (Screen)	-	Absent	-	-	Absent	001a		
Arsenic	6.4	8.4	3.2	-	20	069S[IM]	mg/kg	3
Cadmium	< 0.5	< 0.5	< 0.5	-	0.5	069S[IM]	mg/kg	0.5
Chromium	14	16	11	-	40	069S[IM]	mg/kg	10
Copper	7.2	27	< 5	-	150	069S[IM]	mg/kg	5
Lead	11	91	11	-	71	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	-	1.3	069S[IM]	mg/kg	0.6
Nickel	13	13	5.1	-	150	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	-	< 2.5	069S[IM]	mg/kg	2.5
W/S Sulphate as SO4	< 0.02	0.02	0.03	-	0.08	074[IM]	g/l	0.02
Zinc	18	47	< 10	-	120	069S[IM]	mg/kg	10
Total Cyanide	< 1	< 1	< 1	-	< 1	061S[IM]	mg/kg	1
pH	8.0	8.0	8.4	-	8.7	084S[IM]	pH Units	1
* * PHENOLS SUITE * *								
Phenol	< 0.1	< 0.1	< 0.1	-	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	< 1	< 1	-	< 1	020S[I]	mg/kg	1
Particle Size Distribution $	-	-	-	Sub-con	-	MISC		
Organic Carbon	< 0.1	-	-	-	-	092[IM]	%	0.1
Fraction Organic Carbon	< 0.001	-	-	-	-	092[I]		0.001

[I] ISO 17025 accredited.

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS10	WS11	WS11	WS11	WS12	Method No	Units	LOD
Sample Depth (m)	1.0m	0.5m	1.0m	2.0-3.0m	0.5m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264380	264381	264382	264383	264384			
Analysis								
Moisture Content (Dry Weight)	3.7	11.6	24.9	-	24.7		%	0.1
Moisture Content (Wet Weight)	3.6	10.4	19.9	-	19.8		%	0.1
Asbestos (Screen)	-	Absent	-	-	Absent	001a		
Arsenic	6.9	14	7.4	-	10	069S[IM]	mg/kg	3
Cadmium	< 0.5	< 0.5	0.8	-	1.2	069S[IM]	mg/kg	0.5
Chromium	12	20	33	-	38	069S[IM]	mg/kg	10
Copper	10	57	22	-	81	069S[IM]	mg/kg	5
Lead	< 10	150	45	-	280	069S[IM]	mg/kg	10
Mercury	< 0.6	1.0	< 0.6	-	2.3	069S[IM]	mg/kg	0.6
Nickel	8.0	24	26	-	24	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	-	< 2.5	069S[IM]	mg/kg	2.5
W/S Sulphate as SO4	< 0.02	0.04	0.30	-	0.09	074[IM]	g/l	0.02
Zinc	30	120	320	-	280	069S[IM]	mg/kg	10
Total Cyanide	< 1	6.2	< 1	-	1.3	061S[IM]	mg/kg	1
pH	8.2	7.9	7.8	-	7.1	084S[IM]	pH Units	1
* * PHENOLS SUITE * *								
Phenol	< 0.1	< 0.1	< 0.1	-	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	< 1	< 1	-	< 1	020S[I]	mg/kg	1
Particle Size Distribution $	-	-	-	Sub-con	-	MISC		
Organic Carbon	-	-	-	-	-	092[IM]	%	0.1
Fraction Organic Carbon	-	-	-	-	-	092[I]		0.001

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12				Method No	Units	LOD
Sample Depth (m)	1.2m	1.5m						
Date Sampled	24/09/07	24/09/07						
Date Scheduled	24/09/07	24/09/07						
Laboratory Reference No	264385	264386						
Analysis								
Moisture Content (Dry Weight)	5.1	9.5					%	0.1
Moisture Content (Wet Weight)	4.8	8.7					%	0.1
Asbestos (Screen)	-	-				001a		
Arsenic	< 3	3.8				069S[IM]	mg/kg	3
Cadmium	< 0.5	< 0.5				069S[IM]	mg/kg	0.5
Chromium	15	35				069S[IM]	mg/kg	10
Copper	12	13				069S[IM]	mg/kg	5
Lead	12	15				069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6				069S[IM]	mg/kg	0.6
Nickel	9.9	12				069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5				069S[IM]	mg/kg	2.5
W/S Sulphate as SO4	0.03	0.06				074[IM]	g/l	0.02
Zinc	57	30				069S[IM]	mg/kg	10
Total Cyanide	< 1	< 1				061S[IM]	mg/kg	1
pH	7.9	7.6				084S[IM]	pH Units	1
* * PHENOLS SUITE * *								
Phenol	< 0.1	< 0.1				020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	< 1				020S[I]	mg/kg	1
Particle Size Distribution $	-	-				MISC		
Organic Carbon	-	-				092[IM]	%	0.1
Fraction Organic Carbon	-	-				092[I]		0.001

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * PAH SUITE * *								
Naphthalene	0.16	< 0.1	< 0.1	< 0.1	0.34	022S[IM]	mg/kg	0.1
Acenaphthylene	1.5	< 0.1	< 0.1	< 0.1	0.16	022S[IM]	mg/kg	0.1
Acenaphthene	0.16	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	0.18	< 0.1	< 0.1	< 0.1	0.11	022S[IM]	mg/kg	0.1
Phenanthrene	2.3	< 0.1	< 0.1	< 0.1	0.99	022S[IM]	mg/kg	0.1
Anthracene	2.2	< 0.1	< 0.1	< 0.1	0.30	022S[IM]	mg/kg	0.1
Fluoranthene	14	< 0.1	0.16	< 0.1	2.7	022S[IM]	mg/kg	0.1
Pyrene	14	< 0.1	0.15	< 0.1	2.5	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	9.1	< 0.1	< 0.1	< 0.1	1.5	022S[IM]	mg/kg	0.1
Chrysene	7.4	< 0.1	< 0.1	< 0.1	1.4	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	14	< 0.1	0.10	< 0.1	2.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	5.2	< 0.1	< 0.1	< 0.1	0.77	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	11	< 0.1	< 0.1	< 0.1	1.5	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	6.5	< 0.1	< 0.1	< 0.1	0.85	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	1.7	< 0.1	< 0.1	< 0.1	0.22	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	7.4	< 0.1	< 0.1	< 0.1	1.0	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	65.17	ND	0.16	ND	11.43	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	96.05	ND	ND	ND	16.57	022S[I]	mg/kg	1.6

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * PAH SUITE * *								
Naphthalene	9.0	5.3	9.3	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	0.23	< 0.1	0.24	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	0.45	0.14	0.64	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	0.53	0.14	0.63	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	0.67	0.38	0.49	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	0.16	0.32	< 0.1	0.19	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	0.16	0.29	0.11	0.17	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	0.10	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	0.15	< 0.1	0.10	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	0.17	< 0.1	0.13	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	< 0.1	0.15	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	9.85	6.27	9.79	0.29	0.15	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	11.22	7.01	11.41	ND	ND	022S[I]	mg/kg	1.6

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ALcontrol Technichem
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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * PAH SUITE * *								
Naphthalene	0.31	12	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	0.12	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	0.22	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	0.10	< 0.1	< 0.1	< 0.1	0.64	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	0.16	022S[IM]	mg/kg	0.1
Fluoranthene	0.22	< 0.1	< 0.1	< 0.1	1.3	022S[IM]	mg/kg	0.1
Pyrene	0.18	< 0.1	< 0.1	< 0.1	1.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	0.50	022S[IM]	mg/kg	0.1
Chrysene	0.13	< 0.1	< 0.1	< 0.1	0.69	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	0.16	< 0.1	< 0.1	< 0.1	0.93	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	0.37	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	0.53	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	0.36	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	< 0.1	0.47	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	0.77	11.8	ND	ND	4.98	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	12.14	ND	ND	7	022S[I]	mg/kg	1.6

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ALcontrol Technichem
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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379	264380	264381	264382			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1	0.10	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	0.22	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	0.45	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	0.34	022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	0.12	< 0.1	1.6	3.5	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	0.39	0.81	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	0.11	< 0.1	4.7	4.1	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1	4.3	3.3	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	2.2	0.95	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1	2.7	1.2	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1	3.7	1.3	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	1.7	0.57	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	2.8	0.82	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	1.8	0.41	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	0.54	0.11	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	2.2	0.54	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	0.23	ND	20.18	12.83	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND	ND	28.9	18.3	022S[I]	mg/kg	1.6

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ALcontrol Technichem
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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384	264385	264386					
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	2.1			022S[IM]	mg/kg	0.1
Acenaphthylene	0.21	< 0.1	0.16			022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	0.67			022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	2.2			022S[IM]	mg/kg	0.1
Phenanthrene	0.81	< 0.1	3.4			022S[IM]	mg/kg	0.1
Anthracene	0.27	< 0.1	0.34			022S[IM]	mg/kg	0.1
Fluoranthene	2.1	< 0.1	0.46			022S[IM]	mg/kg	0.1
Pyrene	1.9	0.18	2.1			022S[IM]	mg/kg	0.1
Benzo(a)anthracene	0.89	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Chrysene	1.3	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	1.7	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	0.71	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(a)pyrene	1.0	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	0.87	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	0.25	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	1.0	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	8.88	ND	6.28			022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	12.86	ND	11.35			022S[I]	mg/kg	1.6

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	< 0.01	< 0.01	< 0.01	0.02	CWGS	mg/kg	0.01
Aliphatic >C6-C8	< 0.01	< 0.01	< 0.01	< 0.01	0.03	CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01	< 0.01	< 0.01	< 0.01	0.07	CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01	< 0.01	< 0.01	< 0.01	0.09	CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5	5.7	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aliphatic >C16-C21	8.2	28	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aliphatic >C21-C35	25	9.3	8.9	7.1	20	CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	33	43	8.9	7.1	20	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	< 0.01	< 0.01	0.01	0.21	CWGS	mg/kg	0.01
Aromatic >C10-C12	< 0.01	< 0.01	< 0.01	0.01	0.14	CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5	< 5	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aromatic >C16-C21	27	5.7	< 5	< 5	12	CWGS[I]	mg/kg	5
Aromatic >C21-C35	320	< 5	9.7	5.9	87	CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	350	5.7	9.7	5.9	100	CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	< 0.01	< 0.01	< 0.01	0.03	0.56	CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	380	49	19	13	120	CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	380	49	19	13	120	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	0.012	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.

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Table Of Results

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	0.53	0.02	0.38	0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C6-C8	14	0.11	0.71	0.04	0.03	CWGS	mg/kg	0.01
Aliphatic >C8-C10	320	1.4	26	0.03	0.04	CWGS	mg/kg	0.01
Aliphatic >C10-C12	650	4.6	240	0.05	0.11	CWGS	mg/kg	0.01
Aliphatic >C12-C16	810	150	1300	7.4	6.1	CWGS[I]	mg/kg	5
Aliphatic >C16-C21	740	79	550	< 5	< 5	CWGS[I]	mg/kg	5
Aliphatic >C21-C35	870	58	190	17	12	CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	3400	290	2300	24	19	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	0.02	CWGS	mg/kg	0.01
Aromatic >C8-C10	490	2.1	39	0.05	0.06	CWGS	mg/kg	0.01
Aromatic >C10-C12	980	7.0	360	0.08	0.17	CWGS	mg/kg	0.01
Aromatic >C12-C16	240	130	470	< 5	< 5	CWGS[I]	mg/kg	5
Aromatic >C16-C21	130	29	170	< 5	< 5	CWGS[I]	mg/kg	5
Aromatic >C21-C35	170	63	75	14	6.2	CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	2000	230	1100	14	6.5	CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	2500	15	670	0.25	0.43	CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	2900	510	2700	38	25	CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	5400	520	3400	38	25	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	1.4	< 0.010	< 0.010	< 0.010	0.019	CWGS[IM]	mg/kg	0.01
Ethylbenzene	6.9	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
m,p-Xylenes	2.0	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
o-Xylene	4.3	0.028	0.15	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	19	0.064	1.4	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	39	0.070	4.1	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	5.5	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.03	13	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C8-C10	0.53	270	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C10-C12	0.14	1700	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5	1700	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aliphatic >C16-C21	< 5	31	< 5	< 5	10	CWGS[I]	mg/kg	5
Aliphatic >C21-C35	8.4	19	< 5	< 5	21	CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	9.1	3800	< 5	< 5	31	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	0.02	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C8-C10	2.6	510	0.02	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C10-C12	0.20	2600	0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5	280	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aromatic >C16-C21	< 5	14	< 5	< 5	7.8	CWGS[I]	mg/kg	5
Aromatic >C21-C35	12	18	< 5	< 5	35	CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	14	3400	< 5	< 5	43	CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	3.5	5200	0.03	< 0.01	< 0.01	CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	20	2100	< 5	< 5	74	CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	24	7200	< 5	< 5	74	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	0.21	19	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
m,p-Xylenes	8.6	77	0.012	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
o-Xylene	0.037	7.9	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	0.031	13	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	0.10	68	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.

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Table Of Results

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379	264380	264381	264382			
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C6-C8	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5	< 5	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aliphatic >C16-C21	8.0	< 5	< 5	6.0	< 5	CWGS[I]	mg/kg	5
Aliphatic >C21-C35	12	< 5	6.8	20	7.4	CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	20	< 5	6.8	26	7.4	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	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C10-C12	0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5	< 5	< 5	< 5	< 5	CWGS[I]	mg/kg	5
Aromatic >C16-C21	< 5	< 5	< 5	13	20	CWGS[I]	mg/kg	5
Aromatic >C21-C35	6.5	5.6	< 5	120	58	CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	6.5	5.6	< 5	130	78	CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	0.02	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	26	5.6	6.8	150	85	CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	26	5.6	6.8	150	85	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

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384	264385	264386					
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	0.01	< 0.01	0.01			CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.01	0.02	0.06			CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01	0.09	2.6			CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01	1.9	8.6			CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5	480	2400			CWGS[I]	mg/kg	5
Aliphatic >C16-C21	11	510	1700			CWGS[I]	mg/kg	5
Aliphatic >C21-C35	110	200	540			CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	120	1200	4700			CWGS	mg/kg	5
Aromatic C6-C7	< 0.01	< 0.01	< 0.01			CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01	< 0.01	< 0.01			CWGS	mg/kg	0.01
Aromatic >C8-C10	< 0.01	0.14	3.9			CWGS	mg/kg	0.01
Aromatic >C10-C12	< 0.01	2.8	13			CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5	44	400			CWGS[I]	mg/kg	5
Aromatic >C16-C21	12	140	460			CWGS[I]	mg/kg	5
Aromatic >C21-C35	84	83	150			CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	96	270	1000			CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	0.03	4.9	28			CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	210	1500	5700			CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	210	1500	5700			CWGS	mg/kg	5
MTBE	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
Benzene	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
Toluene	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010	< 0.010	< 0.010			CWGS[IM]	mg/kg	0.01

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * SVOC SUITE * *								
Naphthalene	160	< 150	< 150	< 150	340	053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Acenaphthylene	1500	< 150	< 150	< 150	170	053S[I]	ug/kg	150
Acenaphthene	160	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Fluorene	180	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Phenanthrene	2300	< 150	< 150	< 150	990	053S[I]	ug/kg	150
Anthracene	2200	< 150	< 150	< 150	300	053S[I]	ug/kg	150
Fluoranthene	14000	< 150	160	< 150	2700	053S[I]	ug/kg	150
Pyrene	14000	< 150	< 150	< 150	2500	053S[IM]	ug/kg	150
Benz(a)anthracene	9100	< 150	< 150	< 150	1500	053S	ug/kg	150
Chrysene	7400	< 150	< 150	< 150	1400	053S[I]	ug/kg	150
Benzo(b)fluoranthene	14000	< 150	< 150	< 150	2100	053S[I]	ug/kg	150
Benzo(k)fluoranthene	5200	< 150	< 150	< 150	770	053S[I]	ug/kg	150
Benzo(a)pyrene	11000	< 150	< 150	< 150	1500	053S	ug/kg	150
Dibenzo(a,h)anthracene	1700	< 150	< 150	< 150	220	053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	6500	< 150	< 150	< 150	850	053S[I]	ug/kg	150
Benzo(g,h,i)perylene	7300	< 150	< 150	< 150	1000	053S[I]	ug/kg	150
Phenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2-Methylphenol	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Methylphenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	< 250	< 250	< 250	< 250	053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Pentachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
Azobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Isophorone	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Anthraquinone	790	< 150	< 150	< 150	< 150	053S	ug/kg	150
Aniline	< 150	< 150	< 150	< 150	160	053S	ug/kg	150
Di-n-octyl phthalate	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300
2-Methylnapthalene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150

[I] ISO 17025 accredited.
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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
2-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S[I]	ug/kg	250
3-nitroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-Chloroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300
Carbazole	240	< 100	< 100	< 100	< 100	053S[I]	ug/kg	100
Dibenzofuran	250	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Biphenyl	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
SVOC TIC'S	See TIC's page	ND	ND	ND	See TIC's page	053S		1

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * SVOC SUITE * *								
Naphthalene	9000	5300	9300	< 150	< 150	053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Acenaphthylene	230	< 150	240	< 150	< 150	053S[I]	ug/kg	150
Acenaphthene	450	< 150	640	< 150	< 150	053S[I]	ug/kg	150
Fluorene	530	< 150	630	< 150	< 150	053S[I]	ug/kg	150
Phenanthrene	670	380	490	< 150	< 150	053S[I]	ug/kg	150
Anthracene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Fluoranthene	160	320	< 150	190	< 150	053S[I]	ug/kg	150
Pyrene	160	290	< 150	170	< 150	053S[IM]	ug/kg	150
Benz(a)anthracene	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Chrysene	< 150	150	< 150	< 150	< 150	053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150	170	< 150	< 150	< 150	053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Benzo(a)pyrene	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150	< 150	< 150	< 150	150	053S[I]	ug/kg	150
Phenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2-Methylphenol	< 200	240	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Methylphenol	< 200	430	< 200	< 200	< 200	053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	1000	< 250	< 250	< 250	053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Pentachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Di-n-butyl phthalate	1400	800	260	< 150	< 150	053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	240	1400	< 200	< 200	053S[IM]	ug/kg	200
1,2-Dichlorobenzene	5100	4700	73000	< 150	< 150	053S[IM]	ug/kg	150
1,4-Dichlorobenzene	2000	1700	23000	< 200	< 200	053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
Azobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Isophorone	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Anthraquinone	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Aniline	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Di-n-octyl phthalate	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300
2-Methylnapthalene	25000	3600	51000	< 150	< 150	053S[I]	ug/kg	150

[I] ISO 17025 accredited.

[M] MCERTS accredited for sand, loam and clay.

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
2-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S[I]	ug/kg	250
3-nitroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-Chloroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	1100	< 300	< 300	< 300	< 300	053S	ug/kg	300
Carbazole	< 100	< 100	< 100	< 100	< 100	053S[I]	ug/kg	100
Dibenzofuran	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Biphenyl	510	< 150	< 150	< 150	< 150	053S	ug/kg	150
SVOC TIC'S	See TIC's page	See TIC's page	See TIC's page	ND	ND	053S		1

[I] ISO 17025 accredited.

[M] MCERTS accredited for sand, loam and clay.

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * SVOC SUITE * *								
Naphthalene	310	12000	< 150	< 150	< 150	053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Acenaphthylene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Acenaphthene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Fluorene	< 150	220	< 150	< 150	< 150	053S[I]	ug/kg	150
Phenanthrene	< 150	< 150	< 150	< 150	640	053S[I]	ug/kg	150
Anthracene	< 150	< 150	< 150	< 150	160	053S[I]	ug/kg	150
Fluoranthene	220	< 150	< 150	< 150	1300	053S[I]	ug/kg	150
Pyrene	180	< 150	< 150	< 150	1100	053S[IM]	ug/kg	150
Benz(a)anthracene	< 150	< 150	< 150	< 150	500	053S	ug/kg	150
Chrysene	< 150	< 150	< 150	< 150	690	053S[I]	ug/kg	150
Benzo(b)fluoranthene	160	< 150	< 150	< 150	930	053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150	< 150	< 150	< 150	370	053S[I]	ug/kg	150
Benzo(a)pyrene	< 150	< 150	< 150	< 150	530	053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150	< 150	< 150	< 150	360	053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150	< 150	< 150	< 150	470	053S[I]	ug/kg	150
Phenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2-Methylphenol	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Methylphenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	< 250	< 250	< 250	< 250	053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300

[I] ISO 17025 accredited.

[M] MCERTS accredited for sand, loam and clay.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Pentachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150	5500	< 150	< 150	< 150	053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	1900	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
Azobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Isophorone	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Anthraquinone	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Aniline	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Di-n-octyl phthalate	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300
2-Methylnapthalene	200	25000	< 150	< 150	< 150	053S[I]	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
2-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S[I]	ug/kg	250
3-nitroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-Chloroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300	780	< 300	< 300	< 300	053S	ug/kg	300
Carbazole	< 100	< 100	< 100	< 100	< 100	053S[I]	ug/kg	100
Dibenzofuran	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Biphenyl	< 150	1300	< 150	< 150	< 150	053S	ug/kg	150
SVOC TIC'S	See TIC's page	See TIC's page	ND	ND	ND	053S		1

[I] ISO 17025 accredited.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379	264380	264381	264382			
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Acenaphthylene	< 150	< 150	< 150	220	< 150	053S[I]	ug/kg	150
Acenaphthene	< 150	< 150	< 150	< 150	450	053S[I]	ug/kg	150
Fluorene	< 150	< 150	< 150	< 150	340	053S[I]	ug/kg	150
Phenanthrene	< 150	< 150	< 150	1600	3500	053S[I]	ug/kg	150
Anthracene	< 150	< 150	< 150	390	810	053S[I]	ug/kg	150
Fluoranthene	< 150	< 150	< 150	4700	4000	053S[I]	ug/kg	150
Pyrene	< 150	< 150	< 150	4300	3300	053S[IM]	ug/kg	150
Benz(a)anthracene	< 150	< 150	< 150	2200	950	053S	ug/kg	150
Chrysene	< 150	< 150	< 150	2700	1200	053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150	< 150	< 150	3700	1300	053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150	< 150	< 150	1700	580	053S[I]	ug/kg	150
Benzo(a)pyrene	< 150	< 150	< 150	2800	820	053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150	< 150	< 150	540	< 150	053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150	< 150	< 150	1800	410	053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150	< 150	< 150	2200	540	053S[I]	ug/kg	150
Phenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2-Methylphenol	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Methylphenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	< 250	< 250	< 250	< 250	053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300

[I] ISO 17025 accredited.

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379	264380	264381	264382			
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Pentachlorophenol	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150	270	< 150	< 150	< 150	053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
Azobenzene	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200	< 200	< 200	< 200	053S[I]	ug/kg	200
Isophorone	< 200	< 200	< 200	< 200	< 200	053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Anthraquinone	< 150	300	< 150	420	< 150	053S	ug/kg	150
Aniline	220	< 150	< 150	< 150	< 150	053S	ug/kg	150
Di-n-octyl phthalate	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300
2-Methylnapthalene	< 150	< 150	< 150	< 150	< 150	053S[I]	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379	264380	264381	264382			
Analysis								
2-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S[I]	ug/kg	250
3-nitroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-Chloroaniline	< 200	< 200	< 200	< 200	< 200	053S	ug/kg	200
4-nitroaniline	< 250	< 250	< 250	< 250	< 250	053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300	< 300	< 300	< 300	< 300	053S	ug/kg	300
Carbazole	< 100	< 100	< 100	100	< 100	053S[I]	ug/kg	100
Dibenzofuran	< 150	< 150	< 150	< 150	< 150	053S[IM]	ug/kg	150
Biphenyl	< 150	< 150	< 150	< 150	< 150	053S	ug/kg	150
SVOC TIC'S	ND	ND	ND	ND	ND	053S		1

[I] ISO 17025 accredited.

[M] MCERTS accredited for sand, loam and clay.

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Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384	264385	264386					
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150	< 150	2100			053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150	< 150			053S[I]	ug/kg	150
Acenaphthylene	210	< 150	160			053S[I]	ug/kg	150
Acenaphthene	< 150	< 150	670			053S[I]	ug/kg	150
Fluorene	< 150	< 150	2200			053S[I]	ug/kg	150
Phenanthrene	810	< 150	3400			053S[I]	ug/kg	150
Anthracene	270	< 150	340			053S[I]	ug/kg	150
Fluoranthene	2100	< 150	460			053S[I]	ug/kg	150
Pyrene	1900	180	2000			053S[IM]	ug/kg	150
Benz(a)anthracene	890	< 150	< 150			053S	ug/kg	150
Chrysene	1200	< 150	< 150			053S[I]	ug/kg	150
Benzo(b)fluoranthene	1600	< 150	< 150			053S[I]	ug/kg	150
Benzo(k)fluoranthene	710	< 150	< 150			053S[I]	ug/kg	150
Benzo(a)pyrene	1000	< 150	< 150			053S	ug/kg	150
Dibenzo(a,h)anthracene	250	< 150	< 150			053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	870	< 150	< 150			053S[I]	ug/kg	150
Benzo(g,h,i)perylene	1000	< 150	< 150			053S[I]	ug/kg	150
Phenol	< 150	< 150	< 150			053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150	< 150			053S[IM]	ug/kg	150
2-Methylphenol	< 200	< 200	< 200			053S[I]	ug/kg	200
4-Methylphenol	< 200	< 200	< 200			053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300	< 300			053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	< 250	< 250			053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200	< 200			053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200	< 200			053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150	< 150			053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150	< 150			053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200	< 200			053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300	< 300			053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384	264385	264386					
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250	< 250			053S	ug/kg	250
Pentachlorophenol	< 250	< 250	< 250			053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200	< 200			053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200	< 200			053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150	< 150	< 150			053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	< 150	< 150			053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150	< 150			053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200	< 200			053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150	< 150			053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200	< 200			053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	< 200	270			053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150	< 150	3600			053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200	< 200	1400			053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150	< 150			053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200	< 200			053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200	< 200			053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200	< 200			053S	ug/kg	200
Azobenzene	< 200	< 200	< 200			053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200	< 200			053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150	< 150			053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200	< 200			053S[I]	ug/kg	200
Isophorone	< 200	< 200	< 200			053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150	< 150			053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150	< 150			053S[IM]	ug/kg	150
Anthraquinone	< 150	< 150	< 150			053S	ug/kg	150
Aniline	< 150	< 150	< 150			053S	ug/kg	150
Di-n-octyl phthalate	< 150	< 150	< 150			053S	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300	< 300			053S	ug/kg	300
2-Methylnapthalene	< 150	< 150	3700			053S[I]	ug/kg	150

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384	264385	264386					
Analysis								
2-nitroaniline	< 250	< 250	< 250			053S[I]	ug/kg	250
3-nitroaniline	< 200	< 200	< 200			053S	ug/kg	200
4-Chloroaniline	< 200	< 200	< 200			053S	ug/kg	200
4-nitroaniline	< 250	< 250	< 250			053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300	< 300	350			053S	ug/kg	300
Carbazole	< 100	< 100	< 100			053S[I]	ug/kg	100
Dibenzofuran	< 150	< 150	< 150			053S[IM]	ug/kg	150
Biphenyl	< 150	< 150	< 150			053S	ug/kg	150
SVOC TIC'S	ND	See TIC's page	See TIC's page			053S		1

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ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS1			Method No	Units	LOD
Sample Depth (m)	0.5m					
Date Sampled	21/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264360					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Benzo[def]fluorene	10.831	3.7	89	053	mg/kg	-
Benzonaphthofuran	11.745	3.1	93	053	mg/kg	-
Chrysofluorene	11.866	3.7	94	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS4			Method No	Units	LOD
Sample Depth (m)	0.2m					
Date Sampled	22/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264364					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
C3-BENZENE	4.605	1.9	94	053	mg/kg	-
1,2,4-Trimethylbenzene	4.842	6.9	95	053	mg/kg	-
1,2,3-Trimethylbenzene	5.062	3.4	95	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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ALcontrol Technichem
Table Of Results
SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS4			Method No	Units	LOD
Sample Depth (m)	1.75m					
Date Sampled	22/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264365					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
3-Methylnonane	4.637	65.6	81	053	mg/kg	-
Decane	4.83	141.3	97	053	mg/kg	-
C3-BENZENE	4.862	61.9	94	053	mg/kg	-
Dodecane	6.526	83.5	97	053	mg/kg	-
Tridecane	7.52	61.5	97	053	mg/kg	-
Tetradecane	8.201	27.7	97	053	mg/kg	-
Hexadecane	9.188	26.6	97	053	mg/kg	-
Heptadecane	9.657	29.4	97	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS5			Method No	Units	LOD
Sample Depth (m)	0.5m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264368					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Decane	4.81	2.9	97	053	mg/kg	-
Tridecane	7.512	7.6	98	053	mg/kg	-
Hexadecane	9.183	2	97	053	mg/kg	-
Heptadecane	9.652	2.9	98	053	mg/kg	-
Octadecane	10.089	2.3	99	053	mg/kg	-
Hexadecanoic acid	10.679	12.2	99	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS5			Method No	Units	LOD
Sample Depth (m)	1.2m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264369					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Decane	4.822	60.1	95	053	mg/kg	-
Dodecane	6.57	76.7	96	053	mg/kg	-
Tridecane	7.556	61.9	98	053	mg/kg	-
Tetradecane	8.221	36.3	97	053	mg/kg	-
Pentadecane	8.746	27.3	98	053	mg/kg	-
Hexadecane	9.195	25.5	98	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS7			Method No	Units	LOD
Sample Depth (m)	0.5m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264372					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
p-Xylene	3.872	18.2	93	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS7			Method No	Units	LOD
Sample Depth (m)	1.0m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264373					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
1,2,4-Trimethylbenzene	4.886	38.1	95	053	mg/kg	-
p-cymene	5.102	47	91	053	mg/kg	-
1-Methylnaphthalene	7.877	15.8	93	053	mg/kg	-
Tetradecane	8.237	29.2	97	053	mg/kg	-
Pentadecane	8.75	12.4	98	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS12			Method No	Units	LOD
Sample Depth (m)	1.2m					
Date Sampled	24/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264385					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Tridecane	7.528	12.7	97	053	mg/kg	-
Tetradecane	8.213	13.8	98	053	mg/kg	-
Pentadecane	8.746	14.5	98	053	mg/kg	-
Hexadecane	9.195	13.1	98	053	mg/kg	-
Heptadecane	9.668	13	98	053	mg/kg	-
Octadecane	10.105	11.2	99	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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SVOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS12			Method No	Units	LOD
Sample Depth (m)	1.5m					
Date Sampled	24/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264386					
Analysis						
* * SVOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
Dodecane	6.557	41.2	97	053	mg/kg	-
Tridecane	7.548	37.8	98	053	mg/kg	-
Tetradecane	8.225	28.3	97	053	mg/kg	-
Pentadecane	8.758	28.7	98	053	mg/kg	-
Hexadecane	9.207	24.5	99	053	mg/kg	-
Octadecane	10.113	19.3	99	053	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Bromomethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
MTBE	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Carbon Tetrachloride	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25

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‡ denotes raised detection limit(s) due to matrix interference.

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Table Of Results

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
m,p-Xylenes	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
Bromoform	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Styrene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
o-Xylene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
tert-butylbenzene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2,4 Trimethylbenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
sec-butylbenzene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS1	WS1	WS2	WS3	WS4	Method No	Units	LOD
Sample Depth (m)	0.5m	1.7m	0.5m	1.0m	0.2m			
Date Sampled	21/09/07	21/09/07	22/09/07	22/09/07	22/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264360	264361	264362	264363	264364			
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
VOC TIC's	ND	ND	ND	ND	See TIC's page	071S	mg/kg	1

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Bromomethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
MTBE	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Carbon Tetrachloride	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	540	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Ethyl Benzene	280	34	< 25	< 25	< 25	071S	ug/kg	25
m,p-Xylenes	2900	200	< 50	< 50	< 50	071S	ug/kg	50
Bromoform	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Styrene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
o-Xylene	1600	170	83	< 25	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Isopropylbenzene	180	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Bromobenzene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
n-propylbenzene	140	32	< 25	< 25	< 25	071S[I]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
1,3,5 Trimethylbenzene	3500	340	720	< 25	< 25	071S	ug/kg	25
tert-butylbenzene	570	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2,4 Trimethylbenzene	5700	630	930	< 25	< 25	071S	ug/kg	25
sec-butylbenzene	600	110	< 25	< 25	< 25	071S[I]	ug/kg	25
1,3 Dichlorobenzene	130	86	570	< 25	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	1200	680	7500	< 25	< 25	071S	ug/kg	25
4-Isopropyltoluene	1900	370	2800	< 25	< 25	071S[I]	ug/kg	25
1,2 Dichlorobenzene	3200	1400	18000	34	< 25	071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS4	WS5	WS5	WS6	WS6	Method No	Units	LOD
Sample Depth (m)	1.75m	0.5m	1.2m	0.5m	1.0m			
Date Sampled	22/09/07	23/09/07	23/09/07	23/09/07	23/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264365	264368	264369	264370	264371			
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
VOC TIC's	See TIC's page	See TIC's page	See TIC's page	ND	ND	071S	mg/kg	1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Bromomethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
MTBE	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Carbon Tetrachloride	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 25	< 25	< 25	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Ethyl Benzene	1400	17000	< 25	< 25	< 25	071S	ug/kg	25
m,p-Xylenes	10000	75000	< 50	< 50	< 50	071S	ug/kg	50
Bromoform	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Styrene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
o-Xylene	140	8900	< 25	< 25	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
Isopropylbenzene	59	1600	< 25	< 25	< 25	071S[I]	ug/kg	25
Bromobenzene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
n-propylbenzene	73	2400	< 25	< 25	< 25	071S[I]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
1,3,5 Trimethylbenzene	310	14000	< 25	< 25	< 25	071S	ug/kg	25
tert-butylbenzene	< 25	< 25	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2,4 Trimethylbenzene	830	37000	< 25	< 25	< 25	071S	ug/kg	25
sec-butylbenzene	< 25	1300	< 25	< 25	< 25	071S[I]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
4-Isopropyltoluene	94	8700	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS7	WS7	WS8	WS8	WS9	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	0.5m	1.5m	0.5m			
Date Sampled	23/09/07	23/09/07	23/09/07	23/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264372	264373	264374	264375	264376			
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 50	< 50	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 25	< 25	< 25	071S	ug/kg	25
VOC TIC's	See TIC's page	See TIC's page	ND	ND	ND	071S	mg/kg	1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379‡	264380	264381	264382			
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloromethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
Bromomethane	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Chloroethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Dichloromethane	< 50	< 500	< 50	< 50	< 50	071S	ug/kg	50
Carbon Disulfide	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
MTBE	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloroform	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Benzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
Carbon Tetrachloride	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichloroethene	< 25	< 250	< 25	< 25	64	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 250	< 25	< 25	< 25	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.

[M] MCERTS accredited for sand, loam and clay.

‡ denotes raised detection limit(s) due to matrix interference.

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ALcontrol Technichem
Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379‡	264380	264381	264382			
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Dibromochloromethane	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2-Dibromoethane	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Tetrachloroethene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
Chlorobenzene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Ethyl Benzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
m,p-Xylenes	< 50	< 500	< 50	< 50	< 50	071S	ug/kg	50
Bromoform	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Styrene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
o-Xylene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Isopropylbenzene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
Bromobenzene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
n-propylbenzene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
2-Chlorotoluene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
4-Chlorotoluene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
tert-butylbenzene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2,4 Trimethylbenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
sec-butylbenzene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
4-Isopropyltoluene	< 25	< 250	< 25	< 25	< 25	071S[I]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
n-butylbenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25

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‡ denotes raised detection limit(s) due to matrix interference.

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS9	WS10	WS10	WS11	WS11	Method No	Units	LOD
Sample Depth (m)	1.0m	0.2m	1.0m	0.5m	1.0m			
Date Sampled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Date Scheduled	24/09/07	24/09/07	24/09/07	24/09/07	24/09/07			
Laboratory Reference No	264377	264379‡	264380	264381	264382			
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 500	< 50	< 50	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 250	< 25	< 25	< 25	071S	ug/kg	25
VOC TIC's	ND	ND	ND	ND	ND	071S	mg/kg	1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384‡	264385	264386					
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Chloromethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Vinyl Chloride	< 250	< 25	< 25			071S	ug/kg	25
Bromomethane	< 250	< 25	< 25			071S[I]	ug/kg	25
Chloroethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Trichlorofluoromethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,1-Dichloroethene	< 250	< 25	< 25			071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 250	< 25	< 25			071S[I]	ug/kg	25
Dichloromethane	< 500	< 50	< 50			071S	ug/kg	50
Carbon Disulfide	< 250	< 25	< 25			071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 250	< 25	< 25			071S	ug/kg	25
MTBE	< 250	< 25	< 25			071S	ug/kg	25
1,1 -Dichloroethane	< 250	< 25	< 25			071S	ug/kg	25
Cis-1,2 Dichloroethene	< 250	< 25	< 25			071S[IM]	ug/kg	25
Bromochloromethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Chloroform	< 250	< 25	< 25			071S[IM]	ug/kg	25
2,2-Dichloropropane	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 250	< 25	< 25			071S	ug/kg	25
1,2-Dichloroethane	< 250	< 25	< 25			071S	ug/kg	25
1,1-Dichloropropene	< 250	< 25	< 25			071S[IM]	ug/kg	25
Benzene	< 250	< 25	< 25			071S	ug/kg	25
Carbon Tetrachloride	< 250	< 25	< 25			071S[IM]	ug/kg	25
Dibromomethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,2-Dichloropropane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Trichloroethene	< 250	< 25	< 25			071S[IM]	ug/kg	25
Bromodichloromethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 250	< 25	< 25			071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 250	< 25	< 25			071S[IM]	ug/kg	25

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384‡	264385	264386					
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 250	< 25	< 25			071S	ug/kg	25
1,3 -Dichloropropane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Dibromochloromethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,2-Dibromoethane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Tetrachloroethene	< 250	< 25	< 25			071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 250	< 25	< 25			071S	ug/kg	25
Chlorobenzene	< 250	< 25	< 25			071S[IM]	ug/kg	25
Ethyl Benzene	< 250	< 25	< 25			071S	ug/kg	25
m,p-Xylenes	< 500	< 50	< 50			071S	ug/kg	50
Bromoform	< 250	< 25	< 25			071S[IM]	ug/kg	25
Styrene	< 250	< 25	< 25			071S[IM]	ug/kg	25
o-Xylene	< 250	< 25	< 25			071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 250	< 25	< 25			071S	ug/kg	25
1,2,3-Trichloropropane	< 250	< 25	< 25			071S[IM]	ug/kg	25
Isopropylbenzene	< 250	< 25	< 25			071S[IM]	ug/kg	25
Bromobenzene	< 250	< 25	< 25			071S[IM]	ug/kg	25
n-propylbenzene	< 250	< 25	< 25			071S[IM]	ug/kg	25
2-Chlorotoluene	< 250	< 25	< 25			071S[IM]	ug/kg	25
4-Chlorotoluene	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 250	< 25	< 25			071S	ug/kg	25
tert-butylbenzene	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,2,4 Trimethylbenzene	< 250	< 25	< 25			071S	ug/kg	25
sec-butylbenzene	< 250	< 25	< 25			071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 250	< 25	40			071S	ug/kg	25
1,4 Dichlorobenzene	< 250	< 25	190			071S	ug/kg	25
4-Isopropyltoluene	< 250	< 25	110			071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 250	< 25	210			071S	ug/kg	25
n-butylbenzene	< 250	< 25	< 25			071S	ug/kg	25
1,2,4-Trichlorobenzene	< 250	< 25	< 25			071S	ug/kg	25

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Table Of Results

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Matrix : Soil

Project Code: 67-C12520

Project Name: Trimite - Uxbridge

Client : Environ UK Ltd

Sample Reference	WS12	WS12	WS12			Method No	Units	LOD
Sample Depth (m)	0.5m	1.2m	1.5m					
Date Sampled	24/09/07	24/09/07	24/09/07					
Date Scheduled	24/09/07	24/09/07	24/09/07					
Laboratory Reference No	264384‡	264385	264386					
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 250	< 25	< 25			071S	ug/kg	25
Hexachlorobutadiene	< 500	< 50	< 50			071S	ug/kg	50
1,2,3-Trichlorobenzene	< 250	< 25	< 25			071S	ug/kg	25
VOC TIC's	ND	See TIC's page	See TIC's page			071S	mg/kg	1

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS4			Method No	Units	LOD
Sample Depth (m)	0.2m					
Date Sampled	22/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264364					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
2-ethyl-1,4-dimethylbenzene	8.915	0.04	97	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS4			Method No	Units	LOD
Sample Depth (m)	1.75m					
Date Sampled	22/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264365					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
isooctane	6.8	1.42	91	071	mg/kg	-
octane	7.37	2.66	74	071	mg/kg	-
heptane	7.44	1.49	76	071	mg/kg	-
nonane	7.91	2.00	91	071	mg/kg	-
2-methylnonane	8.11	4.73	87	071	mg/kg	-
3-methylnonane	8.17	1.89	87	071	mg/kg	-
ethyldimethylthiophene	8.22	0.92	83	071	mg/kg	-
1-ethyl-2-methylbenzene	8.46	2.31	93	071	mg/kg	-
hexadecane	8.5	1.75	78	071	mg/kg	-
undecane	8.97	2.46	91	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS5			Method No	Units	LOD
Sample Depth (m)	0.5m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264368					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
nonane	7.91	0.06	91	071	mg/kg	-
1,2,4,5-tetramethylbenzene	8.92	0.17	94	071	mg/kg	-
undecane	8.97	0.28	91	071	mg/kg	-
o-methylpropylbenzene	9.02	0.17	83	071	mg/kg	-
1-ethyl-3,5-dimethylbenzene	9.07	0.22	78	071	mg/kg	-
1-ethyl-2,3-dimethylbenzene	9.12	0.14	95	071	mg/kg	-
1-ethyl-2,4-dimethylbenzene	9.27	0.16	70	071	mg/kg	-
dodecane	9.55	0.45	86	071	mg/kg	-
2,4-diethyl-1-methylbenzene	10.02	0.19	90	071	mg/kg	-
tridecane	10.09	0.31	91	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS5			Method No	Units	LOD
Sample Depth (m)	1.2m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264369					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
nonane	7.91	0.74	93	071	mg/kg	-
2-methylnonane	8.11	1.99	83	071	mg/kg	-
cyclohexane	8.22	0.64	87	071	mg/kg	-
1-ethyl-2-methylbenzene	8.46	1.42	93	071	mg/kg	-
decane	8.5	1.27	80	071	mg/kg	-
paracymene	8.7	1.55	87	071	mg/kg	-
3,7-dimethylnonane	8.81	0.58	90	071	mg/kg	-
1-methyl-3-propylbenzene	8.88	0.86	83	071	mg/kg	-
2-propyltoluene	9.02	0.90	87	071	mg/kg	-
1-ethyl-3,5-dimethylbenzene	9.07	1.21	81	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS7			Method No	Units	LOD
Sample Depth (m)	0.5m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264372					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
1-bromo-1-fluorobenzene	8.13	0.06	94	071	mg/kg	-
1-ethyl-3-methylbenzene	8.31	0.15	91	071	mg/kg	-
1-ethyl-2-methylbenzene	8.46	0.05	91	071	mg/kg	-
m-ethyltoluene	8.78	0.06	94	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS7			Method No	Units	LOD
Sample Depth (m)	1.0m					
Date Sampled	23/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264373					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
nonane	7.91	2.78	91	071	mg/kg	-
4-methylnonane	8.1	6.94	87	071	mg/kg	-
3-methylnonane	8.17	2.10	80	071	mg/kg	-
1-ethyl-3-methylbenzene	8.31	5.96	91	071	mg/kg	-
o-ethyltoluene	8.46	4.60	93	071	mg/kg	-
octadecane	8.5	3.95	72	071	mg/kg	-
p-ethyltoluene	8.78	2.17	91	071	mg/kg	-
p-cymene	8.92	2.89	94	071	mg/kg	-
2-propyltoluene	9.02	2.48	76	071	mg/kg	-
1-ethyl-3,5-diethylbenzene	9.07	0.52	87	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS12			Method No	Units	LOD
Sample Depth (m)	1.2m					
Date Sampled	24/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264385					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
undecane	9.08	0.04	87	071	mg/kg	-
dodecane	9.55	0.24	97	071	mg/kg	-
2,6-dimethylundecane	9.62	0.11	91	071	mg/kg	-
7-methyltridecane	9.95	0.09	81	071	mg/kg	-
tridecane	10.09	0.18	95	071	mg/kg	-
2,6,10-trimethyldodecane	10.51	0.05	72	071	mg/kg	-
tetradecane	10.6	0.10	94	071	mg/kg	-
nonadecane	11.1	0.03	81	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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Table Of Results
VOC TICs

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge

Matrix : Soil
Project Code: 67-C12520

Sample Reference	WS12			Method No	Units	LOD
Sample Depth (m)	1.5m					
Date Sampled	24/09/07					
Date Scheduled	24/09/07					
Laboratory Reference No	264386					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
nonane	7.91	0.27	87	071	mg/kg	-
decane	8.5	0.64	91	071	mg/kg	-
oxirane	8.62	0.33	78	071	mg/kg	-
3-methyldecane	8.81	0.25	87	071	mg/kg	-
undecane	8.97	0.87	94	071	mg/kg	-
dodecane	9.55	0.93	92	071	mg/kg	-
tridecane	10.09	0.30	96	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

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Table Of Results - Appendix

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Project Code: 67-C12520

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
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
020S	In-house method based on Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of methanol/water based mobile phase extractable phenols in soil samples by HPLC with electrochemical 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
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
074	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of 2:1 water soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES)	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

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Table Of Results - Appendix

Job Number : 07-39082 Re-issue No: 1 dated 19/10/2007

Project Name: Trimite - Uxbridge
Client : Environ UK Ltd

Project Code: 67-C12520

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
001a	In-house method based on HSG 248	Visual screening of soil samples for fibrous material requiring further identification according to method 001 (note for samples > approximately 1kg it may be necessary to sub-sample prior to screening)	

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.

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ANNEX F: PHOTOLOG



Photo 1: General View of Trimite Ltd, Uxbridge



Photo 2: ASt's located at Tank Farm No.1

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**



Photo 3: Resin ASTs located at Tank Farm No.1



Photo 4: AST's located at Tank Farm No. 2

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**



Photo 5: AST's and UST's located at Tank Farm No. 2



Photo 6: UST's located at Tank Farm No.3

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**



Photo 7: Location of three disused UST's



Photo 8: UST used for pH adjustment as part of the Discharge Consent held by the site

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**



Photo 9: Two diesel refueling pumps



Photo 10: View of 205 litre drum storage area

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**



Photo 11: Waste liquid IBC storage area



Photo 12: Drainage repair work currently taking place at the site

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**



Photo 13: View of an operational area of the factory



Photo 14: Disused building in the south west of the site previously occupied by Metro Engineering & Plating Co. Ltd

Title:	Photo Document	**Approved:** SJB	**Project-No.:** 67-C12466 & 67-C12520	**Date:** August 2007
Site:	Trimite, Uxbridge			
Client:	REIT Asset Management	ENVIRON		**Appendix F**

ANNEX G: LONDON FIRE AND EMERGENCY PLANNING AUTHORITY TANK SCHEDULE

(Schedule page 1)

INFORMATION REQUIRED FOR PETROLEUM LICENCE TYPE "B" PETROL FILLING STATION

PART A - FOR COMPLETION BY APPLICANT

NOTE : Plans of premises scale 1:100

Occupier/Agent(please state) ...**TRIMITE LTD**.....

Trading name and address .....**ARUNDEL ROAD, UXBRIDGE**.....

Post Code ..**UB8 2SD**.....Borough.....**HILLINGDON**.....

TANKS

TANK No	COMPT No.	CAPACITY LITRES	OFFSET FILL (Y/N)	FUEL (PETROL, DERV, etc.)	TYPE OF TANK (Steel, GRP, etc.)	MANUFACTURER (if known)	YEAR	CONNECTED TO PUMP NUMBER
1	45	27240	Y	DO	STEEL		1978	45
2	46	27240	Y	DO	STEEL		1978	46
3	47	27240	Y	PS	STEEL		1978	47
4	54	54480	Y	PS	STEEL		1980	54
5	55	54480	Y	DO	STEEL		1980	55
6	48	45400	N		STEEL		1980	
7	49	45400	N		STEEL		1980	
8	50	45400	N		STEEL		1980	
9	51	45400	N		STEEL		1980	
10	52	45400	N		STEEL		1980	
11	53	45400	N		STEEL		1980	

Other remarks: **TANKS 6-11 MAY CONTAIN ANY PRODUCT SUBJECT TO COMMERCIAL REQUIREMENTS AT THE TIME. THEY ARE LICENSED FOR PETROLEUM SPIRIT.**

All of the above tanks are underground.

TANKS

Compartment No.	Tank type	Capacity (litres)
1	A/G STEEL	5675
1A	A/G STEEL	5675
2	A/G STEEL	11350
3	A/G STEEL	5675
3A	A/G STEEL	5675
4	A/G STEEL	5675
4A	A/G STEEL	5675
5	A/G STEEL	20880
6	A/G STEEL	5675
6A	A/G STEEL	5675
7	A/G STEEL	11350
8	A/G STEEL	11350
9	A/G STEEL	5675
9A	A/G STEEL	5675
10	A/G STEEL	5675
10A	A/G STEEL	5675
11	A/G STEEL	13620
12	A/G STEEL	5675
12A	A/G STEEL	5675
13A	A/G STEEL	5675
14	A/G STEEL	5675
15	A/G STEEL	5675
16	A/G STEEL	5675
17	A/G STEEL	5675

Remarks: **Tank Farm No.1**

TANKS 1-17 MAY CONTAIN ANY PRODUCT SUBJECT TO COMMERCIAL REQUIREMENTS AT THE TIME. THEY ARE LICENSED FOR PETROLEUM SPIRIT.

TANKS

COMPT No.	CAPACITY LITRES	TYPE OF TANK (Steel, GRP, etc.)	YEAR
21	13620	A/G STEEL	
21A	13620	A/G STEEL	
22	13620	A/G STEEL	
22A	13620	A/G STEEL	
23	6810	A/G STEEL	
23A	6810	A/G STEEL	
23B	6810	A/G STEEL	
23C	6810	A/G STEEL	
24	6810	A/G STEEL	
24A	6810	A/G STEEL	
24B	6810	A/G STEEL	
24C	6810	A/G STEEL	
25	6810	A/G STEEL	
25A	6810	A/G STEEL	
25B	6810	A/G STEEL	
25C	6810	A/G STEEL	
26	13620	A/G STEEL	
26A	13620	A/G STEEL	
27	13620	A/G STEEL	
27A	13620	A/G STEEL	
28	13620	A/G STEEL	
28A	13620	A/G STEEL	
29	6810	A/G STEEL	
29A	6810	A/G STEEL	

Other remarks:**TANK FARM No. 2**

TANKS

COMPT No.	CAPACITY LITRES	TYPE OF TANK (Steel, GRP, etc.)	YEAR
31	18160	U/G STEEL	1974
32	18160	U/G STEEL	1974
33	18160	U/G STEEL	1974
34	9080	U/G STEEL	1974
34A	9080	U/G STEEL	1974
35	18160	U/G STEEL	1974
36	18160	U/G STEEL	1974
37	18160	U/G STEEL	1974
38	18160	U/G STEEL	1974
39	9080	U/G STEEL	1974
39A	9080	U/G STEEL	1974
40	9080	U/G STEEL	1974
40A	9080	U/G STEEL	1974

Other remarks: **TANK FARM No.2**

TANKS 21-40A MAY CONTAIN ANY PRODUCT SUBJECT TO COMMERCIAL REQUIREMENTS AT THE TIME. THEY ARE LICENSED FOR PETROLEUM SPIRIT.

APPENDIX A - 2

Detailed Qualitative Risk Assessment (DQRA), October 2011 (Environ, Report Ref: UK16-17036)



Detailed Quantitative Risk Assessment
Trimite Ltd, Uxbridge, UK

Prepared for:
Stretford Ltd
Uxbridge, UK

Prepared by:
ENVIRON
Leeds, UK

Date:
October 2011

Project or Issue Number:
UK16-17036

Contract/Proposal No:	UK16-17036
Issue:	1
Author	Jesse Davies
(Signature):	
Project Manager/Director	Sue Bullock
(Signature):	
Date:	24 October 2011

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Version Control Record

Issue	Description of Status	Date	Reviewer Initials	Author Initials
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Executive Summary

ENVIRON (UK) Ltd (ENVIRON) was commissioned by Stretford Ltd to update the Quantitative Risk Assessment (QRA), prepared in 2008, relating to ground contamination at the Trimite Ltd (Trimite) facility (the site) at Arundel Road, Uxbridge, Middlesex UB8 2SD (report ref: R67C-13446_QRA_2, dated October 2008). Stretford Ltd plans to consolidate the operational area of the Trimite facility within approximately 2 acres of the total site area, with the remaining area to be sold for redevelopment. A plan of the site is included as Figure 3; this figure shows the rough boundary between the land to be retained and the land to be sold for redevelopment. The updated QRA is required to support this process of consolidation and divestiture/redevelopment.

This report is addressed to Stretford Ltd. In the event of the disclosure of the report (or any part thereof) to any other party, ENVIRON will accept no responsibility to any other person to whom it is disclosed, unless this has been agreed in writing by ENVIRON.

ENVIRON has previously conducted three stages of intrusive investigation at the subject site. A plan showing the sampling locations is included as Figure 4. These are:

- Phase I and Phase II Environmental Assessment undertaken in September/October 2007 (report ref: R67C12520_1, dated November 2007);
- Phase II Intrusive Investigation (report ref: R67C12790_FACTUAL_1, dated January 2007); and
- Phase II Intrusive Investigation undertaken in June 2008 (factual report ref: R67-C13446_FACTUAL_01, dated 29th July 2008).

In addition ENVIRON prepared a quantitative risk assessment which evaluated the findings from these three stages of investigation (report ref: R67C-13446_QRA_2, dated October 2008). Concurrent with the intrusive investigations undertaken on-site in June 2008, ENVIRON also reviewed operational activities on-site and prepared a Source Control Record for the site. This document detailed potential sources of contamination resulting from on-going operations on-site at that time (ref: 67C13554, dated August 2008).

The work carried out by ENVIRON in 2011, as documented in this report, involved:

- the collection and analysis of groundwater samples from all accessible monitoring wells at the site to characterize existing groundwater conditions; and
- updating the risk assessment with respect to current ground conditions and guidance.

This report summarises the findings of all 3 previous stages of intrusive investigation, as detailed above and includes the analytical data for groundwater obtained by resampling all existing accessible monitoring wells at the site in August 2011.

Site Characterisation

Soil and groundwater data gathered between 2007 and 2011 has been evaluated to characterise ground conditions and trends at the Uxbridge site, considering the sources, concentrations and distribution of these substances, as well as evidence for processes that influence fate and transport of the substances and their degradation products in the ground.

Groundwater and, to a much lesser extent, soils contain concentrations of chemicals including organic solvents, hydrocarbons and metals that exceed conservative assessment criteria designed to be protective of human health and the environment, assuming that the site continues in commercial use.

Soils

Investigations to date have not identified evidence of a widespread source of soil contamination at the site. Some localised contamination hotspots in soil exist, including areas of contaminated shallow fill in the north-west of the site, believed to be the source of identified hydrocarbon and metal groundwater impact in this area of the site (see below) and contaminated shallow soils in the centre of the site; these appear to be limited in extent. No evidence of significant soil hotspots were identified within the building footprints of Mill Room 1, Mill Room 2 or the former Metro Engineering and Plating Works. It is possible that tank farms (and particularly USTs) have acted as the primary source of groundwater impacts observed at the site (see discussion below). Free-phase petroleum hydrocarbons (LNAPL) has been consistently detected in the shallow alluvium in one location on-site – adjacent to Tank Farm 2; based on the absence of observed LNAPL in adjacent monitoring wells the affected area of soil is considered likely to be small (the thickness of affected soils is considered likely to be limited to the groundwater surface and associated "smear zone" caused by fluctuations in groundwater levels), and likely confined to the area of the underground storage tanks (USTs) at Tank Farm 2.

Groundwater

There is a plume of chlorinated and non-chlorinated organic solvents present in groundwater at the Trimite site. The source of the plume is centred around monitoring well WS4, which is located adjacent to Tank Farm 1 and Mill Rooms 1 and 2, slightly north of the land currently proposed for retention by Trimite, and the plume extends in a south-westerly direction in accordance with the direction of groundwater flow onto and across the area of the site that is to be retained. Concentrations of the solvents in the groundwater plume decrease away from the source and are measureable at the down-gradient site boundary, indicating that the plume is migrating off-site. At the same time, however, there is also strong evidence that the contaminants are degrading or breaking down in-situ. In particular, biodegradation products of the chlorinated solvents have been measured on-site; the concentration of these bio-degradation products increase in concentration down-gradient of the primary source and then decrease as they themselves are degraded. The maximum concentrations of all the biodegradation products (including vinyl chloride) within the plume lie within the boundary of the site, therefore concentrations down-gradient are expected to decrease.

In addition, analysis of available data suggests two separate areas of groundwater impact on-site: an area of chlorinated solvent impacted groundwater down-gradient of the primary chlorinated solvent source in the vicinity of BH2 (located approximately to the south of the main plume) and an area of chlorinated solvent impacted groundwater in the vicinity of BH3 (located to the west-south-west of the main plume). An area of metal impact to groundwater exists in the south-western corner of the site, thought to be associated with the former Metro Engineering and Plating Works operations in this area. These smaller areas of impacted groundwater lie within the area of the site which Trimite currently proposes to retain.

Metal and hydrocarbon impact to groundwater has also been detected associated with the area of historic fill in the north-west of the site. This area lies outside of the area which Trimite currently proposes to retain.

Limitations to Current Understanding of Site Conditions

The area of contaminated fill in the north-western area of the site has not been well characterized to date due the presence of underground services and limited recovery of soils (limited cohesion of fill) for testing during drilling. Anecdotal information from Trimite staff indicated that the fill was historically placed and partly underlies Trimite's main office and administration building (site personnel report that the piled foundations were required during the construction of the existing office and administration building in this area). Significant differential settlement in the ground level parking area suggests the fill may also be present in this area. For the purposes of this assessment, the area of contaminated fill has been estimated to extend over 400m^2 and to extend to a depth of 3m; however, this could be an underestimate (the area of differential settlement extends over an area of approximately 30m x 25m under the main office and administration building).

Tank Farm 3 (located on the western site boundary) represents an additional potential source of soil and/or groundwater contamination; this area has not been well characterised to date due to restricted access and the location of the tank farm immediately adjacent to the site boundary.

The investigations to date have focused on the areas most likely to have been impacted as a result of operations on-site. The potential for other sources of contamination at the site to exist cannot be ruled out. However, it may be possible to address the most significant residual uncertainties regarding the site characterization (eg the historic infill area in the north-western part of the site, Tank Farm 3 at the western boundary, and the fuel USTs in the north-western area) during works to reconfigure the site.

Risk Assessment

The current intention is that the area to the north of the site will be vacated by Trimite prior to sale for redevelopment; any application for planning consents associated with the redevelopment of this area of the site will almost certainly be subject to conditions to assess the site and carry out any remediation necessary to ensure the site is fit for purpose.

In accordance with UK legislation and guidance, the need for remedial action at any site is determined according to the outcome of a risk assessment. The risk assessment must consider the relevant current and/or future use of the site, and remedial action may be required where the risk the site poses to humans and/or the environment is unacceptable.

For the purpose of this assessment, the future use of the site was assumed to be general commercial use. This assumes the site is in use as a warehouse. The risk assessment is indicative, and may need to be refined with regard to detailed plans for future site use.

The assessment considered risk to workers at the site and down gradient of the site. It also considered risk to the environment, and particularly to Controlled Waters, since these will be the primary features of concern to the regulators.

Controlled waters include groundwater and inland surface waters that are regulated in accordance with the Environmental Protection Act (1990) and the Water Framework Directive (WFD) (2000/60/EC). The Environment Agency has a remit to manage the quality of these water bodies and prevent deterioration in their quality.

There are two Controlled Water bodies of primary concern with regard to the potential for impact from the site:

- The River Colne, located 105m to the south-west of the site at its nearest point; and
- Groundwater underlying the site; this has been discounted from the assessment and treated as a pathway rather than a receptor, due to the absence of any abstractions down-gradient of the site and the likely fate of the groundwater being base flow to the River Colne. It is noted that the regulator may not accept this interpretation and seek to prevent any deterioration of quality of this water body. This would effectively result in much more stringent remediation requirements than those presented within this report.

The qualitative risk assessment conducted by ENVIRON found no risk to human receptors from the identified contaminants measured in groundwater at the site.

The quantitative risk assessment conducted by ENVIRON involved evaluating the risk to controlled waters for the following contaminants of key concern which were measured in groundwater at the site:

Chlorinated Solvents

- Tetrachloroethene (PCE);
- Trichloroethene (TCE);
- Cis-1,2-Dichloroethene;
- 1,1-Dichloroethene;
- Vinyl Chloride;
- 1,4-Dichlorobenzene;
- 1,2-Dichlorobenzene;
- 1,1,1-Trichloroethane; and
- 1,1-Dichloroethane.

Non-chlorinated Solvents

- Toluene;
- Ethylbenzene; and
- Xylenes.

Hydrocarbons

- Naphthalene; and
- 1,2,4-Trimethylbenzene;

Inorganics

- Ammoniacal Nitrogen;Cadmium;
- Lead;
- Total Chromium; and
- Hexavalent Chromium.

Findings

The results of the risk assessment indicate that there is no risk to human health assuming continued commercial use of the property from detected concentrations of contaminants in soil and groundwater. The hydrocarbon product (or hydrocarbon LNAPL) identified in the vicinity of Tank Farm 2 has not been evaluated directly as part of the risk assessment

because regulatory authorities generally require removal of this material because it can act as an ongoing source of contamination to groundwater; however, Xylenes were assessed for this area as a surrogate for the LNAPL in the controlled waters assessment.

Measured concentrations of the following contaminants in groundwater on-site exceed conservative assessment criteria developed to be protective of the River Colne:

- TCE;
- Cis-1,2-Dichloroethene;
- Vinyl Chloride;
- 1,1-Dichloroethane;
- 1,2-Dichlorobenzene;
- 1,2,4-Trimethylbenzene;
- Xylenes;
- Naphthalene;
- Cadmium;
- Lead;
- Total Chromium; and
- Hexavalent Chromium.

The majority of the areas of identified groundwater impact are located within the southern area of the site which Trimite currently proposes to retain. An exception is the northernmost extent (and source) of the area of groundwater impacted by chlorinated solvents (monitoring well WS4); this lies just north of the currently proposed boundary of the land to be retained, although the remainder of the plume lies to the south of this boundary. No soil source has been identified for the chlorinated solvent impact on groundwater in this area; the source may be direct release from underground distribution pipelines in this area. Similarly, the source of the other, more localized areas of chlorinated solvents in groundwater, have not been confirmed.

The source of metals in groundwater in the south-western area of the site is considered to be impacted shallow soil associated with the historic use of this area of the site by the Metro Engineering and Plating Works.

Contaminated soil and/or NAPL sources resulting in an unacceptable risk to the River Colne in the northern part of the site (ie the land to be sold) are restricted to the hydrocarbon LNAPL in the vicinity of Tank Farm 2 and to various substances (naphthalene, cadmium, chromium and lead) in the shallow fill material in the north-western area of the site. The measured distribution of hydrocarbons in groundwater does not suggest that the identified LNAPL associated with Tank Farm 2 is affecting a wider area of groundwater (possibly as a result of below ground structures limiting the contact of groundwater flow with the LNAPL).

The areas affected by the identified contaminants in groundwater are illustrated on Figures 7A – 7E.

The off-site migration of contaminants down-gradient from the area of historic fill in the north-west of the site and the former Metro Engineering and Plating Works in the south-west of the site has not been directly measured as these sources lie on the down-gradient boundary of the site and no off-site investigations have been undertaken. Those substances whose distributions suggest transport via groundwater flow across the area of study are detailed below:

- Chlorinated alkenes (PCE/TCE and their breakdown products) in groundwater in WS4, WS5, WS105, BH2 and BH3, estimated to cover 1,400m^2; and
- Chlorinated alkanes (1,1-Dichloroethane) in groundwater in WS1, WS11, BH2, BH3 and BH6, estimated to cover 2,400m^2.

Remediation

Further action is appropriate to evaluate and / or address the risks to the environment particularly the River Colne, located 105m to the south-west of the site, associated with the contaminated groundwater on-site.

There are options to further refine the environmental risk assessment model to justify less stringent remediation criteria available at this stage, and therefore avoid or limit remedial works. This could include additional assessment to improve the model, for example by addressing data gaps within the conceptual site model, gathering further site specific data such as density of aquifer material, hydraulic conductivity and partition coefficients for key contaminants. If the findings of such work resulted in remedial targets that were less conservative, it is possible that this could support a strategy for reduced remedial action. However; if the findings of such further assessment continued to indicate a risk to the environment, as they do at present, remedial action of some nature is likely to be required. Since refinement of the risk assessment is unlikely to significantly affect remediation requirements for the site, we have not identified this as a priority at this stage.

Options for remedial action vary from Monitored Natural Attenuation (i.e. monitoring of groundwater to demonstrate that concentrations of contamination are reducing both on and off-site as a result of natural processes) to localised source removal and/or groundwater treatment solutions. A range of possible options for remedial action have been considered within a systematic feasibility assessment, considering the nature of the contaminants, ground conditions, and assuming continuing existing industrial use.

Any course of remedial action would be subject to approval by the regulatory authorities. Trimite should agree the aims and scope of any remedial works with the Environment Agency. However, based on this feasibility assessment, the preferred course of remedial action at the site would comprise:

1. A watching brief during all demolition works and tank/process decommissioning and removal to document the process and validate the absence of activities that could result in new sources of soil and/or groundwater contamination. Poorly characterised areas of contamination (eg those constrained by building footprints by foundation structures such as Tank Farms 1, 2 and 3 and the area of infill in the north-western area of the site) should also be better characterized at this stage. Areas of impacted soil or LNAPL identified over the course of the decommissioning works would be removed (a contingency should be included to allow for previously unidentified hot spots of soil that may be encountered during the works).
2. Following the clearance of tanks and the removal of impacted soils, Monitored Natural Attenuation (MNA) over several years (the duration would need to be agreed with the regulator, but would likely be in the region of 5 to 10 years). Active groundwater treatment could be carried out to enhance and expedite these natural degradation processes and could increase the acceptability of this solution to the regulators. Based on ENVIRON's experience at similar sites and the significant reduction in PCE/TCE and

their breakdown products observed over the period of ENVIRON's assessments at the Uxbridge site, it is reasonable to expect that MNA or enhanced MNA could be justified to and accepted by the regulator as a remedial approach for organic contaminants in the southern site area; and

3. Separate works to address the impacted fill material in the north-western area of the site and the shallow contaminated fill in the vicinity of the former plating works. This would probably involve targeted source removal (ie excavation and removal of contaminated material for off-site treatment and/or disposal) or stabilisation (ie treatment of soil with binders to prevent release of contaminants).

Discussions with the regulators are required to confirm the acceptability of such an approach. The Environment Agency is generally pragmatic, but may seek works that go beyond those proposed to prevent or minimize groundwater impact. For example, ENVIRON has recently been involved in remedial activities at a site located in the same general area as the Trimite site at which groundwater was impacted with chlorinated hydrocarbons; the Environment Agency insisted on extensive remedial works to mitigate contaminant concentrations in groundwater. If the Environment Agency was to take a similar approach at the Trimite site, it could seek the installation of a reactive barrier near the site boundary in order to address the organic contamination, more extensive groundwater treatment (e.g. pump and treat or "air sparging" technology) and source removal / stabilization/encapsulation. Such an approach is unlikely to be practical or cost-effective while the site remains in current use. Discussions with the regulator are required to understand the likely scope of remedial activities, if any, required.

Additional investigations may also be required by the Environment Agency to support decisions regarding the appropriate course of action at the site. These will ultimately depend on detailed development plans.

Regulatory Involvement

The Environment Agency visited the site at the time of the 2008 intrusive investigations and indicated interest in the findings of previous assessments. Trimite is not obliged to inform the Environment Agency of the outcome of this assessment. Under section 85 of the Water Resources Act 1991, it is an offence to cause or knowingly permit poisonous, noxious, or polluting matter or any solid waste to enter any controlled waters; Trimite must cease any activity at the site resulting in ongoing contamination of groundwater, including implementing the recommendations of the source control record.

Redevelopment of the site will trigger regulatory involvement. Regulators would almost certainly require a detailed risk assessment to be submitted in support of any future planning application for redevelopment of part or all of the site. Remedial action could be required at that time; the scope of the remediation would depend in part on the details of the proposed redevelopment.

It is possible that the local authority will approach the site in relation to its duties under Part IIA of the Environmental Protection Act 1990. The local authority is empowered under this legislation to enforce remediation where the risk to health or the environment associated with contamination is unacceptable.

Recommendations

Redevelopment of the northern area of the site will almost certainly trigger regulatory involvement and require developers to demonstrate that this area is safe for the proposed use. This activity may also trigger interest from the regulators in the southern area of the site to be retained by Trimite; however, it is not clear whether the regulators would proactively enforce remedial action in the southern part of the site (eg through Part IIA of the Environmental Protection Act 1990) in the absence of a specific planning application.

The main groundwater plume originates on the northern area of the site and migrates onto the southern area and then off-site. Therefore, a requirement to evaluate the northern area of the site would likely alert the regulators to this wider issue. Should remediation of the plume be required, it would be sensible to treat it together. Remediation of the plume will take several years and likely require regular access across the affected area to monitor progress and, possibly, carry out treatment. For this reason, it may be practical to adjust the boundary of the area to be sold such that the groundwater source in the vicinity of WS4 is located on the land to be retained by Trimite (see Figure 8). Alternatives that may avoid a future purchaser taking on liability for the groundwater plume include negotiating access to this area for the duration of groundwater treatment so that Trimite can retain control of and liability for this plume. Selling the land according to the currently proposed boundary could result in two separate schemes to remediate different parts of the groundwater plume, with reduced efficiency or effectiveness for both parties.

As part of the consolidation of the Trimite operations on the land in the southern part of the site and sale of the land in the north, the following general recommendations are noted:

1. Ensure there are no ongoing releases to soil and groundwater. The existing source control record should be updated in order to reflect changes to operations at the site. In addition, housekeeping recommendations and site infrastructure improvements set out in Section 7.5 should be implemented in relation to ongoing operations.
2. Provide a “watching brief” for all demolition and decommissioning works at the site, including further characterisation of areas of uncertainty in this area where possible;
3. Remove all above and below storage tanks and process infrastructure in the northern area of the site in accordance with environmental best practice. LNAPL in the vicinity of Tank Farm 2 and other residual LNAPL identified in the northern part of the site during the decommissioning works should be removed;
4. Remove redundant USTs from the southern area of the site to be retained by Trimite;

Discussions with regulatory authorities will be required to agree the detailed remedial strategy. However, remedial options are outlined below.

Northern Area of Site (area to be sold for redevelopment)

Indicative Costs for Remedial Activity – Northern Area	
A “Watching Brief” during any demolition/decommissioning works, to ensure that existing sources of contamination are addressed (based on engineer present on-site for 2 – 3 months with limited validation sampling and analysis)	£50K

Indicative Costs for Remedial Activity – Northern Area	
Further site characterisation of: • area of historic infill in the north-west of the site once access available. • Tank Farm 3 and the fuel UST farm in the north-western area of the site • hexavalent chromium impacts centred on WS105 and BH4.	£30K - £80K
Source Remediation of infill area, based on estimate of 40m x 40m area and 3m depth (5,000m^3). • In-situ stabilisation (based on £20 per m^3 for hazardous waste disposal) • Removal and off-site disposal (based on £100 per m^3 for hazardous waste disposal)	£100K or £500K
Removal of LNAPL from the vicinity of Tank Farm 2. This would ideally be performed in conjunction with demolition/decommissioning works. Indicative costs (assuming UST removal/decommissioning undertaken separately) -	£10K - £20K
Contingency for removal of hot spots encountered during decommissioning	£50K
Treatment of source of the groundwater plume in the event that the proposed site boundary is not adjusted and the source of groundwater plume centred on WS4 remains in the area to be retained. Cost assumes one quarter of total estimate for treatment of groundwater plume (see below).	*£50 to 150K*

Assuming the site boundary is adjusted so that source of groundwater plume centred on WS4 lies in area to be retained, total costs are in the region of £240K (reasonable case) on the basis that the Environment Agency enforces remediation and the infill area is stabilised, and £700k (reasonable worst case) assuming the removal and off-site disposal of fill materials.

Additional costs of £50K to £150K (ie one quarter of the total cost of remediating the main groundwater plume are included in the event the area of the site sold for redevelopment includes the source of the groundwater plume (ie the boundary is not adjusted).

Southern Area of Site (area to be retained)

Indicative Costs for Remedial Activity – Southern Area	
A "Watching Brief" during decommissioning of redundant underground storage tanks in southern area of site	£10-15K
Source remediation within the footprint of the former Metro Engineering and Plating Works, based on assumed 40m x 20m area and 2m depth (1,500m^3). • In-situ stabilisation (based on £20 per m^3 for hazardous waste disposal) • Removal and off-site disposal (based on £100 per m^3 for hazardous waste disposal)	£50K or £100K
Monitored Natural Attenuation of chlorinated solvents in groundwater in the vicinity of WS4. Ideally, this would form part of a wider MNA programme for the land in the southern area to be retained by Trimite, and may require the installation of additional monitoring wells. Assumes bi-annual sampling surveys. Cost assumes installation of additional wells (£50K) and operating costs of ca. £30K to £40K per annum over 5 to 10 years (expected to reduce over time). Alternatively, MNA with groundwater treatment to "enhance" the effects of natural attenuation on the source area centred on WS4 and its associated groundwater plume by application of Hydrogen Releasing Compounds (HRC) to the source zone. Cost assumes installation of treatment system (£100K) and operating costs of ca. £50K per annum over 5 to 10 years (expected to reduce over time).	£200K to £500K £350K to £600K

Total costs are in the region of £300K (reasonable case) assuming the Environment Agency enforces Monitored Natural Attenuation for 5 years and stabilisation of fill is undertaken, and in the region of £750K assuming the Environment Agency enforces enhanced Monitored Natural Attenuation for 10 years and fill materials are removed for off-site disposal (reasonable worst case). If the areas containing the source of the groundwater plume is sold and not retained by Trimite, it might be reasonable to assume the cost of remediating the plume would be shared with the new owner, and could be adjusted accordingly. For the purpose of this assessment, we have assumed that the cost to Trimite would be 75% of the total cost for this activity. In fact, this likely over-simplifies the situation, and does not take account of additional inefficiencies resulting from this approach.

The total estimated costs for the remediation of the whole site are £0.5M (reasonable case) to £1.5M (reasonable worst case).

Remedial Cost Estimates – Option 1		
(assuming boundary is adjusted so all area affected by main groundwater plume retained by Trimite)		
Cost Estimate	**Reasonable Case**	**Reasonable Worst Case**
Northern Area	£240k	£700k
Southern Area	£300k	£750k
Total	£0.5M	£1.5M

Remedial Cost Estimates – Option 2		
(assuming area including source of main groundwater plume sold for redevelopment)		
Cost Estimate	**Reasonable Case**	**Reasonable Worst Case**
Northern Area	£290k	£850k
Southern Area	£250k	£600k
Total	£0.5M	£1.5M

1 Introduction

This report has been prepared for the exclusive use of Stretford Ltd and may not be relied upon by any other person or entity without ENVIRON's prior express written permission.

This report has been prepared in conformance with generally accepted standards of practice in the fields of environmental sciences and engineering at the time the services were rendered. ENVIRON makes no other warranty or representation, either expressed or implied, with respect to its services.

The report findings are based in part on information/data provided by our client and/or other third parties and conditions identified as a result of ENVIRON's investigations as of the date of the report. ENVIRON has not attempted to verify information/data provided to it by our client or other third parties, except as explicitly noted in our report, and makes no express representations to the accuracy of such information/data by the inclusion of it in our report.

The level of detail carried out during ENVIRON's investigation is appropriate to meet the study objectives as defined in this report; however, there is no warranty or guarantee, expressed or implied, that this investigation has uncovered all potential latent environmental liabilities associated with the Site.

1.1 Background

ENVIRON (UK) Ltd (ENVIRON) was commissioned by Stretford Ltd to carry update the Quantitative Risk Assessment (QRA) that it prepared in 2008 relating to ground contamination in relation to the Trimite Ltd (Trimite) facility (the site) at Arundel Road, Uxbridge, Middlesex UB8 2SD (report ref: R67C-13446_QRA_2, dated October 2008). The update is required in relation to plans to consolidate the operational area of the Trimite facility within approximately 2 acres of the total site area, with the remaining area to be sold for redevelopment. A plan of the site is included as Figure 3. This figure shows the rough boundary between the land to be retained and the land to be sold.

The site is currently used for paint and ink production and distribution and it is understood that Trimite intends to continue these operations on a reduced site area for the foreseeable future.

ENVIRON has previously conducted three stages of intrusive investigation at the subject site. These are:

- Phase I and Phase II Environmental Assessment undertaken in September/October 2007 (report ref: R67C12520_1, dated November 2007);
- Phase II Intrusive Investigation (report ref: R67C12790_FACTUAL_1, dated January 2007); and
- Phase II Intrusive Investigation undertaken in June 2008 (factual report ref: R67-C13446_FACTUAL_01, dated 29th July 2008).

In addition ENVIRON has prepared a quantitative risk assessment which evaluated the findings from these three stages of investigation (report ref: R67C-13446_QRA_2, dated October 2008). Concurrent with the intrusive investigations undertaken on-site in June 2008, ENVIRON also reviewed operational activities on-site and prepared a Source Control Record for the site. This report detailed potential sources of contamination resulting from on-going operations on-site at that time (ref: 67C13554, dated August 2008).

The work carried out in 2011 involved:

- the collection of groundwater samples from all accessible monitoring wells at the site in order to obtain a current understanding of the groundwater quality; and
- updating the risk assessment with respect to current ground conditions and guidance.

This report summarises the findings of all 3 previous stages of intrusive investigation, as detailed above and includes the analytical data for groundwater obtained by resampling all existing accessible monitoring wells at the site in August 2011.

1.2 Purpose And Scope Of Report

The aim of the study is to evaluate the need, if any, for measures to mitigate the risk associated with current ground conditions at the site. This assessment was carried out using a risk-based approach in accordance with UK guidance and the principle that land should be suitable for use and involves a comparison of known concentrations of contaminants at the site with risk-based criteria that are protective of human health and the environment.

In summary, the technical objectives of this further study are to:

- Provide up to date information regarding groundwater impact by resampling all available existing groundwater wells;
- further refine the conceptual site model (CSM) originally set out in ENVIRON's 2008 Quantitative Risk Assessment Report to incorporate the additional groundwater data from samples obtained in August 2011;
- Assess the risk to human health and environmental receptors (including controlled waters) for contaminants of concern in accordance with accepted guidance for qualitative risk assessment using generic assessment criteria; and
- Develop an outline remedial strategy for the site.

2 Site Characterisation

2.1 Site Description

Trimite occupies a site of 2.96 hectares (7.3 acres) located approximately 960m to the south-west of Uxbridge town centre and 105m north-east of the River Colne, as indicated in Figure 1 and Figure 2. The National Grid Reference for the site centre is 504810, 183140. The site is situated at approximately 35m AOD on land that is generally level.

The site is located in an area intensively developed for mixed uses. Light industrial units are located on neighbouring properties to the north, south, east and west. Residential properties are located to the north-east.

The site is bound:

- to the north by Ashley Road, beyond which to the north-east are residential properties;
- to the east by Wallingford Road and industrial properties, beyond which lie further industrial properties;
- to the south by Salisbury Road, beyond which lie industrial properties; and
- to the west by Arundel Road, beyond which lie industrial properties.

The nearest houses are approximately 20m from the north-eastern site boundary. The nearest school is 550m to the northeast of the site.

There are no local, national or international designated sites of conservation or ecological significance within 1.5km of the site.

A plan showing the layout of the site is included as Figure 3. The site covers an area of 2.96 hectares (7.3 acres). Various buildings (including the main Reception/Office building, Engineering Workshops, Production areas, Tank Farms, Despatch buildings and Stores) are located across the site, covering approximately 60% of the site in total. There is no vegetation present across the main operational site area, with the exception of the location of the former Metro Plating and Engineering Works in the south-east of the site. The majority of the main operational site area is covered with buildings or hardcover in poor condition. A small area of land (approximately 5%) close to the eastern site boundary comprises permeable or semi-permeable ground, which has been observed to have been used for the storage and handling of wastes (including liquid wastes) during visits to the site by ENVIRON staff.

2.2 Site History

Trimite has operated on the Uxbridge site for the manufacture of industrial coatings, inks and pre-treatment chemicals for metal and plastics for approximately 50 years, the site having been developed for its current use at some point between 1934 and 1960.

A review of the site history has been carried out with reference to published historical maps and previous environmental reports (see Section 2.1). Key aspects of the site history are summarised below:

- The site was developed for its current use at some point between 1934 and 1960, and was subsequently acquired by Trimite Limited. Various parts of the site have been redeveloped under Trimite's ownership of the site;
- Historically filter beds associated with a nearby sewage works were present in the south-eastern area of the site between 1900 and 1960;

- An engineering and plating works reportedly operated by Metro Engineering and Plating Company Ltd, was located in the south-western area from 1960 and acquired by Trimite, date unknown. According to a site contact, the building has never been in use by Trimite. This building was demolished in early 2008;
- A chemical works operated by Allied Chemicals was present in the southern area of the site from 1960, again acquired by Trimite, date unknown;
- Paint manufacturing has occurred on-site for approximately 50 years. Several bulk storage tanks farms, various above and below ground tanks for the storage of fuels, solvents, resin and caustic soda are present on-site, the majority of which are over 30 years old and are in the process of being replaced. Nine underground tanks are disused and are understood to have been decommissioned. Petrol and diesel pumps are located on-site for vehicle refuelling and an area in the south-west of the site is used for vehicle washing. A detailed assessment of on-site facilities is provided in ENVIRON's Source Control Record (included as Annex F).

Historic activities on neighbouring land include a large Gas Works 60m east from the 1880's until the 1970's when the majority of the facility was demolished, becoming a gasholder station; and a Sewage Works 90m south-east from 1880's, extending onto the site by 1900 and demolished prior to 1960.

2.3 Geology

Made ground overlies the natural deposits across the site. Alluvium, comprising a thin layer of gravelly Clay in some locations, but predominantly comprising sandy Cobbles and Gravel of Flint underlies the made ground. The Alluvium is underlain by solid geology of the London Clay (stiff blue/grey clays) which is further underlain by the Reading Beds (mottled clay with sand and pebbles at base). Upper Chalk is present beneath the Reading Beds. The typical sequence observed during previous site investigations is summarised in the table below.

Table 2.1 Geological sequence observed in the field

Strata	Depth to Upper Surface (mbgl)	Thickness (m)	Locations Encountered
Surfacing Reinforced Concrete or Bituminiferous Tarmacadam	0	Up to 0.3m thick	All
Made Ground Gravel, Gravel and Cobbles, gravelly Clay, sandy Clay, or clayey Sand	0.1m – 0.3m	Proven to at least 2.5m in one location; generally up to 1.6m thick	All
Alluvium Gravelly CLAY (where present) and Sandy GRAVEL and	0.4m – 1.8m	Up to 6.3m thick	All except WS3

COBBLES of Flint			
London Clay Recovered as stiff green-grey smooth CLAY	4.6m – 6.8m	Proven to 6.8m	BH1 – BH10 and WS1

The elevations of the London Clay encountered in 11 locations on-site (WS1 and BH1 – BH10) relative to Ordnance Datum (OD) were found to be highly variable across the site, with two high points of 25.4m and 24.9 m AOD at BH10 and BH2 respectively and a low point of 23.27m AOD at BH8. Based on published information, the London Clay and Reading Beds are understood to comprise a thickness of at least 50m, which is likely to provide significant protection to the underlying Chalk Major Aquifer. As such the Chalk Major Aquifer is not considered further within this assessment.

2.3.1 Hydrology

The nearest identified surface water feature is the Grand Union Canal approximately 45m east of the site, classified under the EA GQA scheme as Category C (Fairly Good) between 2004 and 2006. The nearest natural watercourse is the River Colne located approximately 105m south-west of the site flowing in a southerly direction. It was classified by the EA as Category B (Good) for chemical water quality. An Environment Agency data source (EA website) indicates that the site is located within an area at risk from flooding; according to the data source the site has a significant chance of flooding each year; greater than 1.3% (1 in 75). The written response from the Environment Agency, dated 19th September 2007 identified the site as being located in an area with an annual probability of 0.1% (1 in 1000), therefore this is considered to be the more realistic flood risk for the subject site.

Further discussion of these surface water courses is provided in Section 3.4.

According to the Landmark Environmental Database, there are three surface water abstraction licenses (with four abstraction points) within a 2km radius of the site, as detailed below.

Table 2.2 Licensed Surface Water Abstractions Within 2km of the Site

Licence Holder	Distance from Site	Abstraction source	Purpose of Abstraction
Mr DE Jones	660m NW & 1.26km NW	River Alderbourne	Agriculture: Spray Irrigation
Mr ML Nunn	1.13km S	River Colne	Fish Farming
Dr JPV Rigby	1.47km S	Huntsmoor Weir	Production of Energy: Hydroelectric power generation

2.3.2 Hydrogeology

Groundwater levels in the monitoring wells have been measured in December 2007, June 2008 and August 2011. During the August 2011 survey groundwater was encountered resting within the monitoring wells installed within the alluvium at depths ranging between 1.22m and 1.752m bgl. Groundwater was typically found to be resting either within the upper Alluvium or within the Made Ground close to the interface with the Alluvium, with relative groundwater elevations suggesting a general NE to SW direction (see Figure 5). On this

basis, groundwater is expected to flow towards the River Colne, located 105m to the south-west of the site, consistent with the findings on the 2007 and 2008 investigations.

Following borehole excavation and installation all monitoring wells were developed by purging ten times the well volume prior to sampling. In general recharge rates were fast and no significant drawdown on the groundwater elevations was noted during purging; however, BH1 and BH8 were purged dry during development which may suggest slightly different ground conditions in these areas.

According to the Policy and Practice for the Protection of Groundwater, Thames Regional Appendix, the Environment Agency (EA) classifies the Alluvium as being of variable permeability, depending on the underlying strata. According to publicly accessible EA web data the superficial deposits in the vicinity of the site are classified as a "Secondary A" aquifer ("permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers").

A search of the regulatory databases indicated there are four groundwater abstraction licenses (with 8 abstraction points) operating within a 2km radius of the site, as detailed below.

Table 2.3 Licensed Groundwater Abstractions Within 2km of the Site

Licence Holder	Distance from Site	Abstraction source	Purpose of Abstraction
Cape Building Products Ltd	335m S & 415m SW	Boreholes A and B Iver Lane	Process Water
Mr DE Jones	1.05km W	Well, Iver Heath	General Farming and Domestic
Smiths Nurseries Ltd	1.7km N, 1.9km N & 1.9km N	Wells A, B and C, New Denham	Spray Irrigation
Arlington Business Parks Gp Ltd	1.90km N & 1.98km N	Borehole A, 100 Acres, Denham	General Washing/Process Washing

The site is not located within a groundwater Source Protection Zone.

2.3.3 Meteorology

Rainfall data collated by the Meteorological Office from 1986 – 2006 at Oxford indicate a yearly average rainfall rate of 666.3mm at Oxford (the closest available location for which detailed rainfall data was available).

2.4 Previous Investigations

A report was provided to ENVIRON by Trimite Ltd for a limited intrusive investigation report conducted by Ground Explorations Ltd in 1993 (relating to a building construction project). The investigation was undertaken on a piece of land located immediately to the east (i.e. up-gradient) of the subject site (between Wallingford Road and the Grand Union Canal, adjacent to the Trimite facility) formerly owned by Trimite, and comprised the excavation of 6 Trial Pits and the analysis of 8 soil samples for a limited suite of contaminants. No groundwater sampling was undertaken. The geology encountered correlates well with the

findings of ENVIRONs investigations of the Trimite facility. Metals were not detected at concentrations exceeding ENVIRONs generic assessment criteria (GAC, see Section 3.0) (although some concentrations of metals are considered to be elevated above likely background levels), and elevated concentrations of Cyanide, Phenol and Total Petroleum Hydrocarbons were detected. No analysis for VOCs or SVOCs was undertaken. This analytical data was not used in ENVIRON's assessment of the site due to an absence of reliable laboratory analytical certificates, and the potential for lack of consistency in analytical techniques.

ENVIRON undertook a Phase I and Phase II Environmental Assessment of the site in September and October 2007 (report ref: R67C12520_1, dated November 2007), which is the first known environmental assessment of the subject site.

A second stage investigation was undertaken by ENVIRON in December 2007 in order to delineate and further characterise the groundwater impact plumes identified by the above investigation (report refs: R67C12790_FACTUAL_1, dated January 2007).

A third stage investigation was undertaken in June 2008 in order to further delineate soil and groundwater impacts, with specific emphasis on the building footprints of Mill Room No 1, Mill Room No 2 and the recently demolished former Metro Engineering and Plating building (report ref: R67C13446_FACTUAL_A).

All three stages of intrusive investigation described above were incorporated into the Quantitative Risk Assessment Report (report ref: 67C13446_QRA_2), dated August 2008.

A summary of the scope of work for the completed investigations is set out in Table 2.4, below.

Table 2.4: Summary of ENVIRON Sampling and Analytical Strategy

Soil Sampling	22 window sample positions excavated to depths of between 0.8m and 6.0m bgl. 10 borehole positions were excavated to the base of the Alluvium at depths of between 5.0m and 6.8m bgl. The borings were located with regard to potential historic and current sources of contamination and to provide good spatial coverage of the site. Visual/olfactory evidence of contamination was noted.
Groundwater Sampling	Monitoring wells were installed within all 10 boreholes, and 16 window samples (WS1, WS4 – WS6, WS9, WS10 – WS12, WS101 – WS103, WS105, WS107 – WS110) to enable an evaluation of groundwater impacts and off-site environmental impacts (if any) resulting from the presence of the potential sources of impact at the site. All wells were screened exclusively within the Alluvium (except for WS108 and WS109 which were screened across both made ground and Alluvium). All wells in boreholes (except for BH7 which was screened across the full thickness of the Alluvium) were screened at the base of the Alluvium.
Chemical Analysis	Soil samples were "headspace" tested for the presence of volatile organic compounds, using the photo-ionisation detector (PID). Selected samples were sent for laboratory analysis based upon the field observations and with reference to sampling locations and results presented during earlier investigations. A total of 57 soil samples were analysed for a range of potential constituents, including heavy metals, TPH, VOC, SVOC, PAH, PCB, sulphate and cyanide.
	Groundwater samples were collected following each of the three stages of intrusive investigation for the same analytical suite as soil samples, with the

Table 2.4: Summary of ENVIRON Sampling and Analytical Strategy	
	addition of Major Ion analysis: • 8 samples collected from WS1, WS4 – WS6, WS9 and WS10 – WS12 using dedicated disposable bailers in October 2007; • 18 samples collected from WS1, WS4 – WS6, WS9, WS10 – WS12 and BH1 – BH10 using low flow sampling techniques in December 2007; and • 25 samples collected from WS1, WS4 – WS6, WS9, WS10 – WS12, WS101 – WS103, WS105, WS107 – WS110 and BH1 – BH10 in June 2008. Groundwater samples were also collected in August 2011 in order to provide representative data for the updated Quantitative Risk Assessment. Two monitoring wells could not be located at the time of the sampling survey (WS10 and WS102): • 23 samples collected from WS1, WS4, WS5, WS9, WS11, WS12, WS101, WS103, WS105, WS107 – WS110 and BH1 – BH10 in August 2011. • 1 sample collected from WS6 for product identification following the observation of floating (non-aqueous) Product (light non-aqueous phase liquid or LNAPL).

Soil data from all previous ENVIRON investigations have been used for the purpose of this assessment, where appropriate, in addition to the groundwater data collected in August 2011.

3 Risk Assessment Overview

3.1 UK Approach

The UK has adopted a 'suitable for use' approach to the control and treatment of existing ground contamination. The 'suitable for use' approach is identified in guidance as focusing on the risks caused by contamination and recognises that the risks presented by any given level of contamination will vary greatly according to the use of the land and other factors. Risks therefore need to be assessed on a site-by-site basis to take account of the current or proposed land use and other site specific variables.

Guidance identifies the definition of contaminated land as being "based upon the principles of risk assessment" with the risk defined as the combination of:

"the probability, or frequency of occurrences of a defined hazard (for example, exposure to a property of a substance with a potential to cause harm); and the magnitude (including the seriousness) of the consequences".

The principal of risk assessment can be most easily explained through the diagram below:-

SOURCE >>>>> PATHWAY >>>>> RECEPTOR

For this purpose, the source is: "any contaminant which is in, on or under the land and which has the potential to cause harm or to cause pollution of controlled waters;"

The receptor is "a living organism, a group of living organisms, an ecological system or a piece of property …… or controlled waters which are being, or could be polluted by a contaminant;"

The pathway is one or more routes or means by, or through, which a receptor "is being exposed to, or affected by, a contaminant, or could be so exposed or affected."

The relationship between a source, a pathway and a receptor is identified as the 'pollutant linkage' and land should not be identified as a risk to any receptor unless all three elements of a pollutant linkage are identified in respect of any piece of land.

3.2 UK Legislation

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in England on 1st April 2000 as The Contaminated Land (England) Regulations 2000 (SI 2000/227). These regulations were subsequently revoked with the provision of The Contaminated Land (England) Regulations 2006 (SI 2006/1380), which came into force on 4th August 2006, and consolidated the previous regulations and amendments. Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears… to be in such a condition, by reason of substances in, on or under the land, that –

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) pollution of controlled waters is being, or is likely to be caused" .

"Significant harm" is defined in the Guidance on risk based criteria and must be the result of a significant "pollutant linkage". The presence of a pollutant linkage relies on the Source-

Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist.

3.3 ENVIRON's Approach To Risk Assessment

ENVIRON uses Quantitative Risk Assessment (QRA) to assist interpretation of the potential human health and environmental risks associated with exposure to contaminants in soil and groundwater via plausible pathways. Such pathways are identified with reference to the conceptual site model (CSM).

ENVIRON's approach to human health risk assessment and environmental risk assessment within this report is consistent with current UK Government policy regarding assessment of contaminated soils. The principal objectives of the report are to assess the contaminants of concern, identified from the Phase II site investigation, in terms of the potential for contaminants in the ground to impact future site users and the environment.

A QRA is undertaken by a tiered approach whereby contaminant concentrations considered to represent an unacceptable human health risk are progressed to the next tier where more data may be required. An acceptable or unacceptable contaminant concentration is determined by comparison to appropriate assessment criteria generated at each tier of the QRA.

The first stage of the assessment is the generic screening. A generic screening comprises the comparison of measured contaminant concentrations obtained from a site investigation to either generic published guidance values or generic assessment criteria generated from a risk assessment model.

While comparison of contaminant concentrations to published values is a valid and cost effective approach to a generic assessment, generation of more site specific values may be more realistic. A detailed quantitative risk assessment (dQRA) involves comparison of contaminant concentrations with site specific assessment criteria (SSAC) generated from a quantitative risk assessment model. A site specific assessment is generally justified where measured contaminant concentrations exceed generic general assessment criteria. Where detailed site specific assessment criteria are exceeded, more complex risk assessment may be appropriate.

This report is not intended to assess transient risks to site workers during redevelopment or other construction workers. These risks are dealt with by other legislation and regulations, including the Health and Safety at Work Act, 1974 and the Construction (Design and Management) Regulations (CDM) 2007.

3.4 Update of Existing Risk Assessment

The soil and groundwater conditions at the site were previously assessed in 2008 (report R66C13446_QRA_2). At the time of the previous assessments of the site, soil guideline values published by the Environment Agency for specific contaminants were used to assess of soils in conjunction with Generic Assessment Criteria for further contaminants in soil published by the Chartered Institute of Environmental Health. The associated background documentation related to these guideline values has subsequently been revised such that existing values changed and the number of substances addressed extended. ENVIRON generic assessment criteria (GACs) (see Section 3.5.1) developed by ENVIRON for other substances in soil and/or groundwater at the Uxbridge site have also been updated to take

into account the revised guidance associated with contaminated land assessment in the UK, including revisions to the current published Environmental Quality Standards (EQS).

The existing soil and new groundwater data have been re-evaluated against the revised GAC to provide a current overview of risks associated with soil and groundwater impacts at the site.

3.5 Derivation of Generic Assessment Criteria

3.5.1 Soil Assessment

In accordance with current UK guidance on legislation including Part 2A of the Environmental Protection Act 1990 and based on the principles of risk assessment, ENVIRON has derived generic criteria for interpretation of soil and groundwater chemical analysis (ENVIRON Generic Assessment Criteria – ENVIRON GAC). The assessment of chemical data from an intrusive investigation is undertaken in a tiered approach, and the first stage is a Generic Quantitative Risk Assessment (GQRA). The ENVIRON GAC are considered to be threshold based screening concentrations, at which a significant risk is not considered to be present to the relevant receptors.

The Soil Guideline Values (SGVs) for 11 compounds published in 2009 by the Environment Agency are based on a sandy loam soil with 6% soil organic matter (SOM). The 6% SOM and sandy loam soil type is not considered by ENVIRON to be realistic of 'typical' UK soil conditions, and EA guidance states that at the 6% SOM, SGVs may not be sufficiently protective (i.e. too high). For the ENVIRON GAC, all the SGV inputs have been used apart from the SOM and soil type, which were amended to 1% and sand; thereby ensuring a suitably conservative ENVIRON GAC appropriate for most strata encountered in the UK. It is noted that none of the screening criteria used in the UK, including the SGVs, have statutory status.

The ENVIRON GAC for soil assessment are based on the generic scenarios outlined in the Contaminated Land Exposure Assessment (CLEA) methodology and guidance documents, and include inhalation, ingestion, dermal contact of soil and dust as pathways for commercial and residential scenarios; as well as ingestion of homegrown produce for residential with gardens scenario. These have been calculated by use of two proprietary risk assessment models (CLEA Version 1.06 and the ASTM RBCA Tool Kit Version 2.5 for Chemical Releases) which have been modified, where necessary, to reflect the current UK approach to human health risk assessment as set out in the Contaminated Land Report (CLR) 11 and the CLEA guidance documents (incorporating Science Reports SC050021/SR2 (January 2009), SR3 (January 2009), SR4 (September 2009) and the SGV reports (2009)). The physiochemical data has been taken from or derived using the methodology detailed in SR7 (November 2008) and SGV reports (2009), where feasible. The toxicology data has been taken from the current published EA toxicology documents. We have referred to all publications and guidance issued up until the 10 February 2010.

In the absence of published EA data, reference has been made to the following sources of information in order of priority:

- Chartered Institute of Environmental Health (CIEH) / Land Quality Management (LQM) (Version 2 dated 2009) GAC, including addendums up until 27 January 2010.
- Contaminated Land: Applications in Real Environments (CL:AIRE) and partners GAC, including addendums up until 27 January 2010.

- Other published sources of information, such as the RBCA V2.5 database.

This approach by ENVIRON follows the withdrawal of CLR 7-10, CLEA UK (beta), CLEA V1.04 and CLEA V1.05 by the Environment Agency and DEFRA.

The GAC used in this assessment have been generated to be protective of human health on a commercial/industrial site only, and do not take account of any future change of use of the site. The soil GAC used do not directly assess the risk to Controlled Waters via the soils leaching to groundwater pathway; however, it is considered that this has been taken into account within this assessment by the comparison of actual groundwater data and the evaluation of associated risks. Given the nature of the contaminants and history of the site, this approach is considered to be protective of the environment.

3.5.2 Water Assessment

In the absence of relevant published water assessment criteria, the potential risks to human health and controlled waters from surface and groundwater have been assessed using commonly accepted UK guidelines including the Water Supply (Water Quality) (England) Regulations 2000 (known as the Drinking Water Standards, or DWS) and Environmental Quality Standards (EQS).

Revised EQS were published in December 2009 under the Priority Substances (Directive 2008/105/EC) daughter directive of the Water Framework Directive (WFD) (2000/60/EC). The European EQS have been transposed into the River Basins Districts Typology, Standards and Groundwater Threshold Values (Water Framework Directive) (England and Wales) Direction 2009. The EQS are detailed in Part 4 (Specific Pollutants) and Part 5 (Priority Substances) of the Directive. In the absence of an EQS under the WFD, we have referred to the former EQS under the Dangerous Substances Directive.

For those determinants included in the analytical suite which do not have a corresponding UK drinking water or environmental screening criteria, reference is made to international guidance such as the World Health Organisation Guidelines for Drinking Water Quality (Version 3, 1984) and the US Regional Screening Levels (April 2009).

An ENVIRON GAC has also been derived for the contaminant volatilisation pathway from groundwater to human receptors. This has been calculated using the RBCA Tool Kit V2.5 model. The RBCA model has been altered where necessary to reflect the current UK approach to human health risk assessment, as detailed above.

The Generic Assessment involves comparison of the site investigation data with relevant assessment criteria in order to focus the risk assessment. Published generic assessment criteria (GAC) developed to facilitate an assessment of the risks to human health and/or the environment associated with contaminated soils and/or water from various sources were identified. Professional judgement and consideration of other relevant environmental factors are important in application of the various guidelines. The assessment criteria were selected so as to meet the requirements of UK guidance and to be applicable given the proposed intention to continue to operate the site in its current use (i.e. industrial). These generic assessment criteria selected represent conservative, chemical-specific concentrations for a defined land use scenario below which an unacceptable risk can be considered not to exist and are discussed further in Annex B.

4 Conceptual Site Model

4.1 Soil and Groundwater Sampling

The site investigations carried out by ENVIRON in 2007 targeted those areas across the site that were considered to have a greater potential for historic ground contamination, with reference to available information regarding historic activities on-site, as well as providing reasonable cross-site coverage. The supplementary investigation carried out by ENVIRON in June 2008 focussed on delineating the principal source zones identified by previous investigations on-site.

During the site investigations, soil samples were recovered at regular intervals (approximately every 0.5m) at each sampling position. The samples were inspected visually and any evidence of contamination noted. Selected samples were screened for the presence of volatile organic compounds (VOCs) using a field hydrocarbon vapour analyser (PID). Typically one to two soil samples from each position were retained for analysis. Where relevant, soil samples which presented the greatest evidence of field contamination (e.g. discolouration, unusual odour, elevated PID readings) or which were considered to have the greatest potential for contamination (e.g. made ground) and which were of greatest relevance in terms of exposure assessment (e.g. shallow soil samples) were retained. Samples of any unusual strata were also retained. As such, the sampling rationale is likely to produce results that are positively skewed (i.e. they are more likely to be representative of reasonable worst case rather than average conditions across the site). Nevertheless, it is possible that further areas of hot spot contamination exist that were not identified during these investigations.

In total, 57 soil samples were retained with samples predominantly taken from the fill material and clay, with limited samples taken from the Alluvium at depths of up to 6.5m bgl. 20 of these samples were from saturated soils obtained from below the resting groundwater elevation. Deeper soils collected from below the resting groundwater table are not considered further within this assessment, as the concentrations of contaminants are considered likely to be representative of groundwater conditions rather than soil conditions (due to the granular nature, lack of fine or cohesive elements within the Alluvium and its composition of inert Flint gravel). Only the 37 soil samples collected from shallow soils in the unsaturated zone (i.e. above the groundwater table) have been considered further within this assessment.

A total of 23 groundwater samples were collected in August 2011 due to an inability to locate WS10 and WS102. This assessment is restricted to the August 2011 groundwater analytical data set in order to provide an up-to-date assessment of current conditions at the site.

4.2 Shallow Soils

All relevant soil analytical data has been re-screened using ENVIRONs up-to-date Generic Assessment Criteria (GAC) (as described in Section 2.4). Concentrations of various metals and inorganic chemicals, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs) including Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), semi-volatile organic compounds (SVOCs) and polycyclic aromatic hydrocarbons (PAH) that exceed background concentrations or, in the case of organic contaminants, the analytical detection level have been measured in soil samples.

Few substances were detected above anticipated background concentrations, and these correlate with the exceedences of the ENVIRON GACs were detected, presented in Table 4.1, below.

Table 4.1: Summary of Soil GAC Exceedances

Contaminant	No. of Samples	Max. Conc. (mg/kg)	Location of Sample with Max. Conc.	ENVIRON GAC mg/kg (COMMERCAL)	No. of Exceedances ENVIRON GAC
Lead	37	2,700	WS105	750	3 (BH1 0.5m,BH1 1.0m, WS105 0.3m)
PCB's (Sum of ICES Congeners)	10	2	WS103	0.879	2 (BH10 0.5m, WS103 0.5m)
Petroleum Hydrocarbons					
Aliphatic >C_8-C_{10}	37	270	WS7	79.2	1 (WS7 1.0m)
Aliphatic >C_{10}-C_{12}	37	1,700	WS7	47.7	1 (WS7 1.0m)
Aliphatic >C_{12}-C_{16}	37	1,700	WS7	27.3	4 (WS5 0.5m, WS7 1.0m, WS12 1.2m, BH7 1.0m)
Aromatic >C_{10}-C_{12}	37	2,600	WS7	362	1 (WS7 1.0m)
Aromatic >C_{12}-C_{16}	37	610	BH7	168	2 (WS7 1.0m, BH7 1.0m)
Volatile Organic Compounds (VOCs)					
1,3,5-Trimethylbenzene	37	13	WS7	12.7	1 (WS7 1.0m)
1,2,4-Trimethylbenzene	37	68	WS7	22.9	1 (WS7 1.0m)

Notes: ENVIRON GAC is based on continued use of the site for COMMERCIAL purposes and does not take into account future potential change of use.

4.2.1 Shallow Soil Inorganics

Lead was detected at elevated concentrations with respect ENVIRONs GAC (750mg/kg, based on the former CLEA SGV) in 3 soil samples submitted for analysis (BH1, 0.5m and 1.0m bgl and WS105, 0.3m bgl), which are not located in the same area of the site. It is considered likely that these elevated concentrations are associated with fill material identified in these locations. Lead has not been considered further within this assessment as the identified elevated concentrations in soil are considered to be isolated hotspots, the presence of hard cover will prevent contact with site workers. Lead was detected above background concentrations in groundwater in two locations (BH1 and WS11).

No other inorganic parameters were detected in soil in excess of the Generic screening criteria.

Iron cadmium and chromium (all of which were detected at elevated concentrations in groundwater at the site) were not detected above background concentrations in soils.

4.2.2 Shallow Soil Hydrocarbons

Elevated concentrations of five total petroleum hydrocarbons (TPH) carbon bandings (Aliphatic Hydrocarbons >C8-C10, Aliphatic Hydrocarbons >C10-C12, Aliphatic Hydrocarbons >C12-C16, Aromatic Hydrocarbons >C10-C12, and Aromatic Hydrocarbons >C12-C16) compared to their respective Generic screening criteria (GAC) were identified within 4 of the 37 shallow soil samples analysed from across the site (WS5 0.5m, WS7 1.0m, WS12 1.2m and BH7 1.0m bgl). The hydrocarbon exceedence in WS7 is thought to be a hot-spot associated with observed localised free-phase hydrocarbons in this location (see report ref: 67-C12520_1 and Section 3.2.3 for further details), while the remaining exceedences are located close to or down-gradient of the locations of USTs.

The most likely source of the observed free-phase hydrocarbons at WS7 (and therefore also the VOC hotspot in this location) is Tank Farm 2 (including, but not limited to Xylene, Acetone, Butyl Alcohol, Butyl Acetate, Acetone, White Spirit, Naphtha and Toluene USTs), adjacent to WS7. A second limited hot-spot was located in the vicinity of WS5 (located adjacent to disused USTs associated with the former Allied Chemical Works, whose former use is unknown).

PAH concentrations in soil did not exceed published Generic screening criteria (GAC) designed to be protective of worker's health, and are therefore not considered further with respect to soils in this assessment.

There is no positive correlation between the identified hydrocarbon hotspots in soil (from previous assessments) and detected hydrocarbons in groundwater samples collected in August 2011.

VOCs and sVOCs

VOCs in shallow soils were detected at concentrations exceeding the GAC in one soil sample (WS7 1.0m); 1,3,5-Trimethylbenzene and 1,2,4-Trimethylbenzene. These exceedences are likely to be associated with the hydrocarbon hot-spot identified in this location.

None of the detected concentrations of SVOCs in soils exceed their respective Generic screening criteria (where available).

The detected concentrations of VOCs and SVOCs in soil samples were generally low and appear to be limited to localised hotspots. The highest absolute concentrations (e.g. Xylenes, Trimethylbenzenes, Methylnaphthalene and phthalates) were detected in WS7 and are considered likely to be associated with the observed free-phase hydrocarbons in this location (see Section 3.2.3).

All detected concentrations are considered to be above background concentrations; however, there is no positive correlation between the identified VOC and sVOC hotspots in soil (from previous assessments) and detected hydrocarbons in groundwater samples collected in August 2011.

Others

Elevated concentrations of PCBs (Sum of ICES congeners) above the Generic screening criteria (GAC, 0.879mg/kg) were detected in two of the ten samples analysed (BH10 0.5m and WS103 0.5m bgl). No definitive source for the detected PCBs has been identified.

PCBs were not detected in any of the groundwater samples collected in August 2011, therefore there is considered to be no impact to the environment from PCBs.

Asbestos was not detected in any of the eleven samples analysed from the site. Exposure to asbestos is not considered further in this assessment.

4.3 Groundwater

A total of 24 groundwater samples were collected as part of the August 2011 sampling exercise as depicted on Figure 5, and a total of 25 samples were collected as part of the June 2008 sampling exercise. Samples were collected using low-flow sampling methods. A summary of groundwater analytical results is provided in Table 4.2, below, and a more detailed discussion of the groundwater analytical results is presented within Annex E.

Table 4.2: Summary of Water GAC Exceedances (August 2011 Samples)

Contamin-ant	No of Samples	Max Conc. In Water (µg/l) (Location)	ENVIRON Water GAC (µg/l)		Summary of ENVIRON GAC Exceedances (No, of samples which exceed GAC)	
			Human Health (1)	Controlled Waters	Human Health (1)	Controlled Waters
Inorganics						
Arsenic	24	146.4 (BH1)	>Sol (2)	50	0	1
Cadmium	24	2.2 (BH1)	>Sol (2)	0.25 (3)	0	3
Iron	24	30,080 (BH1)	>Sol (2)	1000	0	17
Lead	24	101 (BH1)	NC	7.2	0	2
Nickel	24	142 (WS11)	>Sol (2)	20	0	1
Zinc	24	2,449 (BH1)	>Sol (2)	125 (3)	0	1
Chromium	24	26.2 (WS11)	>Sol (2)	4.7	0	13
Hexavalent Chromium	24	50 (WS105)	>Sol (2)	3.4	0	4
Ammoniacal Nitrogen as NH_4 (mg/L)	24	2.51 (BH1)	NC	0.6	0	9

Table 4.2: Summary of Water GAC Exceedances (August 2011 Samples)						
Contamin-ant	No of Samples	Max Conc. In Water (µg/l) (Location)	ENVIRON Water GAC (µg/l)		Summary of ENVIRON GAC Exceedances (No, of samples which exceed GAC)	
			Human Health (1)	Controlled Waters	Human Health (1)	Controlled Waters
Polycyclic Aromatic Hydrocarbons						
Naphthalene	24	199.15 (BH1)	>Sol (2)	2.4	0	5
Anthracene	24	2.62 (BH1)	>Sol (2)	0.1	0	1
Fluoranthene	24	2.21 (BH1)	>Sol (2)	0.1	0	1
Petroleum Range Hydrocarbons						
Toluene	24	2,216 (WS4)	>Sol (2)	50	0	4
Ethylbenzene	24	842 (WS4)	>Sol (2)	20	0	8
Combined Xylenes	24	3,779 (WS4)	>Sol (2)	30	0	7
Aromatic Hydrocarbons C_7-C_8	24	2,607 (WS4)	>Sol (2)	50	0	4
Volatile Organic Compounds						
1,1,1-Trichloroethane	24	101 (BH3)	>Sol (2)	100	0	1
Trichloroethene	24	1,000 (WS4)	150,000	10	0	1
Vinyl Chloride	24	450 (WS5)	2,400	0.5	0	9
1,1-Dichloroethene	24	17 (BH2)	>Sol (2)	30	0	0
1,1-Dichloroethane	24	2,716 (BH2)	NC	2.4 (4)	0	10
Cis-1,2-Dichloroethene	24	11,774 (WS4)	NC	50 (4)	0	6
1,2,4-Trimethylbenzene	24	327 (BH2)	450,000	15 (5)	0	5
1,4-Dichlorobenzene	24	415 (BH2)	>Sol (2)	300	0	1
1,2-Dichlorobenzene	24	1,887 (BH2)	>Sol (2)	20	0	8

Table 4.2: Summary of Water GAC Exceedances (August 2011 Samples)

Contamin-ant	No of Samples	Max Conc. In Water (µg/l) (Location)	ENVIRON Water GAC (µg/l)		Summary of ENVIRON GAC Exceedances (No, of samples which exceed GAC)	
			Human Health (1)	Controlled Waters	Human Health (1)	Controlled Waters

Notes:
(1) Commercial End Use ENVIRON GACs unless stated
(2) GAC exceeds limit of solubility
(3) Environmental Quality Standards (EQS) based on EC Dangerous Substances Directive (76/464/EEC). Based on hardness of 250mg/l $CaCO_3$
(4) In the absence of UK published groundwater standards, international standards have been used (where available).
NC – No Criteria

4.3.1 Inorganic Groundwater Parameters

Arsenic, Cadmium, Iron, Lead and Ammoniacal Nitrogen were all detected at concentrations exceeding their respective GACs, with the maximum concentration detected in BH1 and approximately similar patterns of distribution across the site. This is considered likely to be associated with the deposition of waste in the vicinity of BH1.

Total chromium was detected at concentrations exceeding the GAC in 13 locations, with the maximum concentration detected at WS11. This maximum concentration is considered likely to be related to the former activities at the plating works formerly located in the vicinity of WS11.

Hexavalent chromium was detected at concentrations exceeding the GAC in 4 locations, with the maximum concentration detected in WS105 (the maximum concentration of total chromium in soils was also detected in this location; however, this is below the GAC for soil). The source of the maximum concentration is not known; however, it is likely that hexavalent chromium has been used as a pigment in the manufacture of paints at the site.

No positive correlation between total chromium and hexavalent chromium concentrations in groundwater has been observed.

4.3.2 Organic Groundwater Parameters

PAHs

Three polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations exceeding the GAC in one or more locations, with the maximum concentration in each case detected in BH1. The source of these exceedences is considered likely to be the waste deposited in the vicinity of BH1.

Petroleum Hydrocarbons

Several compounds typically characterized as petroleum range hydrocarbons were detected at concentrations exceeding their respective GACs. Toluene, Ethylbenzene and Xylenes were detected at concentrations exceeding their respective GACs in more than one location, with the maximum detected concentrations all being located at WS4. Substances

characterised as Aromatic Hydrocarbon band C_7 – C_8 was also detected at a concentration exceeding the GAC in several locations, with the maximum concentration detected in WS4; this is considered likely to represent Toluene, measured at this location. 1,2,4-Trimethylbenzene was detected at concentrations exceeding the GAC in several locations, with the maximum concentration detected in BH2.

VOCs and sVOCs

A range of volatile organic compounds chlorinated hydrocarbons typically associated with solvent blending activities conducted on-site were detected at concentrations exceeding their respective GACs, including Trichloroethene (TCE) and its sequential breakdown products Cis-1,2-Dichloroethene and Vinyl Chloride. 1,2-Dichlorobenzene and 1,4-Dichlorobenzene were also detected at concentrations exceeding the GAC in several locations, with the maximum concentration being detected in both cases from BH2.

4.4 Alterations In Groundwater Concentrations Over Time

Volatile Organic Compounds were typically detected at significantly reduced concentrations in August 2011 when compared to groundwater analytical data from June 2008, with the exception of chlorinated alkanes and isomers of benzene (see Table 3.2). The generally decreasing trend in distribution and concentration of chlorinated alkenes (PCE and TCE) and their break-down products (Cis-1,2 DCE and Vinyl chloride) can be interpreted as a result of a combination of groundwater transport away from the site and natural degradation processes. PCE, detected in groundwater in 2008, was not detected in any of the samples collected from the site. The detected presence of chlorinated alkenes and chlorinated alkanes at significantly elevated concentrations in BH2 (where no such elevated concentrations were previously detected) indicates a new potential secondary source in this area of the site.

The generally decreasing trend of concentrations of BTEX compounds (with the exception of BH2), further suggests a reducing source/input and attenuation of the contaminant by biologically mediated processes and groundwater transport and dispersion.

4.5 Free Phase or Non Aqueous Phase Liquid (NAPL)

Non-Aqueous Phase Liquid (NAPL) presents a continuing source of impact to groundwater. The Environment Agency normally seeks the removal of NAPL where practical and/or on site redevelopment.

Floating or light NAPL (LNAPL hydrocarbon product) was identified in groundwater at the site in four separate locations during the 2007 investigation:-

- LNAPL of approximately 0.01m thickness was detected in the open borehole annulus of WS7 following excavation on 23rd September 2007 (no monitoring well was installed in this location due to shallow termination of the excavation). No LNAPL was encountered during drilling or detected the monitoring well at BH8, subsequently drilled adjacent to WS7 in December 2007;
- LNAPL has been detected at WS6 on a number of occasions:
  - approximately 0.002m thickness was detected on 24th September 2007;
  - approximately 0.017m thickness was detected in June 2008; and
  - approximately 0.013m thickness was detected in August 2011.

- a thickness of approximately 0.0005m of LNAPL was detected in WS5 on 10th October 2007 and a thickness of approximately 0.001m of LNAPL was detected in WS5 on 13th December 2007; and
- an un-measureable thickness of LNAPL (intermittent product signal from interface probe) was detected in WS12 on 13th December 2007. This intermittent product signal may not represent a true LNAPL thickness, and may have been caused by some unidentified interference with the oil/water interface probe.

LNAPL was measured during subsequent monitoring surveys only in WS6, and all measured thicknesses of free-phase hydrocarbons were very small. Based on these field observations it is not considered that a continuous body of free-phase hydrocarbons exists at the site, and it is not considered likely to be present beneath buildings (based on measured extents).

The product sample obtained from monitoring well WS6 in June 2008 was described by the laboratory as being consistent with a mixture of petrol and degraded kerosene, also with a large peak eluting between C24 and C25. The product sample obtained from WS6 in August 2011 was described by the laboratory as dark brown oil with consistent with biodegraded kerosene.

Dense Non-Aqueous Phase Liquids (DNAPL) were not encountered during the excavation of boreholes, or measured in any of the monitoring wells on-site. The “1% of solubility” rule of thumb has been used to assess the likelihood of the presence of DNAPL based on detected dissolved concentrations of contaminants in groundwater; where the dissolved concentration of a contaminant exceeds 1% of that contaminant’s solubility, it is possible that the contaminant exists in a separate phase (i.e. DNAPL) on-site. The potential for DNAPL to exist increases with measured dissolved concentrations. The maximum concentration of TCE detected in the sample from WS4 (1mg/l) when expressed as a percentage of the solubility of TCE (1,100mg/l) is 0.09%, suggesting that a DNAPL source is not likely to exist on-site (e.g. in the vicinity of WS4).

4.6 Land Gas

Land gas data collected as part of the September/October 2007 investigation indicated that elevated concentrations of methane (maximum concentration 76.8%v/v, background concentrations 0%v/v) and Carbon Dioxide (maximum concentration 11.5%v/v, background concentrations 1%v/v to 5%v/v) had been detected on-site. These elevated concentrations appear to be extremely localised, with methane detected in only two wells (significantly elevated concentrations of methane were detected only in WS6), and the elevated carbon dioxide concentrations correlating well with the observed groundwater plume (carbon dioxide is produced as a breakdown product of hydrocarbons). It is considered likely that the elevated methane detected in WS6 is directly related to the presence of LNAPL in this location, and is being generated by the breakdown of the LNAPL.

There is anecdotal evidence of potential waste disposal in the north-west of the site (see Section 3.2.5); the presence of putrescible wastes could result in methane and carbon dioxide generation. However, the observed elevated concentrations of the detected land gases may also be caused by the degradation of the observed hydrocarbon contamination detected in soil and groundwater at the site.

4.7 Conceptual Site Model

4.7.1 Introduction

This section sets out the conceptual site model (CSM) for the site. The CSM is central to the risk assessment process, and consists of:

- Evaluation of potential source zones (historic and on-going);
- Evaluation of potential pathways; and,
- Identification of potential environmental and human receptors and exposure scenarios.

The conceptual model is developed with reference to all physical, hydraulic and chemical data available regarding the site, also incorporating information regarding the current and proposed future use of the site. The conceptual model forms the framework within which conclusions regarding the chemical data can be drawn.

A conceptual model of the site is described below. The conceptual model is continually refined throughout the risk assessment process, and further relevant data and assumptions pertaining to the model are set out later in the report, as appropriate.

The information reviewed for the purpose of this assessment is based on soil data from the ENVIRON investigations of September/October 2007, December 2007, and June 2008, and groundwater data from the August 2011 sampling survey only (in order to provide a representative assessment of current conditions at the site). A comparison of detected concentrations of key contaminants has been included in Section 3.2.2, below.

4.7.2 Sources Summary

1. Soil sources encountered during investigations are considered to generally be isolated hotspots, and in some limited cases related to the presence of free-phase hydrocarbons. Existing information indicates impacted soils do not present an on-going source of contamination to groundwater, or an unacceptable risk to human health or the environment. Hot spots include:
    - An area of in-fill in the north-west of the site;
    - LNAPL in the vicinity of Tank Farm 2;
    - BH7 in the vicinity of USTs associated with the former chemical works (and down-gradient of Tank Farm 2);
    - WS5 in the vicinity of USTs associated with the former chemical works; and
    - WS12, located on the down-gradient boundary.
2. Given the absence of site-wide significant soil impacts, the presence of impacted groundwater plumes on-site and the relative shallow depth of the Alluvial aquifer, impacted groundwater is believed to be the principal source of contamination to controlled waters for the purposes of this assessment. USTs and associated pipework on-site are likely to be resting below the shallow groundwater elevation within the Alluvium (based on observed ground conditions), with any release discharging directly to groundwater;
3. A number of substances have been qualitatively removed from the assessment. These include:
    - Petroleum range hydrocarbons (including Trimethylbenzenes) in soils have not been assessed further as these were typically detected in isolated hotspots

(typically only detected at exceedence in WS7 – associated with LNAPL), which it is assumed would be addressed by any future remedial activities;

- PCBs in soils have not been assessed further as these were detected in an isolated hotspot and have not been detected in groundwater, therefore they are not considered to present a risk to controlled waters;
- Arsenic, Nickel and Zinc in groundwater which have not been assessed further as these appear to be isolated occurrences and are not considered to present a significant risk to controlled waters;
- Iron in groundwater which was detected at concentrations above the GAC across this site and is considered to be related to elevated background concentrations possibly relating to the high flint content of the alluvium or historic surrounding land uses.

4. The following substances detected in groundwater samples from the site have been carried forward for further assessment:
    - Naphthalene;
    - Toluene;
    - Ethylbenzene;
    - Xylenes;
    - Trichloroethene;
    - Cis-1,2-Dichloroethene;
    - Vinyl Chloride;
    - 1,1,1-Trichloroethane;
    - 1,1-Dichloroethane;
    - 1,2,4-Trimethylbenzene;
    - 1,2-Dichlorobenzene;
    - 1,4-Dichlorobenzene;
    - Cadmium;
    - Chromium (total);
    - Hexavalent chromium;
    - Lead; and
    - Ammoniacal Nitrogen.
5. On-going sources of hydrocarbon, BTEX and chlorinated solvents may exist on-site (e.g. Tank Farms 1 – 3, redundant USTs associated with the former Chemical Works and fuel USTs located in the north-west of the site. Recommendations to investigate and remediate any such identified sources are presented within the conclusions of this report (see Section 6.0);
6. NAPL may present a discrete localised source of impact to groundwater at the site. Recommendations to address areas of NAPL are presented in the conclusions of this report (see Section 6.0); and
7. Land gas has been detected at elevated concentrations in the past, recommendations for further assessment of sources of land gases are presented within the conclusions of this report (see Section 6.0).

Two areas of potential significant uncertainty remain on-site, namely the area occupied by the Reception and main office building on-site and Tank Farm 3; these areas could not be adequately characterised due to physical restrictions on the investigation, although it may be possible to address these areas during redevelopment:

- Anecdotal evidence provided to ENVIRON by Trimite Ltd personnel during the site work suggests that the area presently occupied by the Reception and main office building may have been used in the past for the disposal of waste (reported waste types include farm waste and WWI era military helmets). Evidence of significant differential settlement is visible in the ground level car parking associated with this building, with significant settlement of the tarmac surfacing and voids visible around the northern edge of the building footprint. No direct evidence of waste materials was noted during the excavation of BH1 (located immediately to the west of this area); however, no recovery was obtained during the excavation of this borehole. WS3 (located immediately to the south of this area) refused at a depth of 2.5m bgl on timber, which is indicative of some fill material in the vicinity of this area. No excavation was undertaken within the footprint of the Reception and main office building on-site due to access restrictions imposed by the low headroom in the ground floor car parking area and access required by the drilling equipment used on-site.
- A full assessment of potential impact to soil and/or groundwater caused by Tank Farm 3 could not be completed, due to the proximity of the USTs in this location to the site boundary and the refusal at shallow depth of the single intrusive position (WS2) in the vicinity of Tank Farm 3. Therefore an assessment of the impacts to down-gradient soil and/or groundwater from this source is not possible based on the information available.

4.7.3 Pathways Evaluation

The shallow made ground beneath the site varies significantly in composition. The natural ground underlying the made ground generally comprises Alluvial Gravel and Cobbles of Flint. Natural Clay is present in some areas but is not continuous and has not been taken into account within the model. The contaminants identified have the potential to move relatively rapidly through permeable granular materials such as sands and gravels and to sorb to materials with a higher organic content, such as silts and clays.

Groundwater was encountered in all wells installed on-site, and groundwater flow direction is inferred from groundwater elevations to be generally towards the south-west.

The hydraulic gradient beneath the site was calculated from groundwater elevations obtained during the groundwater monitoring in December 2007 as 0.002404, from groundwater elevations obtained during the groundwater monitoring in June 2008 as 0.00201, and from groundwater elevations obtained during groundwater monitoring in August 2011 as 0.00175 suggesting a relatively consistent groundwater regime at the site.

The site has a long industrial history and there are numerous buildings across the site, the foundations of which cut though the ground. These underground structures may form barriers to prevent the movement of contamination beneath the site, and in the case of production buildings such as the Mill Rooms may be retaining residual contamination within their footprints.

An extensive network of drains and services traverse the site to supply these buildings. It is possible that these underground services, particularly the drainage runs, may act as preferential pathways for the migration of contamination.

Given the above, two potential pathways have been identified by which the identified contamination could migrate. The potential pathways are discussed below:

1. Lateral migration of shallow groundwater (and NAPL) in the direction of groundwater flow; and
2. Vertical migration of groundwater and DNAPL to deeper aquifer. Not considered to be an active pathway due to the underlying London Clay and Reading Beds. The London Clay and Reading Beds underlying the Alluvium are classified as Non-Aquifers by the Environment Agency. Due to the low permeability and likely thickness of the clay beneath the site (thought to be in excess of 100m in thickness in the vicinity of the site) it is essentially regarded as a barrier to the vertical movement of shallow groundwater to the deeper geology. Accordingly, there is considered to be no risk of near-surface contaminants migrating to deeper groundwater within the Upper Chalk (Major Aquifer) at and in the vicinity of the site.

Pathways impacting on human health have not been considered further within this assessment, as exceedences of soil GACs designed to be protective of human health were determined to be present only in isolated locations (or “hot-spots”), which are not considered to be significant and it is assumed would be addressed by any future remediation:

- Direct Contact with impacted surficial soil. Not considered to be an active pathway given the current use of the site due to the presence of hardstanding across the majority of the site. Direct contact with groundwater is likely to be limited to construction projects which can be controlled on a project by project basis;
- Generation of dust containing soil particulates. Not considered to be an active pathway given the current use of the site due to the presence of hardstanding across the majority of the site; and
- Volatilisation of substances from soils to indoor and outdoor air.

None of the detected concentrations of substances in groundwater exceeded their respective GACs designed to be protective of Human Health (via the volatilisation pathway), with the exception of the LNAPL present in WS6, which it is assumed would be addressed by any future remediation.

4.7.4 Receptors

Both on-site and off-site potential receptors were considered with reference to site-specific factors and current and likely future activities at the site. The current use of the site is assumed to be the intended future use of the site (i.e. industrial). The redevelopment of the site for a more sensitive end-use (e.g. residential) has not been considered within this assessment.

Groundwater Parameters

Groundwater was encountered across the site, resting within the Alluvium. Based on groundwater elevation data groundwater flow is approximately towards the south-west. Accordingly groundwater is likely to move towards and eventually discharge to the River Colne 105m south-west. As noted above, utility routes and drains may form preferential migration routes for groundwater flow.

Shallow groundwater in the Alluvium is classified as being of variable permeability. Deeper groundwater within the Chalk Major Aquifer is not considered to be a receptor since a

significant thickness of low permeability deposits (London Clay and Reading Beds) are known to overlie the Chalk in the vicinity of the site.

The piezometric level of the groundwater was measured at depths of between 29.887m (WS6) and 30.282m (WS109) above Ordnance Datum (AOD), varying with topography of the site on 01 August 2011. The hydraulic gradient across the site has been calculated as 0.00175 (0.395m/226m or approximately 0.2%) based on the variation of groundwater elevation levels between WS9 and WS11 during the 01 August 2011 monitoring. This correlates well with the hydraulic gradient calculated from the previous monitoring data (0.002).

The hydraulic conductivity of the Alluvium has been estimated from averages of four PSD analyses using the Hazen equation to be 225m/day; however, it is considered highly likely that this analysis is not representative of the in-situ strata due to the potential for loss of the fine fractions during sampling from saturated strata. For the purpose of the risk assessment, a literature value of 43.2m/day (representative of gravel strata) has been used, and the depth of groundwater is assumed to be 1.001m bgl.

There are four licensed groundwater abstractions within the vicinity of the site; however, all of these are either located up-gradient or are located on the opposite bank of the River Colne which is assumed to be in direct hydraulic continuity with the Alluvial Sand and Gravel. As such these abstractions are not considered to be in hydraulic continuity with groundwater at the site. The site is not located within a groundwater Source Protection Zone. No significant existing scenarios involving exposure of down-gradient groundwater users or receptors to substances within the shallow groundwater have been identified.

Data regarding the background quality of groundwater in the area was not available for the purpose of this assessment. However, the site is located within an area that has supported substantial industry (both historically and currently) including a large gas works to the north-east (up-gradient with respect to groundwater flow) and sewage works with filter beds on-site.

Based on the historic on-site and up-gradient site uses, and information provided by Trimite for the adjacent property (see Section 1.4), significant groundwater contamination in the surrounding area may be expected.

Surface Waters

The nearest identified surface watercourse to the site is the Grand Union Canal approximately 45m east of the site; however, due to the canalised nature of this water course and with reference to site data regarding the direction of groundwater flow it is considered unlikely that a direct linkage exists between the Grand Union Canal and groundwater within the Alluvium. The River Colne, which flows in a south-westerly direction 105m south-west of the site is the next nearest surface water body to the site. Given the shallow depth to groundwater at the site, it is considered likely that shallow groundwater from the site discharges to the river, providing an element of base flow to the River Colne, and thus providing a potential pathway for chemicals to both human and aquatic receptors.

Information regarding the flow rate in the River Colne has been requested from the Environment Agency, but was not available at the time of producing this report. Published information on the EA's web-site indicates that the (i) average daily mean flow of the river is 4.14m^3/second, (ii) 95% of the time the flow rate exceeds 1.85m^3/second, and (iii) 10% of the time the flow rate exceeds 6.63m^3/second

The River Colne is designated as a Controlled Water under the Water Resources Act 1991. The biological water quality of the reach of the River Colne which flows in the vicinity of the site was classified as Grade B (Good) by the Environment Agency between 2004 and 2006 under its General Quality Assessment (GQA) scheme.

A surface water abstraction license for a sensitive use exists downstream of the site. The license is held by Mr M L Nunn approximately 1.1km to the south of the site, for abstraction of water from the River Colne for the purposes of Fish Farming.

The River Colne is identified as the main environmental receptor in the vicinity of the site.

4.7.5 On-Site Employees

The Trimite site is used as an industrial coatings and ink production facility and there are various buildings, including production plant, warehouses and offices, across the site. The floors of the main site buildings were observed to be constructed of concrete slabs, and there are no known cellar areas within the buildings. In addition, the majority of the external areas (approximately 95% of the total site area) are covered with hardstanding of either concrete or Tarmac. Accordingly, the majority of a worker's day will be spent on covered ground. There are limited grassed areas of the site, which are normally unused. On this basis the potential for direct ingestion and / or dermal contact with contaminated soil is considered very low in relation to normal working practice.

Given that exceedences of generic screening criteria designed to be protective of human health were not detected in groundwater and were detected in soil only in isolated hot-spots at the site, which are not considered to be significant, the risk to site personnel is not considered further within this assessment.

4.7.6 Construction Workers

Direct contact with impacted soils may occur during invasive works, such as minor construction (involving excavation), maintenance or repair of underground utilities. In this scenario, exposure may occur as a result of dermal contact, inhalation of volatile substances and particulates and/or ingestion of soil. Significant contact with impacted groundwater is unlikely, since dewatering would normally be carried out if excavations beneath the water table were required. Such activity is unlikely to result in chronic exposure to contaminants in soils. However, measures should be in place to ensure risks resulting from short-term exposure to contaminants during these works are identified and managed/minimised accordingly.

Exposure to workers carrying out a major construction project (e.g. redevelopment of the site) will be regulated under the CDM Regulations 2007. Under the CDM Regulations, a project specific risk assessment is required to ensure the safety of workers for the duration of the works. Accordingly, it is considered that risks to construction workers in this scenario would be managed on a project by project basis, and this scenario has not been considered in detail within this study.

4.7.7 Off-Site Receptors

The Trimite site is an industrial facility located within a residential/industrial setting. The nearest residential properties are located approximately 10m north-east (up-gradient) of the site. The exposure of residents to contaminants from the site is not considered within this assessment as the site is down-gradient of the houses and their gardens, such that

groundwater is likely to flow away from, rather than towards them. Contaminant sources on-site have not been identified in proximity to residential property. There are no houses, gardens or allotments or other sensitive receptors down-gradient of the site. The area of the site at the eastern boundary (i.e. closest to the residential area) comprises a yard area entirely surfaced with hardstanding.

Industrial premises lie immediately down-gradient of the site, located approximately 10m to the west and south-west of the site. Off-site migration of contaminants may be occurring via groundwater flow; however, off-site exposure has not been modelled directly. Concentrations of chlorinated solvents (TCE) and breakdown products decrease towards the site boundary and relative to previous surveys current concentrations at the site boundary have significantly decreased. On this basis the maximum concentration of degradation products are expected to be on-site.

Given that no significant exceedences of generic screening criteria designed to be protective of human health were detected for soil or groundwater at the site, the risk to off-site human health is not considered further within this assessment.

4.8 Summary Of Conceptual Site Model

Based on the above review, a number of scenarios with the potential to present a completed source-pathway-receptor pollutant link in relation to impact at the site have been identified. These are summarised in the tables below.

Table 4.3: Potential Pollutant Linkages

Source	Pathway	Receptor	Comments	S-P-R Linkage Status
Hydrocarbons and chlorinated hydrocarbons in shallow soils.	Volatilisation from soil to indoor and outdoor air.	Workers on Trimite site.	Exposure to volatile parameters is not expected to occur while the site remains in its current use.	Not Active, no significantly impacted soils
	Dermal contact, inhalation and ingestion of soils & windblown dusts.	Workers on Trimite site	TPH is present in discrete areas of the site. Local hot spots of volatile chemicals may be relevant when considering exposure within individual buildings. The production area is almost completely covered by hardstanding (approximately 95%), thereby limiting potential for exposure by this route for both on-site and off-site receptors. Unsurfaced areas of the site may be used occasionally.	Not Active
		Workers off-site	Limited hot spots present at site boundary, not considered likely to present risk to off-site receptors.	Not Active
	Volatilisation of chemicals from soil to indoor and outdoor air.	Construction Workers.	Risk to construction worker involved in occasional excavation for minor repairs or maintenance unlikely to result in chronic exposure. Risks associated with exposure to workers during a major construction project	Active, not evaluated within this assessment. Subject to control measures under CDM Regulations 2007
	Dermal contact, inhalation and ingestion of soils & windblown dusts.			

Table 4.3: Potential Pollutant Linkages

Source	Pathway	Receptor	Comments	S-P-R Linkage Status
			are controlled under the CDM Regulations 2007 and have not been evaluated in this study	
	Leaching to groundwater	Groundwater	Leaching of organic substances detected in shallow soils is not considered to be a significant source of impact to groundwater based on measured data, due to the limited nature of the made ground and the primary source of impact to groundwater being USTs present below resting groundwater level. Inorganic substances in isolated areas of the site may be leaching to groundwater.	Organic Substances - Not Active Inorganic Substances - Active
Chemicals in aqueous phase in ground-water, including metals chlorinated hydrocarbons, BTEX and Naphthalene. LNAPL detected on-site (characterised as petroleum and kerosene range)	Groundwater & LNAPL flow	River Colne (105m to SW of site boundary)	Groundwater flow is towards the SW, with the River Colne located approximately 105m to the SW of the down-gradient site boundary. Groundwater flow rates are likely to be high due to the high permeability of the Alluvial Gravel and Cobbles	Active
	Volatilisation of chemicals from LNAPL and dissolved	Workers on Trimite site (outdoor air, LNAPL not	LNAPL only considered as no exceedences of generic	Active

Table 4.3: Potential Pollutant Linkages

Source	Pathway	Receptor	Comments	S-P-R Linkage Status
	phase in groundwater	detected under buildings)	screening criteria – volatile component present (C_6 – C_{18})	
		Workers off-site (indoor and outdoor air)	No exceedences of generic screening criteria at site boundary. No LNAPL detected at site boundary	Not Active
	Vertical Migration of dissolved phase and DNAPL contaminants	Chalk Major Aquifer	Significant thickness of low permeability deposits (London Clay and Reading Beds) are known to overlie the Chalk in the vicinity of the site	Not Active
Land Gases: Methane and CO2 detected on-site at elevated concentrations	Vertical migration to outdoor and indoor air spaces on-site	Workers on Trimite site (indoor and outdoor air)	Methane and CO2 detected at elevated concentrations on-site, and potential area of waste disposal on-site.	Active – discussed in Recommendations
	Lateral migration to off-site buildings	Workers off-site (indoor and outdoor air)		Active – discussed in Recommendations

Those scenarios described above for which the potential for a complete exposure pathway to exist have been identified (i.e. S-P-R linkage is active) will be evaluated further within the quantitative risk assessment. The LNAPL, land gas and the human health linkage for construction workers have been assessed qualitatively.

The controlled water impact from detected LNAPL on-site has not been made as part of this assessment, and dissolved phase contaminants alone have been assessed for the risk to ground and surface waters. The approach to managing LNAPL is further discussed in Section 6.0.

The risk to workers from volatilisation of LNAPL is considered low, since LNAPL has only been identified in a discrete area or 'hot spot', this area is outside the southern area of the site being retained and is external to buildings. Accordingly, the risk associated with inhalation of vapours from LNAPL has not been quantitatively evaluated here.

5 Detailed Quantitative Risk Assessment

5.1 Assessment Approach

ENVIRON has employed a phased approach to the process of assessment for the subject site. This has comprised the use of conservative generic screening criteria (as presented in Annex B) as a preliminary screening tool. Those contaminants which were present in concentrations exceeding the generic screening criteria have been discussed in Section 3.0, above and selected contaminants have been carried forward to the detailed Quantitative Risk Assessment (QRA).

In order to simplify the observed potential sources of contamination on-site for the purposes of quantitative assessment, the site has been divided into discrete Source Zones (for the purposes of the controlled waters assessment). This approach is discussed in sections 4.2.2 and 4.3.2, below.

5.1.1 Assessment Model Selection

The environmental risk assessment considers the risks posed to controlled waters only, i.e. the River Colne (the risk to the shallow groundwater has not been considered by this assessment, as there are no sensitive receptors associated with alluvial groundwater itself and impacts have been detected within the Alluvial groundwater and therefore the impact is known and therefore not a “risk”). There are, at present, no groundwater quality criteria *per se* in the UK. UK Environmental Quality standards for Surface Water (EQS) (various dates) and the UK Water Supply (Water Quality) Regulations 2000 (with Amendments 2001) (known as the UK Drinking Water Standards, or DWS)) were adopted by the UK in order to implement the relevant EU Directives for water quality.

The assessment undertaken for risks to controlled waters was aided using the Environment Agency ‘Remedial Target Methodology - Hydrogeological Risk Assessment for Land Contamination’ and the associated spreadsheets (RTS, Remedial Target Spreadsheet v3.1).

5.2 Sources

Due to the complex distribution of contaminants across the site and the lack of an individual identified source of contamination (such as a spillage or release), for all contaminants, the site has been simplified into 5 distinct source zones, identified as Source Zones 1 – 5 (see Figure 6). This includes a source zone (source zone 3) to represent the “new” source of chlorinated alkane and benzene isomer contamination centred on BH2. The distance to the compliance point (River Colne identified as the main receptor) from each source zone is an important parameter for the dQRA (discussed in Section 5.4).

In addition to the identified contaminants exceeding the generic assessment criteria, Tetrachloroethene and 1,1-Dichloroethene have been included in order to generate a remedial target value for the site, since these compounds were detected in previous surveys.

5.2.1 Source Zone 1 (Tank Farm 1)

Source Zone 1 has been defined as an area of approximately 144m^2 (12m x 12m) centred on WS4 and located adjacent to Tank Farm 1. Maximum concentrations of both chlorinated alkenes and BTEX compounds in groundwater at the site were detected in this area in samples collected in August 2011 and in previous sampling surveys, and this represents the main source of chlorinated solvents in groundwater. The concentrations of these parameters

in adjacent monitoring wells these substances are decreasing in concentration down-gradient of this area. Source Zone 1 is located 210m from the River Colne.

Groundwater concentrations used within the model are the maximum detected for the source area, which is considered to be a conservative estimate.

The majority of Source Zone 1 lies within the area of the site proposed for sale for redevelopment.

The following parameters have been modelled for Source Zone 1:

- Trichloroethene (maximum concentration detected in WS4);
- Cis-1,2-Dichloroethene (maximum concentration detected in WS4);
- Vinyl Chloride (maximum concentration detected in WS5, considered to be breakdown products of TCE and DCE from Source Area 1: maximum concentration applied);
- Toluene (maximum concentration detected in WS4);
- Ethylbenzene (maximum concentration detected in WS4); and
- Combined Xylenes (maximum concentration detected in WS4).

5.2.2 Source Zone 2 (Fill Area in North-West of Site)

Source Zone 2 has been defined as an area of approximately 400m^2 (20m x 20m) centred on BH1. The maximum concentrations of several inorganic species and Naphthalene in groundwater were detected in this location. The area was defined based on assumed extent of infilling, from limited characterisation (this may slightly underestimate the area). Source Zone 2 is located 170m from the River Colne.

Groundwater concentrations used within the model are the maximum detected for the source area, which is considered to be a conservative estimate.

Source Zone 2 lies within the area of the site proposed for sale for redevelopment.

The following parameters have been modelled for Source Zone 2:

- Naphthalene (maximum concentration detected in BH1);
- Cadmium (maximum concentration detected in BH1);
- Lead (maximum concentration detected in BH1);
- Hexavalent Chromium (maximum concentration detected in WS105 applied to Source Zone 2 in line with a conservative approach);
- Ammoniacal Nitrogen (maximum concentration detected in BH1).

5.2.3 Source Zone 3 (Redundant USTs)

Source Zone 3 has been defined as an area of approximately 100m^2 (10m x 10m) centred on BH2 located down-gradient of redundant USTs associated with the former Allied Chemical Works. The defined area is based on the assumed extent of the impact in this location. The maximum concentrations of chlorinated alkanes and benzene isomers were identified in this location. Source Zone 3 is located approximately 180m from the River Colne.

Detected concentrations of 1,1-Dichloroethane modeled for Source Zone 3 do not demonstrate a pattern consistent with the expected plume associated with a source centred on BH2, suggesting that an additional secondary source exists, probably in the vicinity of BH3. This substance has been modelled as part of Source Zone 3, consistent with an overall

conservative approach to the assessment, as Source Zone 3 is closer to the down-gradient boundary than BH3.

Groundwater concentrations used within the model are the maximum detected for the source area, which is considered to be a conservative estimate.

Source Zone 3 lies within the new reduced footprint of the Trimite operations.

The following parameters have been modeled for Source Zone 3:

- 1,1,1-Trichloroethane (maximum concentration detected in BH3 applied to Source Zone 3 in line with a conservative approach);
- 1,2-Dichloroethane (maximum concentration detected in BH2);
- 1,1-Dichloroethene (maximum concentration detected in BH2);
- 1,2,4-Trimethylbenzene (maximum concentration detected in BH2);
- 1,2-Dichlorobenzene (maximum concentration detected in BH2); and
- 1,4-Dichlorobenzene (maximum concentration detected in BH2).

5.2.4 Source Zone 4 (Former Metro Engineering and Plating Works)

Source Zone 4 has been defined as an area of approximately 100m^2 (10m x 10m) centred on WS11. The maximum concentration of total chromium was identified in this location (the maximum concentration of hexavalent chromium detected in WS105 has also been applied to Source Zone 4 in line with a conservative approach). Source Zone 4 is located approximately 105m from the River Colne.

Groundwater concentrations used within the model are the maximum detected for the source area, which is considered to be a conservative estimate.

Source Zone 4 lies within the new reduced footprint of the Trimite operations.

5.2.5 Source Zone 5 (Tank Farm 2)

Source Zone 5 has been defined as an area of approximately 450m^2 (30m x 15m) centred on Tank Farm 2 and defined by incorporating WS6 and WS7 (free-phase hydrocarbons encountered) and the full extent of Tank Farm 2. Source Zone 5 is located 270m from the River Colne. Xylenes have been selected as a surrogate compound for the LNAPL detected, as these were the hydrocarbons detected at the highest concentration in the dissolved phase in the vicinity of this area (BH8 and WS108).

It is assumed that all LNAPL will be removed as part of any future remedial works; the inclusion of Xylene as a surrogate for the identified LNAPL is presented in order to generate a remedial criterion for this source.

The groundwater concentration of Xylenes used within the model is the solubility limit of Xylene, which is considered to be a conservative estimate.

Source Zone 5 lies within the area of the site proposed for sale for redevelopment.

5.2.6 Contaminant Parameters

Model input parameters defining the properties of individual contaminants, such as partition coefficients and degradation rates (where appropriate) have been selected from literature values, and are presented in Annex C.

Target concentrations for individual contaminants have been selected in accordance with ENVIRONs approach to risk assessment as outlined in Section 3.0. Further details of generic screening criteria are presented in Annex B.

5.3 Pathways

Model input parameters relating to physical aquifer properties have been selected from literature values, where appropriate, on the basis of a conservative approach; for example maximum literature values for a gravel soil type for porosity and hydraulic conductivity in the absence of reliable field data.

Groundwater hydraulic gradient has been calculated for the site based on groundwater elevations measured in August 2011.

The fraction of organic carbon for the aquifer has been obtained from site specific data collected during the site investigations.

Degradation has been selected as active within the model based on the measurement of groundwater physio-chemical parameters, the presence of breakdown products within the groundwater chemistry and the presence of other indicators of biologically mediated degradation (e.g. chloride ions in the chlorinated hydrocarbon plume, evidence of iron and sulphate reduction). High values have been selected for degradation rates expressed as half-lives where ranges of values were presented within literature sources, consistent with the overall conservative approach of this assessment. Further details of input parameters are presented in Annex C.

5.4 Receptors

As noted in Section 4.7.7 the primary receptor identified by the assessment is the River Colne, located approximately 105m down-gradient of the site at its nearest point.

ENVIRON has selected variable compliance point distances for each source zone in this assessment relative to the distance of each source zone from the most down-gradient source zone (Source Zone 4) and based on the determination of each of the contaminants of concern by the Groundwater Directive 2006/118/EC and published by the Joint Agencies Groundwater Directive Advisory Group (JAGDAG)[1], as presented in Annex C.

For the assessment of contaminants determined as Hazardous Substances by the JAGDAG (typically those formerly defined as List 1 substances by the Groundwater Regulations, 1998), a compliance point located 50m down-gradient of the down-gradient source zone (Source Zone 4) has been selected. For the assessment of contaminants determined as

[1] http://www.environment-agency.gov.uk/business/regulation/31881.aspx

"The existing Groundwater Directive (80/68/EEC) aims to protect groundwater from pollution by controlling discharges and disposals of certain dangerous substances to groundwater. In the UK, the directive is implemented through the Environmental Permitting Regulations (EPR) 2010.

We protect groundwater under these regulations by preventing or limiting the inputs of polluting substances into groundwater. Substances controlled under these regulations fall into two categories:

Hazardous substances are the most toxic and must be prevented from entering groundwater. Substances in this list may be disposed of to the ground, under a permit, but must not reach groundwater. They include pesticides, sheep dip, solvents, hydrocarbons, mercury, cadmium and cyanide. Hazardous substances replace the previous List 1 substances which came under the 1998 Groundwater Regulations (GWR).

Non-hazardous pollutants are less dangerous, and can be discharged to groundwater under a permit, but must not cause pollution. Examples include sewage, trade effluent and most wastes. Non-hazardous pollutants include any substance capable of causing pollution and the list is much wider than the previous List 2 substances. For example, nitrate is included as a pollutant but it was excluded from List 2 in the 1998 GWR.

non-Hazardous substances (e.g. Ammoniacal Nitrogen), a compliance point located 100m down-gradient of the down-gradient source zone (Source Zone 4) has been selected; Source Zone 2 was the only area in which non-Hazardous substances were modelled.

As Source Zone 2 (centred on BH1) also lies on the south-western boundary of the site, the compliance points for hazardous and non-hazardous substances have been set at 50m and 100m down-gradient of this location, which is considered to be consistent with a conservative approach.

5.5 DQRA Results

This section presents a summary of the results of the dQRA for Source Zones 1 – 5 with the model outputs for each source presented in Annex D.

Predicted compliance point concentrations, target concentrations and remedial targets for all parameters modelled in each source zone are shown in Table 4.1 to 4.4, below. Analytical results from the August 2011 groundwater sampling exercise alone have been assessed against the remedial targets for groundwater, in order to focus the assessment on current groundwater conditions.

Table 5.1: RTS Model Results – Source Zone 1 (Tank Farm 1)

Parameter	Target Concentration at Compliance Point(ref) [mg/l]	Estimated Concentration at compliance point [mg/l]	Remedial Target at Source for groundwater [mg/l]	No. of samples exceeding Remedial Target
Hazardous Substances – Distance to Compliance Point 150m (50m Down-Gradient of Source Zone 4)				
Tetrachloroethene	0.01	0.00094	0.553	0 (not detected above MDL in August 2011)
Trichloroethene	**0.01**	**0.018**	**0.553**	**1 (WS4)**
Cis-1,2 Dichloroethene	**0.07**	**0.342**	**2.41**	**5 (BH2, BH3, WS4, WS5, WS105)**
Vinyl Chloride	**0.0005**	**0.0053**	**0.043**	**6 (BH2, BH3, WS1, WS4, WS5, WS105)**
Toluene	0.05	0.0152	7.29	0
Ethylbenzene	0.02	0.0136	1.24	0
Xylenes	**0.03**	**0.0442**	**2.56**	**1 (WS4)**

Tetrachloroethene was not detected above the laboratory MDL in any of the samples collected in August 2010, and has been modeled to provide a remedial target concentration in the event that this compound is encountered during any subsequent remedial works..

Trichloroethene and its breakdown products Cis-1,2,-Dichloroethene and Vinyl Chloride were detected at concentrations exceeding the remedial target for Source Zone 1 in locations consistent with the expected plume originating from this location. The estimated

concentration of Vinyl Chloride at the compliance point is within the same order of magnitude as the target concentration at compliance point.

Xylenes were the only BTEX compounds to be detected at concentrations exceeding the remedial target, in a single location (WS4).

Table 5.2: RTS Model Results – Source Zone 2 (Fill Area)

Parameter	Target Concentration at Compliance Point[(ref)] [mg/l]	Estimated Concentration at compliance point [mg/l]	Remedial Target at Source for groundwater [mg/l]	No. of samples exceeding Remedial Target
Non-Hazardous Substances – Distance to Compliance Point 100m				
Ammonia	0.6	0.253	5.93	0
Lead	**0.0072**	**0.01**	**0.0712**	**1 (BH1)**
Hazardous Substances – Distance to Compliance Point 50m				
Naphthalene	**0.0024**	**0.0538**	**0.0089**	**4 (BH1, BH2, BH6, WS5)**
Cadmium	**0.00025**	**0.0007**	**0.0008**	**2 (BH1, WS11)**

Lead and Cadmium were both detected at concentrations exceeding the remedial target in BH1, with the concentration of Cadmium detected in WS11 also exceeding its remedial target.

Detected concentrations of Naphthalene in BH1, BH2, BH6 and WS5 exceed the remedial target concentration. The precise source of the impacts in the vicinity of WS5, BH2 and BH6 is not known; however, this is considered likely to be related to the presence of a number of disused USTs associated with the former chemical works in this part of the site.

No risk has been identified from Ammonia for the compliance point selected based on the concentrations of Ammoniacal Nitrogen detected at BH1.

Table 5.3: RTS Model Results – Source Zone 3 (Redundant USTs)

Parameter	Target Concentration at Compliance Point[(ref)] [mg/l]	Estimated Concentration at compliance point [mg/l]	Remedial Target at Source for groundwater [mg/l]	No. of samples exceeding Remedial Target
Hazardous Substance – Distance to Compliance Point 105m (50m Down-Gradient of Source Zone 4)				
1,2,4- Trimethylbenzene	**0.015**	**0.016**	**0.307**	**1 (BH2)**
1,2-Dichlorobenzene	**0.02**	**0.048**	**0.785**	**2 (BH2, BH6)**
1,4-Dichlorobenzene	0.075	0.011	2.94	0
1,1,1-Trichloroethane	0.1	0.00175	5.77	0
1,1-Dichloroethane	**0.0024**	**0.133**	**0.049**	**5 (BH2, BH3, BH6, WS1, WS11)**
1,1-Dichloroethene	0.007	0.00015	0.79	0

The estimated concentrations at the compliance point for 1,2,4-Trimethylbenzene and 1,2-Dichlorobenzene are within the same order of magnitude as the target concentration at the compliance point.

Table 5.4: RTS Model Results – Source Zone 4 (Metro Engineering and Plating Works)

Parameter	Target Concentration at Compliance Point[(ref)] [mg/l]	Estimated Concentration at compliance point [mg/l]	Remedial Target at Source for groundwater [mg/l]	No. of samples exceeding Remedial Target
Hazardous Substance – Compliance Point 50m Down-Gradient				
Total Chromium	**0.0047**	**0.0051**	**0.024**	**1 (WS11)**
Hexavalent Chromium	**0.0034**	**0.0098**	**0.017**	**4 (BH1, BH3, BH4, WS105)**

The estimated concentrations of both total and hexavalent chromium at compliance point exceed their respective target concentrations; however, they are both within an order of magnitude of their respective target concentration at compliance point.

Table 5.5: RTS Model Results – Source Zone 5

Parameter	Target Concentration at Compliance Point[(ref)] [mg/l]	Estimated Concentration at compliance point [mg/l]	Remedial Target at Source for groundwater [mg/l]	No. of samples exceeding Remedial Target
Hazardous Substances – Distance to Compliance Point 210m (50m Down-Gradient of Source Zone 4)				
Xylenes	**0.03**	**1.07**	**5.54**	**0**

Xylenes have been used as a surrogate for the LNAPL encountered at WS7 within the model; a theoretical risk has been identified to the selected compliance point using the maximum solubility of Xylene as the initial contaminant concentration (198mg/l), although this is considered to be a highly conservative approach. The maximum solubility of Xylenes is orders of magnitude higher than the concentration detected in WS108 (0.597mg/l), located immediately adjacent to Source Zone 5.

5.6 Discussion of Uncertainty

Several areas of uncertainty exist associated with input values used in the EA's P20 Remedial Targets Worksheet v3.1, caused by the use of literature values in place of site specific data. These include:-

- defined area of contamination;
- use of maximum detected concentrations as mean value across source zones;
- degradation rates of contaminants; high half life values used consistent with a conservative approach;
- porosity of aquifer materials; and

- hydraulic conductivity (data derived from literature values). The hydraulic conductivity value used (43.2m/day) falls within an expected range of values, but could vary considerably across the site in practice.

Significant uncertainty exists associated with the assessment of Source Zone 2; the sources of the impacts identified in this location are considered likely to be associated with the historic disposal of wastes in this area of the site. Very little specific information is available regarding this historic disposal of wastes, and little characterization of this source has been possible due to the presence of underground services and storage tanks in the vicinity.

5.7 Discussion of Sensitivity

5.7.1 Hydraulic Conductivity

In order to assess the sensitivity of the model to hydraulic conductivity, the input parameters were altered to reflect +/-10% of the 43.2m/day input (i.e. 38.8m/day and 47.52m/day).

The model was found not to be highly sensitive to alterations in the hydraulic conductivity of the order of +/-10%; the calculated concentration at the compliance point remained within an order of magnitude throughout the sensitivity analysis.

5.7.2 Hydraulic Gradient

In order to assess the sensitivity of the model to hydraulic gradient, the input parameters were altered to reflect +/-10% of the $1.75x10^{-03}$ input (i.e. $1.58x10^{-03}$ and $1.93x10^{-03}$).

The model was found not to be highly sensitive to alterations in the hydraulic gradient of the order of +/-10%; the calculated concentration at the compliance point remained within an order of magnitude throughout the sensitivity analysis.

5.7.3 Effective Porosity

In order to assess the sensitivity of the model to effective porosity, the input parameters were altered to reflect +/-10% of the 36% input (i.e. 32.4% and 39.6%).

The model was found not to be highly sensitive to alterations in the effective porosity of the order of +/-10%; the calculated concentration at the compliance point remained within an order of magnitude throughout the sensitivity analysis.

5.8 Summary Of Findings

Several identified contaminants were detected at concentrations in groundwater exceeding conservative remedial targets designed to be protective of the River Colne (not taking dilution within the river into account).

Significant decreases in dissolved concentrations of chlorinated hydrocarbons and BTEX compounds between 2008 and 2011 have been observed.

The contaminants detected in groundwater at concentrations exceeding respective Remedial Target Values are presented in Table 5.6, below and in Figures 7A – 7E.

Table 5.6 Substances Exceeding Remedial Target Values						
Substance	**Source Zone 1**	**Source Zone 2**	**Source Zone 3**	**Source Zone 4**	**Source Zone 5**	**Other Locations**
Trichloroethene	✓					0
Cis-1,2 Dichloroethene	✓					4 (BH2, BH3, WS5, WS105)
Vinyl Chloride	✓					3 (BH2, WS5, WS105)
1,1-Dichloroethane			✓			4 (BH3, BH6, WS1, WS11)
Xylenes	✓				✓	0
1,2,4-Trimethylbenzene			✓			0
1,2-Dichlorobenzene			✓			1 (BH6)
Naphthalene		✓				3 (BH2, BH6, WS5)
Cadmium		✓				1 (WS11)
Lead		✓				0
Total Chromium				✓		0
Hexavalent Chromium				✓		4 (BH1, BH3, BH4, WS105)

The majority of the defined source zones (Source Zones 1, 2 and 5) lie outside of the site area to be retained by Trimite; however, groundwater plumes containing concentrations of substances above the remedial target value have been demonstrated to pass onto the area to be retained by Trimite (in particular chlorinated alkenes from Source Zone 1).

5.8.1 Implications for Remedial Strategy

Concentrations of selected contaminants in groundwater exceed conservative criteria designed to be protective of environmental receptors.

Further work is required to refine or address these findings. Options to refine the dQRA include:

1. Use of mean concentrations rather than maximum detected concentrations to represent source zones. This option is unlikely to have a significant effect as source zones are typically focused on a single data point;
2. Further refinement of the source zone areas (this would require further investigation, which would ideally be performed once the site is vacant or during/following demolition works). This option is likely to provide significant additional data for the assessment, due to the major limitation on investigations to date being the presence of buildings and/or underground structures (including storage tanks) on the site;
3. Refine key input parameters, including contaminant degradation rates. This option would present the possibility to more accurately reflect conditions at the site; however, detailed

and costly laboratory analysis would be required in order to justify any such change to the regulatory authorities.

While the potential refinements to the dQRA mentioned above are possible, they may not necessarily be viewed as appropriate by the regulatory authorities (Environment Agency and Hillingdon Borough Council Contaminated Land Department). Based on ENVIRON's recent experience in discussing the remediation of sites with similar contaminants of concern with the regulatory authorities in this region, we consider that it is likely that the regulatory authorities will adopt a risk averse approach; therefore, it is considered reasonable to maintain a conservative approach within the dQRA.

Remedial options are discussed in Section 6.0.

6 Feasibility Study

6.1 Criteria For Appraisal

A review of feasible remedial options, in accordance with CLR11 (DEFRA/Environment Agency, 2004), assessing the practicality, effectiveness, durability and sustainability of potential remedial works is set out below.

In practice, there may be a number of a ways to reduce or control unacceptable risks, all of which have advantages and limitations in any particular case. The role of options appraisal is to establish, taking all the circumstances of the site into account, which options (either singly or in combination) offer the best overall approach to remediation for the site as a whole.

There are three main stages of options appraisal:

1. Identifying feasible remediation options for each relevant pollutant linkage.
2. Carrying out an evaluation of feasible remediation options to identify the most appropriate option for any particular linkage.
3. Producing a remediation strategy that addresses all relevant pollutant linkages, where appropriate by combining remediation options.

In assessing potential remedial options appraisals, the following key factors need to be considered:

- Degree to which risks need to be reduced or controlled;
- Time within which the remediation strategy is required to take effect;
- Practicability of implementing and, where appropriate, maintaining the strategy;
- Technical effectiveness of the strategy in reducing or controlling risks;
- Durability of the strategy (i.e., will it provide a robust solution over the design life?);
- Sustainability of the strategy (i.e., how well it meets other environmental objectives, for example on the use of energy and other material resources, and avoids or minimises adverse environmental impacts in off-site locations, such as a landfill, or on other environmental components, such as air and water);
- Cost of the strategy;
- Benefits of the strategy – all remediation strategies should deliver direct benefits (the reduction or control of unacceptable risks) – but many have merits that extend well beyond the boundaries of the site; for example, remediation may enhance the amenity or ecological value of an area or contribute towards improved economic activity by removing blight or encouraging regeneration;
- Legal, financial and commercial context within which the site is being handled including the specific legal requirements that remediation has to comply with, and the views of stakeholders on how unacceptable risks should be managed.

Whilst the remedial options appraisal will address the requirements for remediation in accordance with current guidance and legislation, it is also necessary that any objective proposed can be technically, pragmatically and cost-effectively achieved.

6.1.1 Implications for Proposed Retention and Sale of Parts of Site

Trimite proposes to consolidate its existing operations at the site, as described in Section 1.0 and Figure 3. This will involve moving production into the southern area of the existing site

and selling off the land to the north, as shown on Figure 3. Significantly, three of the five identified source areas (Source Zones 1, 2 and 5) are located in the northern part of the site (which is intended to be sold), while the remaining two source areas (Source Zones 3 and 4) are located within the southern area of the site that would be retained by Trimite. This has the following implications:

Northern Area of Site

- Source Zone 1 – localised area of impacted groundwater, presumed source is Tank Farm 1. Suggest source removal works as part of clearance of site.
- Source Zone 2 – localised area of fill which has been poorly characterised to date due to the presence of buildings and underground structures. Suggest further characterisation following clearance of site.
- Source Zone 5 – Concentrations of contaminants in soil and groundwaer below generic assessment criteria. Localised LNAPL in groundwater which can be removed during clearance of site.
- Others – Hexavalent chromium detected in groundwater at concentrations above remedial target criteria in two separate locations (WS105 and BH4). Suggest further characterisation and hot spot source removal following site clearance.

Southern Area of Site

- Source Zone 3 – Concentrations of chlorinated alkanes and alkenes (chlorinated alkenes detected considered to be part of plume from Source Zone 1), BTEX, hydrocarbons and Naphthalene detected in groundwater at concentrations above remedial target criteria. Suggest source removal by removing redundant USTs in this area and removal of any associated residual contamination.
- Source Zone 4 – Concentrations of total and hexavalent chromium, cadmium and chlorinated alkanes (which are considered to be part of plume from Source Zone 3) detected in groundwater at concentrations above remedial target criteria. Suggest further characterisation of former Metro Engineering and Plating area and potential future source removal targeting hot spots.
- Others – Hexavalent chromium detected in groundwater in BH3 at concentrations above remedial target criteria, considered likely to be related to WS105 impact and similarly further characterisation suggested. Chlorinated alkanes detected in groundwater in BH3 at concentrations above remedial target criteria, considered to represent a separate source to BH2 (Source Zone 3). Suggest further characterisation following site clearance (as source may be on northern area of the site, up hydraulic gradient).

The proposed sale for redevelopment of the northern area of the site presents an opportunity for further site characterisation and removal works as part of any demolition works or site clearance.

The presence of the chlorinated hydrocarbon plume on the area being retained by Trimite also ensures long-term access to the site for on-going monitoring works as part of any remedial solution, or for potential in-situ treatment (e.g. groundwater treatment by injection of hydrogen releasing compounds for the treatment of chlorinated hydrocarbons).

6.2 Remedial Options

The primary objective of a remedial strategy for the site is to ensure the risk the environment (with specific reference to ground and surface waters) is acceptable while the site continues in its current use. This effectively means carrying out the action necessary to meet the requirements of the regulators, including the Environment Agency and Local Authority (Environmental Health); discussions with the regulators are recommended in order to agree what actions, if any, may be required at this time and to secure early regulatory buy-in to the strategy of any proposed remedial works.

Based on the results of the risk assessment, further action is required to address the following:

- Free-phase petroleum hydrocarbons or LNAPL (degraded petrol and kerosene) in the vicinity of WS6 adjacent to Tank Farm 2, which presents a continuing source of dissolved phase contaminants in groundwater;
- Dissolved phase organic compounds;
  - Trichloroethene (TCE), Cis-1,2-Dichloroethene, Vinyl Chloride and Xylenes in groundwater (Source Zone 1);
  - Naphthalene in groundwater (Source Zones 2 & 3);
  - 1,2,4-Trimethylbenzene, 1,2-Dichlorobenzene and 1,1-Dichloroethane in groundwater (Source Zone 3); and
- Dissolved inorganics;
  - Cadmium and Lead in groundwater (Source Zones 2 and 4); and
  - Total Chromium and Hexavalent Chromium (Source Zone 4, and discrete locations).

The range of possible options considered suited to the contaminants of potential concern (i.e. a range of chlorinated hydrocarbons, BTEX and fuel hydrocarbon related compounds and inorganics), the ground conditions (heterogeneous made ground and groundwater at depths of approximately 1-2m within Alluvial Gravel and Cobbles) and proposed future use (continuing in industrial use) is presented in Table 6.1.

Table 6.1 Summary of Remedial Options Assessment

Option	Time-Scale	Practicability	Technical Effectiveness	Durable?	Sustainable?
1. Source Removal	0 – 24 months	Yes - Includes ensuring no on-going release of solvents to ground (e.g. checking integrity of pipes, tanks etc). Also further delineation of possible sources including investigation beneath the building floor slabs. Removal of identified soil sources by excavation and off-site disposal, bioremediation or other methods	Yes – Will remove on-going source to groundwater. Groundwater contamination should reduce naturally due to biodegradation, which has been demonstrated to be occurring at the site. however, operational constraints currently present	Yes – both for organic and inorganic contaminants	Yes – depending on fate of excavated contaminated soils i.e. off-site disposal vs. treatment and re-use.
2. In-Situ Stabilisation	0 – 24 Months	Unknown – potential for inorganic contaminants only, provided source material can be stabilized (little currently known about the source of inorganic contaminants)	Conditional – Will remove on-going source to groundwater of inorganic contaminants. Not likely to be effective for mobile organic contaminants	Yes – only for inorganic contaminants	Yes – limited energy, raw material usage.
3. Encapsulation	0 – 24 Months	Yes – for inorganic contaminants only	Conditional – Will remove on-going source to groundwater of inorganic contaminants. Not likely to be effective for mobile organic contaminants	Yes – only for inorganic contaminants	Yes – limited energy, raw material usage.
4. Monitored Natural Attenuation	10 – 20 years	Yes – Particularly following other treatments (e.g. source removal). Evidence of natural degradation of contaminants on-site collected during field work supports the selection of Monitored Natural Attenuation as a valid remedial strategy.	Yes – for groundwater. Natural attenuation of chlorinated solvents has been demonstrated to be occurring naturally on-site. In combination with source reduction techniques. More applicable to those contaminants where modeled concentrations at compliance point is within an order of magnitude of the target at compliance point.	Yes	Yes

Table 6.1 Summary of Remedial Options Assessment					
Option	**Time-Scale**	**Practicability**	**Technical Effectiveness**	**Durable?**	**Sustainable?**
Groundwater Treatment					
5. Pump & Treat	12 months+	No – Proven to be a poor technique in isolation, but possible if combined with other techniques. Will not treat residual hydrocarbons in groundwater.	No – Proven to be a poor technique	No	No – disposal and loading of water to drainage systems
6. In-situ treatment (air-sparging, ORC additives)	12 months+	Yes – but limited to areas of impact and therefore localised treatment. Physical impacts to site operations (numerous well installations) and vacuum effects and oxidation of sub-surface environment.	No – only effective for non-chlorinated hydrocarbons as oxidation of sub-surface environment would have a negative effect on the reductive dehalogenation of chlorinated hydrocarbons. Residual hydrocarbons will remain and therefore low remedial targets may not be feasible to attain.	Yes	Limited – High energy consumption and likely residual mass remaining post treatment
7. in-situ treatment (chemical additives such as HRC)	6 months+	Yes – as the bulk of the residual solvent mass is in the groundwater. Cannot treat while separate phase product is present (due to toxic effects on microbes). Physical impacts and chemical impacts on subsurface environment.	Yes – for groundwater, but limited to source zone for maximum efficiency. Residual hydrocarbons in soil would remain.	Yes	Yes
8. Permeable Reactive Barrier	12 months+	Yes – as bulk of residual solvent and hydrocarbon is in groundwater. Likely to cause significant disruption to site operations. May be most effective employed at down-gradient boundary in combination with source reduction techniques; however, in this case off-site down-gradient monitoring wells would be required to test effectiveness.	Yes – for groundwater; however residual hydrocarbons in soils would remain. Technical challenge presented by high hydraulic conductivity of aquifer	Yes	Yes

7 Conclusions & Recommendations

7.1 Site Characterisation

Soil and groundwater data gathered between 2007 and 2011 has been evaluated to characterise the site. Groundwater and, to a much lesser extent soils contain elevated concentrations of chemicals including organic solvents, hydrocarbons and metals that exceed generic assessment criteria designed to be protective of human health and the environment assuming on-going commercial use of the site. The presence of these substances is a result of historic and possibly, on-going paint manufacture at the site.

In evaluating the concentrations and distribution of these substances, it is necessary to consider whether there are on-going sources at the site that are still impacting the ground, as well as evidence for processes that influence fate and transport of the substances and their degradation products in the ground.

7.1.1 Soils

Investigations to date have not identified evidence of a widespread source of soil contamination at the site. Some localised contamination hotspots in soil exist, including areas of contaminated shallow fill in the north-west of the site, believed to be the source of identified hydrocarbon and metal groundwater impact in this area of the site (see below) and contaminated shallow soils in the centre of the site; these appear to be limited in extent. No evidence of significant soil hotspots were identified within the building footprints of Mill Room 1, Mill Room 2 or the former Metro Engineering and Plating Works. It is possible that tank farms (and particularly USTs) have acted as the primary source of groundwater impacts observed at the site (see discussion below). Free-phase petroleum hydrocarbons (LNAPL) has been consistently detected in the shallow alluvium in one location on-site – adjacent to Tank Farm 2; based on the absence of observed LNAPL in adjacent monitoring wells the affected area of soil is considered likely to be small (the thickness of affected soils is considered likely to be limited to the groundwater surface and associated “smear zone” caused by fluctuations in groundwater levels), and likely confined to the area of the underground storage tanks (USTs) at Tank Farm 2.

7.1.2 Groundwater

There is a plume of chlorinated and non-chlorinated organic solvents present in groundwater at the Trimite site. The source of the plume is centred around monitoring well WS4, which is located adjacent to Tank Farm 1 and Mill Rooms 1 and 2, slightly north of the land currently proposed for retention by Trimite, and the plume extends in a south-westerly direction in accordance with the direction of groundwater flow onto and across the area of the site that is to be retained. Concentrations of the solvents in the groundwater plume decrease away from the source and are measureable at the down-gradient site boundary, indicating that the plume is migrating off-site. At the same time, however, there is also strong evidence that the contaminants are degrading or breaking down in-situ. In particular, biodegradation products of the chlorinated solvents have been measured on-site; the concentration of these bio-degradation products increase in concentration down-gradient of the primary source and then decrease as they themselves are degraded. The maximum concentrations of all the

biodegradation products (including vinyl chloride) within the plume lie within the boundary of the site, therefore concentrations down-gradient are expected to decrease.

In addition, analysis of available data suggests two separate areas of groundwater impact on-site: an area of chlorinated solvent impacted groundwater down-gradient of the primary chlorinated solvent source in the vicinity of BH2 (located approximately to the south of the main plume) and an area of chlorinated solvent impacted groundwater in the vicinity of BH3 (located to the west-south-west of the main plume). An area of metal impact to groundwater exists in the south-western corner of the site, thought to be associated with the former Metro Engineering and Plating Works operations in this area. These smaller areas of impacted groundwater lie within the area of the site which Trimite currently proposes to retain.

Metal and hydrocarbon impact to groundwater has also been detected associated with the area of historic fill in the north-west of the site. This area lies outside of the area which Trimite currently proposes to retain.

7.1.3 Limitations to Current Understanding of Site Conditions

The area of contaminated fill in the north-western area of the site has not been well characterized to date due the presence of underground services and limited recovery of soils (limited cohesion of fill) for testing during drilling. Anecdotal information from Trimite staff indicated that the fill was historically placed and partly underlies Trimite's main office and administration building (site personnel report that the piled foundations were required during the construction of the existing office and administration building in this area). Significant differential settlement in the ground level parking area suggests the fill may also be present in this area. For the purposes of this assessment, the area of contaminated fill has been estimated to extend over 400m^2 and to extend to a depth of 3m; however, this could be an underestimate (the area of differential settlement extends over an area of approximately 30m x 25m under the main office and administration building).

Tank Farm 3 (located on the western site boundary) represents an additional potential source of soil and/or groundwater contamination; this area has not been well characterised to date due to restricted access and the location of the tank farm immediately adjacent to the site boundary.

The investigations to date have focused on the areas most likely to have been impacted as a result of operations on-site. The potential for other sources of contamination at the site to exist cannot be ruled out. However, it may be possible to address the most significant residual uncertainties regarding the site characterization (e.g. the historic infill area in the north-western part of the site, Tank Farm 3 at the western boundary, and the fuel USTs in the north-western area) during works to reconfigure the site.

7.2 Controlled Waters Risk Assessment

Controlled waters include groundwater and inland surface waters that are regulated in accordance with the Environmental Protection Act (1990) and the Water Framework Directive (WFD) (2000/60/EC). The Environment Agency has a remit to manage the quality of these water bodies and prevent deterioration in their quality.

There are two Controlled Water bodies of primary concern in the vicinity of the site:

- The River Colne, located 105m to the south-west of the site at its nearest point; and

- Groundwater underlying the site; however, this is discounted from the assessment and treated as a pathway rather than a receptor, due to the absence of any abstractions down-gradient of the site and the likely fate of the groundwater being base flow to the River Colne.

The quantitative risk assessment conducted by ENVIRON involved evaluating the risk to controlled waters for the following contaminants measured in groundwater at the site:

Chlorinated Solvents

- Tetrachloroethene (PCE);
- Trichloroethene (TCE);
- Cis-1,2-Dichloroethene;
- 1,1-Dichloroethene;
- Vinyl Chloride;
- 1,4-Dichlorobenzene;
- 1,2-Dichlorobenzene;
- 1,1,1-Trichloroethane; and
- 1,1-Dichloroethane.

Non-chlorinated Solvents

- Toluene;
- Ethylbenzene; and
- Xylenes.

Hydrocarbons

- Naphthalene; and
- 1,2,4-Trimethylbenzene;

Inorganics

- Ammoniacal Nitrogen;
- Cadmium;
- Lead;
- Total Chromium; and
- Hexavalent Chromium.

7.3 Findings

The results of the risk assessment indicate that there is no risk to human health assuming continued commercial use of the property from detected concentrations of contaminants in soil and groundwater. The hydrocarbon product (or hydrocarbon LNAPL) identified in the vicinity of Tank Farm 2 has not been evaluated directly as part of the risk assessment because regulatory authorities generally require removal of this material because it can act as an ongoing source of contamination to groundwater; however, Xylenes were assessed for this area as a surrogate for the LNAPL in the controlled waters assessment.

A theoretical risk to the River Colne, determined based on detected concentrations on-site and various assumptions of the QRA may be unacceptable to the regulators for the following parameters:

- TCE;
- Cis-1,2-Dichloroethene;
- Vinyl Chloride;
- 1,1-Dichloroethane;
- 1,2-Dichlorobenzene;
- 1,2,4-Trimethylbenzene;
- Xylenes;
- Naphthalene;
- Cadmium;
- Lead;
- Total Chromium; and
- Hexavalent Chromium.
- The majority of the areas of identified groundwater impact are located within the southern area of the site which Trimite currently proposes to retain. An exception is the northernmost extent (and source) of the area of groundwater impacted by chlorinated solvents (monitoring well WS4); this lies just north of the currently proposed boundary of the land to be retained, although the remainder of the plume lies to the south of this boundary. No soil source has been identified for the chlorinated solvent impact on groundwater in this area; the source may be direct release from underground distribution pipelines in this area. Similarly, the source of the other, more localized areas of chlorinated solvents in groundwater, have not been confirmed.
- The source of metals in groundwater in the south-western area of the site is considered to be impacted shallow soil associated with the historic use of this area of the site by the Metro Engineering and Plating Works.
- Contaminated soil and/or NAPL sources resulting in an unacceptable risk to the River Colne in the northern part of the site (ie the land to be sold) are restricted to the hydrocarbon LNAPL in the vicinity of Tank Farm 2 and to various substances (naphthalene, cadmium, chromium and lead) in the shallow fill material in the north-western area of the site. The measured distribution of hydrocarbons in groundwater does not suggest that the identified LNAPL associated with Tank Farm 2 is affecting a wider area of groundwater (possibly as a result of below ground structures limiting the contact of groundwater flow with the LNAPL).
- The areas affected by the identified contaminants in groundwater are illustrated on Figures 7A – 7E.
- The off-site migration of contaminants down-gradient from the area of historic fill in the north-west of the site and the former Metro Engineering and Plating Works in the south-west of the site has not been directly measured as these sources lie on the down-gradient boundary of the site and no off-site investigations have been undertaken. Those substances whose distributions suggest transport via groundwater flow across the area of study are detailed below:

- Chlorinated alkenes (PCE/TCE and their breakdown products) in groundwater in WS4, WS5, WS105, BH2 and BH3, estimated to cover 1,400m^2; and
- Chlorinated alkanes (1,1-Dichloroethane) in groundwater in WS1, WS11, BH2, BH3 and BH6, estimated to cover 2,400m^2.

7.4 Interpretation

Further action is appropriate to evaluate and / or address the risks to the environment particularly the River Colne, located 105m to the south-west of the site, associated with the contaminated groundwater on-site.

There are options to further refine the environmental risk assessment model to justify less stringent remediation criteria available at this stage, and therefore avoid or limit remedial works. This could include additional assessment to improve the model, for example by addressing data gaps within the conceptual site model, gathering further site specific data such as density of aquifer material, hydraulic conductivity and partition coefficients for key contaminants. If the findings of such work resulted in remedial targets that were less conservative, it is possible that this could support a strategy for reduced remedial action. However; if the findings of such further assessment continued to indicate a risk to the environment, as they do at present, remedial action of some nature is likely to be required. Since refinement of the risk assessment is unlikely to significantly affect remediation requirements for the site, we have not identified this as a priority at this stage.

Options for remedial action vary from Monitored Natural Attenuation (i.e. monitoring of groundwater to demonstrate that concentrations of contamination are reducing both on and off-site as a result of natural processes) to localised source removal and/or groundwater treatment solutions. A range of possible options for remedial action have been considered within a systematic feasibility assessment, considering the nature of the contaminants, ground conditions, and assuming continuing existing industrial use.

Any course of remedial action would be subject to approval by the regulatory authorities. Trimite should agree the aims and scope of any remedial works with the Environment Agency. However, based on this feasibility assessment, the preferred course of remedial action at the site would comprise:

1. A watching brief during all demolition works and tank/process decommissioning and removal to document the process and validate the absence of activities that could result in new sources of soil and/or groundwater contamination. Poorly characterised areas of contamination (eg those constrained by building footprints by foundation structures such as Tank Farms 1, 2 and 3 and the area of infill in the north-western area of the site) should also be better characterized at this stage. Areas of impacted soil or LNAPL identified over the course of the decommissioning works would be removed (a contingency should be included to allow for previously unidentified hot spots of soil that may be encountered during the works).
2. Following the clearance of tanks and the removal of impacted soils, Monitored Natural Attenuation (MNA) over several years (the duration would need to be agreed with the regulator, but would likely be in the region of 5 to 10 years). Active groundwater treatment could be carried out to enhance and expedite these natural degradation processes and could increase the acceptability of this solution to the regulators. Based on ENVIRON's experience at similar sites and the significant reduction in PCE/TCE and

their breakdown products observed over the period of ENVIRON's assessments at the Uxbridge site, it is reasonable to expect that MNA or enhanced MNA could be justified to and accepted by the regulator as a remedial approach for organic contaminants in the southern site area; and

3. Separate works to address the impacted fill material in the north-western area of the site and the shallow contaminated fill in the vicinity of the former plating works. This would probably involve targeted source removal (ie excavation and removal of contaminated material for off-site treatment and/or disposal) or stabilisation (ie treatment of soil with binders to prevent release of contaminants).

Discussions with the regulators are required to confirm the acceptability of such an approach. The Environment Agency is generally pragmatic, but may seek works that go beyond those proposed to prevent or minimize groundwater impact. For example, ENVIRON has recently been involved in remedial activities at a site located in the same general area as the Trimite site at which groundwater was impacted with chlorinated hydrocarbons; the Environment Agency insisted on extensive remedial works to mitigate contaminant concentrations in groundwater. If the Environment Agency was to take a similar approach at the Trimite site, it could seek the installation of a reactive barrier near the site boundary in order to address the organic contamination, more extensive groundwater treatment (e.g. pump and treat or "air sparging" technology) and source removal / stabilization/encapsulation. Such an approach is unlikely to be practical or cost-effective while the site remains in current use. Discussions with the regulator are required to understand the likely scope of remedial activities, if any, required.

Additional investigations may also be required by the Environment Agency to support decisions regarding the appropriate course of action at the site. These will ultimately depend on detailed development plans.

7.5 Regulatory Involvement

The Environment Agency visited the site at the time of the 2008 intrusive investigations and indicated interest in the findings of previous assessments. Trimite is not obliged to inform the Environment Agency of the outcome of this assessment. Under section 85 of the Water Resources Act 1991, it is an offence to cause or knowingly permit poisonous, noxious, or polluting matter or any solid waste to enter any controlled waters; Trimite must cease any activity at the site resulting in ongoing contamination of groundwater, including implementing the recommendations of the source control record.

Redevelopment of the site will trigger regulatory involvement. Regulators would almost certainly require a detailed risk assessment to be submitted in support of any future planning application for redevelopment of part or all of the site. Remedial action could be required at that time; the scope of the remediation would depend in part on the details of the proposed redevelopment.

It is possible that the local authority will approach the site in relation to its duties under Part IIA of the Environmental Protection Act 1990. The local authority is empowered under this legislation to enforce remediation where the risk to health or the environment associated with contamination is unacceptable.

7.6 Recommendations

The reconfiguration of Trimite operations currently underway at the site presents an opportunity to address a number of uncertainties surrounding the assessment. For example, to date only limited characterization of the waste disposal area in the north-western part of the site has been undertaken, and unidentified sources may also exist associated with Tank Farm 3 located at the western boundary and the fuel USTs also located in the north-western area of the site.

A priority for further action is to ensure that ongoing releases to the environment as a result of on-going activities on the new reduced footprint at the site are identified and addressed. ENVIRON recommends that the existing source control record be updated in order to reflect the change in operations at the site.

7.6.1 Housekeeping & Site Infrastructure

Based on ENVIRON's review, key recommendations are summarised below:

- All currently used tanks intended for decommissioning and disused tanks (ASTs and USTs) should be decommissioned in accordance with environmental best practice. Ideally this should include UST removal and inspection of soils in the vicinity of USTs with any impacted soils removed and disposed of so as to reduce potential soil sources on-site;
- The hard-standing, bunding and secondary containment associated with storage areas should be upgraded in accordance with environmental best practice. Regular integrity testing should be undertaken for any ASTs and USTs associated with the new footprint/operational area in order to demonstrate that no significant on-going source of groundwater impact exists.
- Records of the management of drip trays and bunds should be kept, reviewed at regular intervals and the results used to implement necessary improvements in site housekeeping;
- Alternative arrangements for the handling of liquid caustic wastes should be sought in order to facilitate the removal of the USTs currently used for this practice;
- Drum storage on-site should be reviewed, with a system of inspections of drum storage areas and secondary containment, record keeping and record review used to implement necessary improvements to site housekeeping;
- Waste handling practices should be improved on-site, with designated hardstanding areas with secondary containment used for the storage of all liquid wastes; and
- Improvements should be made to the on-site surface water drainage system, which was observed to be blocked during periods of heavy rain at the time of the investigations on-site. Improvements to the surface water drainage system may include maintenance, regular inspection and/or upgrading the system, which may help to remove a potential source of groundwater impact.

7.6.2 Contamination Remedial Works

Redevelopment of the northern area of the site will almost certainly trigger regulatory involvement and require developers to demonstrate that this area is safe for the proposed use. This activity may also trigger interest from the regulators in the southern area of the site to be retained by Trimite; however, it is not clear whether the regulators would

proactively enforce remedial action in the southern part of the site (eg through Part IIA of the Environmental Protection Act 1990) in the absence of a specific planning application.

The main groundwater plume originates on the northern area of the site and migrates onto the southern area and then off-site. Therefore, a requirement to evaluate the northern area of the site would likely alert the regulators to this wider issue. Should remediation of the plume be required, it would be sensible to treat it together. Remediation of the plume will take several years and likely require regular access across the affected area to monitor progress and, possibly, carry out treatment. For this reason, it may be practical to adjust the boundary of the area to be sold such that the groundwater source in the vicinity of WS4 is located on the land to be retained by Trimite (see Figure 8). Alternatives that may avoid a future purchaser taking on liability for the groundwater plume include negotiating access to this area for the duration of groundwater treatment so that Trimite can retain control of and liability for this plume. Selling the land according to the currently proposed boundary could result in two separate schemes to remediate different parts of the groundwater plume, with reduced efficiency or effectiveness for both parties.

As part of the consolidation of the Trimite operations on the land in the southern part of the site and sale of the land in the north, the following general recommendations are noted:

1. Ensure there are no ongoing releases to soil and groundwater. The existing source control record should be updated in order to reflect changes to operations at the site. In addition, housekeeping recommendations and site infrastructure improvements set out in Section 7.5 should be implemented in relation to ongoing operations.
2. Provide a “watching brief” for all demolition and decommissioning works at the site, including further characterisation of areas of uncertainty in this area where possible;
3. Remove all above and below storage tanks and process infrastructure in the northern area of the site in accordance with environmental best practice. LNAPL in the vicinity of Tank Farm 2 and other residual LNAPL identified in the northern part of the site during the decommissioning works should be removed;
4. Remove redundant USTs from the southern area of the site to be retained by Trimite;

Discussions with regulatory authorities will be required to agree the detailed remedial strategy. However, remedial options are outlined below.

Northern Area of Site (area to be sold for redevelopment)

Table 7.1 Indicative Costs for Remedial Activity – Northern Area	
A “Watching Brief” during any demolition/decommissioning works, to ensure that existing sources of contamination are addressed (based on engineer present on-site for 2 – 3 months with limited validation sampling and analysis)	£50K
Further site characterisation of: • area of historic infill in the north-west of the site once access available. • Tank Farm 3 and the fuel UST farm in the north-western area of the	£30K - £80K

Table 7.1 Indicative Costs for Remedial Activity – Northern Area	
site • hexavalent chromium impacts centred on WS105 and BH4.	
Source Remediation of infill area, based on estimate of 40m x 40m area and 3m depth (5,000m^3). • In-situ stabilisation (based on £20 per m^3 for hazardous waste disposal) • Removal and off-site disposal (based on £100 per m^3 for hazardous waste disposal)	£100K or £500K
Removal of LNAPL from the vicinity of Tank Farm 2. This would ideally be performed in conjunction with demolition/decommissioning works. Indicative costs (assuming UST removal/decommissioning undertaken separately) -	£10K - £20K
Contingency for removal of hot spots encountered during decommissioning	£50K
Treatment of source of the groundwater plume in the event that the proposed site boundary is not adjusted and the source of groundwater plume centred on WS4 remains in the area to be retained. Cost assumes one quarter of total estimate for treatment of groundwater plume (see below).	*£50 to 150K*

Assuming the site boundary is adjusted so that source of groundwater plume centred on WS4 lies in area to be retained, total costs are in the region of £240K (reasonable case) on the basis that the Environment Agency enforces remediation and the infill area is stabilised, and £700k (reasonable worst case) assuming the removal and off-site disposal of fill materials.

Additional costs of £50K to £150K (ie one quarter of the total cost of remediating the main groundwater plume are included in the event the area of the site sold for redevelopment includes the source of the groundwater plume (ie the boundary is not adjusted).

Southern Area of Site (area to be retained)

Table 7.2 Indicative Costs for Remedial Activity – Southern Area	
A "Watching Brief" during decommissioning of redundant underground storage tanks in southern area of site	£10-15K
Source remediation within the footprint of the former Metro Engineering and Plating Works, based on assumed 40m x 20m area and 2m depth (1,500m^3).	

Table 7.2 Indicative Costs for Remedial Activity – Southern Area	
• In-situ stabilisation (based on £20 per m^3 for hazardous waste disposal) • Removal and off-site disposal (based on £100 per m^3 for hazardous waste disposal)	£50K or £100K
Monitored Natural Attenuation of chlorinated solvents in groundwater in the vicinity of WS4. Ideally, this would form part of a wider MNA programme for the land in the southern area to be retained by Trimite, and may require the installation of additional monitoring wells. Assumes bi-annual sampling surveys. Cost assumes installation of additional wells (£50K) and operating costs of ca. £30K to £40K per annum over 5 to 10 years (expected to reduce over time). Alternatively, MNA with groundwater treatment to "enhance" the effects of natural attenuation on the source area centred on WS4 and its associated groundwater plume by application of Hydrogen Releasing Compounds (HRC) to the source zone. Cost assumes installation of treatment system (£100K) and operating costs of ca. £50K per annum over 5 to 10 years (expected to reduce over time).	£200K to £500K £350K to £600K

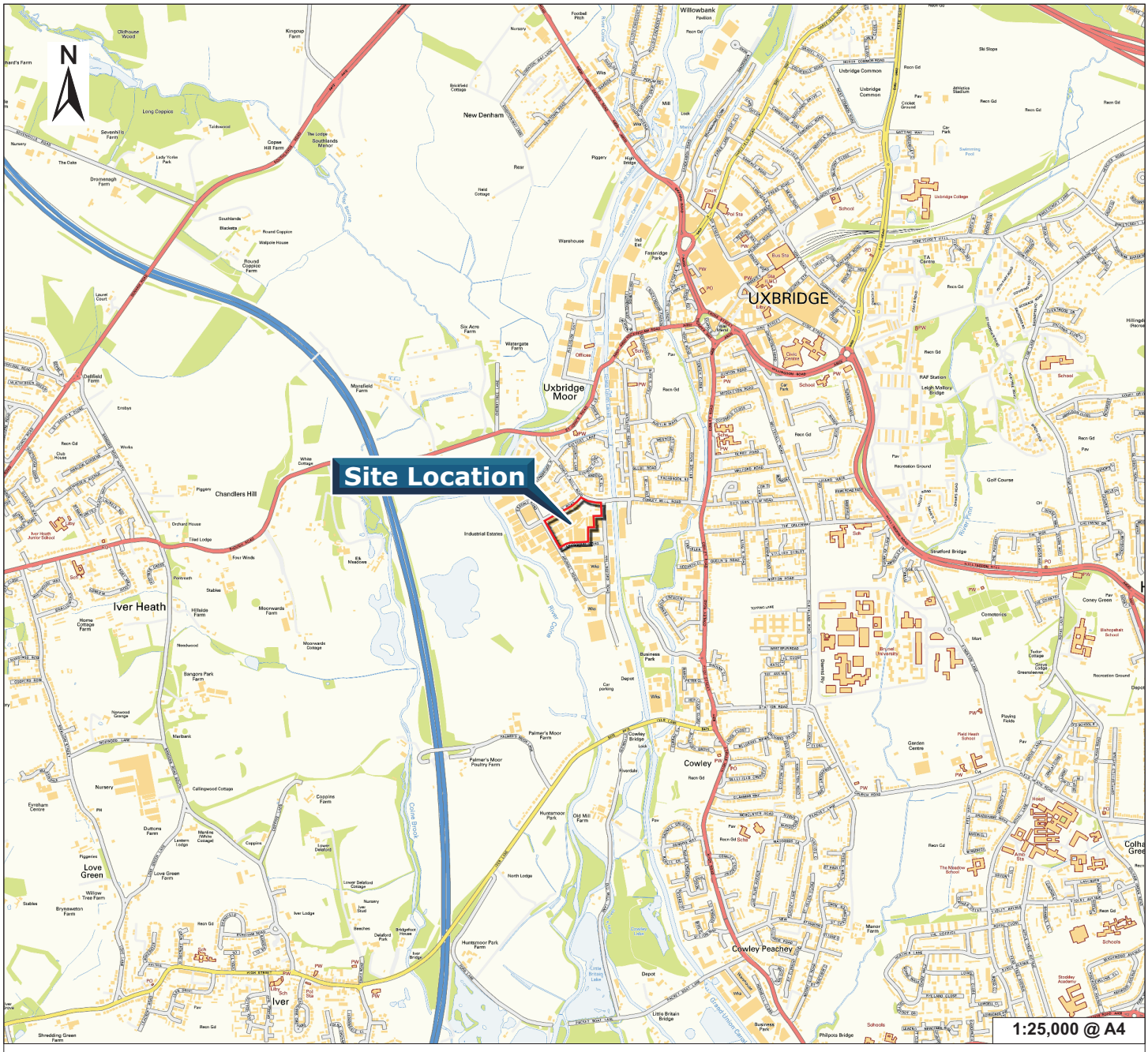
Total costs are in the region of £300K (reasonable case) assuming the Environment Agency enforces Monitored Natural Attenuation for 5 years and stabilisation of fill is undertaken, and in the region of £750K assuming the Environment Agency enforces enhanced Monitored Natural Attenuation for 10 years and fill materials are removed for off-site disposal (reasonable worst case). If the areas containing the source of the groundwater plume is sold and not retained by Trimite, it might be reasonable to assume the cost of remediating the plume would be shared with the new owner, and could be adjusted accordingly. For the purpose of this assessment, we have assumed that the cost to Trimite would be 75% of the total cost for this activity. In fact, this likely over-simplifies the situation, and does not take account of additional inefficiencies resulting from this approach.

The total estimated costs for the remediation of the whole site are £0.5M (reasonable case) to £1.5M (reasonable worst case).

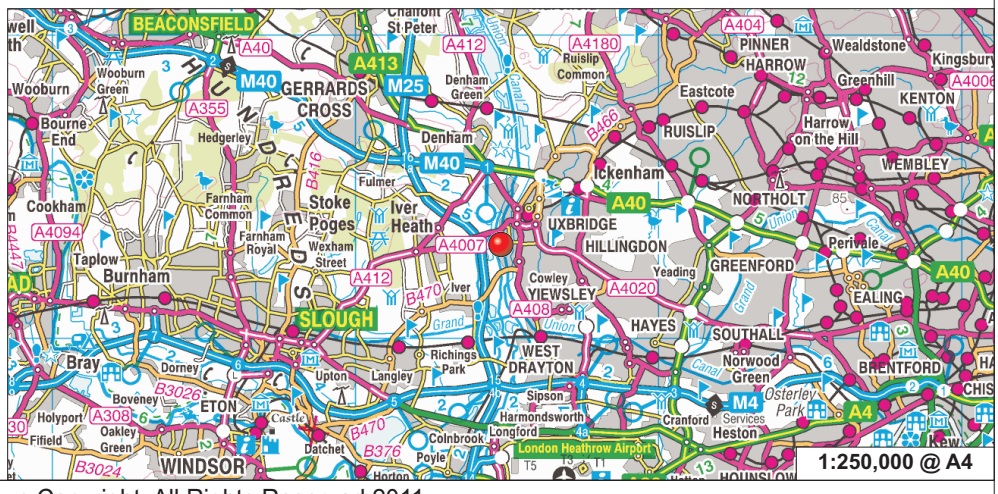
Table 7.3 Remedial Cost Estimates – Option 1		
(assuming boundary is adjusted so all area affected by main groundwater plume retained by Timite)		
Cost Estimate	**Reasonable Case**	**Reasonable Worst Case**
Northern Area	£240k	£700k
Southern Area	£300k	£750k
Total	£0.5M	£1.5M

Table 7.4 Remedial Cost Estimates – Option 2		
(assuming area including source of main groundwater plume sold for redevelopment)		
Cost Estimate	**Reasonable Case**	**Reasonable Worst Case**
Northern Area	£290k	£850k
Southern Area	£250k	£600k
Total	£0.5M	£1.5M

Annex A: Figures





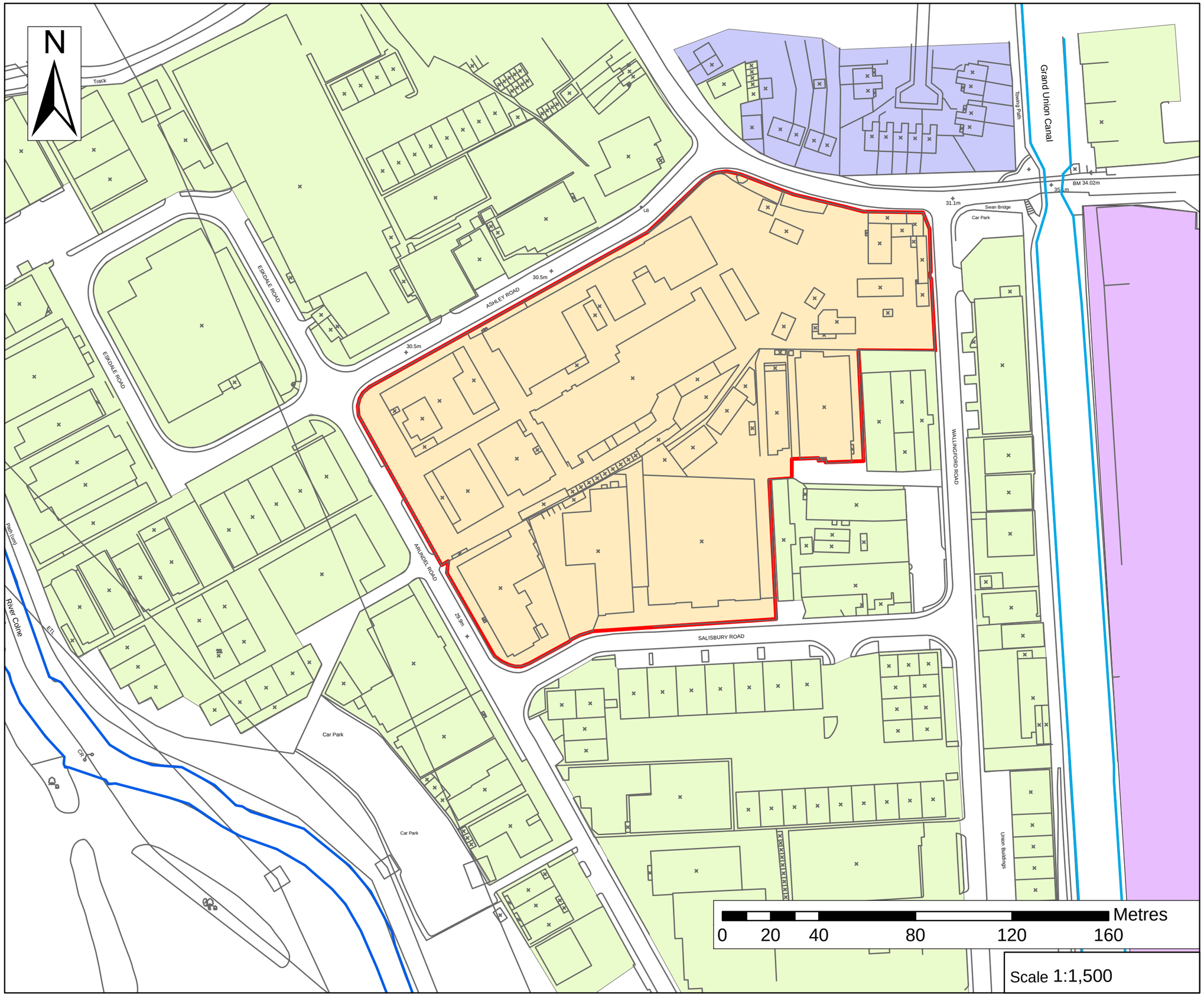


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Title	**Figure 1: Site Location Plan**
Site	**Arundel Road, Uxbridge**

Client			**Stretford Ltd**
Project No.	**UK16-17036**	Issue	**1**
Date	**October 2011**	Drawn by	**DM**

ENVIRON



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Legend

- Trimite Boundary
- River Colne
- Grand Union Canal
- Former Gas Works
- Residential
- Commercial/Industrial

Title: Figure 2

Site Setting

Site

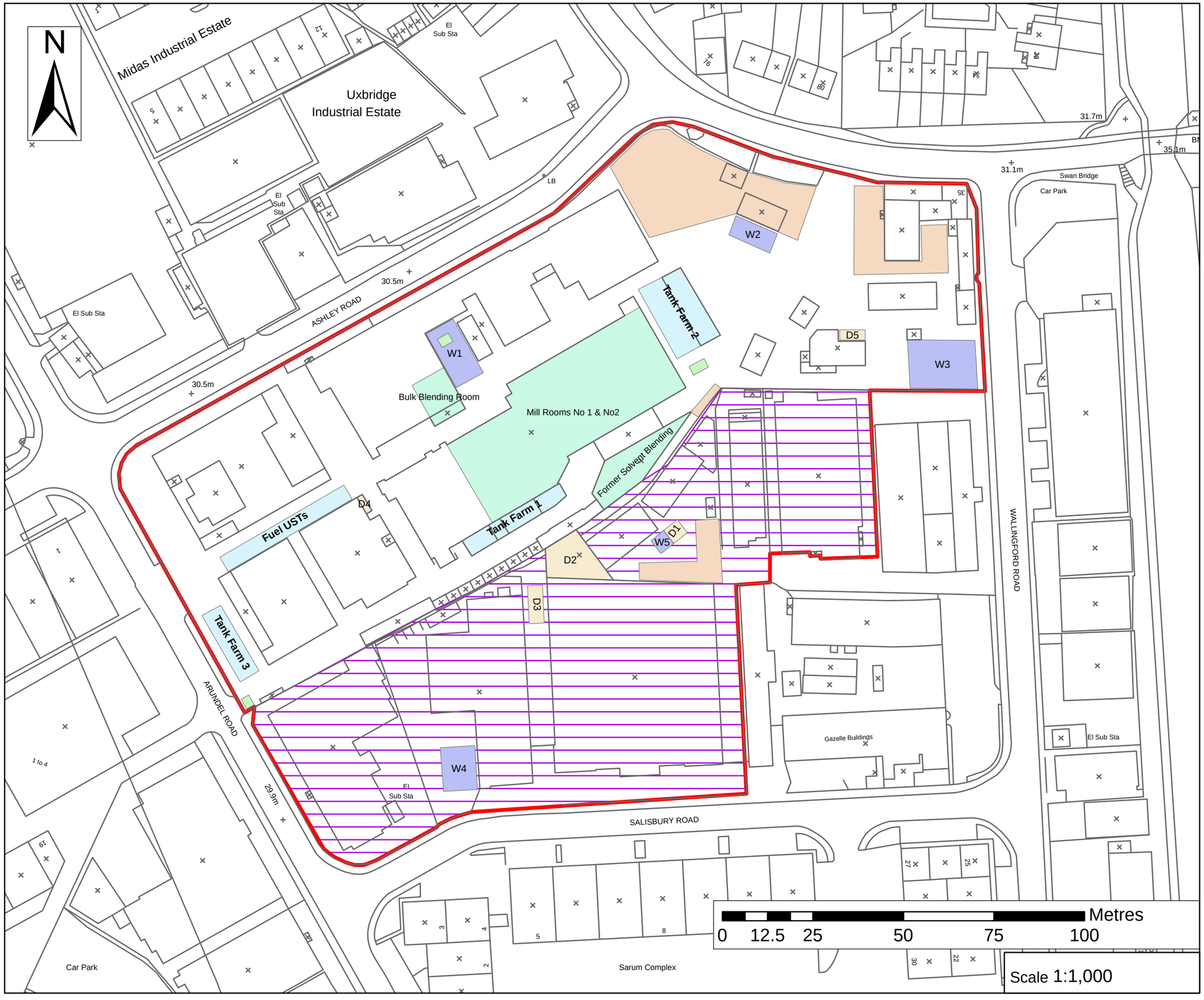
Trimite Uxbridge

Client
Stretford Ltd

Date	Drawn by
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Legend

- Trimite Boundary
- Proposed Footprint
- Interceptors
- Waste Handling
- Solvent Handling
- Drum & IBC Storage
- Disused Tanks
- Tank Farms

D1: 3 No Disused USTs
D2: Approx 10 no Disused USTs
D3: 3 No Disused USTs
D4: 1 No Disused AST
D5: 1 No Disused AST

W1: Mixing Vessel Wash-Down
W2: Wast Compactor & Skips
W3: Former Waste Handling
W4: Waste Caustic Holding Tanks
W4: Vehicle Wash-Down Area

Title: Figure 3

Site Layout

Site

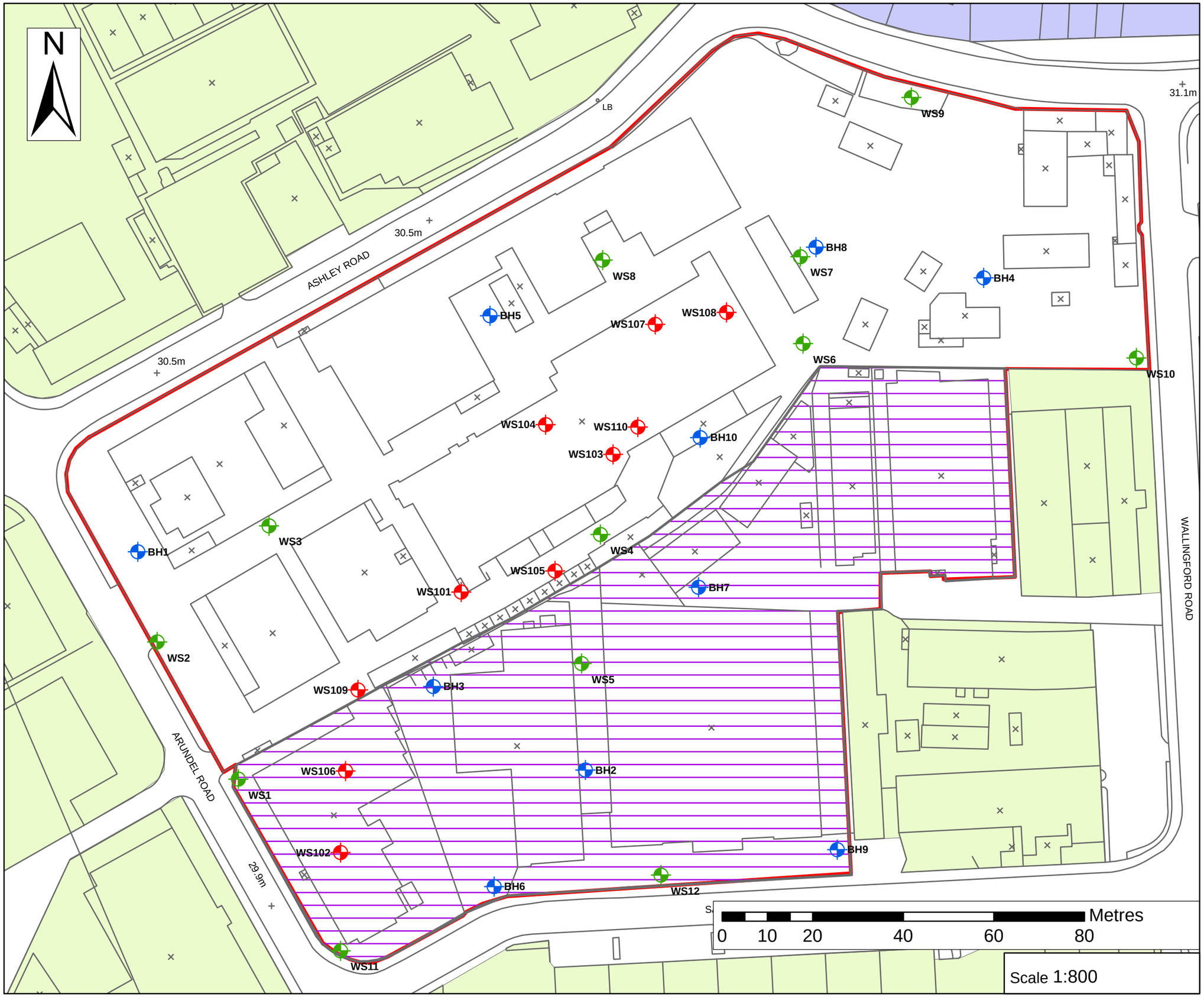
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Legend

- Trimite Boundary
- Proposed Footprint
- ENVIRON 1st Stage WS
- ENVIRON 2nd Stage BH
- ENVIRON 3rd Stage WS

Title: Figure 4

Soil Sampling Locations

Site

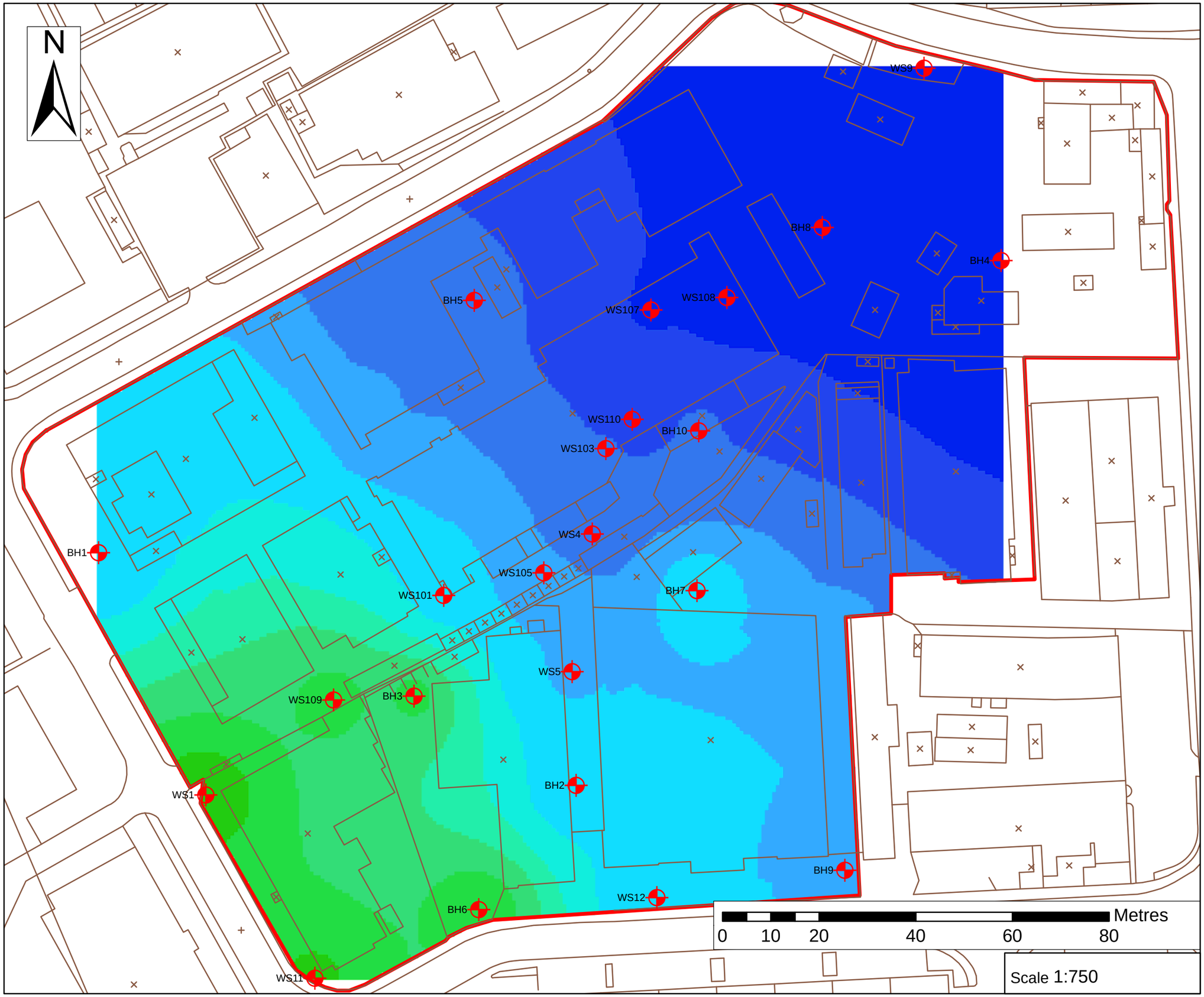
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Legend

Trimite Boundary

Monitoring Wells

GW Elevations (mAOD)

<VALUE>

- 28.30 - 28.35
- 28.35 - 28.4
- 28.4 - 28.45
- 28.45 - 28.5
- 28.5 - 28.55
- 28.55 - 28.6
- 28.6 - 28.65
- 28.65 - 28.7
- 28.7 - 28.75
- 28.75 - 28.8

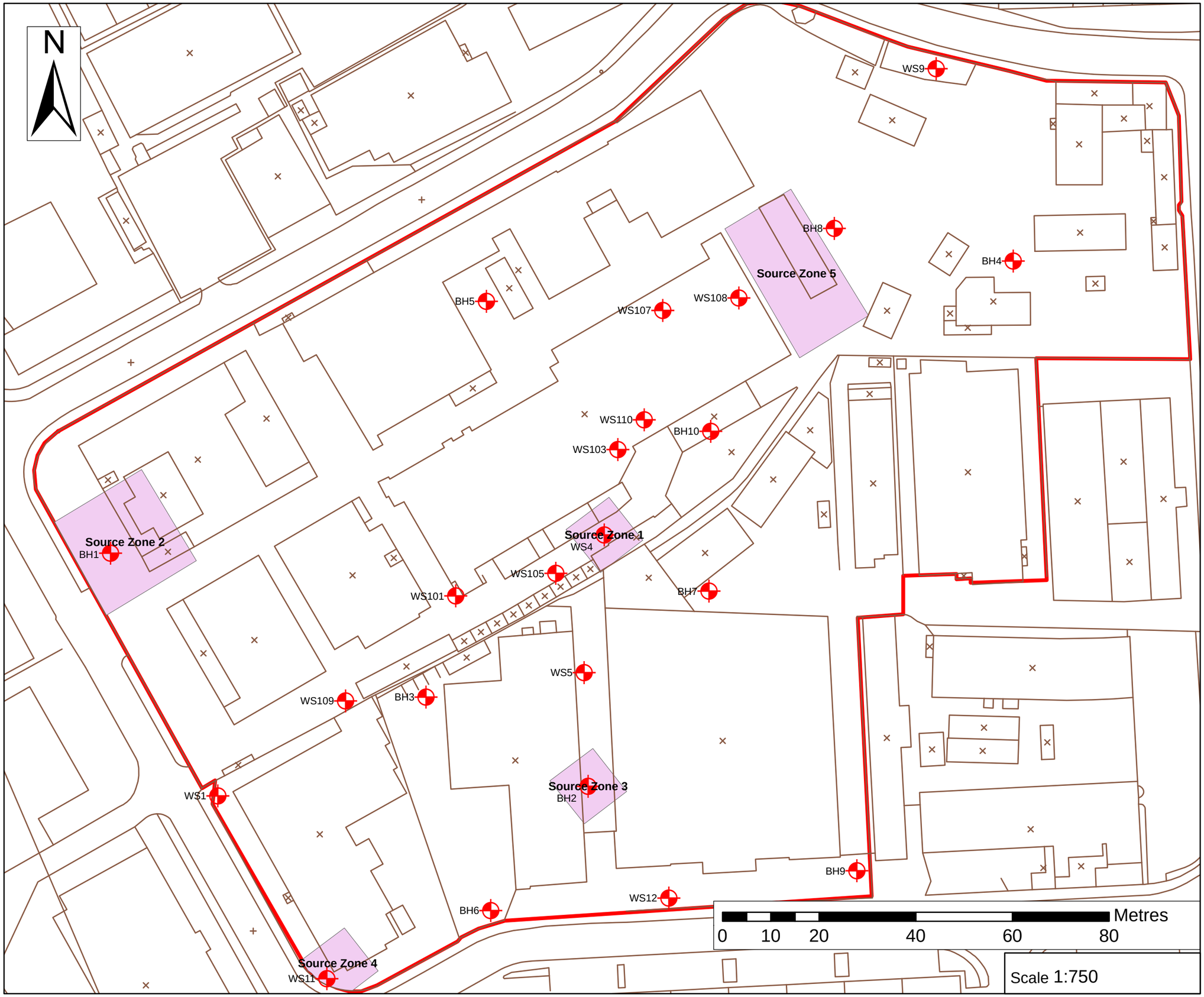
Title: Figure 5
Groundwater Sampling Locations and Elevation Contours

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Trimite Uxbridge

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Legend

- Trimite Boundary
- Monitoring Wells
- Source Zones

Title: Figure 6

Source Zones

Site

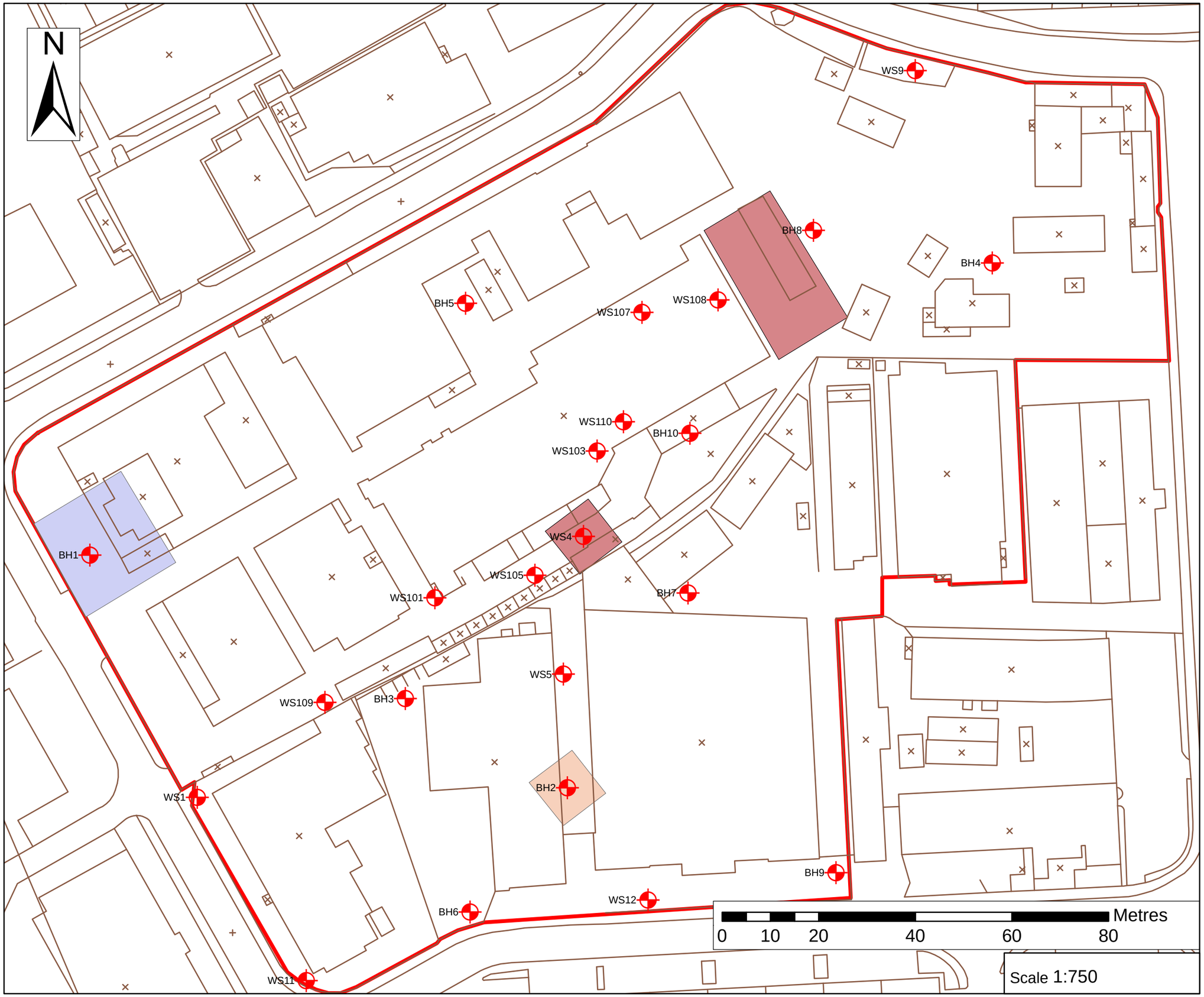
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Legend

- Monitoring Wells
- Trimite Boundary
- 1,2,4-Trimethylbenzene
- Xylenes
- Lead

Title: Figure 7A

Affected Areas

Site

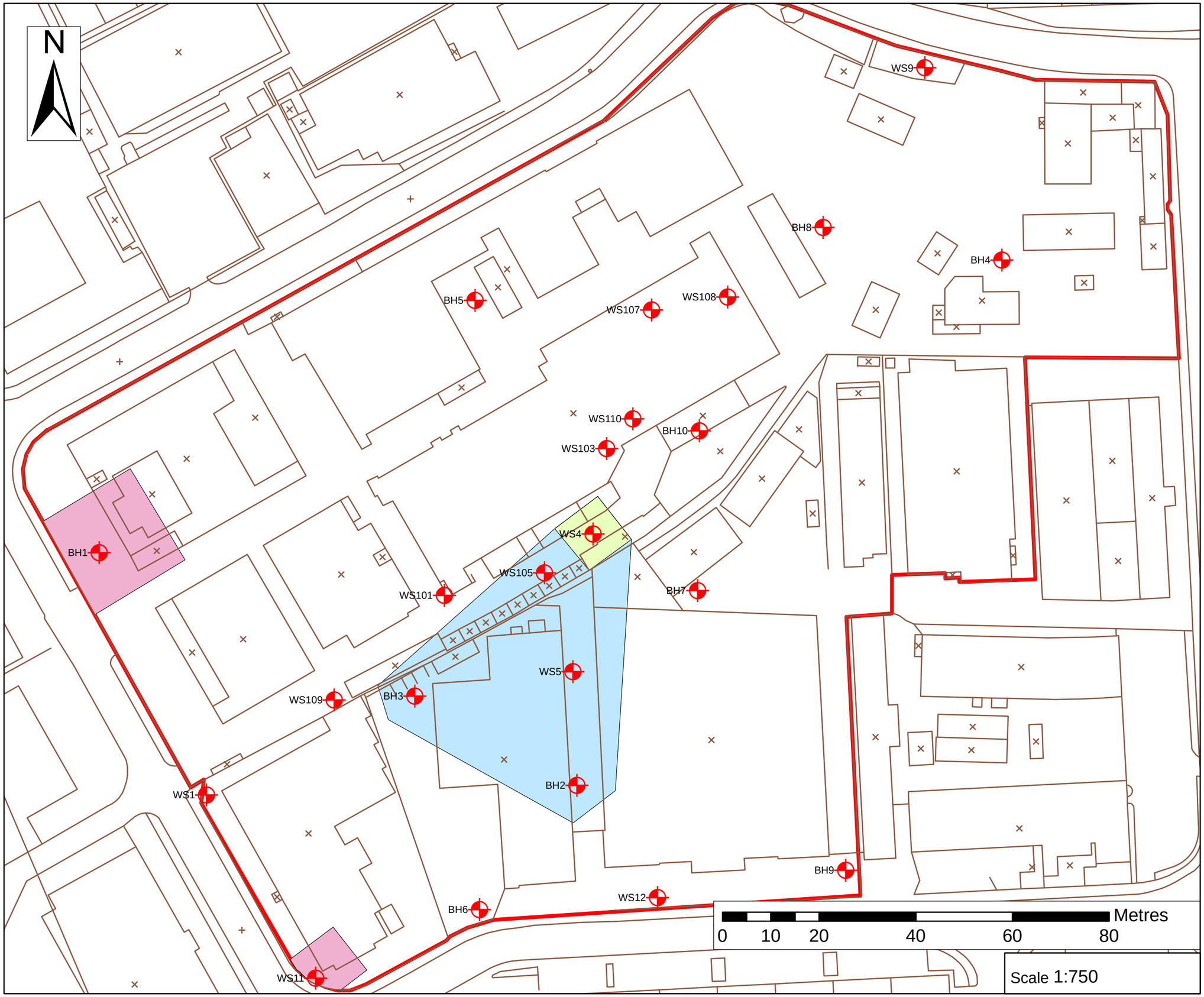
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Legend

- Monitoring Wells
- Trimite Boundary
- Trichloroethene
- Cis-1,2-Dichloroethene
- Cadmium

Title: Figure 7B

Affected Areas

Site

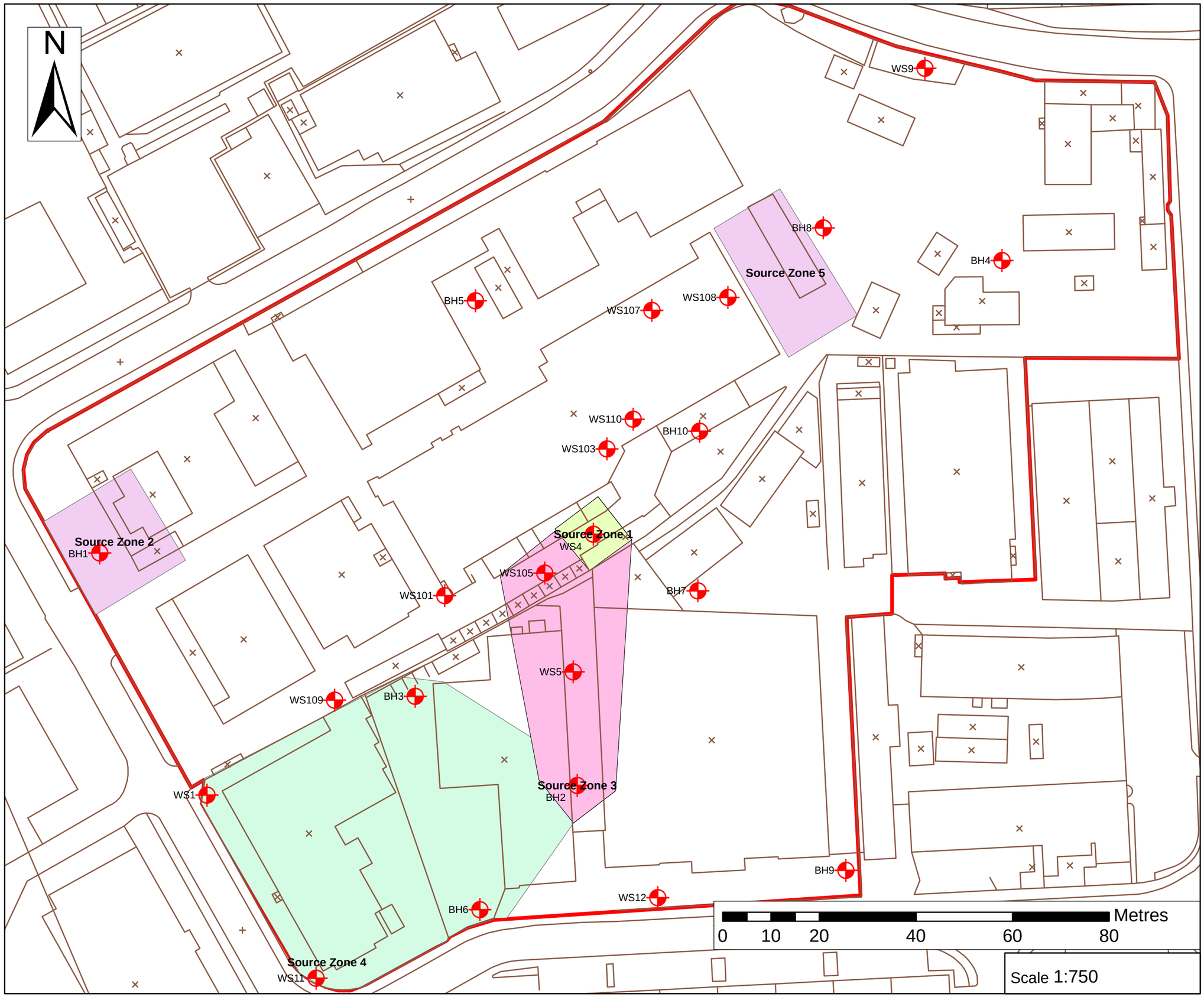
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Legend

- Monitoring Wells
- Trimite Boundary
- Trichloroethene
- Vinyl Chloride
- 1,1-Dichloroethane
- Source Zones

Title: Figure 7C

Affected Areas

Site

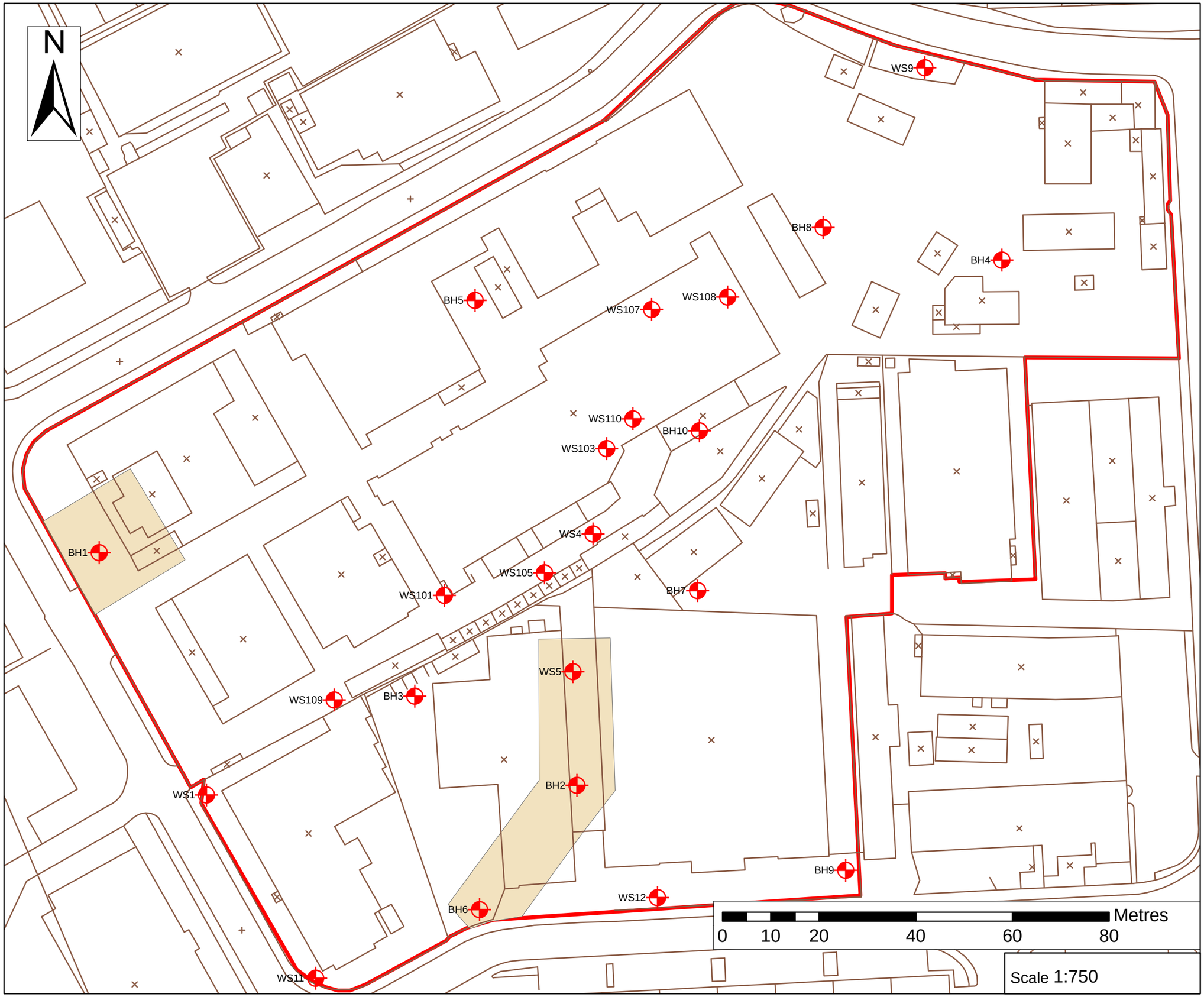
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Legend

- Monitoring Wells
- Trimite Boundary
- Naphthalene

Title: Figure 7D

Affected Areas

Site

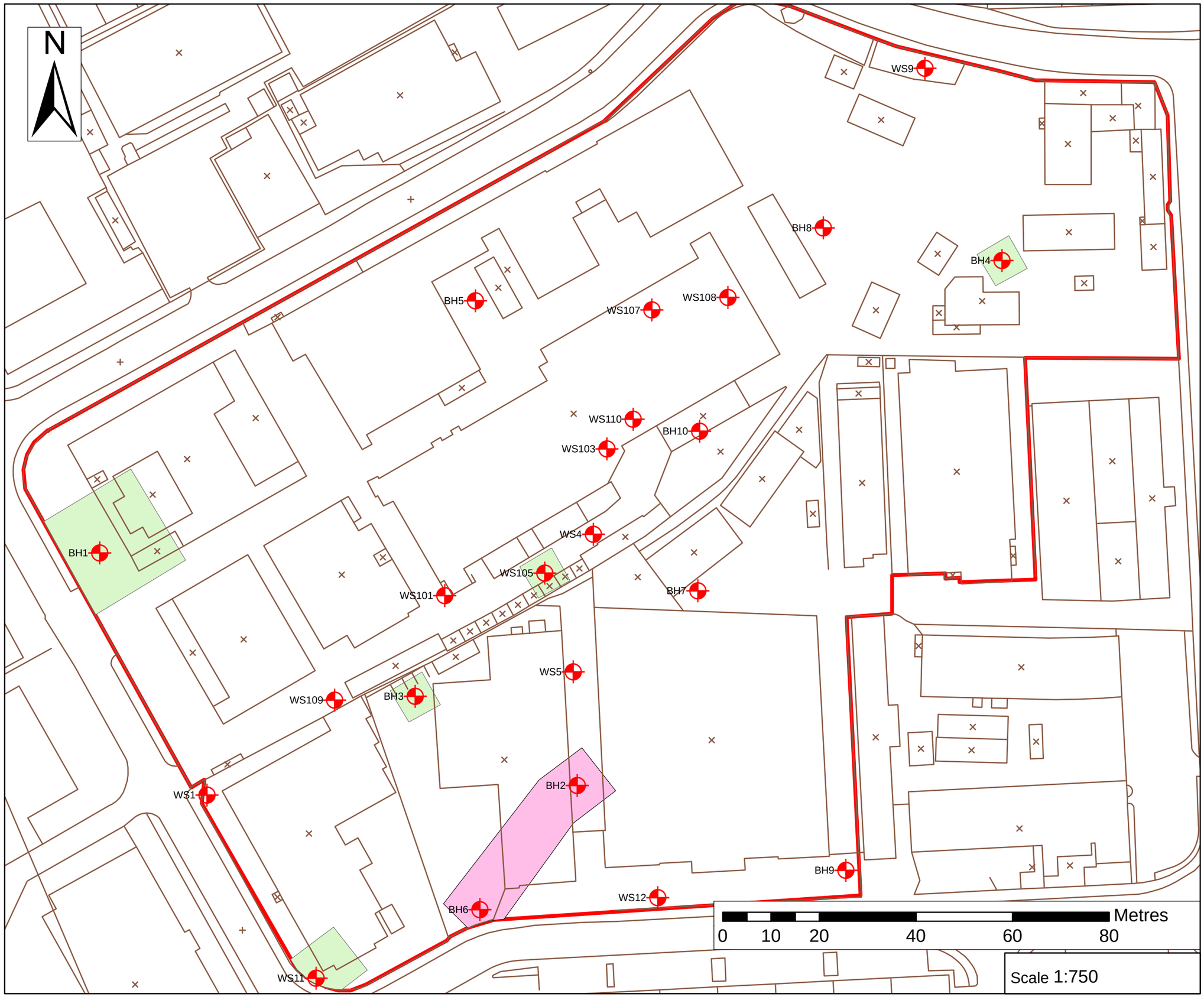
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Legend

- Monitoring Wells
- Trimite Boundary
- Hexavalent Chromium
- 1,2-Dichlorobenzene

Title: Figure 7E

Affected Areas

Site

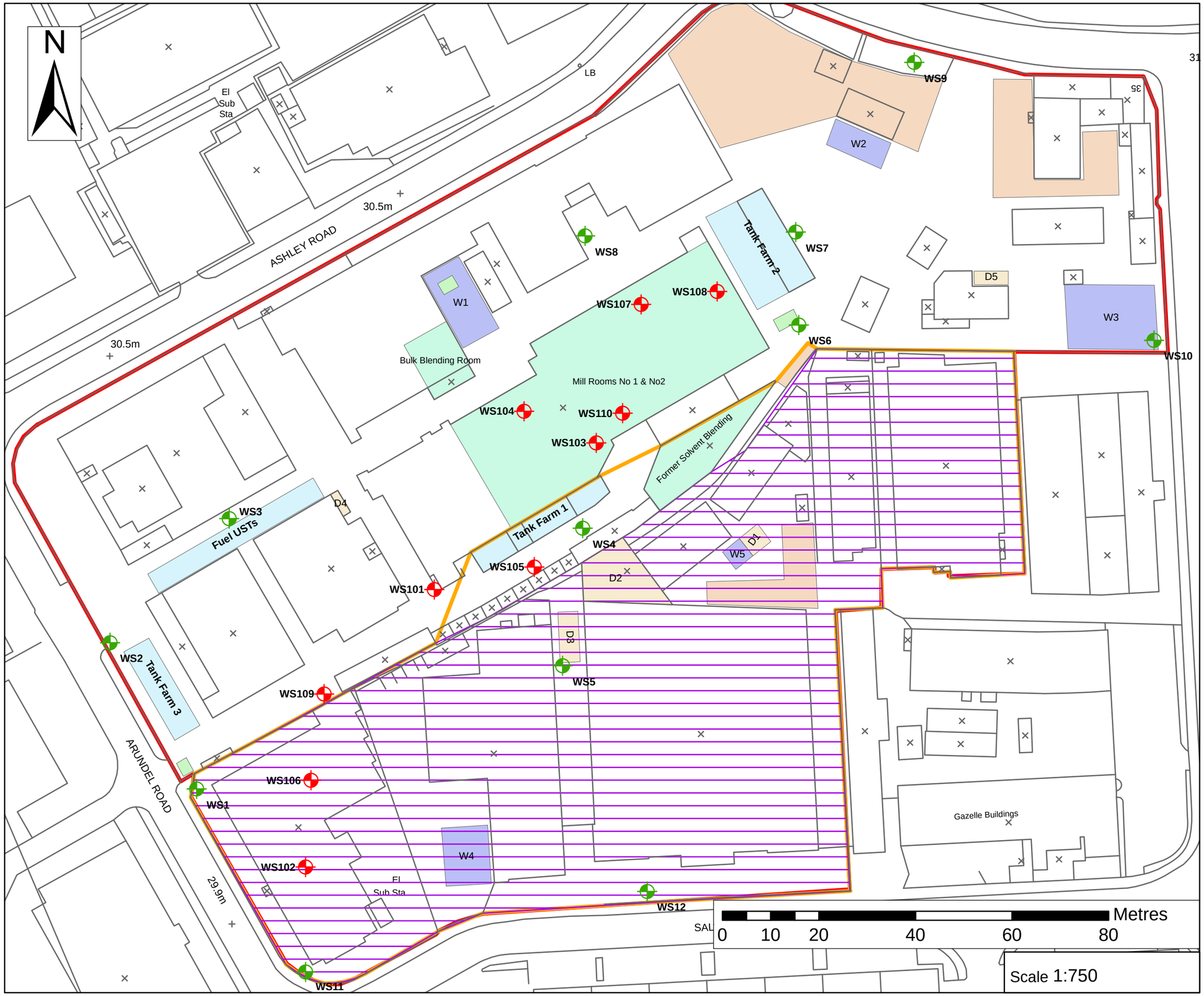
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Legend

- Trimite Boundary
- Proposed Footprint
- Proposed Boundary Amendment
- Interceptors
- Waste Handling
- Solvent Handling
- Drum & IBC Storage
- Disused Tanks
- Tank Farms

D1: 3 No Disused USTs
D2: Approx 10 no Disused USTs
D3: 3 No Disused USTs
D4: 1 No Disused AST
D5: 1 No Disused AST

W1: Mixing Vessel Wash-Down
W2: Wast Compactor & Skips
W3: Former Waste Handling
W4: Waste Caustic Holding Tanks
W4: Vehicle Wash-Down Area

Title: Figure 8

Proposed Boundary Amendment

Site

Trimite Uxbridge

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Annex B: Generic Assessment Criteria

Table B1: Generic Assessment Criteria – Soils (Commercial/Industrial)	
Parameter	**Commercial/industrial GAC (mg/kg)**
Metals	
Arsenic	635
Cadmium	230
Chromium	30400
Copper	71700
Lead	750
Mercury	3640
Nickel	1790
Selenium	13000
Zinc	665800
Polycyclic Aromatic Hydrocarbons (PAHs)	
Naphthalene	75
Acenaphthylene	162
Acenaphthene	56.7
Fluorene	160
Phenanthrene	21900
Anthracene	522000
Fluoranthene	22600
Pyrene	54300
Benzo(a)anthracene	91
Chrysene	140
Benzo(b)fluoranthene	102
Benzo(k)fluoranthene	143
Benzo(a)pyrene	14.3
Indeno(1,2,3-cd)pyrene	61
Dibenzo(a,h)anthracene	12.9
Benzo(g,h,i)perylene	658
BTEX Compounds	
Benzene	15.8
Toluene	835
Ethylbenzene	508

Table B1: Generic Assessment Criteria – Soils (Commercial/Industrial)	
Parameter	**Commercial/industrial GAC (mg/kg)**
m,p-Xylenes	564
o-Xylene	467
Aliphatic Hydrocarbons	
C5-C6	368
C>6-C8	157
C>8-C10	79.2
C>10-C12	47.7
C>12-C16	27.3
C>16-C21	5000
C>21-C35	5000
Aromatic Hydrocarbons	
C5-C7 (benzene)	15.8
C>7-C8 (toluene)	835
C>8-C10 (Ethylbenzene)	610
C>10-C12	362
C>12-C16	168
C>16-C21	28100
C>21-C35	28400
VOC and sVOC	
2-Methylphenol	$1.42E^{07}$
4-Methylphenol	$2.58E^{07}$
2,4-Dimethylphenol	$13.3E^{06}$
Di-n-butyl phthalate	12900
Butyl Benzyl Phthalate	$9.42E^{08}$
1,3-Dichlorobenzene	17700
1,2-Dichlorobenzene	562000
1,4-Dichlorobenzene	221000
Anthraquinone	$3.33E^{07}$
2-Methylnaphthalene	$7.15E^{06}$
Bis (2-ethylhexyl) phthalate	$8.54E^{07}$
Dibenzofuran	$6.67E^{06}$

Table B1: Generic Assessment Criteria – Soils (Commercial/Industrial)	
Parameter	**Commercial/industrial GAC (mg/kg)**
Carbazole	$8.97E^{05}$
Biphenyl	34100
Cis-1,2-Dichloroethene	7740
Trichloroethene	6610
Chlorobenzene	32800
n-propylbenzene	$3.99E^{05}$
1,3,5-Trimethylbenzene	12700
Tert-butylbenzene	$4.4E^{05}$
1,2,4-Trimethylbezene	22900
Sec-Butylbenzene	$1.3E^{06}$
4-Isopropyltoluene	13600
1,2,3-Trichlorobenzene	427

Table B2 – Generic Assessment Criteria – Groundwater		
Parameter	**Controlled Waters GAC Value (µg/l)**	**Human Health GAC Value - Volatilisation to Commercial Land (µg/l)**
Inorganics		
Arsenic	50	Sol
Cadmium	0.25	Sol
Total Chromium	4.7	Sol
Hexavalent Chromium	3.4	Sol
Copper	28	Sol
Iron	1000	NC
Lead	7.2	NC
Nickel	20	Sol
Vanadium	60	Sol
Zinc	125	Sol
Sulphate	400	NC
Nitrite	10	NC
Total Cyanide	1	Sol
Ammoniacal Nitrogen	0.6	NC
Polycyclic Aromatic Hydrocarbons (PAHs)		
Naphthalene	2.4	Sol
Anthracene	0.1	Sol
Fluoranthene	0.1	Sol
BTEX Compounds		
Benzene	10	Sol
Toluene	50	Sol
Ethylbenzene	20	Sol
Combined Xylenes	30	Sol
VOC and sVOC		
Vinyl Chloride	0.5^{A}	2400
Chloroethane	21000^{B}	Sol
1,1-Dichloroethene	2^{A}	Sol
Trans-1,2-Dichloroethene	100^{C}	$9.7E^{+5}$
1,1-Dichloroethane	2.4^{B}	NC

Table B2 – Generic Assessment Criteria – Groundwater

Parameter	Controlled Waters GAC Value (µg/l)	Human Health GAC Value - Volatilisation to Commercial Land (µg/l)
Cis-1,2-Dichloroethene	70[C]	NC
1,1,1-Trichloroethane	100	Sol
1,2-Dichloroethane	10	$5.7E^{+4}$
Trichloroethene	10	Sol
Chlorobenzene	100	Sol
Isopropylbenzene	680[B]	Sol
1,3,5-Trimethylbenzene	15[B]	Sol
Tert-Butylbenzene	1800[B]	Sol
1,2,4-Trimethylbenzene	15[B]	$4.5E^{+5}$
1,4-Dichlorobenzene	75[C]	Sol
1,2-Dichlorobenzene	20	Sol
1,2,3-Trichlorobenzene	0.4	Sol

Notes:
NC – Not Calculated
Sol – greater than constituent solubility
All Controlled Waters criteria derived from EQS except where noted.
A – UK DWS
B – USEPA Tap Water
C – USEPA MCL

Annex C: QRA Model Input Parameters

Table C1: R&D P20 Model Input Parameters		
Parameter	**Value**	**Justification**
Groundwater Parameters		
Plume Thickness (m)	2.2	Half the saturated aquifer thickness
Distance to Compliance Point	Source Zone 1 – 150m	Distance to Compliance point 50m down-gradient of most down-gradient source zone (i.e. source Zone 4)
	Source Zone 2 – 50m	Due to this source zone also being located on the western boundary this is also considered to be a down-gradient source zone
	Source Zone 3 – 105m	Distance to Compliance point 50m down-gradient of most down-gradient source zone (i.e. source Zone 4)
	Source Zone 4 – 50m	This is considered to be the down-gradient source zone
	Source Zone 5 – 210m	Distance to Compliance point 50m down-gradient of most down-gradient source zone (i.e. source Zone 4)
Groundwater Source Width	Source Zone 1 – 12m	Source Area selection detailed in Section 5.2 (see Figure 6)
	Source Zone 2 – 20m	
	Source Zone 3 – 10m	
	Source Zone 4 – 10m	
	Source Zone 5 – 15m	
Aquifer Properties		
Saturated Aquifer Thickness (m)	4.42	Field Data
Hydraulic Conductivity (m/day)	43.2	CONSIM Gravel Maximum
Hydraulic Gradient	0.00175	Field Data
Bulk Density	2.19	CONSIM Gravel Maximum
Effective Porosity	0.36	CONSIM Gravel Maximum
Contaminant Target Concentrations		
Various	See Table B2 (Annex B)	See Table B2 (Annex B)
Contaminant Degradation Rates (½ Lives, days)		
Tetrachloroethene	1000	CONSIM Anaerobic Maximum
Trichloroethene	1000	CONSIM Anaerobic Maximum
Cis-1,2-Dichloroethene	147	Barrio-Lage et. Al. (1986)

Table C1: R&D P20 Model Input Parameters		
Parameter	**Value**	**Justification**
1,1-Dichloroethene	173	CONSIM Anaerobic Maximum
Vinyl Chloride	500	CONSIM Anaerobic Maximum
1,1,1-Trichloroethane	303	CONSIM Anaerobic Maximum
1,1-Dichloroethane	$9.0E^{99}$	No degradation assumed in absence of reliable literature value
1,2,4-Trimethylbenzene	$9.0E^{99}$	No degradation assumed in absence of reliable literature value
1,4-Dichlorobenzene	500	CONSIM Anaerobic Maximum
1,2-Dichlorobezene	500	CONSIM Anaerobic Maximum
Toluene	300	CONSIM Anaerobic Maximum
Ethylbenzene	800	CONSIM Anaerobic Maximum
Xylenes	500	CONSIM Anaerobic Maximum
Naphthalene	1000	CONSIM Anaerobic Maximum
Cadmium	$9.0E^{99}$	No degradation
Chromium	$9.0E^{99}$	No degradation
Hexavalent Chromium	$9.0E^{99}$	No degradation
Lead	$9.0E^{99}$	No degradation
Ammoniacal Nitrogen	$9.0E^{99}$	No degradation
Organic Carbon Partition Coefficient (K_{oc}, $cm^3\ g^{-1}$)		
Tetrachloroethene	269.15	Environment Agency publication SR7
Trichloroethene	141.25	Environment Agency publication SR7
Cis-1,2-Dichloroethene	36	RISC
1,1-Dichloroethene	217	CONSIM Maximum
Vinyl Chloride	16.59	Environment Agency publication SR7
1,1,1-Trichloroethane	131.8	Environment Agency publication SR7
1,1-Dichloroethane	35	CL:AIRE Soil GAC for Human Health Risk Assessment
1,2,4-Trimethylbenzene	1412.5	CL:AIRE Soil GAC for Human Health Risk Assessment
1,4-Dichlorobenzene	707.9	Environment Agency publication SR7
1,2-Dichlorobezene	691.8	Environment Agency publication SR7
Toluene	204.17	Environment Agency publication SR7

Table C1: R&D P20 Model Input Parameters		
Parameter	**Value**	**Justification**
Ethylbenzene	446.68	Environment Agency publication SR7
Xylenes		Environment Agency publication SR7 value for p-Xylene
Naphthalene	645.65	Environment Agency publication SR7
Soil Water Partition Coefficient (Kd)		
Cadmium	1500	CONSIM Maximum
Chromium	4400	CONSIM Maximum
Hexavalent Chromium	52	Cr(VI) Literature Review Maximum
Lead	27000	CONSIM Maximum
Ammoniacal Nitrogen	3.2	CONSIM

Annex D: Controlled Waters Risk Assessment Output

Annex E: Groundwater Discussion

Groundwater Physio-Chemical Parameters

A range of physio-chemical parameters were measured for groundwater in each of the wells sampled in august 2011, using a YSI Pro Plus multi parameter meter attached to a flow-cell receiving groundwater via a low-flow pump to ensure data integrity (by limiting the contact of groundwater with the atmosphere prior to measurement).

Temperature

The temperature of groundwater as measured on-site was found to range by approximately 5 degrees across the site. The detected range may have been affected by the high atmospheric temperatures at the time of the sampling survey, and the length of sampling chain between the well headworks and the flow-cell.

Dissolved Oxygen

Dissolved oxygen concentrations were found typically to be low, consistent with the results of previous groundwater surveys and indicative of an anaerobic groundwater system. The range of dissolved oxygen concentrations was 0.16mg/l; however, due to a technical fault dissolved oxygen concentrations could not be recorded for all locations.

It is not known whether the background groundwater is anaerobic, or whether the presence of hydrocarbons in groundwater in the north-eastern area of the site are causing a depletion of available oxygen due to the aerobic digestion of hydrocarbons by microbial action.

Conductivity

Measured conductivity of groundwater at the site demonstrated significant variation, with the highest conductivity associated with the sample with highly elevated concentrations of metal ions (BH1). A similar pattern is exhibited by the total dissolved solids and salinity measurements (which are calculated in part based on the conductivity values).

pH

The measured pH of groundwater at the site can be characterised as typically neutral. The measured pH exhibits a small range of 1.42 pH units.

Oxidation/Reduction Potential (a.k.a. Redox/ORP/E_h)

ORP is a measure of a solutions tendency to either gain or lose electrons on the introduction of a new species by oxidation or reduction reactions, so that a solution with a higher (more positive) ORP will have a tendency to gain electrons from the new species (thereby oxidising the new species) while a solution with a lower (more negative) ORP will have a tendency to donate electrons to the new species (thereby reducing the new species).

Measured ORP values were typically strongly negative (indicative of reducing conditions), with the exception of WS11. A moderately high range of 321 mV was measured across the site.

The presence of anaerobic reducing conditions indicates the ideal groundwater conditions for the microbially mediated degradation of chlorinated hydrocarbons to take place by dehalogenation (the rate of which is typically orders of magnitude greater than chemical degradation without microbial mediation). However, the ideal conditions for the degradation of other organic species (i.e. non-chlorinated hydrocarbons) are aerobic oxidising conditions; therefore, the rates of degradation of non-chlorinated hydrocarbons are likely to be inhibited by the measured groundwater conditions described above.

Groundwater Physio-Chemical Parameters							
Well ID	Temperature	Dissolved Oxygen	Conductivity	Total Dissolved Solids	Salinity	pH	Oxidation/ Reduction Potential (ORP/redox)
(units)	(˚C)	(mg/l)	(µS/cm)	(mg/L)	(ppt)	(units)	(mV)
BH1	16.4	0.09	1004	780	0.6	7.29	-273.5
BH2	16.8		677	520	0.4	6.85	-263.4
BH3	14.8		635	513.5	0.39	7.36	-388
BH4	13.1		588	494	0.37	7.12	-321.1
BH5	14.7	0.13	567	461.5	0.35	7.01	-193
BH6	16.1	0.03	645	507	0.38	7.18	-366.7
BH7	15.2		555	442	0.33	6.93	-325.8
BH8	17.8	0.05	808	604.5	0.46	7.34	-282.8
BH9	14.7		524	422.5	0.32	6.91	-345
BH10	16.5		611	474.5	0.36	6.8	-284.4
WS1	14.8		643	520	0.39	7.34	-375.2
WS4	16.8		723	559	0.42	6.51	-315.8
WS5	17.5		665	507	0.38	6.78	-303.3
WS9	17.5	0.15	613	468	0.35	7.07	-120.8
WS11	18.4		544	403	0.3	5.94	-66.4
WS12	17.1		595	455	0.34	7.1	-353.9
WS101	14.8	0.12	610	494	0.37	7.08	-329.8
WS103	16.3	0.15	605	474.5	0.36	6.92	-252.3
WS105	16.8	0.11	656	507	0.38	6.93	-319.4
WS107	14.9	0.19	615	494	0.37	7.1	-333.1
WS108	16.4	0.15	613	480	0.36	6.95	-347.3
WS109	17.2	0.1	685	526.5	0.4	6.77	-346.1
WS110	16.1	0.15	589	461.5	0.35	7.01	-152.9

Inorganic Groundwater Parameters

The detected Arsenic, Zinc, and Nickel exceedences in groundwater are considered to be isolated occurrences (BH1 in the case of Arsenic and Zinc, and WS11 in the case of Nickel), for which no exceedences of screening criteria were detected in soils, and no potential pollutant linkage has been identified for these parameters. These parameters have therefore not been considered further within this assessment.

Iron was detected in exceedence of generic screening criteria in fifteen of the twenty-five samples from across the site in up-gradient as well as down-gradient wells, and is considered likely to be a widespread issue relating to the local geology and not therefore related to a site specific source. Iron has therefore not been considered further within this assessment.

Cadmium, chromium and lead were all detected in exceedence of generic screening criteria, and have been selected for further assessement.

The detected exceedences of generic screening criteria for ammoniacal nitrogen were detected in samples from across the site in up-gradient as well as down-gradient wells, and are considered likely to be related to historic on-site and off-site activities (former gas works and sewage works). The detected concentrations are therefore likely to be indicative of a wider groundwater impact from these activities and ammoniacal nitrogen is therefore not considered further within this assessment. However, further information is required to confirm this, and this is likely to require existing data regarding background groundwater quality from external sources such as the Environment Agency. The range of detected concentrations of ammoniacal nitrogen has decreased between July 2008 and August 2011.

Organic Groundwater Parameters

None of the detected concentrations of organic parameters in groundwater exceed ENVIRON's Generic Assessment Criteria designed to be protective of human health (via the volatilization pathway). The presence of free-phase LNAPL in WS6 presents the only theoretical risk to human health; however, it is assumed that any remedial works at the site will include the removal of all LNAPL encountered; as such the risk to human health is not considered further within this assessment.

Polycyclic Aromatic Hydrocarbons (PAH) were detected in exceedence of generic screening criteria; exceedences for Anthracene and Fluoranthene were detected only in BH1 and are considered to be an isolated hotspot, exceedences for Naphthalene were detected in locations associated with the known organic plume at the site, and has been selected for further assessment.

Good correlations between the detected concentrations of BTEX compounds and corresponding Aromatic Hydrocarbon bands were generally observed at the site, which suggests that the primary source of the measured concentrations of Aromatic Hydrocarbons is the bulk storage of some of the BTEX compounds on-site (such as Toluene and Xylene in USTs at Tank Farm 2). One hydrocarbon band was detected in exceedence of generic screening criteria (Aromatics C_7 – C_8), which corresponds to Toluene; BTEX compounds have therefore been carried forward in this assessment, as marker compounds for the Aromatic Hydrocarbons.

Various chlorinated and non-chlorinated organic solvents were detected in groundwater. The presence of the breakdown products of TCE by natural bio-degradation (microbially mediated reductive dechlorination) in the groundwater on-site, such as Cis-1,2 Dichloroethene (Cis-1,2 DCE) and Vinyl Chloride, in groundwater suggests that attenuation of the chlorinated solvents is occurring naturally (i.e. a gradual reduction in contaminant mass in groundwater at the site is occurring by natural processes). The groundwater parameters measured on-site showing low concentrations of dissolved oxygen and reducing conditions measured in groundwater further support this.

The natural breakdown of the identified BTEX compounds (by microbially mediated fermentation) may be assisting this process.

Significantly elevated concentrations of the breakdown products of PCE/TCE (Cis-1,2 DCE and Vinyl Chloride) detected in WS105, WS5 and BH3 are considered to be related to the source detected at or close to WS4, as these three locations are all down-gradient of WS4

with respect to groundwater flow (see Figure 5) suggesting a direct linkage between the impacts detected in these locations.

The elevated concentrations of PCE/TCE breakdown products Cis-1,2 DCE and Vinyl Chloride) in BH2 are considered to be representative of a separate secondary source of contamination. This is considered to be the case due to the presence of higher concentrations of Cis-1,2 DCE in BH2 than in the (approximately) hydraulically up-gradient WS5, and the presence of chlorinated alkanes at significantly elevated concentrations in this location.

An assessment of the BTEX and chlorinated solvent distributions in groundwater from the two groundwater monitoring exercises (August 2011 and June 2008) considered within this assessment reveals identifiable changes in the concentration and distribution of the key solvent contaminants detected on-site with time.

Volatile Organic Compounds were typically detected at significantly reduced concentrations in August 2011 when compared to groundwater analytical data from June 2008, with the exception of chlorinated alkanes and isomers of benzene (see Table 3.2). The generally decreasing trend in distribution and concentration of chlorinated alkenes (PCE and TCE) and their break-down products (Cis-1,2 DCE and Vinyl chloride) can be interpreted as a result of a combination of groundwater transport and natural attenuation processes. PCE was not detected in any of the samples collected from the site, which may be indicative of a removal of the source of this contaminant. The detected presence of chlorinated alkenes and chlorinated alkanes at significantly elevated concentrations in BH2 (where no such elevated concentrations were previously detected) provides additional evidence of a secondary source in this area of the site.

The generally decreasing trend of concentrations of BTEX compounds (with the exception of BH2), further suggests a reducing source/input and attenuation of the contaminant by biologically mediated processes and groundwater transport and dispersion.

Table 3.2: Summary of Groundwater Analytical Results detected above MDL

Parameter	August 2011				June 2008		
	Concentration Range (mg/l)	Number of samples exceeding MDL	Location of Maximum Concentration		Concentration Range (mg/l)	Number of samples exceeding MDL	Location of Maximum Concentration
Inorganic Parameters							
Arsenic	0.0026 – 0.146	11/23	BH1		0.005 – 0.038	4/25	WS110
Boron	0.077 – 0.429	24/23	BH1		0.067 – 0.66	25/25	WS11
Cadmium	0.0007 – 0.0022	3/23	BH1		0.001	2/25	WS11 & WS102
Calcium	91.2 – 123.1	22/23	BH1		79.0 – 270.0	25/25	BH10
Total Chromium	0.0022 – 0.0262	18/23	WS11		0.005 – 0.072	5/25	WS11
Hexavalent Chromium	0.03 – 0.05	4/23	WS105		-	-	-
Copper	0.008 – 0.014	1/23	WS11		0.008	1/25	WS11
Iron	0.043 – 30.08	22/23	BH1		0.03 – 37.0	8/25	BH10
Lead	0.007 – 0.101	2/23	BH1		ND	ND	ND
Magnesium	3.8 – 41.8	22/23	BH1		2.5 – 72.0	25/25	BH1
Manganese	0.069 – 0.52	23/23	BH4		ND	ND	ND
Nickel	0.002 – 0.142	13/23	WS11		0.005 – 0.17	12/25	WS11
Potassium	5.8 – 13.3	22/23	BH1		5.9 – 27.0	25/25	BH7
Selenium	0.003	1/23	WS108		ND	ND	ND
Sodium	35.2 – 70.4	22/23	WS4		22.0 – 78.0	25/25	WS11

Table 3.2: Summary of Groundwater Analytical Results detected above MDL

Parameter	August 2011			June 2008		
	Concentration Range (mg/l)	**Number of samples exceeding MDL**	**Location of Maximum Concentration**	**Concentration Range (mg/l)**	**Number of samples exceeding MDL**	**Location of Maximum Concentration**
Vanadium	0.0018 – 0.0062	11/23	WS9	ND	ND	ND
Zinc	0.004 – 2.449	21/23	BH1	0.006 – 0.15	7/25	BH1
Ammoniacal Nitrogen as N	0.04 – 2.51	21/23	BH1	0.11 – 2.9	19/25	BH7
Cyanide	0.02	1/23	BH6	ND	ND	ND
Chloride	54 – 99.4	23/23	WS109	17 – 110.0	25/25	WS9
Nitrate as N	0.07 – 1.38	9/23	BH5	0.6 – 11.0	6/25	WS102
Total Hardness as $CaCO_3$	250 – 483	22/23	BH1	210 – 780.0	25/25	BH1
pH (units)	7.78 – 8.35	23/23	N/A	4.9 – 7.6	25/25	N/A
Sulphate	1.21 – 59.65	22/23	WS109	10 – 300.0	17/25	WS11
Organic Parameters						
Phenol	ND	ND	ND	0.001 – 0.5	12/25	BH1
PAHs						
Naphthalene	0.00002 – 0.199	23/23	BH1	0.0001 – 0.0039	11/25	WS5
Acenaphthylene	0.00002 – 0.0009	3/23	BH8	0.0003	1/25	BH1
Acenaphthene	0.00003 – 0.022	11/23	BH1	0.0001 – 0.0005	2/25	BH1
Fluorene	0.00003 – 0.015	5/23	BH1	0.0004 – 0.0009	2/25	BH1
Phenanthrene	0.00002 – 0.016	5/23	BH1	0.0001 – 0.0033	2/25	BH1

Table 3.2: Summary of Groundwater Analytical Results detected above MDL

Parameter	August 2011				June 2008		
	Concentration Range (mg/l)	**Number of samples exceeding MDL**	**Location of Maximum Concentration**		**Concentration Range (mg/l)**	**Number of samples exceeding MDL**	**Location of Maximum Concentration**
Anthracene	0.00003 – 0.0026	2/23	BH1		0.0013	1/25	BH1
Fluoranthene	0.00006 – 0.0022	2/23	BH1		0.0001 – 0.022	2/25	BH1
Pyrene	0.00002 – 0.0013	6/23	BH1		0.021	1/25	BH1
Benzo(a)anthracene	ND	ND	ND		0.0053	1/25	BH1
Chrysene	ND	ND	ND		0.0042	1/25	BH1
Benzo(b)fluoranthene	ND	ND	ND		0.0047	1/25	BH1
Benzo(k)fluoranthene	ND	ND	ND		0.0021	1/25	BH1
Benzo(a)pyrene	ND	ND	ND		0.0038	1/25	BH1
Indeno(1,2,3-cd)pyrene	ND	ND	ND		0.0016	1/25	BH1
Dibenzo(a,h)anthracene	ND	ND	ND		0.0005	1/25	BH1
Benzo(g,h,i)perylene	ND	ND	ND		0.002	1/25	BH1
Total Petroleum Hydrocarbons							
Aliphatics C_5-C_6	0.005 – 0.199	6/23	BH2		0.04 – 7.9	10/25	WS108
Aliphatics >C_6-C_8	0.029 – 4.183	11/23	WS4		0.01 – 45.0	18/25	WS108
Aliphatics >C_8-C_{10}	0.019 – 0.329	10/23	BH2		0.01 – 39.0	14/25	WS108
Aliphatics >C_{10}-C_{12}	0.189	1/23	BH2		0.02 – 1.8	13/25	WS108
Aliphatics >C_{12}-C_{16}	ND	ND	ND		0.01 – 0.25	14/25	WS5

Table 3.2: Summary of Groundwater Analytical Results detected above MDL

Parameter	August 2011			June 2008		
	Concentration Range (mg/l)	**Number of samples exceeding MDL**	**Location of Maximum Concentration**	**Concentration Range (mg/l)**	**Number of samples exceeding MDL**	**Location of Maximum Concentration**
Aliphatics >C_{16}-C_{21}	ND	ND	ND	0.01 – 0.1	4/25	BH1
Aliphatics >C_{21}-C_{35}	ND	ND	ND	0.08	1/25	BH1
Aromatics C_6-C_7	ND	ND	ND	ND	0/25	ND
Aromatics >C_7-C_8	0.009 – 2.607	5/23	WS4	0.012 – 7.6	7/25	WS4
Aromatics >C_8-C_{10}	0.007 – 5.122	10/23	WS4	0.02 – 70.0	15/25	WS108
Aromatics >C_{10}-C_{12}	0.101 – 2.425	4/23	BH2	0.01 – 2.7	14/25	WS108
Aromatics >C_{12}-C_{16}	0.12 – 1.07	3/23	BH2	0.01 – 0.32	14/25	BH10
Aromatics >C_{16}-C_{21}	0.08 – 0.52	2/23	BH7	0.02 – 0.11	5/25	BH1
Aromatics >C_{21}-C_{35}	7.88	1/243	BH7	0.02 – 0.2	2/25	BH1
Total Hydrocarbons C_5-C_{35}	0.121 – 12.2	13/23	WS4	0.02 – 170.27	24/25	WS108
BTEX Suite						
Benzene	0.002 – 0.004	2/23	BH1	0.009	1/25	BH1
Toluene	0.002 – 2.216	6/23	WS4	0.008- 7.6	9/25	WS4
Ethylbenzene	0.005 – 0.842	8/23	WS4	0.005 – 2.7	11/25	WS4
Combined Xylenes	0.003 – 3.779	11/23	WS4	0.014 – 9.5	13/25	WS108
VOC Suite						
1,3,5-Trimethylbenzene	0.018 – 0.081	5/23	BH2	0.01 – 0.5	6/25	WS108

Table 3.2: Summary of Groundwater Analytical Results detected above MDL

Parameter	August 2011				June 2008		
	Concentration Range (mg/l)	Number of samples exceeding MDL	Location of Maximum Concentration		Concentration Range (mg/l)	Number of samples exceeding MDL	Location of Maximum Concentration
1,2,4-Trimethylbenzene	0.005 – 0.327	7/23	BH2		0.005 – 0.36	6/25	WS4
Vinyl Chloride	0.005 – 0.45	9/23	WS5		0.01 – 3.9	14/25	WS5
Chloroethane	0.011 – 0.781	5/23	BH6		0.006 – 1.3	5/25	WS105
1,1-Dichloroethene	0.007 – 0.017	2/23	BH2		0.004 – 0.02	6/25	BH8
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ND		0.025 – 0.55	2/25	BH8
Dichloromethane	ND	ND	ND		ND	0/25	ND
Tert-Butylbenzene	0.004	1/23	WS105		ND	ND	ND
Trans-1,2 Dichloroethene	0.004 – 0.023	3/23	WS4		0.001 – 0.03	9/25	WS4
1,1-Dichloroethane	0.004 – 2.716	9/23	BH2		0.009 – 1.8	9/25	BH8
Cis-1,2 Dichloroethene	0.01 – 11.774	8/23	WS4		0.002 – 19	20/25	WS5
Chloroform	ND	ND	ND		0.003	1/25	WS4
1,1,1-Trichloroethane	0.014 – 0.101	4/23	BH3		0.003 – 0.16	7/25	BH8
Isopropylbenzene	0.005 – 0.02	5/23	BH2		ND	ND	ND
1,2-Dichloroethane	0.008	1/23	BH2		0.001	1/25	WS12
Propylbenzene	0.003 – 0.036	7/23	BH2		ND	ND	ND
Trichloroethene	0.003 – 1.0	3/23	WS4		0.001 – 32	16/25	WS4
Bromodichloromethane	ND	ND	ND		0.002	1/25	WS4

Table 3.2: Summary of Groundwater Analytical Results detected above MDL

Parameter	August 2011				June 2008		
	Concentration Range (mg/l)	**Number of samples exceeding MDL**	**Location of Maximum Concentration**		**Concentration Range (mg/l)**	**Number of samples exceeding MDL**	**Location of Maximum Concentration**
Tetrachloroethene	ND	ND	ND		0.005 – 0.052	8/25	WS105
Chlorobenzene	0.034	1/23	BH6		0.002 – 0.053	7/25	BH7
1,3 Dichlorobenzene	0.004 – 0.04	5/23	BH2		0.003 – 0.023	5/25	BH9
1,4 Dichlorobenzene	0.006 – 0.415	8/23	BH2		0.003 – 0.54	10/25	BH3
1,2 Dichlorobenzene	0.006 – 1.887	10/23	BH2		0.002 – 0.62	11/25	BH6
4-Isopropyltoluene	0.016 – 0.081	3/23	BH2		ND	ND	ND
n-Butylbenzene	0.011 – 0.022	3/23	BH2		ND	ND	ND
SVOC Suite							
2-Methylphenol	ND	ND	ND		ND	0/25	ND
4-Methylphenol	ND	ND	ND		0.058	1/25	BH10
2,4-Dimethylphenol	ND	ND	ND		ND	0/25	ND
2-Methylnaphthalene	0.02 – 0.216	4/23	BH2		ND	0/25	ND
Carbazole	ND	ND	ND		ND	0/25	ND
Dibenzofuran	0.012	1/23	BH1		ND	ND	ND

Notes:
ND – Not Detected above Analytical Method Detection Limit (MDL)

APPENDIX B- 1 – Envirocheck Report

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
52612649_1_1

Customer Reference:
13/2582

National Grid Reference:
504810, 183140

Slice:
A

Site Area (Ha):
2.92

Search Buffer (m):
1000

Site Details:

Trimite Ltd
Arundel Road
UXBRIDGE
Middlesex
UB8 2SD

Client Details:

MR J Roberts
Concept Site Investigations
Unit 8
Warple Mews
Warple Way
London
W3 0RF

Prepared For:

Mentmore LLP

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Introduction

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

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

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Report Version v47.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
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Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 14		2		
Integrated Pollution Prevention And Control	pg 15		6		
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 16	1	4	2	6
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 17		Yes		
Pollution Incidents to Controlled Waters	pg 18		7	33	43
Prosecutions Relating to Authorised Processes	pg 31				1
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality	pg 32		2	3	
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River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 33			2	1 (*25)
Water Industry Act Referrals	pg 40	1	3		2
Groundwater Vulnerability	pg 41	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 41	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 41	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 41	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 41		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Detailed River Network Lines	pg 42		Yes	Yes	n/a
Detailed River Network Offline Drainage					n/a

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
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Historical Landfill Sites	pg 47		4	2	3
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 49			1	
Licensed Waste Management Facilities (Locations)	pg 49			2	1
Local Authority Recorded Landfill Sites	pg 50		3	1	1
Registered Landfill Sites	pg 51		1	1	4
Registered Waste Transfer Sites	pg 54			1	
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 55				2
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 55		1		1
Planning Hazardous Substance Consents	pg 55		1	2	1
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 56	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 56	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 63		1	1	6
BGS Urban Soil Chemistry	pg 65		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 67	Yes			
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 67		Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 67		Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 67	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 68	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 68	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 68	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 69	3	151	35	107
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Sensitive Land Use					
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Areas of Unadopted Green Belt					
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National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 96	1			1
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Ab Crabtree & Mjb Taylor Property Type: Undefined Or Other Location: Cowley Mill Phase Ii, Cowley Mill Road, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Cntw.0169 Permit Version: 1 Effective Date: 21st November 1989 Issued Date: 21st November 1989 Revocation Date: 8th October 1996 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A13NW (N)	229	1	504780 183460
2	**Discharge Consents** Operator: Allan H.Webb & Co. Ltd. Property Type: Domestic Property (Single) Location: Site Adj. To The Bungalow, Longbridge, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.0625 Permit Version: 1 Effective Date: 29th January 1986 Issued Date: 29th January 1986 Revocation Date: 22nd May 1996 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	267	1	504480 183310
2	**Discharge Consents** Operator: Allan H.Webb & Co. Ltd. Property Type: Undefined Or Other Location: Office Development Adj. To The Bungalow, Longbridge, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.0624 Permit Version: 1 Effective Date: 29th January 1986 Issued Date: 29th January 1986 Revocation Date: 16th September 1986 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Transferred from COPA 1974** Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	267	1	504480 183310
2	**Discharge Consents** Operator: Allan H.Webb & Co. Ltd. Property Type: Undefined Or Other Location: Office Development Adj. To The Bungalow, Longbridge, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.0624 Permit Version: 2 Effective Date: 17th September 1986 Issued Date: 29th January 1986 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	267	1	504480 183310

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Kyle Stewart Properties Ltd. Property Type: General Construction Work Location: Phase Three, Cowley Business Park, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.2650 Permit Version: 1 Effective Date: 19th February 1997 Issued Date: 19th February 1997 Revocation Date: 20th October 1998 Discharge Type: Miscellaneous Discharges - Mine / Groundwater As Raised Discharge Environment: Freshwater Stream/River Receiving Water: River Frays **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	284	1	505100 182900
4	**Discharge Consents** Operator: Hale Hamilton (Valves) Ltd. Property Type: Undefined Or Other Location: Frays Mills Works, Cowley Road,Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.0714 Permit Version: 1 Effective Date: 5th March 1986 Issued Date: 5th March 1986 Revocation Date: 1st February 1991 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: Frays River **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 10m	A14SW (E)	331	1	505250 183100
4	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Frayslea, Cowley Road, Uxbridge, Frayslea, Cowley Road, Uxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0997 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Fray'S River **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A14SW (E)	380	1	505300 183100
4	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Frayslea, Cowley Road, Uxbridge, Frayslea, Cowley Road, Uxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0997 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Fray'S River **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A14SW (E)	380	1	505300 183100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Fisons Plc Property Type: Measurement Check & Precision Instruments Location: Scientific Equipment Division, Riverside Way, Uxbridge, Ub8 2yf Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.0541 Permit Version: 1 Effective Date: 13th January 1986 Issued Date: 13th January 1986 Revocation Date: 30th April 1992 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	364	1	504800 183600
5	**Discharge Consents** Operator: Sanyo Gallenkamp Plc. Property Type: Industrial Parks & Estates Location: Sanyo Gallenkamp, Riverside Way, Uxbridge, Middlesex Ub8 2yf Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Cntm.0839 Permit Version: 1 Effective Date: 30th April 1993 Issued Date: 30th April 1993 Revocation Date: 16th January 1998 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SE (N)	392	1	504830 183630
6	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Hale Hamilton, Uxbridgehale Hamiltonuxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1078 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Fray'S River **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A14NW (E)	375	1	505300 183200
6	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Hale Hamilton, Uxbridgehale Hamiltonuxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1078 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Fray'S River **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A14NW (E)	375	1	505300 183200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Discharge Consents** Operator: Hale Hamilton (Valves) Ltd Property Type: Undefined Or Other Location: Frays Mills Works, Cowley Road,Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.1529 Permit Version: 1 Effective Date: 23rd March 1987 Issued Date: 23rd March 1987 Revocation Date: 15th February 1991 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: Frays River **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A14NW (E)	375	1	505300 183200
7	**Discharge Consents** Operator: Sanyo Gallenkamp Plc. Property Type: Measurement Check & Precision Instruments Location: Scientific Equipment Division, Riverside Way, Uxbridge, Ub8 2yf Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.0540 Permit Version: 1 Effective Date: 13th January 1986 Issued Date: 13th January 1986 Revocation Date: 7th October 1998 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	386	1	504700 183600
7	**Discharge Consents** Operator: Fisons Ltd, Fisons House, 9 Grosvenor Street, Lond Property Type: Industrial Parks & Estates Location: Sanyo Gallenkamp, Riverside Way, Uxbridge, Middlesex Ub8 2yf Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcr.1658 Permit Version: 1 Effective Date: 14th April 1980 Issued Date: 14th April 1980 Revocation Date: 29th April 1993 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Freshwater Stream/River Receiving Water: Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	386	1	504700 183600
8	**Discharge Consents** Operator: Dr N Visani Property Type: Domestic Property (Single) Location: Suffolk House Slough Road Iver Bucks Sl0 0eb Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Canm.0562 Permit Version: 1 Effective Date: 6th June 2003 Issued Date: 6th June 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: To River Colne **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	398	1	504560 183530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**Discharge Consents** Operator: Mr. B.S. Kooner Property Type: Domestic Property (Single) Location: Suffolk House, Longbridge, Sloug H Road, Iver, Bucks, Sl0 0eb Sl0 0eb Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0907 Permit Version: 2 Effective Date: 26th October 2006 Issued Date: 26th October 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Into Land Receiving Water: Gravel Strata **Status: Transferred from Water Resources Act 1963** Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	401	1	504500 183500
9	**Discharge Consents** Operator: Ab Crabtree & Mjb Taylor Property Type: Undefined Or Other Location: Bourne House, Willow Centre, Cowley Mill Road, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.3026 Permit Version: 1 Effective Date: 9th January 1989 Issued Date: 9th January 1989 Revocation Date: 8th October 1996 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Tributary Ofthe River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	401	1	504500 183500
9	**Discharge Consents** Operator: Mr. B.S. Kooner Property Type: Domestic Property (Single) Location: Suffolk House, Longbridge, Sloug H Road, Iver, Bucks, Sl0 0eb Sl0 0eb Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCU.0907 Permit Version: 1 Effective Date: 7th November 1979 Issued Date: 7th November 1979 Revocation Date: 6th December 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Into Land Receiving Water: Gravel Strata **Status: Transferred from Water Resources Act 1963** Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	401	1	504500 183500
10	**Discharge Consents** Operator: Cape Boards Limited Property Type: Manufacture Of Other Building Materials Location: Cowley Bridge Works, Iver Lane,Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctcu.0157 Permit Version: 1 Effective Date: 15th February 1966 Issued Date: 15th February 1966 Revocation Date: 12th August 1996 Discharge Type: Trade Effluent Discharge Environment: Land/Soakaway Receiving Water: Not Supplied **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A8NW (S)	432	1	504800 182600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	**Discharge Consents** Operator: Cape Board Ltd Property Type: Pulp, Paper & Board Location: Uxbridge Works, Iver Lane, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cntw.0037 Permit Version: 1 Effective Date: 19th September 1989 Issued Date: 19th September 1989 Revocation Date: 10th May 1993 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 10m	A8NE (S)	473	1	504810 182560
11	**Discharge Consents** Operator: Erostin Plc Property Type: Undefined Or Other Location: 71-73 Cowley Road, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.3594 Permit Version: 1 Effective Date: 28th July 1989 Issued Date: 28th July 1989 Revocation Date: 8th November 1990 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: River Frays **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	471	1	505300 183500
12	**Discharge Consents** Operator: Uxbridge Business Park Management Ltd. Property Type: Industrial Parks & Estates Location: Uxbridge Business Park, High Street, Cowley, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTW.0409 Permit Version: 1 Effective Date: 9th April 1990 Issued Date: 9th April 1990 Revocation Date: 9th June 2005 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Frays **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	490	1	505200 182700
13	**Discharge Consents** Operator: Valiant Direct Coaches Ltd, 91 Cowley Rd, Uxbridge Property Type: Extraction Of Other Minerals Location: 91 Cowley Road, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcr.0213 Permit Version: 1 Effective Date: 19th December 1955 Issued Date: 19th December 1955 Revocation Date: 6th December 1991 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: Frays **Status: Authorisation revokedRevoked** Positional Accuracy: Manually corrected supplier location	A14SW (SE)	507	1	505300 182800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	**Discharge Consents** Operator: Mr And Mrs D Wiggins, Property Type: Domestic Property (Single) Location: 'Longbridge' Cherry Tree Lane Iver Heath Buckinghamshire Sl0 0ee Sl0 0ee Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Canm.1009 Permit Version: 1 Effective Date: 21st March 2006 Issued Date: 3rd April 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Into Land Receiving Water: To Groundwater Via Soakaway **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	528	1	504559 183688
15	**Discharge Consents** Operator: Cape Building Products Ltd Property Type: Manufacture Of Other Building Materials Location: Cowley Bridge Works, Iver Lane,Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcr.0872 Permit Version: 1 Effective Date: 14th November 1966 Issued Date: 14th November 1966 Revocation Date: 14th April 1989 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A8NW (S)	532	1	504800 182500
16	**Discharge Consents** Operator: Bell Punch Co Ltd Property Type: Other Mach & Mech Equipment Location: Factory Premises, The Island, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0172 Permit Version: 1 Effective Date: 15th March 1966 Issued Date: 15th March 1966 Revocation Date: 3rd June 1992 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Land/Soakaway Receiving Water: Not Supplied **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	563	1	504800 183800
16	**Discharge Consents** Operator: Bell Punch Co Ltd Property Type: Other Mach & Mech Equipment Location: Factory Premises, The Island, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0173 Permit Version: 1 Effective Date: 15th March 1966 Issued Date: 15th March 1966 Revocation Date: 3rd June 1992 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Land/Soakaway Receiving Water: Not Supplied **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	563	1	504800 183800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	**Discharge Consents** Operator: Bell Punch Co Ltd Property Type: Recreational & Cultural Location: Sports Pavilion, The Island, Stjohns Road, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0170 Permit Version: 1 Effective Date: 15th March 1966 Issued Date: 15th March 1966 Revocation Date: 8th April 1991 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Land/Soakaway Receiving Water: Not Supplied **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	563	1	504800 183800
16	**Discharge Consents** Operator: Bell Punch Co Ltd Property Type: Other Mach & Mech Equipment Location: The Island, St Johns Road, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0171 Permit Version: 1 Effective Date: 13th May 1968 Issued Date: 15th March 1966 Revocation Date: 3rd June 1992 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Land/Soakaway Receiving Water: Not Supplied **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	563	1	504800 183800
16	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Riverside Way (No. 1) Uxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1806 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Colne **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 10m	A18SW (N)	566	1	504800 183803
16	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Riverside Way (No. 1) Uxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1806 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Colne **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 10m	A18SW (N)	566	1	504800 183803

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Ferndale Crescent, Uxbridgeferndale Crescentuxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0960 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Fray'S River **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	566	1	505200 182600
17	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Ferndale Crescent, Uxbridgeferndale Crescentuxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0960 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Fray'S River **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	566	1	505200 182600
18	**Discharge Consents** Operator: Mr Jones Property Type: Domestic Property (Single) Location: Farm Cottage, Mansfield Farm, Slough Road, Iver Heath, Slough, Berks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.2707 Permit Version: 1 Effective Date: 12th August 1988 Issued Date: 12th August 1988 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Trib Of Alder Bourne **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	576	1	504200 183450
19	**Discharge Consents** Operator: Cape Boards Ltd. Property Type: Unspecified Tip Location: Woodlands Park Landfill Site, Iver Heath, Buckinghamshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Cntw.0331 Permit Version: 1 Effective Date: 31st January 1990 Issued Date: 31st January 1990 Revocation Date: 12th August 1996 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A8SW (S)	631	1	504800 182400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	**Discharge Consents** Operator: Segro Plc Property Type: Industrial Parks & Estates Location: Phase 300 Riverside Way Uxbridge Middlesex Ub8 2yf Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Canm.0981 Permit Version: 1 Effective Date: 10th September 2005 Issued Date: 9th September 2005 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage (Contam Surface Water, Not Tips) Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18NE (N)	658	1	504878 183894
21	**Discharge Consents** Operator: Meadows International Limited Property Type: Domestic Property (Multiple) Location: Elk Meadow Chandlers Hill, Slough Road Iver Heath, Uxbridge Middlesex Sl0 0ea Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Canm.1107 Permit Version: 1 Effective Date: 19th January 2007 Issued Date: 23rd January 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: To Alder Bourne **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A12SW (W)	676	1	504029 182985
22	**Discharge Consents** Operator: The Occupier Property Type: Recreational & Cultural Location: Clubhouse At Woodlands Lake, Iver Heath, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctcu.1618 Permit Version: 1 Effective Date: 16th January 1984 Issued Date: 16th January 1984 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Into Land Receiving Water: Gravel Strata **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A12SW (SW)	677	1	504100 182800
23	**Discharge Consents** Operator: The National Grid Company Plc. Property Type: Recreational & Cultural Location: Clubhouse At Woodlands Lake, Iver Heath, Bucks Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Canm.0232 Permit Version: 1 Effective Date: 6th December 2000 Issued Date: 13th March 2001 Revocation Date: 10th December 2008 Discharge Type: Trade Effluent Discharge-Site Drainage Discharge Environment: Freshwater Stream/River Receiving Water: Alder Bourne **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	704	1	504170 183620

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	**Discharge Consents** Operator: The National Grid Group Plc. Property Type: Production & Distribution Of Electricity Location: Iver Sub-Station, Chandlers Hill, Iver Heath, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.0778 Permit Version: 1 Effective Date: 31st March 1993 Issued Date: 31st March 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Alderbourne **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	719	1	504150 183620
23	**Discharge Consents** Operator: The National Grid Company Plc. Property Type: Production & Distribution Of Electricity Location: Iver Electricity Substation Slough Road, Uxbridge, Middlesex, Sl0 0ed Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Canm.0174 Permit Version: 1 Effective Date: 6th December 2000 Issued Date: 31st January 2001 Revocation Date: 10th December 2008 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Freshwater Stream/River Receiving Water: Alder/ Bourne **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	725	1	504150 183630
24	**Discharge Consents** Operator: Percy Bilton Plc Property Type: Undefined Or Other Location: Weir House, Riverside Way, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cntw.0789 Permit Version: 1 Effective Date: 30th October 1990 Issued Date: 30th October 1990 Revocation Date: 11th December 1992 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: River Colne **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 10m	A18NE (N)	734	1	504890 183970
24	**Discharge Consents** Operator: B T R Reinforced Plastics Ltd Property Type: Processing Of Plastics Location: Rockingham Road, Uxbridge, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcr.1216 Permit Version: 1 Effective Date: 8th February 1971 Issued Date: 8th February 1971 Revocation Date: 29th March 1990 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Freshwater Stream/River Receiving Water: Grand Unioncanal **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	765	1	504900 184000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Riverside Way (No. 2) Uxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1807 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Colne Brook **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 10m	A18NE (N)	766	1	504900 184001
24	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Riverside Way (No. 2) Uxbridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1807 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Colne Brook **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 10m	A18NE (N)	766	1	504900 184001
25	**Discharge Consents** Operator: Cegb, Lombard Street, Portsmouth, Hants Property Type: Sewage Disposal Works - Other Location: Stw, Uxbridge Transmission District Offices / Buildings, Iver, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcr.0911 Permit Version: 1 Effective Date: 14th March 1967 Issued Date: 14th March 1967 Revocation Date: 30th March 1993 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Alder Bourne, Trib Of Colne Bk **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	740	1	504200 183700
26	**Discharge Consents** Operator: National Grid Company Plc Property Type: Production & Distribution Of Electricity Location: Iver Sub-Station, Chandlers Hill, Iver Heath, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCR.1538 Permit Version: 1 Effective Date: 21st September 1977 Issued Date: 21st September 1977 Revocation Date: 10th December 2008 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: Alder Bourne **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	810	1	504100 183700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	**Discharge Consents** Operator: National Grid Company Plc Property Type: Production & Distribution Of Electricity Location: Iver Sub-Station, Chandlers Hill, Iver Heath, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCR.1537 Permit Version: 1 Effective Date: 21st September 1977 Issued Date: 21st September 1977 Revocation Date: 10th December 2008 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Freshwater Stream/River Receiving Water: Alder Bourne **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	810	1	504100 183700
27	**Discharge Consents** Operator: Mr. A. Kelvey Property Type: Domestic Property (Multiple) Location: 1 & 2 The Cottages Palmers Moor Lane Iver Buckinghamshire Sl0 9lg Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.3389 Permit Version: 1 Effective Date: 16th June 1989 Issued Date: 16th June 1989 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Irrigation Area Receiving Water: Alluvium **Status: Transferred from COPA 1974** Positional Accuracy: Located by supplier to within 10m	A7SE (S)	816	1	504460 182270
28	**Discharge Consents** Operator: Imperial Inns And Taverns Ltd Property Type: Public Houses & Bars Location: The Shovel Public House, Iver Lane, Cowley Lock, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.0450 Permit Version: 1 Effective Date: 21st October 1985 Issued Date: 21st October 1985 Revocation Date: 18th October 1995 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Frays **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	826	1	505200 182300
29	**Discharge Consents** Operator: Jones Esq Property Type: Domestic Property (Single) Location: Mansfield Farm House, Slough Road, Iver Heath, Buckinghamshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Cntm.0531 Permit Version: 1 Effective Date: 2nd October 1992 Issued Date: 2nd October 1992 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Irrigation Area Receiving Water: Glacial Gravels **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	852	1	504010 183660

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Iver Lane, Iveriver Laneiver Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1224 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Colne **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A3NW (S)	931	1	504800 182100
30	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Iver Lane, Iveriver Laneiver Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.1224 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Colne **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A3NW (S)	931	1	504800 182100
31	**Discharge Consents** Operator: R. Alder Property Type: Domestic Property (Single) Location: Manor Farm, Cowley, Uxbridge, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.0265 Permit Version: 1 Effective Date: 5th August 1985 Issued Date: 5th August 1985 Revocation Date: 12th November 1990 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: River Pinn **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A3NE (S)	982	1	505100 182100
32	**Integrated Pollution Controls** Name: Bodycote Metallurgical Coatings (Uxbridge) Ltd Location: Unit 5 Chartridge Development, 549 Eskdale Road, UXBRIDGE, Middlesex, UB8 2RT Authority: Environment Agency, Thames Region Permit Reference: AN9450 Dated: 10th March 1995 Process Type: IPC new application Description: 4.5 A (H) Inorganic Chemical processes within the Chemical Industry **Status: Authorisation superseded by a substantial or non substantial variationSuperseded** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	70	1	504631 183094
32	**Integrated Pollution Controls** Name: Bodycote Metallurgical Coatings (Uxbridge) Ltd Location: Unit 5, Chartridge Development, Eskdale Road, UXBRIDGE, Middlesex, UB8 2RT Authority: Environment Agency, Thames Region Permit Reference: BC9216 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 4.5 A (H) Inorganic Chemical processes within the Chemical Industry **Status: Revoked - Now IPPC** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	72	1	504631 183089

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	**Integrated Pollution Prevention And Control** Name: West Middlesex Surface Treatments Ltd Location: West Middlesex Surface Treatments Ltd, Unit 5, Chartridge Development,Eskdale Road,, UXBRIDGE, Middlesex, UB8 2RT Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: DP3433LC Original Permit Ref: Dp3433lc Effective Date: 10th April 2006 **Status:** **Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 100m Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13SW (W)	7	1	504700 183100
34	**Integrated Pollution Prevention And Control** Name: West Middlesex Surface Treatments Ltd Location: Unit 5, Chartridge Development, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Authority: Environment Agency, Thames Region Permit Reference: Dp3433lc Original Permit Ref: Dp3433lc Effective Date: 10th April 2006 **Status:** **Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Manually positioned to the address or location Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13SW (W)	70	1	504636 183085
35	**Integrated Pollution Prevention And Control** Name: Bodycote Metallurgical Coatings (Uxbridge) Ltd Location: Eskdale Road Surface Treatment Plant, Unit 5, Chartridge Development, Eskdale Road, UXBRIDGE, Middlesex, UB8 2RT Authority: Environment Agency, Thames Region Permit Reference: Bq1131iy Original Permit Ref: Bq1131iy Effective Date: Not Supplied **Status:** **Valid** Application Type: Application App. Sub Type: New Positional Accuracy: Manually positioned to the road within the address or location Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13NW (W)	116	1	504595 183212
36	**Integrated Pollution Prevention And Control** Name: United Anodisers Limited Location: Lht Anodisers Ltd, Lht Anodisers Limited,44, Wallingford Road,,, Uxbridge, Middlesex, UB8 2SR Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: QP3734NF Original Permit Ref: Qp3734nf Effective Date: 15th June 2013 **Status:** **Effective** Application Type: Transfer App. Sub Type: Whole without Fit and Proper Person Positional Accuracy: Automatically positioned to the address Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13SE (S)	230	1	504913 182829
36	**Integrated Pollution Prevention And Control** Name: Lht Anodisers Ltd Location: Lht Anodisers Ltd, Lht Anodisers Limited,44, Wallingford Road,,, Uxbridge, Middlesex, UB8 2SR Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: AP3233BR Original Permit Ref: Ap3233br Effective Date: 7th April 2005 **Status:** **Superseded By Variation** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13SE (S)	230	1	504913 182829

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	**Integrated Pollution Prevention And Control** Name: Lht Anodisers Ltd Location: Lht Anodisers Ltd, 44, Wallingford Road, Uxbridge, Middlesex, UB8 2SR Authority: Environment Agency, Thames Region Permit Reference: Ap3233br Original Permit Ref: Ap3233br Effective Date: 7th April 2005 **Status: Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13SE (S)	230	1	504913 182829
37	**Local Authority Pollution Prevention and Controls** Name: Trimite Ltd Location: Arundel Road, UXBRIDGE, Middlesex, UB8 2SD Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B3/10 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/44 Manufacture of coating materials **Status: Authorised** Positional Accuracy: Automatically positioned to the address	A13SW (W)	0	2	504728 183116
38	**Local Authority Pollution Prevention and Controls** Name: Apw Electronics Ltd Location: Uxbridge Site, Ashley Road, LONDON, Middlesex, UB8 2SQ Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/16/B/P1 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/31 Powder coating processes (including sheradizing) **Status: Authorised** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (NW)	6	2	504746 183185
39	**Local Authority Pollution Prevention and Controls** Name: Nirmal Coachworks Location: Wallingford Road, UXBRIDGE, Middlesex, UB8 2RW Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/06 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status: Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	88	2	504939 183013
40	**Local Authority Pollution Prevention and Controls** Name: Impact Bodyshop Ltd Location: Eskdale Road, Uxbridge, Ub8 2sl Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B3/031 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A13NW (W)	141	2	504549 183162
41	**Local Authority Pollution Prevention and Controls** Name: Dbs Coachworks Ltd Location: Wallingford Road, UXBRIDGE, Middlesex, UB8 2RW Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/24 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status: Authorised** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	145	2	504944 182934
42	**Local Authority Pollution Prevention and Controls** Name: Shell Uxbridge Location: St Johns Road, Uxbridge, Ub8 2ux Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/SS/1/047/01/2000 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A13NW (N)	256	2	504712 183463

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	**Local Authority Pollution Prevention and Controls** Name: H & S Enamelling Ltd Location: 7 Cowley Mill Trading Estate, Longbridge Way, Cowley Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: NOT GIVEN Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic **Status:** **Authorised** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	269	2	504557 183381
44	**Local Authority Pollution Prevention and Controls** Name: Sanyo Gallenkamp Plc Location: Riverside Way, Cowley, UXBRIDGE, Middlesex, UB8 2YF Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/05 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic **Status:** **Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the road within the address or location	A18NW (N)	629	2	504788 183865
44	**Local Authority Pollution Prevention and Controls** Name: K & J Autos Location: Unit D2, Riverside Way, UXBRIDGE, Middlesex, UB8 Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/03 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status:** **Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the road within the address or location	A18NW (N)	629	2	504788 183865
45	**Local Authority Pollution Prevention and Controls** Name: Autodex Ltd Location: Bridge Works, Iver Lane, Cowley, ICKENHAM, Middlesex, UB8 2JF Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B3/030 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status:** **Authorised** Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	695	2	505176 182433
46	**Local Authority Pollution Prevention and Controls** Name: Cape Boards Location: Iver Lane, UXBRIDGE, Middlesex, UB8 2JQ Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/04 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic **Status:** **Authorised** Positional Accuracy: Automatically positioned to the address	A8SE (S)	794	2	504980 182268
46	**Local Authority Pollution Prevention and Controls** Name: Cape Boards Ltd Location: Iver Lane, UXBRIDGE, Middlesex, UB8 2JQ Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B2/13 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/7 Exfloliation of vermiculite and expansion of perlite **Status:** **Authorised** Positional Accuracy: Automatically positioned to the address	A8SE (S)	794	2	504985 182268
47	**Local Authority Pollution Prevention and Controls** Name: Brompton Dry Cleaners Location: 47 Windsor Street, Uxbridge, Ub8 1ab Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPC/DC/035 Dated: 25th October 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A19NW (NE)	991	2	505467 184048
	Nearest Surface Water Feature	A13NE (E)	43	-	504972 183148

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 7th March 1995 Incident Reference: N1950107 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	42	1	504950 183250
49	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Riverside Way, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Not Supplied Incident Date: 30th April 1996 Incident Reference: NI196022 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	142	1	504700 182900
50	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 7th February 1990 Incident Reference: N1900057 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	144	1	504600 183000
51	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Yes Incident Date: 6th September 1991 Incident Reference: N1910490 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	178	1	504600 183300
52	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Wallingford Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Other Note: Confirmed incident Incident Date: 31st March 1999 Incident Reference: THNE1999042383 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A13SE (S)	206	1	504900 182850
52	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 19th November 1998 Incident Reference: THNE1998041147 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (S)	256	1	504900 182800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Longbridge Way, COWLEY Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Not Supplied Incident Date: 14th August 1996 Incident Reference: N1960436 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	242	1	504500 183295
53	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd November 1989 Incident Reference: N1890602 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	245	1	504500 183300
54	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 16th January 1996 Incident Reference: N1960019 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	288	1	504705 183495
54	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd October 1992 Incident Reference: N1920521 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	290	1	504700 183495
54	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 19th September 1998 Incident Reference: THNE1998040629 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	292	1	504705 183500
54	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Uxbridge Trading Estate Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 12th May 1989 Incident Reference: N1890270 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	294	1	504700 183500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Slough Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 3rd February 1996 Incident Reference: N1960090 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	320	1	504650 183500
55	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 25th February 1995 Incident Reference: N1950266 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (NE)	291	1	505001 183501
56	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: IVER Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd December 1994 Incident Reference: N1940420 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	328	1	504805 182705
56	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 12th January 1994 Incident Reference: N1940013 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	333	1	504805 182700
56	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: IVER Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 25th October 1993 Incident Reference: N1930336 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	338	1	504805 182695
56	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Eskdale Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 12th March 1989 Incident Reference: N1890140 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	338	1	504800 182695

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 27th September 1994 Incident Reference: N1940324 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	335	1	504700 182700
58	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: St Johns Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 19th April 1997 Incident Reference: THN11997032040 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	348	1	504600 183495
58	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 5th July 1990 Incident Reference: N1900362 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	352	1	504600 183500
59	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 19th September 1994 Incident Reference: N1940319 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	373	1	505200 182900
60	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd June 1990 Incident Reference: N1900342 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	394	1	504505 183495
60	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: St Johns Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 10th May 1997 Incident Reference: THN11997032162 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	398	1	504505 183500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 3rd October 1994 Incident Reference: N1940333 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	420	1	505200 182805
61	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ferndale Crescent, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 5th January 1990 Incident Reference: N1900004 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	423	1	505200 182800
61	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 15th April 1993 Incident Reference: N1930146 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	425	1	505205 182805
61	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ferndale Crescent, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 6th February 1990 Incident Reference: N1900052 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	426	1	505200 182795
61	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 30th July 1992 Incident Reference: N1920437 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	427	1	505205 182800
61	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ferndale Crescent, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 26th March 1992 Incident Reference: N1920172 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	430	1	505205 182795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Slough Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 8th March 1997 Incident Reference: THN11997031140 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	431	1	504600 183600
63	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Iver Lane, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 25th January 1997 Incident Reference: THN11997030953 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	434	1	504700 182600
64	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 13th May 1992 Incident Reference: N1920275 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SE (SW)	453	1	504300 182900
65	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Rear Of Ferndale Crescent Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 6th March 1989 Incident Reference: N1890117 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	458	1	505300 182900
65	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Behind Ferndale Crescent Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 9th March 1989 Incident Reference: N1890131 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	461	1	505300 182895
65	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 9th October 1990 Incident Reference: N1900565 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	465	1	505305 182895

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 19th September 1997 Incident Reference: THN11997029636 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	462	1	504900 183695
66	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 16th September 1989 Incident Reference: N1890486 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	467	1	504900 183700
67	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Road, COWLEY Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Urban Runoff Note: Confirmed As A Pollution Incident Incident Date: 30th March 1992 Incident Reference: N1920183 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	475	1	505400 183200
68	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ferndale Crescent, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 26th January 1994 Incident Reference: N1940033 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	493	1	505200 182695
69	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ferndale Crescent, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 24th May 1990 Incident Reference: N1900265 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	507	1	505300 182800
70	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ferndale Crescent Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 17th May 1989 Incident Reference: N1890266 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	512	1	505100 182600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
71	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Rockingham Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 5th July 1997 Incident Reference: THN11997032626 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	519	1	504920 183750
72	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Fassnidge Park, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Other Note: Not Supplied Incident Date: 4th November 1996 Incident Reference: N1960571 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	552	1	505400 183495
72	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Road, COWLEY Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 6th February 1990 Incident Reference: N1900055 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	554	1	505400 183500
73	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: WEST DRAYTON Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 21st September 1990 Incident Reference: N1900536 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	566	1	505200 182600
74	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: IVER Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 28th August 1996 Incident Reference: N1960460 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	570	1	504500 183700
75	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: COWLEY Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st February 1995 Incident Reference: N1950047 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	602	1	505100 182500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cobben Close, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 29th June 1992 Incident Reference: N1920382 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	607	1	505300 183695
76	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st April 1995 Incident Reference: N1920188 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	611	1	505305 183695
76	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 12th March 1990 Incident Reference: N1900101 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	611	1	505300 183700
77	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd November 1994 Incident Reference: N1940381 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NW (N)	613	1	504800 183850
78	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 3rd November 1998 Incident Reference: THNE1998041006 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	638	1	505200 183795
78	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Wellington Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: General Note: Confirmed incident Incident Date: 8th June 1999 Incident Reference: THNE1999043345 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	640	1	505205 183795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
78	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Yes Incident Date: 26th July 1991 Incident Reference: N1910410 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	643	1	505200 183800
79	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: IVER Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 12th November 1998 Incident Reference: THNE1998041081 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	649	1	504600 182400
80	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Rear Of Ferndale Crescent Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 15th February 1989 Incident Reference: N1890079 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	649	1	505200 182500
81	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Wellington Road Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 22nd September 1989 Incident Reference: N1890501 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	688	1	505300 183795
81	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 17th September 1992 Incident Reference: N1920488 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	691	1	505305 183795
81	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Wellington Road Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st August 1989 Incident Reference: N1890409 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	692	1	505300 183800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
81	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 7th November 1993 Incident Reference: N1930354 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	695	1	505305 183800
82	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Business Park Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st November 1989 Incident Reference: N1890568 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	736	1	505200 182400
83	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Iver Lane, IVER Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 8th February 1993 Incident Reference: N1930037 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	744	1	504900 182300
84	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Bridge Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 14th October 1989 Incident Reference: N1890542 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	752	1	505400 183800
85	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 26th April 1992 Incident Reference: N1920245 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	773	1	505300 183895
85	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 20th December 1989 Incident Reference: N1890646 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	778	1	505300 183900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: St Johns Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 31st May 1997 Incident Reference: THN11997032548 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	776	1	505001 183996
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Swakeleys Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 14th August 1997 Incident Reference: THN11997029504 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	777	1	505006 183996
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Braybourne Close, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Storm Sewage Note: Confirmed incident Incident Date: 7th May 1999 Incident Reference: THNE1999042927 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A18NE (N)	780	1	504996 184001
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Riverside Way Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 25th April 1989 Incident Reference: N1890219 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	781	1	505001 184001
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill Lane, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 3rd May 1997 Incident Reference: THN11997032111 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	782	1	505006 184001
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: General Note: Confirmed incident Incident Date: 8th June 1999 Incident Reference: THNE1999043348 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A18NE (N)	785	1	504996 184006

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 3rd August 1998 Incident Reference: THNE1998039870 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	786	1	505001 184006
86	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 6th May 1997 Incident Reference: THN11997032134 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	787	1	505006 184006
87	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 23rd July 1996 Incident Reference: N1960386 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	790	1	505100 182300
88	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Cowley Mill Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 13th August 1991 Incident Reference: N1910443 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	830	1	505200 182295
89	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: WEST DRAYTON Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 21st September 1990 Incident Reference: N1900538 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	842	1	504900 182200
90	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Iver Lane, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 4th May 1996 Incident Reference: N1960236 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	886	1	505100 182200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Yes Incident Date: 23rd January 1992 Incident Reference: N1920039 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (N)	917	1	505200 184095
91	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Yes Incident Date: 17th March 1992 Incident Reference: N1920155 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (N)	919	1	505205 184095
91	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Lawn Road, UXBRIDGE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 18th September 1989 Incident Reference: N1890488 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (N)	922	1	505200 184100
91	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Frays Court, COWLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 28th June 1996 Incident Reference: N1960336 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (N)	923	1	505205 184100
92	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: WEST DRAYTON Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Yes Incident Date: 2nd November 1990 Incident Reference: N1900597 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A3NE (S)	941	1	504900 182100
93	**Prosecutions Relating to Authorised Processes** Location: Union Business Park, Florence Way, Uxbridge, Ub8 2ls Prosecution Text: Failure to comply with packaging waste regulations Prosecution Act: Pro97 Hearing Date: 10th May 2004 Verdict: Guilty Fine: 75000 Costs: 1844 Positional Accuracy: Manually positioned to the address or location	A18NE (N)	870	1	504980 184096

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Guc (Cowley Reach) GQA Grade: River Quality D Reach: Source - Iron Bridge Estimated Distance (km): 6.5 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A13SE (E)	77	1	505002 183132
	River Quality Name: Colne GQA Grade: River Quality A Reach: Misbourne - Thames Estimated Distance (km): 18 Flow Rate: Flow less than 2.5 cumecs Flow Type: River Year: 2000	A13SW (SW)	149	1	504604 182975
	River Quality Name: Frays GQA Grade: River Quality B Reach: Colne - Pinn Estimated Distance (km): 7 Flow Rate: Flow less than 2.5 cumecs Flow Type: River Year: 2000	A14SW (E)	341	1	505230 182983
	River Quality Name: Colne Bk GQA Grade: River Quality A Reach: Uxbridge Moor - Thames Estimated Distance (km): 15 Flow Rate: Flow less than 1.25 cumecs Flow Type: River Year: 2000	A12NE (W)	361	1	504363 183300
	River Quality Name: Alderbourne GQA Grade: River Quality B Reach: Fulmer - Colne Bk Estimated Distance (km): 7.1 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A18SW (NW)	377	1	504514 183481
94	**River Quality Biology Sampling Points** Name: Colne Reach: Misbourne To Uxbridge Estimated Distance: 1.90 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 1995 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2000 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2002 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2003 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2004 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2005 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2006 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2007 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2008 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2009 GQA Grade: River Quality Biology GQA Grade B - Good	A18SW (NW)	401	1	504500 183500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	**Water Abstractions** Operator: Cape Building Products Limited Licence Number: 28/39/28/0444 Permit Version: 100 Location: Borehole A & B At Iver Lane, Uxbridge Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 1136 Yearly Rate (m3): 415959 Details: Iver Lane, Uxbridge Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th May 1989 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A8NW (S)	333	1	504800 182700
96	**Water Abstractions** Operator: Cape Building Products Limited Licence Number: 28/39/28/0444 Permit Version: 100 Location: Wet Gravel Pit At Iver Lane, Uxbridge Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Iver Lane, Uxbridge Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th May 1989 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	415	1	504500 182700
97	**Water Abstractions** Operator: Mr D E Jones Licence Number: 28/39/28/0079 Permit Version: 100 Location: Reach C-D On River Alderbourne At Mansfield Farm, Iver Heath Authority: Environment Agency, Thames Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Mansfield Farm, Iver Heath Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 25th June 1986 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	688	1	504100 183500
	Water Abstractions Operator: Mr D E Jones Licence Number: 28/39/28/0080 Permit Version: 100 Location: Well At Iver Heath, Slough Authority: Environment Agency, Thames Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 2 Yearly Rate (m3): 454 Details: Iver Heath, Slough Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 25th June 1986 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A16SE (W)	1051	1	503700 183500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr M. L. Nunn Licence Number: 28/39/28/0496 Permit Version: Not Supplied Location: Huntsmoor Park Farm, IVER Authority: Environment Agency, Thames Region Abstraction: Fish Farming Abstraction Type: Not Supplied Source: River/Stream Intake Daily Rate (m3): 46000 Yearly Rate (m3): 16836000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NW (S)	1131	1	504700 181900
	Water Abstractions Operator: Mr D E Jones Licence Number: 28/39/28/0079 Permit Version: 100 Location: Reach A-B On River Alderbourne At Mansfield Farm, Iver Heath Authority: Environment Agency, Thames Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): 205 Yearly Rate (m3): 6819 Details: Mansfield Farm, Iver Heath Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 25th June 1986 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A22SW (NW)	1259	1	504000 184200
	Water Abstractions Operator: A F Ford Licence Number: 28/39/28/0278 Permit Version: Not Supplied Location: Field Cottge, NEW DENHAM Authority: Environment Agency, Thames Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 0 Yearly Rate (m3): 36 Details: River Gravel; Licence Status: Revoked; Lapsed Or Cancelled Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A22NE (N)	1335	1	504400 184500
	Water Abstractions Operator: Dr J P V Rigby Licence Number: 28/39/28/0495 Permit Version: 100 Location: River Colne At Huntsmoor Weir, Cowley, Middlesex Authority: Environment Agency, Thames Region Abstraction: Production Of Energy: Hydroelectric Power Generation Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 58752 Yearly Rate (m3): 21503232 Details: Huntsmoor Weir, Cowley, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 1991 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A3SE (S)	1464	1	504870 181570

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Summerleaze Limited Licence Number: 28/39/28/0610 Permit Version: 1 Location: Summerleaze New Denham Quarry, Buckinghamshire Authority: Environment Agency, Thames Region Abstraction: Extractive: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Summerleaze New Denham Quarry, Buckinghamshire. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th October 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A22NE (N)	1556	1	504250 184680
	Water Abstractions Operator: Smiths Nurseries Limited Licence Number: 28/39/28/0132 Permit Version: 101 Location: Smiths Nurseries, Denham- Well C Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 95 Oxford Road, New Denham, Bucks Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1713	1	504460 184910
	Water Abstractions Operator: Smiths Nurseries Limited Licence Number: 28/39/28/0132 Permit Version: 101 Location: Smiths Nurseries, Denham- Well C Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 95 Oxford Road, New Denham, Bucks Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1713	1	504460 184910
	Water Abstractions Operator: B T Smith & Son Licence Number: 28/39/28/0132 Permit Version: 100 Location: Well 'C' At New Denham Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: New Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1718	1	504400 184900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: B T Smith & Son Licence Number: 28/39/28/0132 Permit Version: 100 Location: Well 'C' At New Denham Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: New Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1718	1	504400 184900
	Water Abstractions Operator: B T Smith & Son Licence Number: 28/39/28/0132 Permit Version: 100 Location: Well 'A' At New Denham Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 55 Yearly Rate (m3): 5455 Details: New Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1867	1	504700 185100
	Water Abstractions Operator: B T Smith & Son Licence Number: 28/39/28/0132 Permit Version: 100 Location: Well 'A' At New Denham Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: New Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1867	1	504700 185100
	Water Abstractions Operator: B T Smith & Son Licence Number: 28/39/28/0132 Permit Version: 100 Location: Well 'B' At New Denham Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: New Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1892	1	504500 185100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: B T Smith & Son Licence Number: 28/39/28/0132 Permit Version: 100 Location: Well 'B' At New Denham Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: New Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1892	1	504500 185100
	Water Abstractions Operator: Arlington Business Parks Gp Ltd Licence Number: 28/39/28/0010 Permit Version: 102 Location: 100 Acres, Denham, Bucks- Borehole A Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 100 Acres, Denham, Bucks. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1898	1	505350 185070
	Water Abstractions Operator: Harbour Properties Limited Licence Number: 28/39/28/0010 Permit Version: 101 Location: Borehole A At 100 Acres, Denham, Bucks. Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 100 Acres, Denham, Bucks. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1898	1	505350 185070
	Water Abstractions Operator: Smiths Nurseries Limited Licence Number: 28/39/28/0132 Permit Version: 101 Location: Smiths Nurseries, Denham- Well B Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 95 Oxford Road, New Denham, Bucks Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1908	1	504520 185120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Smiths Nurseries Limited Licence Number: 28/39/28/0132 Permit Version: 101 Location: Smiths Nurseries, Denham- Well B Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 95 Oxford Road, New Denham, Bucks Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1908	1	504520 185120
	Water Abstractions Operator: Smiths Nurseries Limited Licence Number: 28/39/28/0132 Permit Version: 101 Location: Smiths Nurseries, Denham- Well A Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 95 Oxford Road, New Denham, Bucks Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1916	1	504720 185150
	Water Abstractions Operator: Smiths Nurseries Limited Licence Number: 28/39/28/0132 Permit Version: 101 Location: Smiths Nurseries, Denham- Well A Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 95 Oxford Road, New Denham, Bucks Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1916	1	504720 185150
	Water Abstractions Operator: A Sanderson And Sons Limited Licence Number: 28/39/28/0010 Permit Version: 100 Location: Borehole A At 100 Acres Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 1637 Yearly Rate (m3): 454600 Details: 100 Acres Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th November 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1939	1	505400 185100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: A Sanderson And Sons Limited Licence Number: 28/39/28/0010 Permit Version: 100 Location: Borehole B At 100acres Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 100 Acres Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th November 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1939	1	505400 185100
	Water Abstractions Operator: A Sanderson And Sons Limited Licence Number: 28/39/28/0010 Permit Version: 100 Location: Borehole C At 100 Acres Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 100 Acres Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th November 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1939	1	505400 185100
	Water Abstractions Operator: Arlington Business Parks Gp Ltd Licence Number: 28/39/28/0010 Permit Version: 102 Location: 100 Acres, Denham, Bucks- Borehole C Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 100 Acres, Denham, Bucks. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1978	1	505360 185150
	Water Abstractions Operator: Harbour Properties Limited Licence Number: 28/39/28/0010 Permit Version: 101 Location: Borehole C At 100 Acres, Denham, Bucks. Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 100 Acres, Denham, Bucks. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1978	1	505360 185150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
98	**Water Industry Act Referrals** Name: Trimite Limited Location: ARUNDEL ROAD, UXBRIDGE IND EST, DOCK ROAD, UXBRIDGE, MIDDLESEX, UB8 2SD Authority: Environment Agency, Thames Region Permit Reference: CB3250 Dated: 11th April 2007 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application cancelled** Positional Accuracy: Automatically positioned to the address	A13SW (W)	0	1	504728 183116
98	**Water Industry Act Referrals** Name: West Middlesex Surface Treatments Ltd Location: UNIT 5 CHARTRIDGE DEVELOPMENT, ESKDALE ROAD, UXBRIDGE, MIDDLESEX, UB8 2RT Authority: Environment Agency, Thames Region Permit Reference: CA0085 Dated: 14th December 2005 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application cancelled** Positional Accuracy: Located by supplier to within 100m	A13SW (W)	7	1	504700 183100
98	**Water Industry Act Referrals** Name: Bodycote Metallurgical Coatings (Uxbridge) Ltd Location: UNIT 5 CHARTRIDGE DEVELOPMENT, ESKDALE ROAD, UXBRIDGE, MIDDLESEX, UB8 2RT Authority: Environment Agency, Thames Region Permit Reference: AR7645 Dated: 26th May 1995 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application received by the EA but is not yet authorisedNot Yet Authorised** Positional Accuracy: Located by supplier to within 100m	A13SW (W)	7	1	504700 183100
99	**Water Industry Act Referrals** Name: Lht Anodisers Ltd Location: 44 WALLINGFORD ROAD, 44 WALLINGFORD ROAD, UXBRIDGE, MIDDLESEX, UB8 2SR Authority: Environment Agency, Thames Region Permit Reference: CC3140 Dated: 18th February 2008 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application cancelled** Positional Accuracy: Manually positioned to the address or location	A13SE (S)	230	1	504913 182829
100	**Water Industry Act Referrals** Name: Electro Hi-Tec Ltd (Dissolved) Location: UNIT D2, RIVERSIDE WAY, RIVERSIDE WAY, UXBRIDGE, UXBRIDGE, UB8 2YF Authority: Environment Agency, Thames Region Permit Reference: AT8363 Dated: 24th October 1995 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application received by the EA but is not yet authorisedNot Yet Authorised** Positional Accuracy: Located by supplier to within 100m	A18NW (N)	763	1	504800 184000
101	**Water Industry Act Referrals** Name: Cape Boards Ltd Location: IVER LANE, IVER LANE, UXBRIDGE, MIDDLESEX, UB8 2JQ Authority: Environment Agency, Thames Region Permit Reference: AE2285 Dated: 19th February 1992 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application cancelled** Positional Accuracy: Automatically positioned to the address	A8SE (S)	789	1	504980 182273

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 39 West London Scale: 1:100,000	A13NE (N)	0	1	504813 183138
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Desination: Unproductive Strata	A13NE (N)	0	3	504813 183138
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (N)	0	3	504813 183138
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (N)	0	1	504813 183138
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	66	1	504993 183145
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	69	1	504989 183240
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	98	1	504685 182957
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	124	1	504953 183342
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	147	1	504616 182966
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A13SW (SW)	173	1	504667 182881
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (W)	200	1	504488 183139
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	201	1	504976 183415
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A13SW (SW)	212	1	504589 182891
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A13SW (SW)	233	1	504648 182824
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (E)	39	1	504967 183145
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	44	1	504962 183238

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	98	1	504685 182957
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
102	**Detailed River Network Lines** River Type: Canal River Name: Grand Union Canal Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Above Surface Drain Feature: Not a Drain Flood Risk Management Status: Currently Undefined Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13NE (E)	51	1	504980 183150
103	**Detailed River Network Lines** River Type: Primary River River Name: Colne Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A13SW (SW)	111	1	504669 182954
104	**Detailed River Network Lines** River Type: Secondary River River Name: The Culvert Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13NW (NW)	169	1	504641 183316
105	**Detailed River Network Lines** River Type: Secondary River River Name: Drain Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13NW (NW)	190	1	504559 183283
106	**Detailed River Network Lines** River Type: Secondary River River Name: Culvert Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13NW (NW)	190	1	504559 183283

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
107	**Detailed River Network Lines** River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13NW (NW)	198	1	504694 183377
108	**Detailed River Network Lines** River Type: Secondary River River Name: The Culvert Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13NW (N)	228	1	504750 183450
109	**Detailed River Network Lines** River Type: Secondary River River Name: Drain Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A13SE (SE)	235	1	505046 182910
110	**Detailed River Network Lines** River Type: Primary River River Name: River Colne Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A13NW (NW)	265	1	504496 183333
111	**Detailed River Network Lines** River Type: Primary River River Name: River Colne Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A13NW (NW)	271	1	504498 183336
112	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (E)	281	1	505169 183016

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (E)	284	1	505156 182996
114	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (E)	286	1	505167 183010
115	**Detailed River Network Lines** River Type: Canal River Name: Grand Union Canal Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Currently Undefined Water Course Name: Not Supplied Water Course Reference: Not Supplied	A18SE (N)	296	1	504957 183516
116	**Detailed River Network Lines** River Type: Primary River River Name: Colne Brook Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A12NE (NW)	304	1	504460 183353
117	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A13SE (SE)	312	1	505142 182919
118	**Detailed River Network Lines** River Type: Primary River River Name: Fray's Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (E)	322	1	505232 183068

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (E)	322	1	505232 183068
120	**Detailed River Network Lines** River Type: Primary River River Name: River Colne Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A18SW (N)	329	1	504690 183537
121	**Detailed River Network Lines** River Type: Primary River River Name: Fray's River Hydrographic Area: D006 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (E)	338	1	505236 183032
122	**Detailed River Network Lines** River Type: Primary River River Name: Fray's Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A14SW (SE)	354	1	505153 182854
123	**Detailed River Network Lines** River Type: Primary River River Name: River Colne Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A18SW (N)	375	1	504658 183570
124	**Detailed River Network Lines** River Type: Primary River River Name: Colne Brook Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Colne Water Course Reference: 28CO	A18SW (NW)	390	1	504562 183522

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Detailed River Network Offline Drainage None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
125	**BGS Recorded Landfill Sites** Site Name: Cape Products Location: Iver Lane, UXBRIDGE , Middx Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Manually positioned within the geographical locality Boundary Accuracy: Not Applicable	A8NW (S)	275	3	504692 182763
126	**BGS Recorded Landfill Sites** Site Name: Willment Bros Location: Woodlands Pk, Slough Rd, DENHAM, Buckinghamshire Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate	A12NE (NW)	322	3	504439 183350
127	**BGS Recorded Landfill Sites** Site Name: Willment Bros Location: Woodlands Park, Slough Rd, DENHAM, Buckinghamshire Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Derived	A12NE (W)	473	3	504266 183357
128	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Iver Lane, Uxbridge, Middlesex Name: Cape Products Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD32328 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: 1582 Other Ref: Not Supplied	A13SW (SW)	118	1	504665 182948
129	**Historical Landfill Sites** Licence Holder: Cape Boards and Panels Limited Location: Slough Road, Iver Heath, Buckinghamshire Name: Woodlands Park Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD12515 First Input Date: 31st December 1972 Last Input Date: 20th May 1993 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0130 BGS Ref: Not Supplied Other Ref: WDA/108 (1092/1), WDA/134, 0400/0138	A13SW (SW)	121	1	504663 182947
130	**Historical Landfill Sites** Licence Holder: P J Gray Location: Slough Road, Iver Heath, Buckinghamshire Name: Elk Meadow Estate Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD12513 First Input Date: 30th November 1988 Last Input Date: 30th November 1992 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0125 BGS Ref: Not Supplied Other Ref: WDA/266, 1092/2	A13SW (W)	185	1	504503 183132

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
131	**Historical Landfill Sites** Licence Holder: P J Gray Location: Slough Road, Iver Heath, Buckinghamshire Name: Elk Meadows Estate Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD12514 First Input Date: 30th November 1988 Last Input Date: 30th June 1993 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0124 BGS Ref: Not Supplied Other Ref: WDA/275	A12SE (W)	234	1	504454 183117
132	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Slough Road Name: Slough Road B Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD13123 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0126 BGS Ref: 1581 Other Ref: Not Supplied	A12NE (NW)	325	1	504414 183319
133	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Slough Road Name: Slough Road A Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD13124 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0126 BGS Ref: 1580 Other Ref: Not Supplied	A12NE (W)	473	1	504266 183356
134	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Old Mill Lane Name: East of Old Mill Lane Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11188 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: 8HI064	A8SE (S)	808	1	505051 182267
135	**Historical Landfill Sites** Licence Holder: Cape Boards and Panels Limited Location: Slough Road, Iver Heath, Bbuckinghamshire Name: Woodlands Park No.2 Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD12517 First Input Date: 31st October 1986 Last Input Date: 31st December 1992 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste, and Liquid Sludge EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0120 BGS Ref: Not Supplied Other Ref: WDA/236, 1092/3	A7SE (SW)	831	1	504373 182292

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
136	**Historical Landfill Sites** Licence Holder: Wimpey Construction UK Limited Location: Iver Heath, Buckinghamshire Name: Palmers Moor Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD12518 First Input Date: 31st January 1984 Last Input Date: 31st December 1986 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0400/0119 BGS Ref: Not Supplied Other Ref: WDA/206, 1090/11	A2NE (SW)	989	1	504369 182120
137	**Licensed Waste Management Facilities (Landfill Boundaries)** Name: Woodlands Park Licence Number: 80014 Location: Cape plc, Woodlands Park, Iver Lane, Uxbridge, Middlesex, UB8 2JQ Licence Holder: Cape Plc Authority: Environment Agency - South East Region, North East Thames Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) Max Input Rate: Not Supplied **Licence Status: Closure** Issued Not Supplied Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A8NW (S)	459	1	504756 182570
138	**Licensed Waste Management Facilities (Locations)** Licence Number: 104532 Location: 1a Wallingford Road, Uxbridge Ind Est, Uxbridge, Middlesex, UB8 2FR Operator Name: Johal Mya Waste Management Limited Operator Location: Not Supplied Authority: Environment Agency - South East Region, North East Thames Area Site Category: Material Recycling Treatment Facilities **Licence Status: Transferred** Issued: 16th October 2012 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NE (S)	287	1	504921 182772
138	**Licensed Waste Management Facilities (Locations)** Licence Number: 80506 Location: 1A Wallingford Road, Uxbridge Ind.Est, Uxbridge, Middlesex, UB8 2FR Operator Name: A & A Recycling Ltd Operator Location: Not Supplied Authority: Environment Agency - South East Region, North East Thames Area Site Category: Transfer Stations Taking Non-biodegradable Wastes **Licence Status: Transferred** Issued: 6th September 1999 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NE (S)	309	1	504938 182754
139	**Licensed Waste Management Facilities (Locations)** Licence Number: 80014 Location: Woodlands Park, Iver Lane, Uxbridge, Middlesex, UB8 2JQ Operator Name: Cape plc Operator Location: Not Supplied Authority: Environment Agency - South East Region, North East Thames Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) **Licence Status: Closed** Issued: 16th August 1987 Last Modified: 27th January 1997 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8SE (S)	789	1	504980 182273
	Local Authority Landfill Coverage Name: London Borough of Hillingdon - Has not been able to supply Landfill data		0	2	504813 183138

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Buckinghamshire County Council - Has supplied landfill data		152	11	504631 182933
	Local Authority Landfill Coverage Name: South Buckinghamshire District Council - Has supplied landfill data		152	4	504631 182933
140	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 2874 Authority: South Buckinghamshire District Council **Last Reported Status:** **Not Supplied** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A13SW (SW)	121	4	504663 182947
141	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 2872 Authority: South Buckinghamshire District Council **Last Reported Status:** **Not Supplied** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A13SW (W)	185	4	504503 183132
142	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 2873 Authority: South Buckinghamshire District Council **Last Reported Status:** **Not Supplied** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A12SE (W)	234	4	504454 183117
143	**Local Authority Recorded Landfill Sites** Location: Slough Road Reference: 2972 Authority: South Buckinghamshire District Council **Last Reported Status:** **Not Supplied** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A12NE (NW)	325	4	504414 183319
144	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 2877 Authority: South Buckinghamshire District Council **Last Reported Status:** **Not Supplied** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A2NE (SW)	989	4	504369 182120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
145	**Registered Landfill Sites** Licence Holder: Cape Board & Panels Ltd Licence Reference: 108 (134) Site Location: Woodlands Park, Iver Heath, Iver, Buckinghamshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: Iver Lane, Uxbridge, HILLINGDON, Middlesex, UB8 2JQ Authority: Environment Agency - Thames Region, North East Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 7th July 1980 Preceded By Licence: Not Given Superseded By Licence: T/NE/WDA 454 Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate Authorised Waste: Asbestos; Calcium Silicate; Constr'N/Demol. Inert/Non-Haz/Non-Tox; Contaminated Rubbish/Bags/Sacks; Excavated Natural Materials $; Ind. Non-Haz. Waste; Max.Waste Permitted By Licence(Stated); Metal Scrap; Waste Treated Timber Prohibited Waste: Oily Waste; Waste Oil Environment Agency must give specific authorisation for this waste to be acceptedWaste requires prior approval: Waste N.O.S	A13SW (SW)	117	1	504667 182948
146	**Registered Landfill Sites** Licence Holder: P J Gray Licence Reference: 275 Site Location: Elk Meadows Estate, Slough Road, Iver Heath, Iver, Buckinghamshire Licence Easting: 504300 Licence Northing: 183150 Operator Location: Moorwards Farm, Slough Road, Iver Heath, Buckinghamshire Authority: Environment Agency - Thames Region, North East Area Site Category: Landfill Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1989 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes; Excav.Road Metal (Well Weathered); Hardcore,Brickwork,Stone,Concrete; Mat'Ls Contam.With Asbestos; Max.Waste Permitted By Licence-Stated; Sub/Topsoil,Clay,Chalk; Tunneling/Excavation Waste Prohibited Waste: Contaminated Soil; Difficult Wastes; Special Wastes; Waste N.O.S.	A12NE (W)	388	1	504300 183150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
147	**Registered Landfill Sites** Licence Holder: P J Gray Licence Reference: 266 Site Location: Elk Meadows Estate, Slough Road, Iver Heath, Iver, Buckinghamshire Licence Easting: 504150 Licence Northing: 183100 Operator Location: Moorwards Farm, Slough Road, Iver Heath, Buckinghamshire Authority: Environment Agency - Thames Region, North East Area Site Category: Landfill Max Input Rate: Undefined Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st February 1989 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Builders Rubble Construction And Demolition Wastes Excav.Road Metal (Well Weathered) Hardcore,Brickwork,Stone,Concrete Sub/Topsoil,Clay,Chalk Tunneling/Excavation Waste Prohibited Waste: Contaminated Soil Difficult Wastes Mat'Ls Contam.With Asbestos Special Wastes Waste N.O.S.	A12SE (W)	539	1	504150 183100
148	**Registered Landfill Sites** Licence Holder: Cape Plc Licence Reference: T/NE/WDA 454 Site Location: Woodlands Park, Iver Heath, Iver, Buckinghamshire, Ub8 2jq Licence Easting: 504700 Licence Northing: 182450 Operator Location: Iver Lane, UXBRIDGE, Middlesex, UB8 2JQ Authority: Environment Agency - Thames Region, North East Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Operational as far as is knownOperational Dated: 1st January 1997 Preceded By Licence: 108 (134) Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Bucks Cat. A - Inert Max.Waste Permitted By Licence Prohibited Waste: Contaminated Soil Difficult Wastes (As In Wmp.26) Fibrous Forms Of Asbestos Food/Foodstuffs General Builders Wastes High-Dens/Hard/Bonded/Cement Asbestos Poisonous, Noxious, Polluting Wastes Putrescible Mat'L Spec.Waste (Epa'90:S62/1996 Regs) Waste N.O.S.	A8SW (S)	583	1	504700 182450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	**Registered Landfill Sites** Licence Holder: Jayflex Construction Ltd Licence Reference: 391 Site Location: Land North Of Iver Lane &, East Of M25, Iver, Buckinghamshire Licence Easting: 504500 Licence Northing: 182000 Operator Location: 99-101 St Leonards Road, WINDSOR, Berkshire, SL4 3BZ Authority: Environment Agency - Thames Region, North East Area Site Category: Landfill Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st February 1993 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Approximate location provided by supplier Boundary Accuracy: Not Applicable Authorised Waste: Excav.Road Metal (Well Weathered) Hardcore/Concrete Max.Waste Permitted By Licence Top/Subsoil Prohibited Waste: Asbestos Contam. Soil As In Hse'91 Difficult Wastes (As In Wmp.26) Poisonous, Noxious, Polluting Wastes Previously Deposited Waste Special Wastes Steel/Iron Timber And Other Organic Material Waste N.O.S.	A8SW (S)	811	1	504569 182240
150	**Registered Landfill Sites** Licence Holder: Cape Board & Panels Ltd Licence Reference: 236 Site Location: Palmers Moor Lane / M25 /, Woodlands Park, Iver Heath, Iver, Buckinghamshire Licence Easting: 504300 Licence Northing: 182230 Operator Location: Iver Lane, Uxbridge, HILLINGDON, Middlesex, UB8 2JQ Authority: Environment Agency - Thames Region, North East Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st October 1986 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Calcium Silicate - Dry Calcium Silicate - Wet Sludge Construction Ind. Wastes Contaminated Rubbish Ind. Non-Haz. Waste Max.Waste Permitted By Licence(Stated) Metal Scrap Nat.Occuring Excavated Material Waste Treated Timber Prohibited Waste: Any Asbestos In Any Form Food,Foodstuff Highly Putrescible Waste Waste Contaminated With Oil Waste Oil Environment Agency must give specific authorisation for this waste to be acceptedWaste requires prior approval: Waste N.O.S	A7SE (SW)	920	1	504300 182230

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	**Registered Waste Transfer Sites** Licence Holder: A1 Uxbridge Waste Ltd Licence Reference: WML80506 Site Location: 1a Wallingford Road, Uxbridge Industrial Estate, Uxbridge, Middlesex, Ub8 2rw Operator Location: College House, 17 King Edwards Road, RUISLIP, Middlesex, HA4 7AE Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Operational as far as is knownOperational Dated: 6th September 1999 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Positioned by the supplier Boundary Quality: Good Authorised Waste: Degradable Commercialwaste (As In Post'98 E.A.Lics & Equivalent To 22.09.02) And Degradable Industrial Waste (As In Post'98 E.A.Lics & Equivalent To 22.09.03) Both Comprising Inert Materials (As In Post'98 E.A.Lics And Equivalent To 21.00.00) - Comprising Lwra Cat. A Inert Waste Lwra Cat. Bi General Non-Putrescible Waste Trees, Bushes, Garden Waste Prohibited Waste: Horticultural Chemical Wastes Leather Processing Waste Liquid Wastes Metal Swarf/Dusts/Particulates Pulverised Fuel Ash/Vanadium Contaminated Ash Scrap Metal (As In Post'98 E.A.Lics And Equivalent To 23.00.00) Sludge Wastes Special Waste (As In Epa 1990:S62 Of 1996 Regs) Toxic Metal Slags Waste Not Otherwise Specified	A8NE (S)	286	1	504904 182770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
152	**Control of Major Accident Hazards Sites (COMAH)** Name: Calor Gas Limited Location: Calor Centre, Wallingford Road, UXBRIDGE, Middlesex, UB8 2XS Reference: Not Supplied Type: Lower Tier **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	5	505043 182557
152	**Control of Major Accident Hazards Sites (COMAH)** Name: Oak Farm Gas Co Ltd Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Reference: Not Supplied Type: Lower Tier **Status: Record Ceased To Be Supplied Under COMAH Regulations** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	5	505043 182557
153	**Notification of Installations Handling Hazardous Substances (NIHHS)** Name: Transco Location: Uxbridge Holder Station, Cowley Mill Road, UXBRIDGE, Middlesex, UB8 2QD **Status: Active** Positional Accuracy: Manually positioned to the address or location	A14NW (E)	230	5	505156 183160
154	**Notification of Installations Handling Hazardous Substances (NIHHS)** Name: Calor Gas Limited Location: The Calor Centre, Wallingford Road, UXBRIDGE, Middlesex, UB8 2RW **Status: Record Ceased To Be Supplied Under NIHHS Regulations (1982)** Positional Accuracy: Manually positioned to the address or location	A8NE (S)	554	5	505044 182530
155	**Planning Hazardous Substance Consents** Name: British Gas Plc Location: North Thames, Uxbridge Holder Station, Uxbridge, Middlesex, Ub8 2qp Authority: London Borough of Hillingdon Application Ref: 3114/Ah Hazardous Substance: Part C, Flammable Substance (Not in Parts A&B), Gas or gases flammable in air, when held as a gas, where amount held is >= 15tonnes Maximum Quantity: 0 Application date: Not Supplied **Decision: Unknown at time of reportUnknown** Positional Accuracy: Manually positioned to the address or location	A14NW (E)	229	6	505155 183157
156	**Planning Hazardous Substance Consents** Name: Calor Gas Ltd Location: Wallingford Road, Uxbridge Trading Estate, Uxbridge, Middlesex, Ub8 2xs Authority: London Borough of Hillingdon Application Ref: 6155/R Hazardous Substance: Part C, Flammable Substance (Not in Parts A&B), Liquefied petroleum gas held at >1.4 bar where amount held is greater than or equal to 25 tonnes Maximum Quantity: 0 Application date: Not Supplied **Decision: Unknown at time of reportUnknown** Positional Accuracy: Manually positioned within the geographical locality	A8NE (S)	403	6	504949 182660
157	**Planning Hazardous Substance Consents** Name: Calor Gas Ltd Location: Land Forming Part Of Former Cape Boards Site, Iver Lane, Cowley, Uxbridge, Ub8 2xs Authority: London Borough of Hillingdon Application Ref: 63418/APP/2007/2476 Hazardous Substance: Liquefied extremely flammable gas (including LPG) and natural gas (whether liquefied or not) Maximum Quantity: 90 Application date: 6th July 2007 **Decision: Withdrawn** Positional Accuracy: Located by supplier to within 10m	A8NE (S)	464	6	505000 182610
158	**Planning Hazardous Substance Consents** Name: Calor Gas Ltd Location: Wallingford Road, Uxbridge Trading Estate, Uxbridge, Middlesex, UB8 2XS Authority: London Borough of Hillingdon Application Ref: 6155/App/2004/230 Hazardous Substance: Liquefied extremely flammable gas (including LPG) and natural gas (whether liquefied or not) Maximum Quantity: 0 Application date: Not Supplied **Decision: Unknown at time of reportUnknown** Positional Accuracy: Manually positioned to the address or location	A8NE (S)	528	6	505043 182557

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: London Clay	A13NE (N)	0	3	504813 183138
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (N)	0	7	504813 183138
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (S)	30	7	504813 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A13NE (E)	74	7	505000 183138
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	121	7	504670 182940
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A13SE (SE)	149	7	505000 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	173	7	504557 183000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (NW)	250	7	504621 183402
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (NW)	314	7	504459 183367
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	319	7	504410 183299
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A8NE (S)	326	7	504963 182743
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SW (E)	333	7	505246 183074
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A8NE (SE)	363	7	505000 182718

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SW (E)	363	7	505250 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SW (E)	407	7	505300 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SW (E)	409	7	505297 182990
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SW (SE)	409	7	505258 182917
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SW (E)	411	7	505303 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A18SE (NE)	573	7	505082 183771

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	688	7	504004 183210
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	688	7	504000 183138
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	691	7	504000 183206
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	693	7	504000 183225
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	701	7	504000 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	716	7	504025 182865

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14NE (E)	720	7	505644 183243
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	724	7	504000 182909
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	739	7	503955 183037
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	750	7	503950 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	762	7	504813 184000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	779	7	505000 184000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A19NW (NE)	783	7	505213 183948
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SW (NW)	797	7	504104 183686
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A19SE (NE)	800	7	505654 183543
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14NE (E)	805	7	505709 183393
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A19NW (NE)	828	7	505204 184000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A19NW (NE)	835	7	505223 184000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A19NW (NE)	884	7	505340 184000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A8SE (S)	885	7	505144 182214
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SE (E)	887	7	505797 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: London Arsenic Concentration: no data Cadmium Concentration: no data Chromium Concentration: no data Lead Concentration: no data Nickel Concentration: no data	A14SE (E)	908	7	505819 183000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NE (W)	917	7	503775 183231
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SE (W)	942	7	503755 183000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17NE (NW)	964	7	504240 184000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7SW (SW)	966	7	504038 182377
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A2NE (SW)	989	7	504373 182118
159	**BGS Recorded Mineral Sites** Site Name: The Culvert Gravel Pit Location: , Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 79043 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Alluvium Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	244	3	504567 183358
160	**BGS Recorded Mineral Sites** Site Name: Woodlands Park Location: , Woodlands Park, Iver, Buckinghamshire Source: British Geological Survey, National Geoscience Information Service Reference: 19779 Type: Opencast **Status: Ceased** Operator: Uxbridge Flint Brick Co Operator Location: Uxbridge Flint Brick Co, Harefield Limeworks, Springwell Lock, Rickmansworth, Hertfordshire Periodic Type: Quaternary Geology: Shepperton Gravel Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	435	3	504380 182800
161	**BGS Recorded Mineral Sites** Site Name: Iver Heath Location: Slough - Uxvbridge Road, Iver Heath, Iver, Buckinghamshire Source: British Geological Survey, National Geoscience Information Service Reference: 19780 Type: Opencast **Status: Ceased** Operator: Willment Ready Mix Concrete Ltd Operator Location: Willment Ready Mix Concrete Ltd, Howard Ho, 63a High Street, Teddington, Middlesex, Tw11 8ha Periodic Type: Quaternary Geology: Shepperton Gravel Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A12NE (W)	540	3	504180 183325

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	**BGS Recorded Mineral Sites** Site Name: Chiltern View Gravel Pit Location: Chiltern View Road, Uxbridge Moor, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19785 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Lynch Hill Gravel Member, Maidenhead Formation (River Thames Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A14NW (E)	553	3	505475 183260
163	**BGS Recorded Mineral Sites** Site Name: Cowley Road Gravel Pits Location: Cowley Road, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 79041 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Lynch Hill Gravel Member, Maidenhead Formation (River Thames Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	658	3	505449 183613
164	**BGS Recorded Mineral Sites** Site Name: Cowley Road Grvael Pits Location: Cowley Road, Uxbridge Moor, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19786 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Lynch Hill Gravel Member, Maidenhead Formation (River Thames Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	663	3	505500 183545
165	**BGS Recorded Mineral Sites** Site Name: Cowley Road Gravel Pits Location: Cowley Road, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 79042 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Lynch Hill Gravel Member, Maidenhead Formation (River Thames Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	755	3	505554 183632
166	**BGS Recorded Mineral Sites** Site Name: Chiltern View Brickfield Location: Chiltern View Road, Uxbridge Moor, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19784 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Langley Silt Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A14NE (E)	758	3	505680 183274

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 504762, 183338 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 20.00 mg/kg Cadmium Measured Concentration: 0.70 mg/kg Chromium Measured Concentration: 68.00 mg/kg Lead Measured Concentration: 183.00 mg/kg Nickel Measured Concentration: 26.00 mg/kg	A13NW (N)	123	3	504762 183338
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 504791, 182816 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 9.00 mg/kg Cadmium Measured Concentration: 1.00 mg/kg Chromium Measured Concentration: 40.00 mg/kg Lead Measured Concentration: 85.00 mg/kg Nickel Measured Concentration: 20.00 mg/kg	A13SW (S)	216	3	504791 182816
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 505222, 183236 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.00 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 65.00 mg/kg Lead Measured Concentration: 194.00 mg/kg Nickel Measured Concentration: 29.00 mg/kg	A14NW (E)	299	3	505222 183236
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 505210, 182757 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 17.00 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 69.00 mg/kg Lead Measured Concentration: 123.00 mg/kg Nickel Measured Concentration: 30.00 mg/kg	A9NW (SE)	458	3	505210 182757
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 504197, 183260 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 17.00 mg/kg Cadmium Measured Concentration: 0.90 mg/kg Chromium Measured Concentration: 78.00 mg/kg Lead Measured Concentration: 139.00 mg/kg Nickel Measured Concentration: 32.00 mg/kg	A12NE (W)	505	3	504197 183260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 504765, 183768 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 14.00 mg/kg Cadmium Measured Concentration: 0.90 mg/kg Chromium Measured Concentration: 63.00 mg/kg Lead Measured Concentration: 218.00 mg/kg Nickel Measured Concentration: 22.00 mg/kg	A18SW (N)	535	3	504765 183768
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 505255, 183771 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 15.00 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 66.00 mg/kg Lead Measured Concentration: 173.00 mg/kg Nickel Measured Concentration: 27.00 mg/kg	A19SW (NE)	644	3	505255 183771
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 504858, 182203 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 13.00 mg/kg Cadmium Measured Concentration: 1.20 mg/kg Chromium Measured Concentration: 62.00 mg/kg Lead Measured Concentration: 338.00 mg/kg Nickel Measured Concentration: 30.00 mg/kg	A8SE (S)	833	3	504858 182203
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 505776, 183199 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 15.00 mg/kg Cadmium Measured Concentration: 3.50 mg/kg Chromium Measured Concentration: 91.00 mg/kg Lead Measured Concentration: 183.00 mg/kg Nickel Measured Concentration: 33.00 mg/kg	A14NE (E)	851	3	505776 183199
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 505373, 182333 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 20.00 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 62.00 mg/kg Lead Measured Concentration: 422.00 mg/kg Nickel Measured Concentration: 29.00 mg/kg	A9SW (SE)	884	3	505373 182333

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 505722, 183731 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.00 mg/kg Cadmium Measured Concentration: 2.30 mg/kg Chromium Measured Concentration: 97.00 mg/kg Lead Measured Concentration: 91.00 mg/kg Nickel Measured Concentration: 32.00 mg/kg	A19SE (NE)	950	3	505722 183731
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7189 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.30 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A13NE (N)	0	3	504813 183138
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	249	3	504622 183402
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	75	3	505001 183138
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	121	3	504671 182940
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	3	504845 183138
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	75	3	505001 183138

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	209	3	504498 183048
	Potential for Ground Dissolution Stability Hazards No Hazard				
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	75	3	505001 183138
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	3	504845 183138
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	75	3	505001 183138
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	121	3	504671 182940
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	75	3	505001 183138
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	121	3	504671 182940
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	249	3	504622 183402
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	504813 183138

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
167	**Contemporary Trade Directory Entries** Name: Liquid Coating Division Location: Arundel Rd, Uxbridge, Middlesex, UB8 2SD Classification: Paint Manufacturers **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SW (W)	0	-	504728 183116
167	**Contemporary Trade Directory Entries** Name: Trimite Ltd Location: Arundel Road, Uxbridge, Middlesex, UB8 2SD Classification: Paint Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	0	-	504728 183116
167	**Contemporary Trade Directory Entries** Name: Trimite Global Coatings Location: Arundel Road, Uxbridge, Middlesex, UB8 2SD Classification: Paint Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	0	-	504728 183116
168	**Contemporary Trade Directory Entries** Name: Adr Engineering Ltd Location: Unit B,Barton Buildings,Arundel Rd, Uxbridge, Middlesex, UB8 2SN Classification: Sheet Metal Work **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	7	-	504733 183042
168	**Contemporary Trade Directory Entries** Name: Colne Valley Fastners Ltd Location: Colne Centre,Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Fasteners & Fixing Devices **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	7	-	504719 183068
168	**Contemporary Trade Directory Entries** Name: Pulse Wrought Iron Location: 3a Arun Buildings,Arundel Road, Uxbridge, Middlesex, UB10 8SJ Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	18	-	504750 183013
168	**Contemporary Trade Directory Entries** Name: J D Embroidery Location: Network House,Arundel Rd, Uxbridge, Middlesex, UB8 2RR Classification: T-Shirts **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	32	-	504724 183012
169	**Contemporary Trade Directory Entries** Name: Riverside Ltd Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	11	-	504911 183153
169	**Contemporary Trade Directory Entries** Name: D S Smith Recycling Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Recycling Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	11	-	504911 183153
170	**Contemporary Trade Directory Entries** Name: Bird Proofing Ltd Location: 76, Cowley Mill Road, Uxbridge, Middlesex, UB8 2QE Classification: Pest & Vermin Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	24	-	504851 183260
171	**Contemporary Trade Directory Entries** Name: Thames Materials Ltd Location: Unit 4, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Road Haulage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (S)	24	-	504783 183017
171	**Contemporary Trade Directory Entries** Name: Pmt Print Ltd Location: Unit 6, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Digital Printing **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	29	-	504815 183021

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	**Contemporary Trade Directory Entries** Name: Pmt Print Ltd Location: Unit 6, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	29	-	504815 183021
171	**Contemporary Trade Directory Entries** Name: The Cavalier Group Location: Unit 6, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	29	-	504815 183021
171	**Contemporary Trade Directory Entries** Name: Pmt Print Ltd Location: Unit 6, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	29	-	504815 183021
171	**Contemporary Trade Directory Entries** Name: Peter Cox Ltd Location: Unit 2, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Damp & Dry Rot Control **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (S)	32	-	504780 183007
171	**Contemporary Trade Directory Entries** Name: Serdi (Uk) Ltd Location: Unit 1, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Engine Rebuilding & Reconditioning **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (S)	41	-	504783 182997
172	**Contemporary Trade Directory Entries** Name: Equip Line Ltd Location: Ashley Road, Uxbridge, Middlesex, UB8 2GA Classification: Catering Equipment **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (N)	26	-	504800 183242
172	**Contemporary Trade Directory Entries** Name: Ideal Printers Ltd Location: Ashley Road, Uxbridge, Middlesex, UB8 2SG Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	26	-	504800 183242
172	**Contemporary Trade Directory Entries** Name: Tec Line Ltd Location: Ashley Road, Uxbridge, Middlesex, UB8 2GA Classification: Catering Equipment **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (N)	26	-	504800 183242
173	**Contemporary Trade Directory Entries** Name: Trimite Powder Ltd Location: Sarum Complex,Salisbury Rd, Uxbridge, Middlesex, UB8 2RZ Classification: Powder Coatings **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SE (S)	28	-	504848 183024
174	**Contemporary Trade Directory Entries** Name: Zenith Blinds Ltd Location: Gazelle Buildings,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	33	-	504892 183072
174	**Contemporary Trade Directory Entries** Name: Air Controlled Environmental Systems Ltd Location: Unit 6, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Ventilators & Ventilation Systems **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Maurer Instruments Ltd Location: Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Flow Measurement Systems - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A13SE (SE)	34	-	504893 183073

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
174	**Contemporary Trade Directory Entries** Name: D R G Electrics Location: Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Washing Machines - Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Maurer Instruments Ltd Location: Unit 6, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Flow Measurement Systems - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Maurer Instruments Location: Unit 6, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Flow Measurement Systems - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Maurer Instruments Location: Unit 6, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Engineering Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Maurer Instruments Ltd Location: Unit 6, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Flow Measurement Systems - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Uxbridge Autobody Location: Wallingford Rd, Uxbridge, Middlesex, UB8 2SX Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: M & R Ductwork Location: Unit 2, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Ventilators & Ventilation Systems **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: Carrera Drums Location: Unit 6, Gazelle Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2SX Classification: Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	34	-	504893 183073
174	**Contemporary Trade Directory Entries** Name: S J Commercials Location: 48a Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Commercial Vehicle Bodybuilders & Repairers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (E)	47	-	504935 183092
174	**Contemporary Trade Directory Entries** Name: A S M Air Conditioning Location: Unit 3,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Air Conditioning & Refrigeration Contractors **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	55	-	504936 183081
174	**Contemporary Trade Directory Entries** Name: Asm Location: Unit 3,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Air Conditioning Equipment & Systems **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	73	-	504936 183058
175	**Contemporary Trade Directory Entries** Name: Birkdale Sales Ltd Location: Granville House, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Fencing Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	36	-	504961 183161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
176	**Contemporary Trade Directory Entries** Name: Metro Plating Location: Unit 3, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Metal Finishing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	36	-	504665 183102
176	**Contemporary Trade Directory Entries** Name: W J Wooster Ltd Location: Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	37	-	504665 183102
176	**Contemporary Trade Directory Entries** Name: Christopher Allen (Southall) Ltd Location: Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	37	-	504665 183102
176	**Contemporary Trade Directory Entries** Name: Kentchase Ltd Location: Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	37	-	504665 183102
176	**Contemporary Trade Directory Entries** Name: Inplas Location: Unit 3, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Plastic Products - Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	37	-	504665 183102
176	**Contemporary Trade Directory Entries** Name: Metro Engineering & Plating Works Ltd Location: Unit 3, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Metal Finishing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	37	-	504665 183102
176	**Contemporary Trade Directory Entries** Name: J C Packaging Location: Unit 3, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Packaging Materials Manufacturers & Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	46	-	504672 183070
176	**Contemporary Trade Directory Entries** Name: Uxbridge Auto Centre Ltd Location: Unit 1, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	46	-	504672 183070
176	**Contemporary Trade Directory Entries** Name: K S Autos Location: Unit 4, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	46	-	504672 183070
177	**Contemporary Trade Directory Entries** Name: Extreme Finishing Location: unit 4,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Powder Coatings **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (E)	39	-	504934 183110
177	**Contemporary Trade Directory Entries** Name: Ferring Printing Co Location: Byron House, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (E)	66	-	504958 183095

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	**Contemporary Trade Directory Entries** Name: Necessity Supplies Ltd Location: Unit 28/30, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Pharmaceutical Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	58	-	504910 183023
179	**Contemporary Trade Directory Entries** Name: Thames Valley Print & Copy Bureau Location: Unit 23, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Copying & Duplicating Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	68	-	504922 183025
179	**Contemporary Trade Directory Entries** Name: Advanced Document Solutions Ltd Location: Unit 23-24, Sarum Complex, Salisbury Road, UXBRIDGE, Middlesex, UB8 2RZ Classification: Copying & Duplicating Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	68	-	504922 183025
179	**Contemporary Trade Directory Entries** Name: Tamo Ltd Location: Unit 22,Sarum Complex,Salisbury Rd, Uxbridge, Middlesex, UB8 2RZ Classification: Hydraulic Equipment & Accessories - Sales & Service **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	76	-	504922 183008
179	**Contemporary Trade Directory Entries** Name: Premier Reprographics Ltd Location: Unit 16, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Copying & Duplicating Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	82	-	504878 182973
179	**Contemporary Trade Directory Entries** Name: Team A M Ltd Location: Unit 17, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Freight Forwarders **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	85	-	504889 182972
179	**Contemporary Trade Directory Entries** Name: Colorscope Location: Bridge House,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Screen Process Printers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	85	-	504939 183022
179	**Contemporary Trade Directory Entries** Name: D T Clayton (Toolmakers) Ltd Location: Threaf House,56 Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	87	-	504939 183016
179	**Contemporary Trade Directory Entries** Name: Diesel Services Ltd Location: Unit 19, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	90	-	504907 182975
179	**Contemporary Trade Directory Entries** Name: Diesel Location: Unit 19, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Fuel Injection Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	90	-	504907 182975
179	**Contemporary Trade Directory Entries** Name: Coatley Press Location: Unit 21, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	101	-	504925 182975

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
179	**Contemporary Trade Directory Entries** Name: S P Networks Ltd Location: 2, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Telecommunications Equipment & Systems **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A13SE (SE)	102	-	504946 182999
179	**Contemporary Trade Directory Entries** Name: Blygold (Uk) Ltd Location: Threaf House, 54, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Coating Specialists **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	103	-	504916 182965
179	**Contemporary Trade Directory Entries** Name: Hardening & Brazing Location: Threaf House, 54, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Heat Treatment - Metals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	103	-	504916 182965
179	**Contemporary Trade Directory Entries** Name: Service Master Location: Victory House, 54, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	103	-	504916 182965
179	**Contemporary Trade Directory Entries** Name: Greenwood Waste Management Ltd Location: Victory House, 54, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Medical Waste Disposal **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	103	-	504916 182965
179	**Contemporary Trade Directory Entries** Name: Reid Lighting Co Location: Threaf House, 54, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Lighting Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	104	-	504916 182965
179	**Contemporary Trade Directory Entries** Name: Wicked Wheels Reading Ltd Location: Victory House, 54, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	104	-	504916 182965
179	**Contemporary Trade Directory Entries** Name: Crippo Engineering Location: The Forge,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Engineers - General **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	109	-	504942 182980
179	**Contemporary Trade Directory Entries** Name: A & A Recycling Location: 1A,Wallingford Rd, Uxbridge, Middlesex, UB8 2FR Classification: Reclaiming - Waste Products **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	112	-	504942 182976
179	**Contemporary Trade Directory Entries** Name: A & A Recycling Location: 1A,Wallingford Rd, Uxbridge, Middlesex, UB8 2FR Classification: Reclaiming - Waste Products **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	112	-	504942 182976
179	**Contemporary Trade Directory Entries** Name: Office Profile Location: Bridge House,Wallingford Rd, Uxbridge, Middlesex, UB8 2RW Classification: Office Furniture & Equipment **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	119	-	504942 182966
179	**Contemporary Trade Directory Entries** Name: Gilbert Laurence Ltd Location: 1, Union Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2FR Classification: Nuts, Bolts & Fixings **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	130	-	504969 182981

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
179	**Contemporary Trade Directory Entries** Name: Gilbert Laurence Ltd Location: Unit 1, Union Building, Wallingford Road, Uxbridge, Middlesex, UB8 2FR Classification: Nuts, Bolts & Fixings **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	130	-	504969 182981
179	**Contemporary Trade Directory Entries** Name: Commercial Care Services Location: 47, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	143	-	504944 182937
180	**Contemporary Trade Directory Entries** Name: Key-Chem Product Location: 12, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Waxes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	71	-	504745 183260
180	**Contemporary Trade Directory Entries** Name: Aspect Commercial Wheels Ltd Location: 12, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	71	-	504745 183260
181	**Contemporary Trade Directory Entries** Name: Telecard International Location: Progress House,Eskdale Rd, Uxbridge, Middlesex, UB8 2RT Classification: Printers - Glass, Metal, Plastics Etc. **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (W)	71	-	504619 183116
181	**Contemporary Trade Directory Entries** Name: Eyelighting Europe Location: 2,Eskdale Rd, Uxbridge, Middlesex, UB8 2RT Classification: Lighting Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (W)	80	-	504609 183118
181	**Contemporary Trade Directory Entries** Name: Asap Domestic Appliance Services Ltd Location: Impact House,Eskdale Rd, Uxbridge, Middlesex, UB8 2RT Classification: Cookers - Sales & Service **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	94	-	504594 183141
181	**Contemporary Trade Directory Entries** Name: Eyelighting (Europe) Ltd Location: Eskdale Rd, Uxbridge, Middlesex, UB8 2RT Classification: Manufacturers **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SW (W)	99	-	504590 183118
181	**Contemporary Trade Directory Entries** Name: Marine Engine Services Ltd Location: Unit 3, 549, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Marine Engineers **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SW (W)	99	-	504590 183118
181	**Contemporary Trade Directory Entries** Name: Burkard Scientific Sales Ltd Location: Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Scientific Apparatus & Instruments - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	99	-	504590 183118
181	**Contemporary Trade Directory Entries** Name: Combined Industrial Services Ltd Location: Island Site Eskdale Rd, Uxbridge, Middlesex, UB8 2RT Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	102	-	504587 183153

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
181	**Contemporary Trade Directory Entries** Name: Risheena Location: Unit 5, Carleton House, 549, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Powder Coatings **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	114	-	504580 183097
181	**Contemporary Trade Directory Entries** Name: H T Graphics Ltd Location: Unit 4, Carleton House, 549, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Lithographic Plate Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	114	-	504580 183097
181	**Contemporary Trade Directory Entries** Name: West Middlesex Surface Treatment Ltd Location: Unit 5, Carleton House, 549, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Metal Finishing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	114	-	504580 183097
181	**Contemporary Trade Directory Entries** Name: Hillrose Property Services Location: Unit 6,7,549 Eskdale Rd, Uxbridge, Middlesex, UB8 2RT Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	114	-	504580 183097
181	**Contemporary Trade Directory Entries** Name: Do Well Enterprises (Uk) Ltd Location: Carleton House, 549, Eskdale Road, UXBRIDGE, Middlesex, UB8 2RT Classification: Adhesives, Glues & Sealants **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	115	-	504580 183096
181	**Contemporary Trade Directory Entries** Name: Impact Bodyshop Ltd Location: Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (W)	141	-	504549 183162
182	**Contemporary Trade Directory Entries** Name: Clutch Centre Location: 7, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	72	-	504712 183242
182	**Contemporary Trade Directory Entries** Name: Clutch Centre Location: 7, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	72	-	504712 183242
182	**Contemporary Trade Directory Entries** Name: Devalo In Car Solutions Location: 4 Midas Ind Est,Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Mobile Phone Accessories and Car Kits **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	110	-	504703 183280
182	**Contemporary Trade Directory Entries** Name: Crescent Printing Co Location: 4, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	113	-	504700 183283
182	**Contemporary Trade Directory Entries** Name: Hands Free Car Location: 4, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Mobile Phone Accessories and Car Kits **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	113	-	504700 183283

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
182	**Contemporary Trade Directory Entries** Name: Catering Hygiene Specialist Location: 1, Midas Industrial Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YT Classification: Hygiene & Cleansing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	115	-	504680 183272
183	**Contemporary Trade Directory Entries** Name: Kimal Plc Location: Arundel Road, Uxbridge, Middlesex, UB8 2SA Classification: Medical Equipment Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	75	-	504822 182975
183	**Contemporary Trade Directory Entries** Name: New Concept Industrial Supplies Ltd Location: Unit 12, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	82	-	504848 182970
183	**Contemporary Trade Directory Entries** Name: Centurion Floor Machines Location: Unit 12, Sarum Complex, Salisbury Road, Uxbridge, Middlesex, UB8 2RZ Classification: Machinery - Industrial & Commercial **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	82	-	504848 182970
183	**Contemporary Trade Directory Entries** Name: Pulse Developments (England) Ltd Location: Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	101	-	504839 182950
183	**Contemporary Trade Directory Entries** Name: S C Screen Print Ltd Location: Unit 4/B, Arun Buildings, Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Screen Process Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	115	-	504851 182937
183	**Contemporary Trade Directory Entries** Name: Lama Ltd Location: Unit 4/B, Arun Buildings, Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Lingerie & Hosiery Manufacturers & Wholesalers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	115	-	504851 182937
183	**Contemporary Trade Directory Entries** Name: Paul Hatton Autos Location: Unit 2,Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SE (S)	115	-	504851 182937
183	**Contemporary Trade Directory Entries** Name: Fairfield Cases Location: Unit 3c,Arun Buildings,Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Pallets, Crates & Packing Cases **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SE (S)	115	-	504851 182937
184	**Contemporary Trade Directory Entries** Name: Quelch Engineering Ltd Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Engineers - General **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	83	-	504957 183062
184	**Contemporary Trade Directory Entries** Name: S Smith (Cowley) Ltd Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	110	-	504965 183019

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
184	**Contemporary Trade Directory Entries** Name: Power Engineering Location: 53, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	110	-	504965 183019
184	**Contemporary Trade Directory Entries** Name: Reid & Co (Uxbridge) Ltd Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	110	-	504965 183019
184	**Contemporary Trade Directory Entries** Name: A D A Fastfix Ltd Location: 53, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Nuts, Bolts & Fixings **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	110	-	504965 183019
184	**Contemporary Trade Directory Entries** Name: Quelch Engineering Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	110	-	504965 183019
185	**Contemporary Trade Directory Entries** Name: Zeus Location: Unit 7, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Metal Products - Fabricated **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	91	-	504632 183050
185	**Contemporary Trade Directory Entries** Name: Colin Fryer Car Care Ltd Location: Barton Buildings,Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SW (SW)	91	-	504635 183045
185	**Contemporary Trade Directory Entries** Name: Total Electricals Location: Unit 7, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Engineering Machine Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	91	-	504632 183050
185	**Contemporary Trade Directory Entries** Name: A R Valli & Sons Location: Unit 9, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	97	-	504629 183042
185	**Contemporary Trade Directory Entries** Name: Total Sonics Uk Location: Unit 4, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Ultrasonic Equipment Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	97	-	504627 183047
185	**Contemporary Trade Directory Entries** Name: Easygate Access Ltd Location: Unit 15, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Automation Systems & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	112	-	504629 183013
185	**Contemporary Trade Directory Entries** Name: Green Answer Location: 4, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Reclaiming - Waste Products **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	124	-	504578 183077

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
185	**Contemporary Trade Directory Entries** Name: Duty Calls Ltd Location: Unit 11, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Hygiene & Cleansing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	132	-	504591 183041
185	**Contemporary Trade Directory Entries** Name: L Hodge Engineers (Uk) Ltd Location: Unit 12, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	132	-	504594 183033
185	**Contemporary Trade Directory Entries** Name: Rapid Pumps Location: Unit 12, Chiltern Business Village, Arundel Road, Uxbridge, Middlesex, UB8 2SN Classification: Pumps - Sales, Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	133	-	504594 183033
186	**Contemporary Trade Directory Entries** Name: P L Ambrose Location: 47, Cowley Mill Road, Uxbridge, Middlesex, UB8 2QE Classification: French Polishing **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (N)	93	-	504770 183305
187	**Contemporary Trade Directory Entries** Name: Prangs Location: Unit 2,Colne Centre,Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (S)	96	-	504790 182940
187	**Contemporary Trade Directory Entries** Name: M E T T S Location: Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (S)	116	-	504770 182914
187	**Contemporary Trade Directory Entries** Name: Goodburn Industries Ltd Location: Arundel Road, Uxbridge, Middlesex, UB8 2SE Classification: Plastics - Injection Moulding **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	134	-	504774 182897
187	**Contemporary Trade Directory Entries** Name: Finecraft Engineering Ltd Location: Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Tube Bending **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	146	-	504814 182895
187	**Contemporary Trade Directory Entries** Name: City Commercials Location: 43, Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Commercial Vehicle Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	155	-	504822 182889
188	**Contemporary Trade Directory Entries** Name: Inpac Automation Ltd Location: Unit 1, Chartridge, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Packaging & Wrapping Equipment & Supplies **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (W)	99	-	504611 183206
188	**Contemporary Trade Directory Entries** Name: Smb Location: Unit 1, Chartridge, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Sheet Metal Work **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (W)	99	-	504611 183206

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
188	**Contemporary Trade Directory Entries** Name: Floor Warming Co Ltd Location: Domotek House, Eskdale Road, Uxbridge, Middlesex, UB8 2RT Classification: Under Floor Heating **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	143	-	504582 183239
189	**Contemporary Trade Directory Entries** Name: Forward Environmental Services Ltd Location: Unit 7, Swan Wharf Business Centre, Waterloo Road, Uxbridge, Middlesex, UB8 2RA Classification: Pest & Vermin Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	110	-	505006 183290
189	**Contemporary Trade Directory Entries** Name: Terminix Ltd Location: Unit 7, Swan Wharf Business Centre, Waterloo Road, Uxbridge, Middlesex, UB8 2RA Classification: Damp & Dry Rot Control **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	110	-	505006 183290
189	**Contemporary Trade Directory Entries** Name: New Century (London) Ltd Location: Unit 3, Swan Wharf Business Centre, Waterloo Road, Uxbridge, Middlesex, UB8 2RA Classification: Electronic Component Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	111	-	505024 183264
189	**Contemporary Trade Directory Entries** Name: E M U Windows Location: Unit 2,Swan Wharf Business Centre,Waterloo Rd, Uxbridge, Middlesex, UB8 2RA Classification: Window Frame Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	118	-	505032 183264
190	**Contemporary Trade Directory Entries** Name: Asahi Logistics Location: 7, Union Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2FR Classification: Freight Forwarders **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	165	-	504972 182931
190	**Contemporary Trade Directory Entries** Name: Brentford Plastics & Packaging Location: Wallingford Rd, Uxbridge, Middlesex, UB8 2SX Classification: Packaging & Wrapping Equipment & Supplies **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	165	-	504945 182911
190	**Contemporary Trade Directory Entries** Name: Eptg Ltd Location: 7, Union Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2FR Classification: Car Accessories Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	165	-	504972 182931
190	**Contemporary Trade Directory Entries** Name: S & G Air Conditioning Ltd Location: Union Buildings,Wallingford Rd, Uxbridge, Middx, UB8 2FR Classification: Air Conditioning & Refrigeration Contractors **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	166	-	504972 182930
190	**Contemporary Trade Directory Entries** Name: Superchips Location: 8, Union Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2FR Classification: Car Customisation & Conversion Specialists **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	172	-	504972 182922
190	**Contemporary Trade Directory Entries** Name: Ecutek Ltd Location: 8, Union Buildings, Wallingford Road, Uxbridge, Middlesex, UB8 2FR Classification: Automation Systems & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	172	-	504972 182922

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
190	**Contemporary Trade Directory Entries** Name: Powder Pressing Tools Ltd Location: Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	191	-	504960 182890
191	**Contemporary Trade Directory Entries** Name: The Ultimate Card Co Location: Unit 2,Arun Buildings,Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Greeting Card Publishers & Wholesalers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	166	-	504824 182878
192	**Contemporary Trade Directory Entries** Name: Taxi Meters Sales & Services Ltd Location: 94, Cowley Mill Road, Uxbridge, Middlesex, UB8 2QD Classification: Meter Manufacturers & Suppliers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	189	-	505109 183251
193	**Contemporary Trade Directory Entries** Name: Press Run Ltd Location: Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Distribution Services **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A13SE (SE)	189	-	504945 182884
194	**Contemporary Trade Directory Entries** Name: Maygray Graphics Ltd Location: Graphics House, Arundel Road, Uxbridge, Middlesex, UB8 2JX Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	194	-	504826 182849
194	**Contemporary Trade Directory Entries** Name: Tubetech Ltd Location: Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Tube Bending **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	202	-	504842 182846
194	**Contemporary Trade Directory Entries** Name: E B M Ltd Location: Unit 3,Arundel Rd, Uxbridge, Middlesex, UB8 2RP Classification: Cash Registers & Check-Out Equipment **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	220	-	504858 182832
194	**Contemporary Trade Directory Entries** Name: Straight Line Products Ltd Location: Unit 39, Arundel Road, Uxbridge, Middlesex, UB8 2RP Classification: Plastics - Injection Moulding **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	222	-	504844 182826
195	**Contemporary Trade Directory Entries** Name: Crescent Building Supplies Location: Unit 1,Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Builders' Merchants **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	217	-	504576 183331
195	**Contemporary Trade Directory Entries** Name: Benchmarx Location: Unit 9, Cowley Mill Trading Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Builders' Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	228	-	504560 183334
195	**Contemporary Trade Directory Entries** Name: Hygiene Services & Equipment Ltd Location: Unit 8, Cowley Mill Trading Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Hygiene & Sanitary Appliance Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	242	-	504545 183340

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
195	**Contemporary Trade Directory Entries** Name: Mediterranean Foods Location: Unit 8, Cowley Mill Trading Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Food Products - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	242	-	504545 183340
196	**Contemporary Trade Directory Entries** Name: Howdens Location: Unit 2,Cowley Mill Trading Est,Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Kitchen Furniture Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	227	-	504638 183378
196	**Contemporary Trade Directory Entries** Name: Kingfisher Interiors Ltd Location: Unit 3, Cowley Mill Trading Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Furniture Manufacturers - Home & Office **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	239	-	504624 183383
196	**Contemporary Trade Directory Entries** Name: Howden Joinery Location: Unit 4,Cowley Mill Trading Est,Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Joinery Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	249	-	504608 183386
196	**Contemporary Trade Directory Entries** Name: Contravent Regal Ltd Location: Unit 5, Cowley Mill Trading Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	262	-	504592 183393
196	**Contemporary Trade Directory Entries** Name: Crowley Technology Ltd Location: Unit 7, Brook Business Centre, Cowley Mill Road, Cowley, Uxbridge, Middlesex, UB8 2FX Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	271	-	504612 183414
196	**Contemporary Trade Directory Entries** Name: Stork-Amsterdam International Ltd Location: Stork House, 6, Brook Business Centre, Cowley Mill Road, Cowley, Uxbridge, Middlesex, UB8 2FX Classification: Packaging & Wrapping Equipment & Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	280	-	504615 183426
196	**Contemporary Trade Directory Entries** Name: Stork Conveyor Systems Location: Stork House, 6, Brook Business Centre, Cowley Mill Road, Cowley, Uxbridge, Middlesex, UB8 2FX Classification: Conveyors & Conveyor Belts **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	280	-	504615 183426
196	**Contemporary Trade Directory Entries** Name: H & S Enamelling Ltd Location: Unit 7, Cowley Mill Trading Estate, Longbridge Way, Cowley, Uxbridge, Middlesex, UB8 2YG Classification: Enamelling **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	284	-	504561 183401
197	**Contemporary Trade Directory Entries** Name: United Anodisers Location: Wallingford Road, Uxbridge, Middlesex, UB8 2SR Classification: Metal Finishing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	230	-	504913 182829

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
197	**Contemporary Trade Directory Entries** Name: D Ellwood Specialist Fabricators Ltd Location: The Forge,Wallingford Road, Uxbridge Trading Est, Uxbridge, Middlesex, UB8 2RW Classification: Sheet Metal Work **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	252	-	504946 182816
198	**Contemporary Trade Directory Entries** Name: Consider This Location: 54a, Cowley Mill Road, Uxbridge, Middlesex, UB8 2QE Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	239	-	504658 183403
198	**Contemporary Trade Directory Entries** Name: Sbbm Location: Brooke House, Brook Business Centre, Cowley Mill Road, Cowley, Uxbridge, Middlesex, UB8 2FX Classification: Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	239	-	504658 183403
199	**Contemporary Trade Directory Entries** Name: Dagenham Motors Location: Cowley Mill Road, Uxbridge, Middlesex, UB8 2UY Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	256	-	504712 183463
199	**Contemporary Trade Directory Entries** Name: Dagenham Motors Location: Cowley Mill Road, Uxbridge, Middlesex, UB8 2UY Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	256	-	504712 183463
200	**Contemporary Trade Directory Entries** Name: Gts (Uk) Location: Unit 7, Trade City Business Park, Cowley Mill Road, Uxbridge, Middlesex, UB8 2DB Classification: Medical Instruments - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	258	-	505158 183051
201	**Contemporary Trade Directory Entries** Name: Marsh Plant Hire Ltd Location: Wallingford Road, Uxbridge, Middlesex, UB8 2SS Classification: Crane Hire, Sales & Service **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	309	-	504961 182760
201	**Contemporary Trade Directory Entries** Name: Mobile Crane Hire Ltd Location: Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Crane Hire, Sales & Service **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	336	-	504964 182733
202	**Contemporary Trade Directory Entries** Name: R S T Property Preservation Location: 21, Tachbrook Road, Uxbridge, Middlesex, UB8 2QS Classification: Woodworm Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	316	-	505215 183338
202	**Contemporary Trade Directory Entries** Name: Ridditt Pest Control Location: 21, Tachbrook Road, Uxbridge, Middlesex, UB8 2QS Classification: Pest & Vermin Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	316	-	505215 183338
203	**Contemporary Trade Directory Entries** Name: Galana Uk Ltd Location: Unit 12, Brook Business Centre, Cowley Mill Road, Cowley, Uxbridge, Middlesex, UB8 2FX Classification: Oil Companies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	326	-	504583 183461

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
204	**Contemporary Trade Directory Entries** Name: C A Byrne Haulage Ltd Location: 57, Wescott Way, Uxbridge, Middlesex, UB8 2RF Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	358	-	505204 183440
205	**Contemporary Trade Directory Entries** Name: Master Mechanic Location: 2, Cromwell House, Austin Waye, Uxbridge, Middlesex, UB8 2RH Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	371	-	505053 183568
206	**Contemporary Trade Directory Entries** Name: Hale Hamilton Valves Ltd Location: Frays Mill Works, Cowley Road, Uxbridge, Middlesex, UB8 2AF Classification: Valve Manufacturers & Suppliers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (E)	389	-	505315 183158
207	**Contemporary Trade Directory Entries** Name: Parsons Bailey Stamp Location: Universal Works, Wallingford Road, Uxbridge, Middlesex, UB8 2ST Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	396	-	504993 182679
207	**Contemporary Trade Directory Entries** Name: Mch Mini Buses Ltd Location: 47, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Bus & Coach Operators & Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	421	-	504989 182652
207	**Contemporary Trade Directory Entries** Name: J M Scaffolding Location: 47, Wallingford Road, Uxbridge, Middlesex, UB8 2RW Classification: Scaffolding & Work Platforms **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	421	-	504989 182652
208	**Contemporary Trade Directory Entries** Name: Pinpoint Print Location: 29, Bridge Road, Uxbridge, Middlesex, UB8 2QP Classification: T-Shirts **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	411	-	505283 183416
209	**Contemporary Trade Directory Entries** Name: Craftmans Springs Location: 75a, Bridge Road, Uxbridge, Middlesex, UB8 2QW Classification: Spring Manufacturers & Distributors **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	437	-	505326 183389
210	**Contemporary Trade Directory Entries** Name: M F G Engineering Location: 42, Waterloo Road, Uxbridge, Middlesex, UB8 2QX Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	444	-	505011 183656
210	**Contemporary Trade Directory Entries** Name: Chalfont Precision Engineering Location: Unit 42,Blackhorse Yard,Waterloo Rd, Uxbridge, Middlesex, UB8 2QX Classification: Precision Engineers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18SE (N)	445	-	505013 183657
210	**Contemporary Trade Directory Entries** Name: J B Vehicle Body Repairs Location: 43, Waterloo Road, Uxbridge, Middlesex, UB8 2QX Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned in the proximity of the address	A18SE (N)	482	-	505027 183692
210	**Contemporary Trade Directory Entries** Name: Uxbridge Boat Centre Ltd Location: Waterloo Road, Uxbridge, Middlesex, UB8 2QX Classification: Chandlers **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (N)	487	-	504986 183704

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
210	**Contemporary Trade Directory Entries** Name: Acorn Crane Hire Location: 25, Waterloo Road, Uxbridge, Middlesex, UB8 2QX Classification: Crane Hire, Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	499	-	505008 183714
211	**Contemporary Trade Directory Entries** Name: Parkside Motor Co Location: 208, Cowley Road, Uxbridge, Middlesex, UB8 2LZ Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (E)	454	-	505379 183165
212	**Contemporary Trade Directory Entries** Name: Charters Peugeot Ltd Location: Autoguild House, Cowley Road, Uxbridge, Middlesex, UB8 2AQ Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	455	-	505317 182931
212	**Contemporary Trade Directory Entries** Name: Cornes Grange Location: Autoguild House, Cowley Road, Uxbridge, Middlesex, UB8 2AQ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	455	-	505317 182931
212	**Contemporary Trade Directory Entries** Name: A Whiteman Location: 91, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	475	-	505350 182951
212	**Contemporary Trade Directory Entries** Name: Kevin Gooch Location: 91, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	475	-	505350 182951
212	**Contemporary Trade Directory Entries** Name: Cowley Road Car Sales Location: 91, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	475	-	505350 182951
213	**Contemporary Trade Directory Entries** Name: Stay Brite Domestic Cleaning Services Location: 122, Cowley Road, Uxbridge, Middlesex, UB8 2LY Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (E)	486	-	505401 183311
214	**Contemporary Trade Directory Entries** Name: Cowley Road Tyre & Exhaust Centre Location: 256, Cowley Road, Uxbridge, Middlesex, UB8 2NH Classification: Tyre Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	497	-	505389 182986
215	**Contemporary Trade Directory Entries** Name: S M S Suzuki Location: 139, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	510	-	505333 182855
215	**Contemporary Trade Directory Entries** Name: Smc Ford Location: 139, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	510	-	505333 182855
215	**Contemporary Trade Directory Entries** Name: Smc Location: 139, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	510	-	505333 182855

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
215	**Contemporary Trade Directory Entries** Name: Smc Location: 139, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	510	-	505333 182855
215	**Contemporary Trade Directory Entries** Name: S M C Location: 139, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	510	-	505333 182855
215	**Contemporary Trade Directory Entries** Name: Business Direct Response Location: 143, Cowley Road, Uxbridge, Middlesex, UB8 2AG Classification: Washing Machines - Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	515	-	505328 182838
216	**Contemporary Trade Directory Entries** Name: Merloni Domestic Appliances Location: Merloni House, 3, Cowley Business Park, High Street, Cowley, Uxbridge, Middlesex, UB8 2AD Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	521	-	505142 182614
216	**Contemporary Trade Directory Entries** Name: Indesit Location: Merloni House, 3, Cowley Business Park, High Street, Cowley, Uxbridge, Middlesex, UB8 2AD Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	521	-	505142 182614
217	**Contemporary Trade Directory Entries** Name: Commercial Care Services Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557
217	**Contemporary Trade Directory Entries** Name: Uxbridge Calor Centre Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Gas Suppliers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557
217	**Contemporary Trade Directory Entries** Name: Eurogas Direct Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Gas Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557
217	**Contemporary Trade Directory Entries** Name: Grab Loader Services Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557
217	**Contemporary Trade Directory Entries** Name: S E T Transport Ltd Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557
217	**Contemporary Trade Directory Entries** Name: Silverfox Bus Co Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
217	**Contemporary Trade Directory Entries** Name: Calor Gas Ltd Location: Calor Centre, Wallingford Road, Uxbridge, Middlesex, UB8 2XS Classification: Gas Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	529	-	505043 182557
218	**Contemporary Trade Directory Entries** Name: Croft Bros (Uk) Ltd Location: Unit D1, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	533	-	504721 183759
218	**Contemporary Trade Directory Entries** Name: Daniel James Location: 24 Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Soft Furnishings - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	548	-	504770 183782
218	**Contemporary Trade Directory Entries** Name: Uxbridge Compressed Air Services Location: Unit D3, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Air Compressors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	571	-	504730 183799
218	**Contemporary Trade Directory Entries** Name: Kommerling (Uk) Location: 27 Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Adhesives, Glues & Sealants **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18NW (N)	614	-	504738 183844
219	**Contemporary Trade Directory Entries** Name: Farben Graphics Ltd Location: Rear Of,77-78 Chiltern View Rd, Uxbridge, Middlesex, UB8 2PF Classification: Print Finishers **Status: Inactive** Positional Accuracy: Manually positioned to an adjacent address or location	A14NW (E)	545	-	505470 183200
220	**Contemporary Trade Directory Entries** Name: Carpet Kleen Location: 290, Cowley Road, UXBRIDGE, Middlesex, UB8 2NJ Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	572	-	505382 182816
221	**Contemporary Trade Directory Entries** Name: Dolphin Tool Co Ltd Location: 1, Rockingham Road, Uxbridge, Middlesex, UB8 2UB Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	597	-	504949 183824
221	**Contemporary Trade Directory Entries** Name: Acorn Precision Components Ltd Location: 1, Rockingham Road, Uxbridge, Middlesex, UB8 2UB Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	597	-	504949 183824
222	**Contemporary Trade Directory Entries** Name: Wrights Reclaimed Location: B, 55, Cowley Road, Uxbridge, Middlesex, UB8 2AE Classification: Fireplaces & Mantelpieces **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	613	-	505369 183639
222	**Contemporary Trade Directory Entries** Name: Used Car Sales Location: 55c, Cowley Road, Uxbridge, Middlesex, UB8 2AE Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	613	-	505360 183648
222	**Contemporary Trade Directory Entries** Name: Trident Location: 53, Cowley Road, Uxbridge, Middlesex, UB8 2AE Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	624	-	505374 183649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
222	**Contemporary Trade Directory Entries** Name: Finely Made Furniture Location: 62, Cowley Road, Uxbridge, Middlesex, UB8 2LU Classification: Cabinet Makers **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	630	-	505411 183617
222	**Contemporary Trade Directory Entries** Name: Heathrow Left Hand Drive Centre Ltd Location: 49, Cowley Road, Uxbridge, Middlesex, UB8 2AE Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	631	-	505373 183660
223	**Contemporary Trade Directory Entries** Name: Euro Plastic Components Location: 69, Rockingham Road, Uxbridge, Middlesex, UB8 2UA Classification: Plastics - Injection Moulding **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	635	-	505028 183848
223	**Contemporary Trade Directory Entries** Name: Lloyd & Son Metal Spinners Ltd Location: 69, Rockingham Road, Uxbridge, Middlesex, UB8 2UA Classification: Lighting Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	635	-	505028 183848
223	**Contemporary Trade Directory Entries** Name: Road London Enterprises Location: 69, Rockingham Road, Uxbridge, Middlesex, UB8 2UA Classification: Electrical goods - servicing & repairs **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18NE (N)	635	-	505028 183848
223	**Contemporary Trade Directory Entries** Name: Advanced Business Equipment Ltd Location: Tavistock House, 5, Rockingham Road, UXBRIDGE, Middlesex, UB8 2UB Classification: Copying & Duplicating Machines & Supplies **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NE (N)	653	-	504990 183873
223	**Contemporary Trade Directory Entries** Name: Freeway Lift Services Ltd Location: Dolphin Wharf,Rockingham Rd, Uxbridge, Middlesex, UB8 2UB Classification: Disability Equipment - Manufacturers & Suppliers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18NE (N)	662	-	504956 183889
223	**Contemporary Trade Directory Entries** Name: Halfords Autocentre Location: Unit 2, Rockingham Wharf, Rockingham Road, Uxbridge, Middlesex, UB8 2UH Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NE (N)	699	-	504984 183921
223	**Contemporary Trade Directory Entries** Name: Diamond Wren Uk Ltd Location: Rockingham Wharf, Rockingham Road, Uxbridge, Middlesex, UB8 2UH Classification: Fibre Optics **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	699	-	504984 183921
224	**Contemporary Trade Directory Entries** Name: Bec Perimeter Security Ltd Location: 22, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Gate Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	638	-	504809 183876
224	**Contemporary Trade Directory Entries** Name: Illuma Lighting Ltd Location: Cheetah Building, 22-24, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Lighting Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	677	-	504813 183914

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
224	**Contemporary Trade Directory Entries** Name: Daniel James Location: 24, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Furniture Manufacturers - Home & Office **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NE (N)	718	-	504833 183956
225	**Contemporary Trade Directory Entries** Name: N L S Fabrication Location: Unit 27 Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Metal Workers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	657	-	505163 182470
225	**Contemporary Trade Directory Entries** Name: Alchemy Bespoke Blinds Location: Unit 50 Bridge Works,Iver Lane, Cowley, Uxbridge, Middlesex, UB8 2JG Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	657	-	505151 182463
225	**Contemporary Trade Directory Entries** Name: Eltec Industries Ltd Location: Unit 55,Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Blast Cleaning **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	660	-	505149 182459
225	**Contemporary Trade Directory Entries** Name: Falcon Engineering Location: Unit 39 Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Sheet Metal Work **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	662	-	505148 182456
225	**Contemporary Trade Directory Entries** Name: Sea Spray Motors Location: Unit 10 Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	677	-	505152 182442
225	**Contemporary Trade Directory Entries** Name: S V Motor Repair Shop Location: Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	707	-	505181 182423
226	**Contemporary Trade Directory Entries** Name: Mhsl Location: 29, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Firefighting Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (N)	660	-	504749 183893
227	**Contemporary Trade Directory Entries** Name: Prestige & Performance Cars Ltd Location: Cherry Tree Lane, Iver, Buckinghamshire, SL0 0EE Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NW (NW)	691	-	504489 183836
228	**Contemporary Trade Directory Entries** Name: A V H Adapted Veichle Location: Poplar House, Cowley Business Park, High Street, Cowley, Uxbridge, Middlesex, UB8 2AD Classification: Disability Equipment - Manufacturers & Suppliers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	700	-	505335 182538
229	**Contemporary Trade Directory Entries** Name: Abac Uk Ltd Location: Burr Hall, Chiltern View Road, Uxbridge, Middlesex, UB8 2PF Classification: Air Compressors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	726	-	505649 183244

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
230	**Contemporary Trade Directory Entries** Name: Fsl Aerospace Ltd Location: 33, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Nuts, Bolts & Fixings **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NW (N)	736	-	504772 183971
231	**Contemporary Trade Directory Entries** Name: Road & Sea Express Location: 24-32, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A18NE (N)	738	-	504822 183976
231	**Contemporary Trade Directory Entries** Name: Sertrix Tools Location: Unit D2, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A18NE (N)	738	-	504822 183976
232	**Contemporary Trade Directory Entries** Name: Allied Location: 22, Cowley Road, Uxbridge, Middlesex, UB8 2LT Classification: Office Furniture & Equipment **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	746	-	505418 183777
233	**Contemporary Trade Directory Entries** Name: The Restorer Location: 34-36, Rockingham Road, Uxbridge, Middlesex, UB8 2TZ Classification: Furniture - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	746	-	505175 183922
233	**Contemporary Trade Directory Entries** Name: The Restorer Location: 34-36, Rockingham Road, Uxbridge, Middlesex, UB8 2TZ Classification: Furniture - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	746	-	505175 183922
234	**Contemporary Trade Directory Entries** Name: Just Tyres Location: 2, Wellington Road, Uxbridge, Middlesex, UB8 2AP Classification: Tyre Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	750	-	505333 183847
234	**Contemporary Trade Directory Entries** Name: Kwik-Fit Location: 1, Wellington Road, Uxbridge, Middlesex, UB8 2AP Classification: Tyre Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	775	-	505352 183865
235	**Contemporary Trade Directory Entries** Name: Rhodes Freight Services Ltd Location: Unit 34-35, Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Freight Forwarders **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Alchemy Blinds Location: Unit 50, Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Denecroft Engineering Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Classic Powder Coating Ltd Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Powder Coatings **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
235	**Contemporary Trade Directory Entries** Name: Contour Packaging International Ltd Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JF Classification: Packaging & Wrapping Equipment & Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Graham'S Cutter Grinding Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Tool Sharpening, Repairing & Servicing **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Holt Precision Engineering Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Air-Con-Duct Ltd Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Sheet Metal Work **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Microlimit Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Tott'S Automotive Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Autodex Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JF Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Don Povey Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Ldj Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Sheet Metal Work **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: J F Hall Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Donnelly Engineering Location: Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Middlesex Lazer Cutting Location: Premier House, Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Engineering Machine Services **Status: Active** Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	769	-	505161 182345

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
235	**Contemporary Trade Directory Entries** Name: Tiedt Engineering Location: Unit 8,Bridge Works,Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Ads Location: Unit G Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	769	-	505161 182345
235	**Contemporary Trade Directory Entries** Name: Gledwood Triumphs Location: Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Classic Car Specialists **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	770	-	505161 182344
235	**Contemporary Trade Directory Entries** Name: P Endacott Location: Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	774	-	505190 182352
235	**Contemporary Trade Directory Entries** Name: Bridge Works Motors Location: 7,Bridge Works,Iver Lane, Uxbridge, Middlesex, UB8 2JG Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	779	-	505193 182348
235	**Contemporary Trade Directory Entries** Name: Microlimit Location: 542 Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Engineers - General **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	784	-	505179 182336
235	**Contemporary Trade Directory Entries** Name: Chalkboardsdirect Location: Bay D,Bridge Works,Iver La, Uxbridge, Middlesex, UB8 2JG Classification: Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A9SW (SE)	803	-	505166 182310
236	**Contemporary Trade Directory Entries** Name: Conair Europe Ltd Location: Riverside Way, Uxbridge, Middlesex, UB8 2YF Classification: Materials Handling Equipment **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18NE (N)	773	-	504921 184006
236	**Contemporary Trade Directory Entries** Name: E T Enterprises Location: 45 Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18NE (N)	777	-	504888 184013
237	**Contemporary Trade Directory Entries** Name: The Workshop Location: Villier St, Uxbridge, Middlesex, UB8 2PU Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A14SE (E)	778	-	505685 182994
238	**Contemporary Trade Directory Entries** Name: Cape Plc Location: Cowley Bridge Works, Iver Lane, Uxbridge, Middlesex, UB8 2JQ Classification: Insulation Materials **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SE (S)	789	-	504980 182273
239	**Contemporary Trade Directory Entries** Name: Oystar Packaging Technologies Location: Wellington House, 4-10, Cowley Road, Uxbridge, Middlesex, UB8 2XW Classification: Packaging & Wrapping Equipment & Supplies **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	803	-	505419 183850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
240	**Contemporary Trade Directory Entries** Name: H & H Services Location: Palmers Moor Farm, Palmers Moor Lane, Iver, Buckinghamshire, SL0 9LG Classification: Scrap Metal Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	805	-	504594 182242
241	**Contemporary Trade Directory Entries** Name: Regional Pest Services Ltd Location: 19, Whitehall Road, Uxbridge, Middlesex, UB8 2DU Classification: Pest & Vermin Control **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	822	-	505648 183607
242	**Contemporary Trade Directory Entries** Name: Marish Packaging Ltd Location: Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Boxes & Cartons **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (N)	828	-	504784 184064
243	**Contemporary Trade Directory Entries** Name: Imprint Promotional Services Ltd Location: 1a, Villier Street, Uxbridge, Middlesex, UB8 2PU Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SE (E)	840	-	505750 183003
243	**Contemporary Trade Directory Entries** Name: Prior Engineering Location: A, 1, Villier Street, Uxbridge, Middlesex, UB8 2PU Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	840	-	505750 183003
244	**Contemporary Trade Directory Entries** Name: Export Appliances Location: 1, Station Road, Uxbridge, Middlesex, UB8 3AA Classification: Electrical Goods Sales, Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	869	-	505415 182384
245	**Contemporary Trade Directory Entries** Name: Gardner Motor Engineers Location: 51, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	869	-	504894 184105
245	**Contemporary Trade Directory Entries** Name: R A Motor Services Location: 51, Riverside Way, Cowley, Uxbridge, Middlesex, UB8 2YF Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NE (N)	869	-	504894 184105
246	**Contemporary Trade Directory Entries** Name: Sharpe Carriages Location: 13, Cleveland Road, Uxbridge, Middlesex, UB8 2DW Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	871	-	505768 182942
247	**Contemporary Trade Directory Entries** Name: Leadlight Services Location: 15, Orchard Waye, Uxbridge, Middlesex, UB8 2BN Classification: Leaded Lights & Windows **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	902	-	505824 183289
248	**Contemporary Trade Directory Entries** Name: David Jones Location: Slough Road, Iver, Buckinghamshire, SL0 0EB Classification: Pet Foods & Animal Feeds **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SW (NW)	904	-	504013 183745
249	**Contemporary Trade Directory Entries** Name: R S A Engineering Location: 2, High Street, Cowley, UXBRIDGE, Middlesex, UB8 2EB Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	912	-	505416 182330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
249	**Contemporary Trade Directory Entries** Name: Buchholz Location: Rear Of 2 High St, Cowley, Uxbridge, Middlesex, UB8 2EB Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Manually positioned to an adjacent address or location	A9SW (SE)	912	-	505415 182329
249	**Contemporary Trade Directory Entries** Name: Mark Burgess Distribution Location: High St, Cowley, Uxbridge, Middlesex, UB8 2EQ Classification: Distribution Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A9SW (SE)	915	-	505395 182310
250	**Contemporary Trade Directory Entries** Name: Torex Pumps Location: Riverdale, Old Mill Lane, Uxbridge, Middlesex, UB8 2JH Classification: Pumps - Sales, Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SE (S)	939	-	505048 182133
250	**Contemporary Trade Directory Entries** Name: Fjl Recycling Location: Riverdale, Old Mill Lane, Uxbridge, Middlesex, UB8 2JH Classification: Waste Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SE (S)	939	-	505048 182133
250	**Contemporary Trade Directory Entries** Name: Torex Precision Engineering Ltd Location: Riverdale, Old Mill Lane, Uxbridge, Middlesex, UB8 2JH Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SE (S)	939	-	505048 182133
251	**Contemporary Trade Directory Entries** Name: Leapfrog Toys Location: 36, Windsor Street, Uxbridge, Middlesex, UB8 1AB Classification: Toys, Games & Sporting Goods - Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A19NW (NE)	941	-	505437 184008
252	**Contemporary Trade Directory Entries** Name: Oak Farm Gas Location: High St, Cowley, Uxbridge, Middlesex, UB8 2EQ Classification: Gas Suppliers - Bottled **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A9SW (SE)	962	-	505406 182260
252	**Contemporary Trade Directory Entries** Name: Mr Fizz Location: High St, Cowley, Uxbridge, Middlesex, UB8 2EQ Classification: Gas Suppliers **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	965	-	505427 182271
252	**Contemporary Trade Directory Entries** Name: Oak Farm Leisure Location: High Street, Cowley, Uxbridge, Middlesex, UB8 2EQ Classification: Trailers & Towing Equipment **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	966	-	505427 182271
253	**Contemporary Trade Directory Entries** Name: Us Express Services Ltd Location: 48, Windsor Street, Uxbridge, Middlesex, UB8 1AB Classification: Freight Forwarders **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	996	-	505469 184052
254	**Contemporary Trade Directory Entries** Name: Active Cleaning Contractors Ltd Location: Orchard Waye Villas,Orchard Waye, Uxbridge, Middlesex, UB8 2BP Classification: Commercial Cleaning Services **Status: Active** Positional Accuracy: Manually positioned to the address or location	A15NW (E)	998	-	505918 183306

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
255	**Fuel Station Entries** Name: Dagenham Motors Uxbridge Location: St Johns Road, Uxbridge Moor, UXBRIDGE, Middlesex, UB8 2UR Brand: Pace Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	273	-	504693 183472

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
256	**Areas of Adopted Green Belt** Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan **Status: Adopted** Plan Date: 30th September 1998	A13SW (SW)	82	6	504679 182985
257	**Areas of Adopted Green Belt** Authority: South Buckinghamshire District Council, Development Control Department Plan Name: Proposal Map **Status: Adopted** Plan Date: 22nd February 2011	A13SW (SW)	152	8	504642 182923
258	**Areas of Adopted Green Belt** Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan **Status: Adopted** Plan Date: 30th September 1998	A18SW (N)	292	6	504741 183518
259	**Areas of Adopted Green Belt** Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan **Status: Adopted** Plan Date: 30th September 1998	A14SW (E)	547	6	505411 182911
260	**Areas of Adopted Green Belt** Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan **Status: Adopted** Plan Date: 30th September 1998	A8SE (S)	761	6	505107 182333
261	**Areas of Adopted Green Belt** Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan **Status: Adopted** Plan Date: 30th September 1998	A8SE (S)	801	6	505122 182295
262	**Nitrate Vulnerable Zones** Name: Not Supplied Description: NVZ Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13NE (N)	0	9	504813 183138
263	**Nitrate Vulnerable Zones** Name: Not Supplied Description: NVZ Deferred Slurry Storage Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A18SW (N)	597	9	504640 183802

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
South Buckinghamshire District Council - Environmental Health Department	January 2013	Annual Rolling Update
Slough Borough Council - Environmental Protection	March 2013	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	October 2013	Annual Rolling Update
London Borough of Hillingdon - Environmental Protection Unit	September 2013	Annual Rolling Update
Discharge Consents		
Environment Agency - Thames Region	October 2013	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Thames Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Thames Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - Thames Region	October 2013	Quarterly
Local Authority Integrated Pollution Prevention And Control		
London Borough of Hillingdon - Environmental Health Department	December 2012	Annual Rolling Update
Slough Borough Council - Environmental Health Department	December 2012	Annual Rolling Update
South Buckinghamshire District Council - Environmental Health Department	January 2013	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	November 2013	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
London Borough of Hillingdon - Environmental Health Department	December 2012	Annual Rolling Update
Slough Borough Council - Environmental Health Department	December 2012	Annual Rolling Update
South Buckinghamshire District Council - Environmental Health Department	January 2013	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	November 2013	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
London Borough of Hillingdon - Environmental Health Department	December 2012	Annual Rolling Update
Slough Borough Council - Environmental Health Department	December 2012	Annual Rolling Update
South Buckinghamshire District Council - Environmental Health Department	January 2013	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	November 2013	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters		
Environment Agency - Thames Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Thames Region	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Thames Region	March 2013	As notified
Registered Radioactive Substances		
Environment Agency - Thames Region	October 2013	Quarterly
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency - Thames Region - North East Area	October 2013	Quarterly
Environment Agency - Thames Region - South East Area	October 2013	Quarterly
Water Abstractions		
Environment Agency - Thames Region	October 2013	Quarterly
Water Industry Act Referrals		
Environment Agency - Thames Region	October 2013	Quarterly

Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	Annually
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	Annually
Source Protection Zones Environment Agency - Head Office	October 2013	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2013	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2013	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	December 2013	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	December 2013	Quarterly
Flood Defences Environment Agency - Head Office	December 2013	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - South East Region - Kent & South London Area	October 2013	Quarterly
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	October 2013	Quarterly
Environment Agency - South East Region - West Thames Area	October 2013	Quarterly
Environment Agency - Thames Region - North East Area	October 2013	Quarterly
Environment Agency - Thames Region - South East Area	October 2013	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Kent & South London Area	October 2013	Quarterly
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	October 2013	Quarterly
Environment Agency - South East Region - West Thames Area	October 2013	Quarterly
Environment Agency - Thames Region - North East Area	October 2013	Quarterly
Environment Agency - Thames Region - South East Area	October 2013	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - Thames Region - North East Area	October 2013	Quarterly
Environment Agency - Thames Region - South East Area	October 2013	Quarterly
Local Authority Landfill Coverage		
Buckinghamshire County Council	May 2000	Not Applicable
London Borough of Ealing	May 2000	Not Applicable
London Borough of Hillingdon - Environmental Health Department	May 2000	Not Applicable
Slough Borough Council	May 2000	Not Applicable
South Buckinghamshire District Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
South Buckinghamshire District Council	August 2006	Not Applicable
Buckinghamshire County Council	May 2000	Not Applicable
London Borough of Ealing	May 2000	Not Applicable
London Borough of Hillingdon - Environmental Health Department	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	August 2013	Bi-Annually
Explosive Sites		
Health and Safety Executive	November 2013	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
London Borough of Ealing	April 2013	Annual Rolling Update
London Borough of Hillingdon	March 2013	Annual Rolling Update
South Buckinghamshire District Council - Development Control Department	March 2013	Annual Rolling Update
Buckinghamshire County Council	September 2013	Annual Rolling Update
Slough Borough Council - Development & Consumer Protection Dep.	September 2013	Annual Rolling Update
Planning Hazardous Substance Consents		
London Borough of Ealing	April 2013	Annual Rolling Update
London Borough of Hillingdon	March 2013	Annual Rolling Update
South Buckinghamshire District Council - Development Control Department	March 2013	Annual Rolling Update
Buckinghamshire County Council	September 2013	Annual Rolling Update
Slough Borough Council - Development & Consumer Protection Dep.	September 2013	Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2013	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	June 2011	Variable
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	June 2011	Variable
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	December 2013	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries Thomson Directories	November 2013	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2013	Quarterly

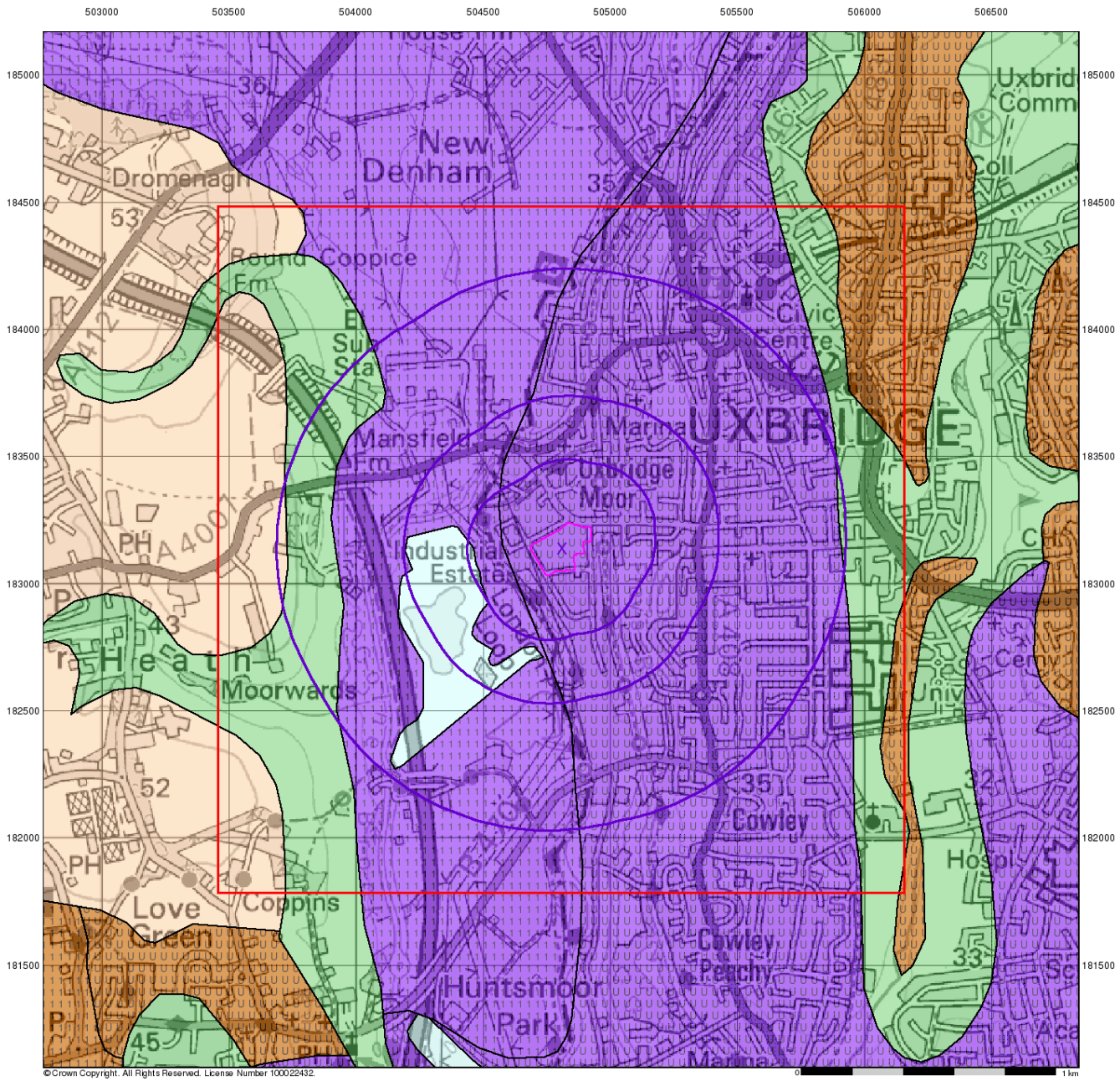
Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt		
London Borough of Ealing	November 2013	As notified
London Borough of Hillingdon	November 2013	As notified
Slough Borough Council	November 2013	As notified
South Buckinghamshire District Council - Development Control Department	November 2013	As notified
Areas of Unadopted Green Belt		
London Borough of Ealing	November 2013	As notified
London Borough of Hillingdon	November 2013	As notified
Slough Borough Council	November 2013	As notified
South Buckinghamshire District Council - Development Control Department	November 2013	As notified
Areas of Outstanding Natural Beauty		
Natural England	January 2014	Bi-Annually
Environmentally Sensitive Areas		
Natural England	July 2013	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	July 2013	Bi-Annually
Marine Nature Reserves		
Natural England	July 2013	Bi-Annually
National Nature Reserves		
Natural England	July 2013	Bi-Annually
National Parks		
Natural England	January 2014	Bi-Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2013	Annually
Ramsar Sites		
Natural England	July 2013	Bi-Annually
Sites of Special Scientific Interest		
Natural England	July 2013	Bi-Annually
Special Areas of Conservation		
Natural England	July 2013	Bi-Annually
Special Protection Areas		
Natural England	July 2013	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**London Borough of Hillingdon - Environmental Health Department** Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 277443 Website: www.hillingdon.gov.uk
3	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
4	**South Buckinghamshire District Council** Capswood, Oxford Road, Denham, Berkshire, UB9 4LH	Telephone: 01895 837200 Website: www.southbucks.gov.uk
5	**Health and Safety Executive** 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
6	**London Borough of Hillingdon** Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 250830 Website: www.hillingdon.gov.uk
7	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
8	**South Buckinghamshire District Council - Development Control Department** Capswood, Oxford Road, Denham, Berkshire, UB9 4LH	Telephone: 01895 837200 Website: www.southbucks.gov.uk
9	**Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)** Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
10	**Natural England** Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
11	**Buckinghamshire County Council** County Hall, Aylesbury, Buckinghamshire, HP20 1UA	Telephone: 01296 395900 Fax: 01296 88887 Website: www.buckscc.gov.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



Groundwater Vulnerability

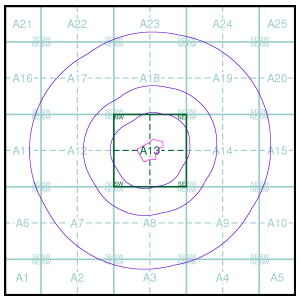
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



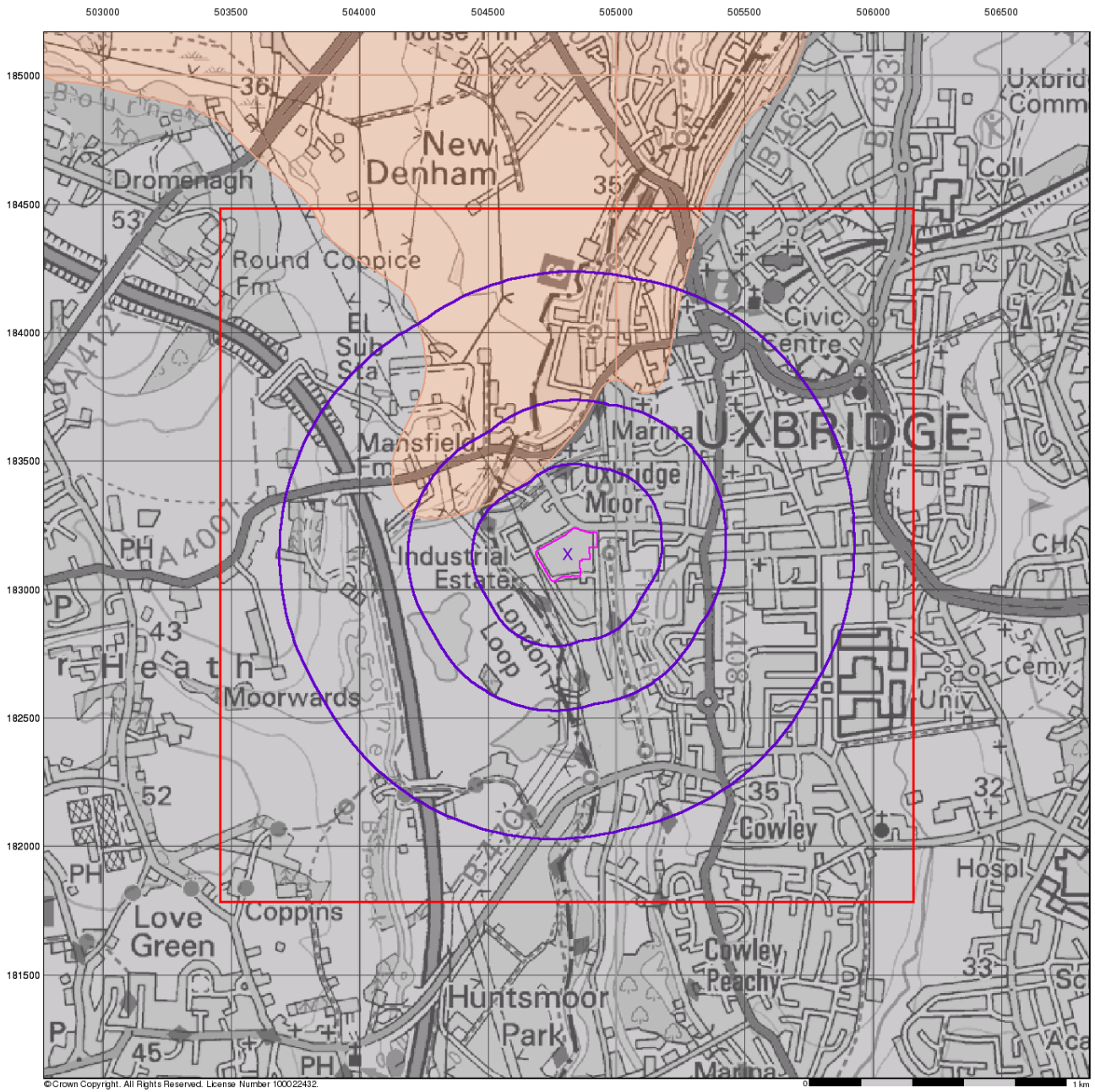
Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

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



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Bedrock Aquifer Designation

General

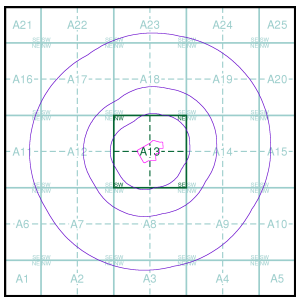
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



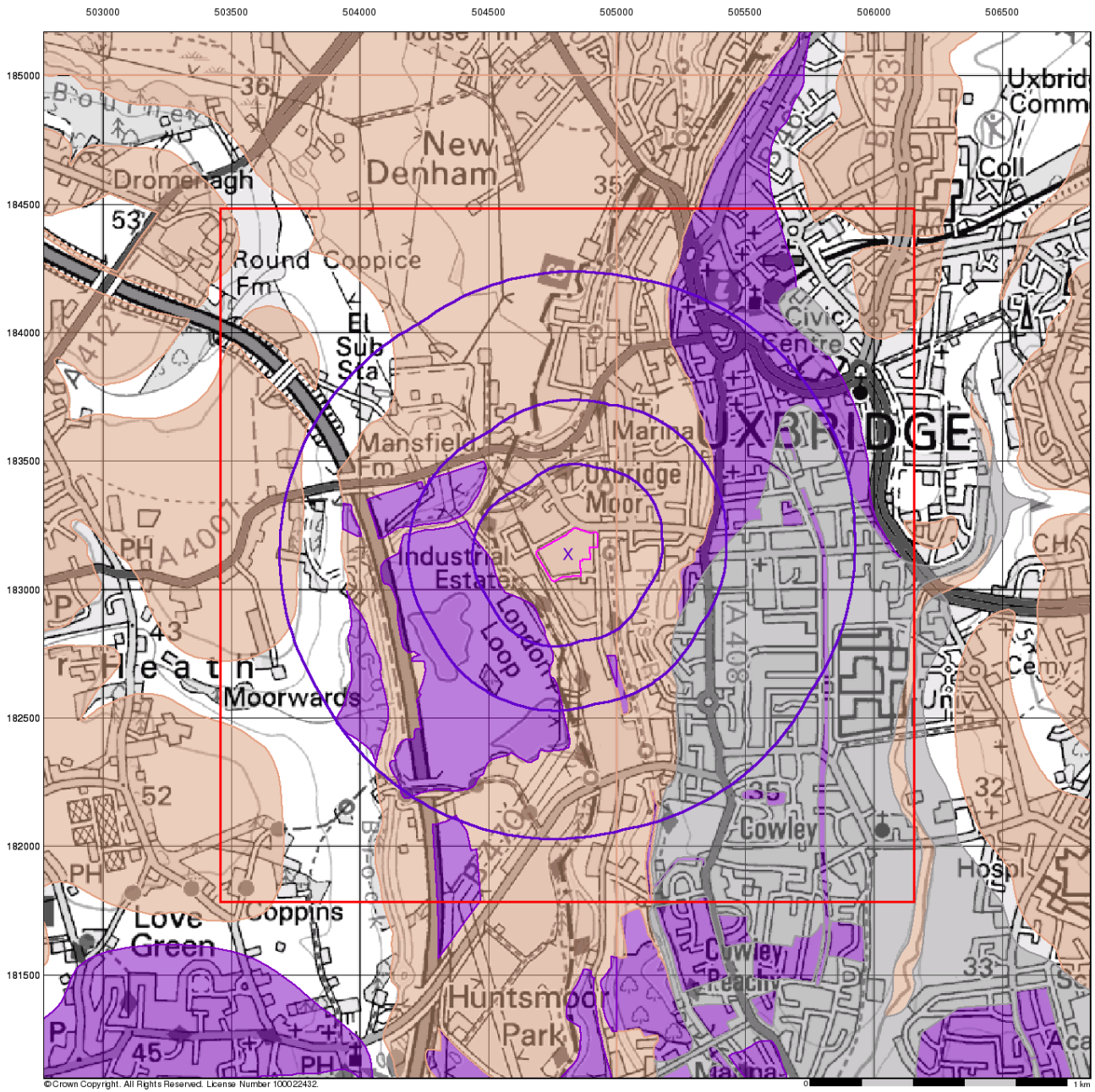
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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

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Superficial Aquifer Designation

General

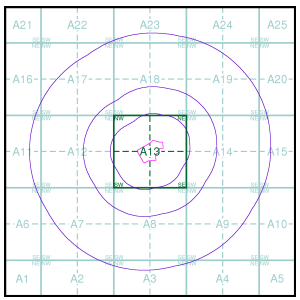
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



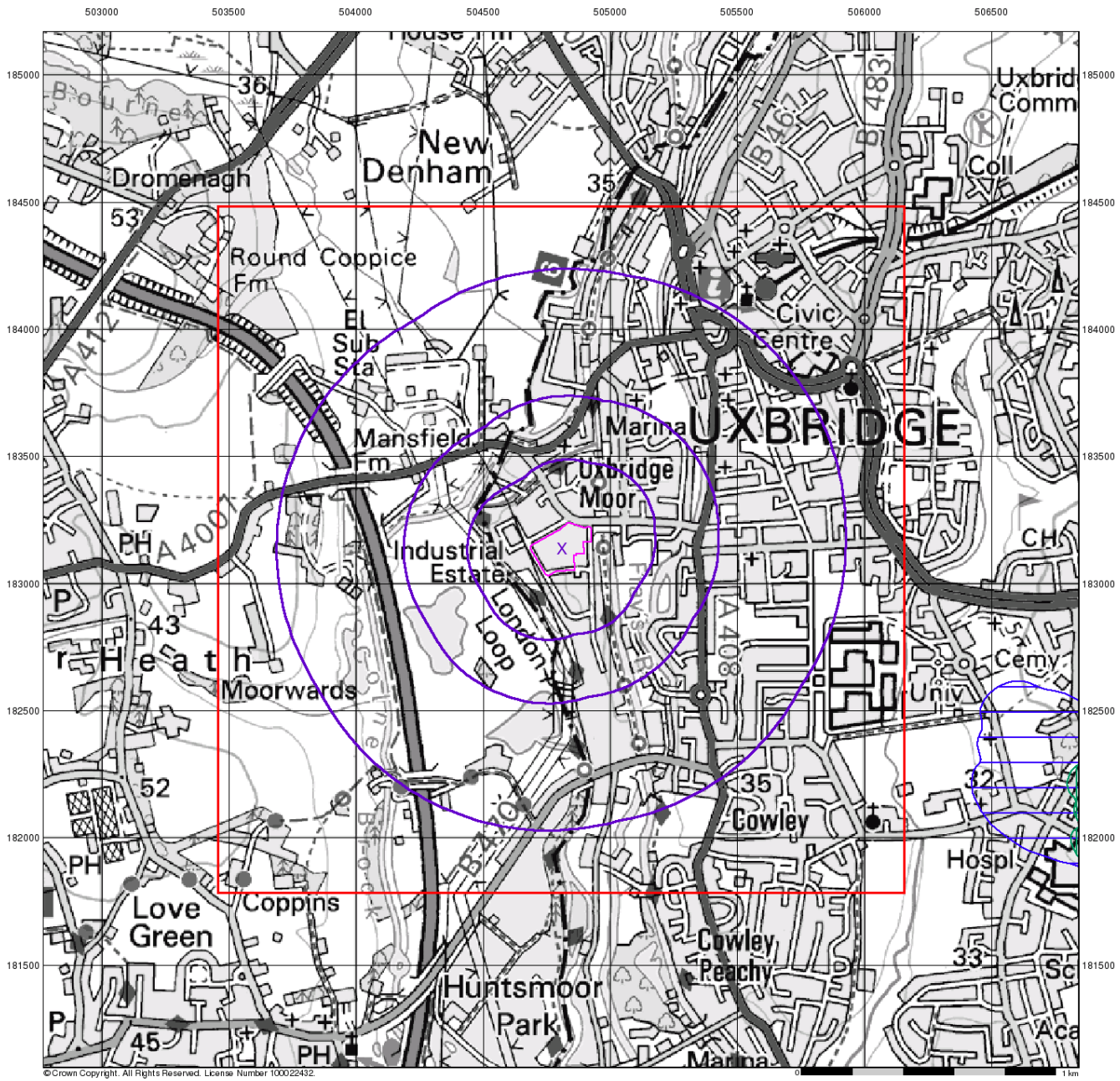
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National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

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



Source Protection Zones

General

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

Slice | Map ID

Agency and Hydrological

Source Protection Zone I

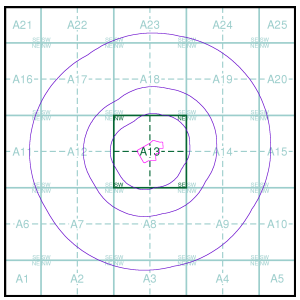
Source Protection Zone II

Source Protection Zone III

Zone of Special Interest

Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

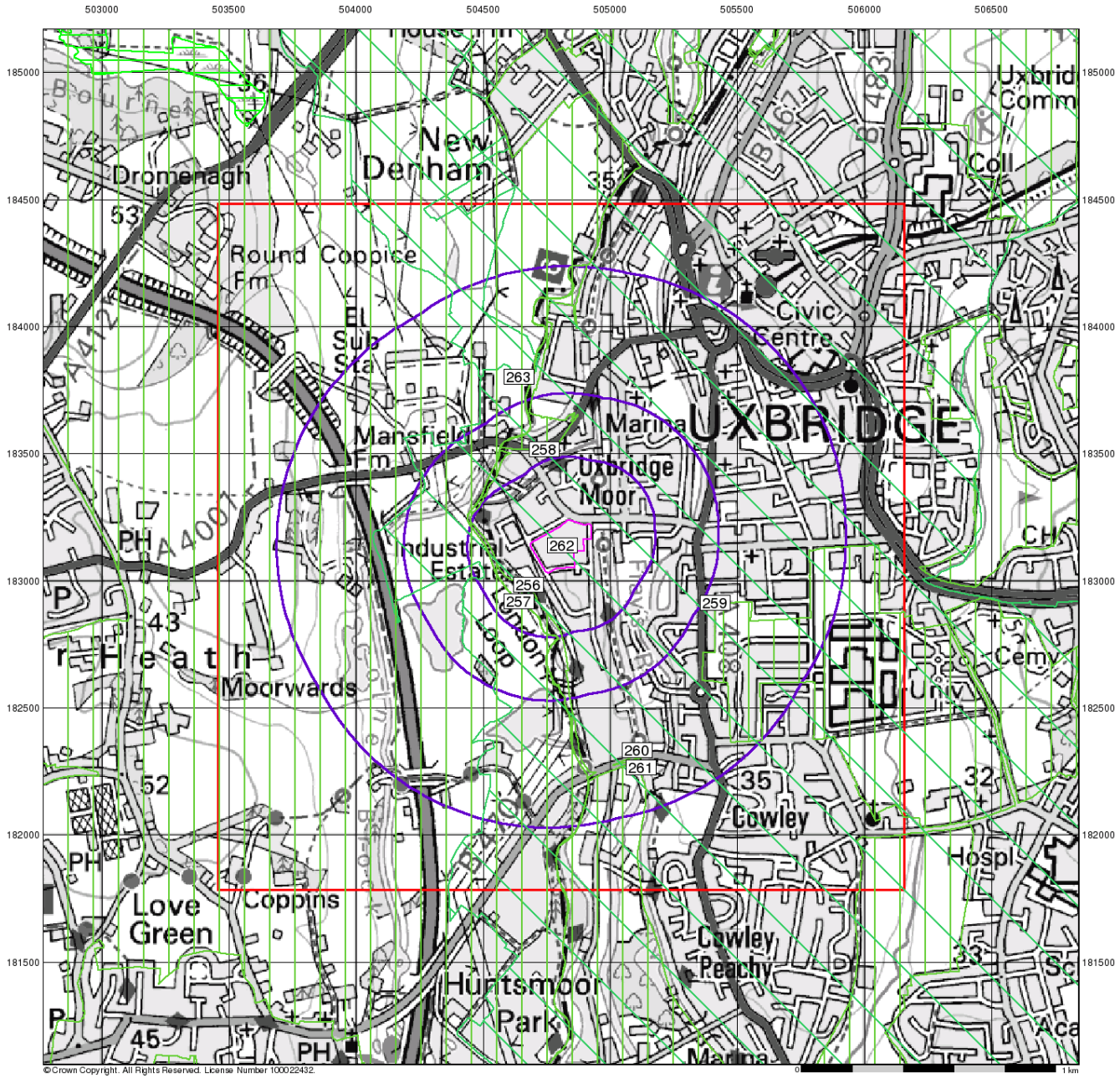
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National Grid Reference:	504810, 183140
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Search Buffer (m):	1000

Site Details

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Sensitive Land Uses

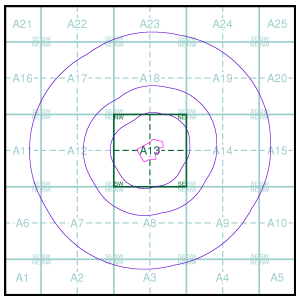
General

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

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
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area

Site Sensitivity Context Map - Slice A



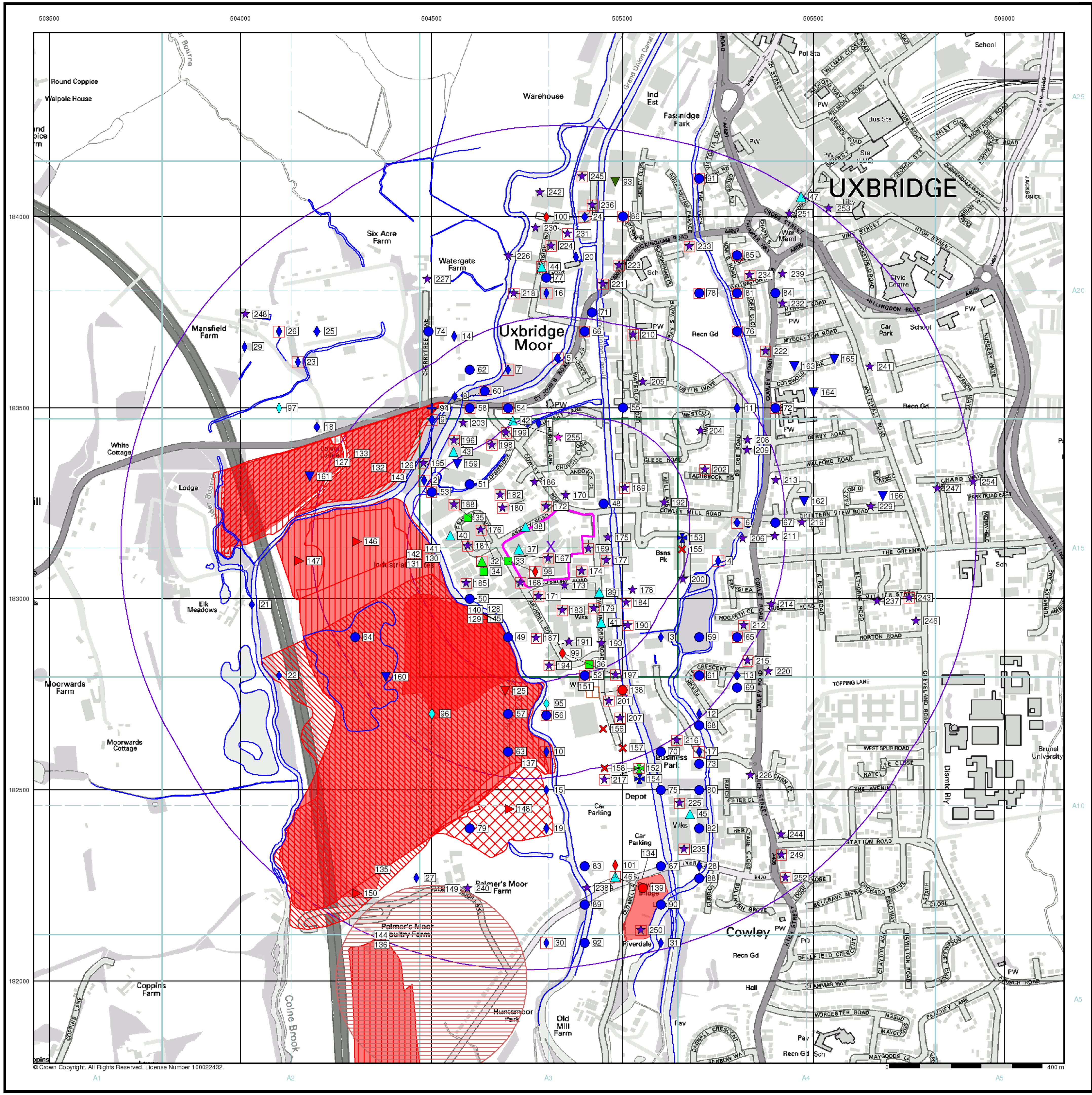
Order Details

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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

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General

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

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

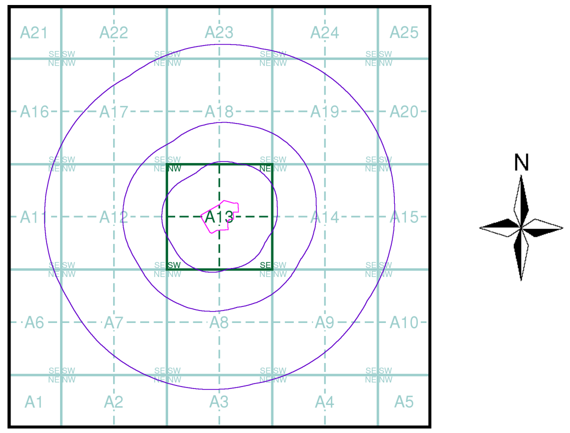
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice A



Order Details

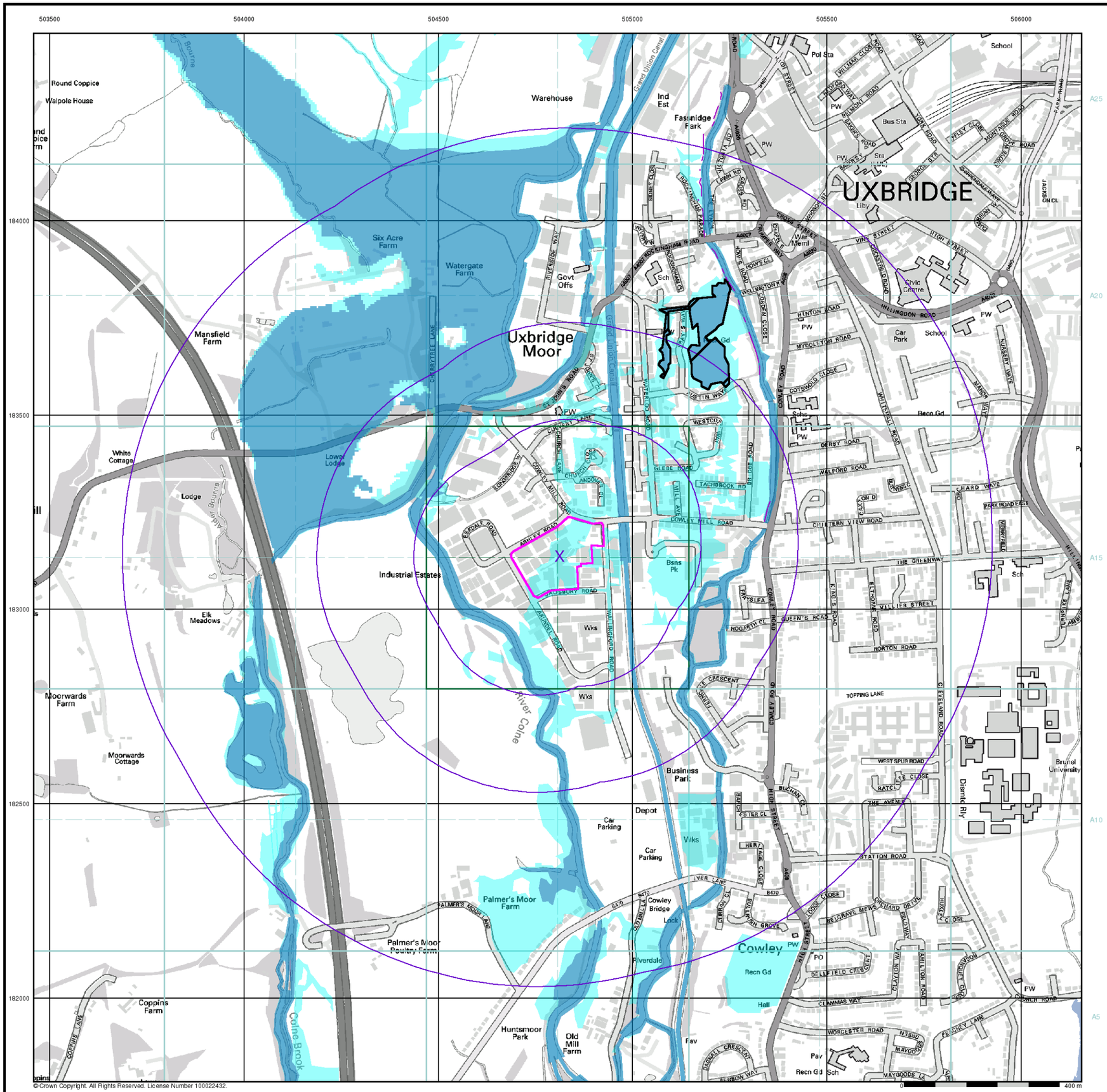
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National Grid Reference: 504810, 183140
Slice: A
Site Area (Ha): 2.92
Search Buffer (m): 1000

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

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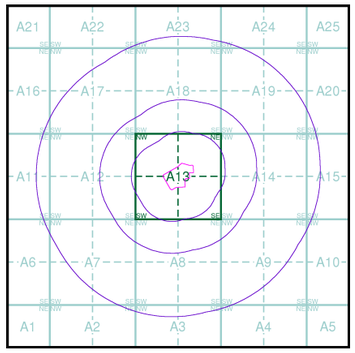
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



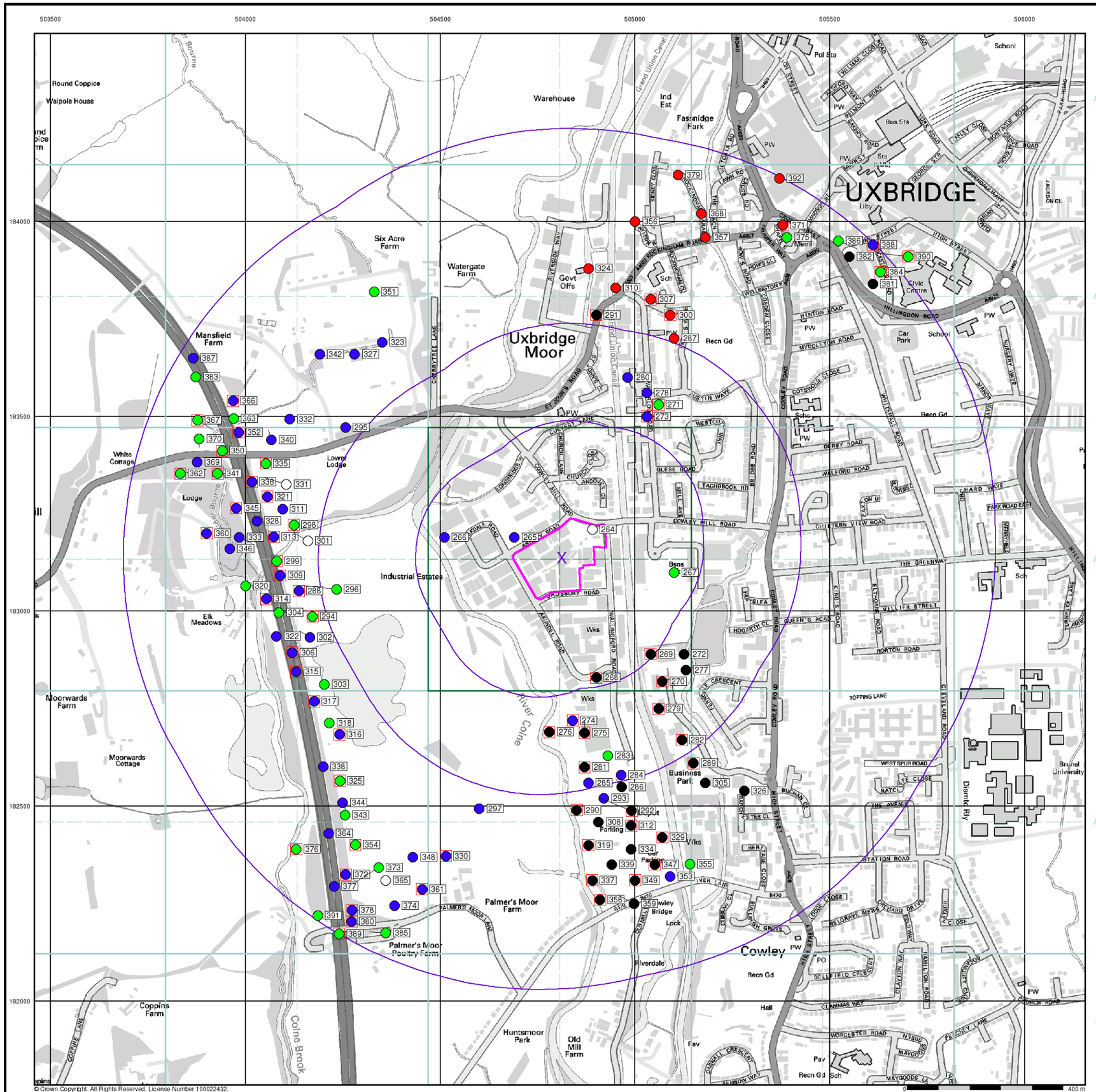
Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

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Web: www.envirocheck.co.uk



General

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

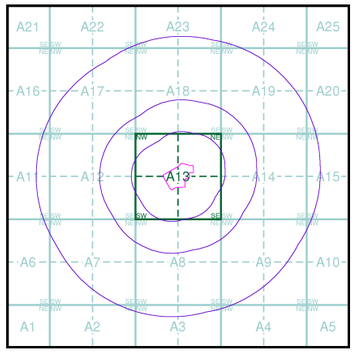
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



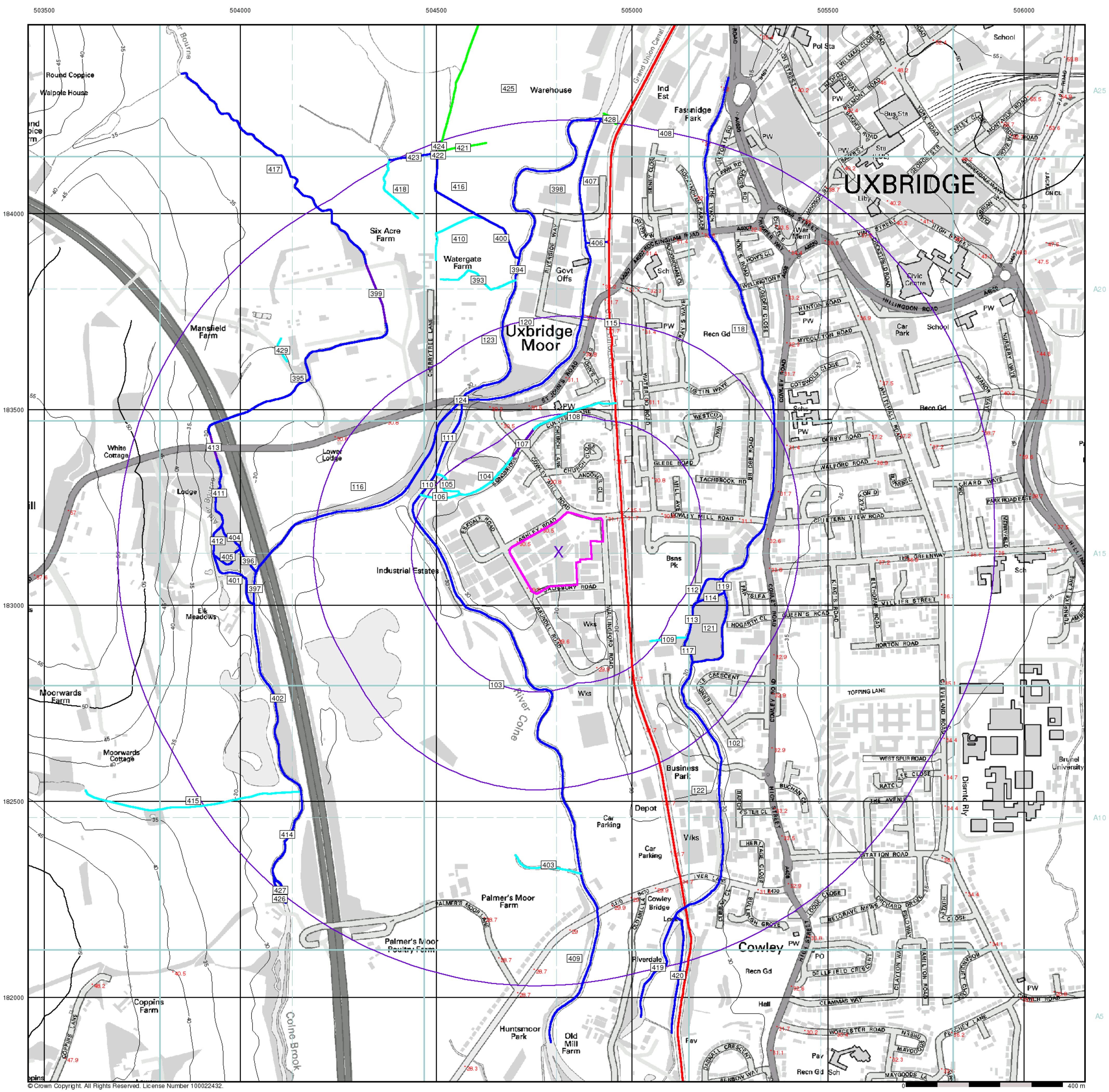
Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

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General

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

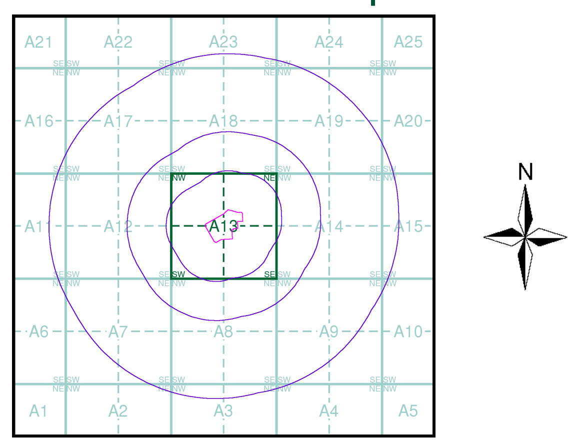
EA Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

Contours (height in metres)

- Standard Contour — 105
- Index Contour — 100, 95
- 167.3 Spot Height
- 45.8 Air Height

EA Detailed River Network Map - Slice A



Order Details

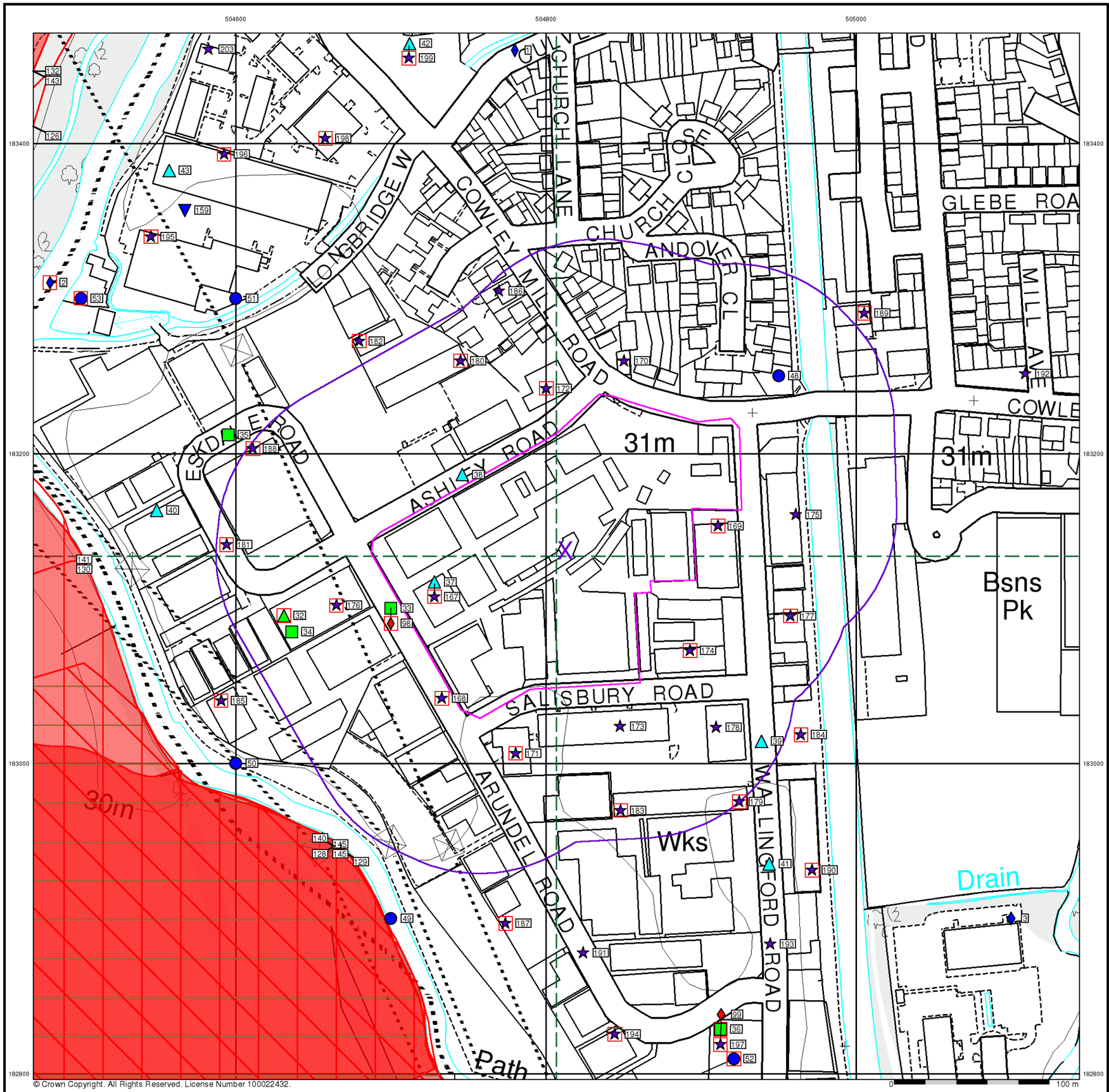
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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

Landmark® Information Group

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Web: www.envirocheck.co.uk



Envirocheck®

General

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

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

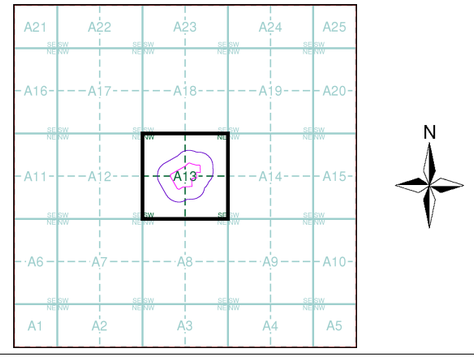
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A13



Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

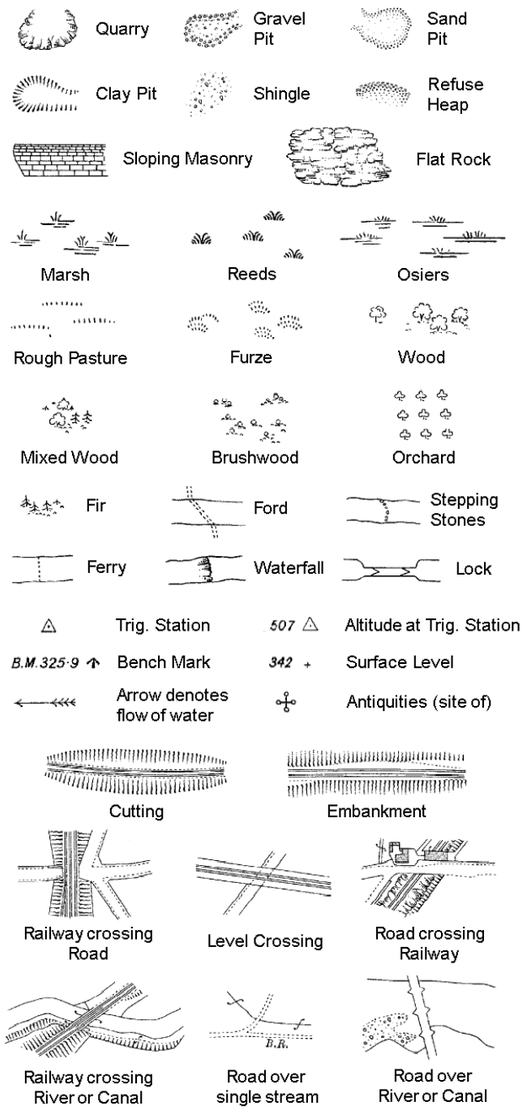
Landmark® Information Group

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

APPENDIX B- 2 – Envirocheck - Historical Maps

Historical Mapping Legends

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



County Boundary (Geographical)

County & Civil Parish Boundary

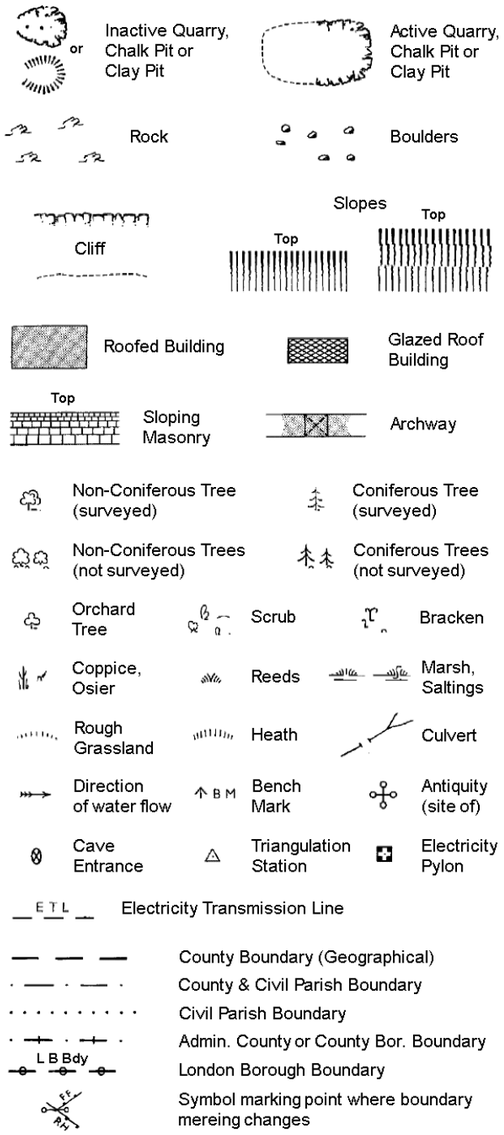
Administrative County & Civil Parish Boundary

Co. Boro. Bdy. County Borough Boundary (England)

Co. Burgh Bdy. County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

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



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

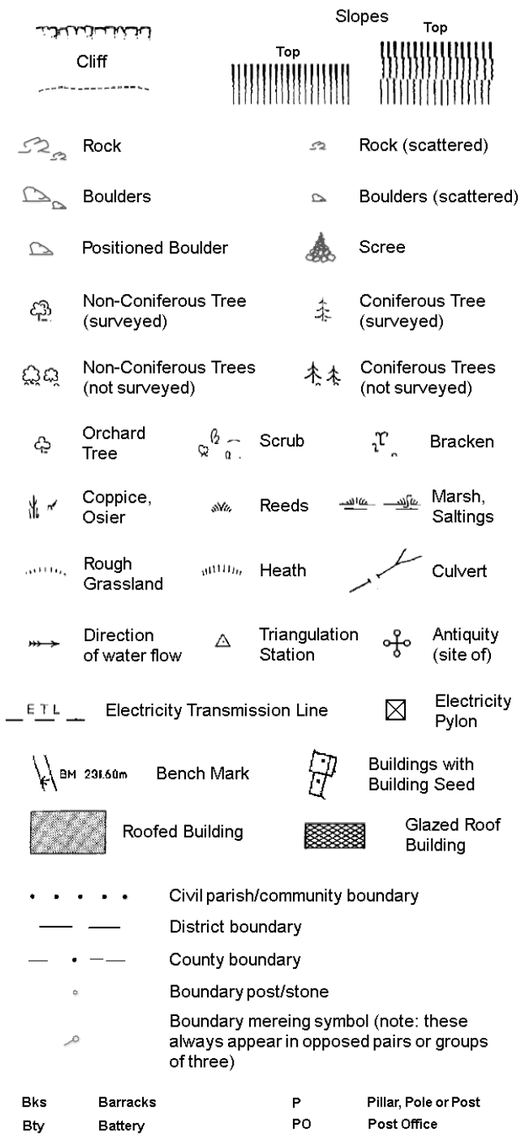
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

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



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

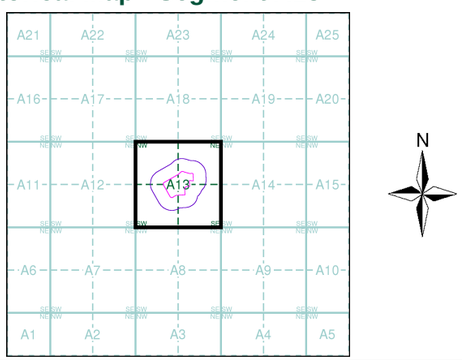
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:2,500	1885 - 1892	2
Buckinghamshire	1:2,500	1888	3
Middlesex	1:2,500	1896	4
Buckinghamshire	1:2,500	1899	5
Middlesex	1:2,500	1914	6
Buckinghamshire	1:2,500	1932	7
Middlesex	1:2,500	1934	8
Ordnance Survey Plan	1:1,250	1963	9
Additional SIMs	1:1,250	1963 - 1988	10
Ordnance Survey Plan	1:1,250	1968 - 1976	11
Ordnance Survey Plan	1:2,500	1972	12
Supply of Unpublished Survey Information	1:1,250	1975	13
Ordnance Survey Plan	1:1,250	1979	14
Additional SIMs	1:2,500	1986	15
Additional SIMs	1:1,250	1989	16
Large-Scale National Grid Data	1:1,250	1992	17
Large-Scale National Grid Data	1:1,250	1994 - 1995	18
Large-Scale National Grid Data	1:1,250	1995	19

Historical Map - Segment A13



Order Details

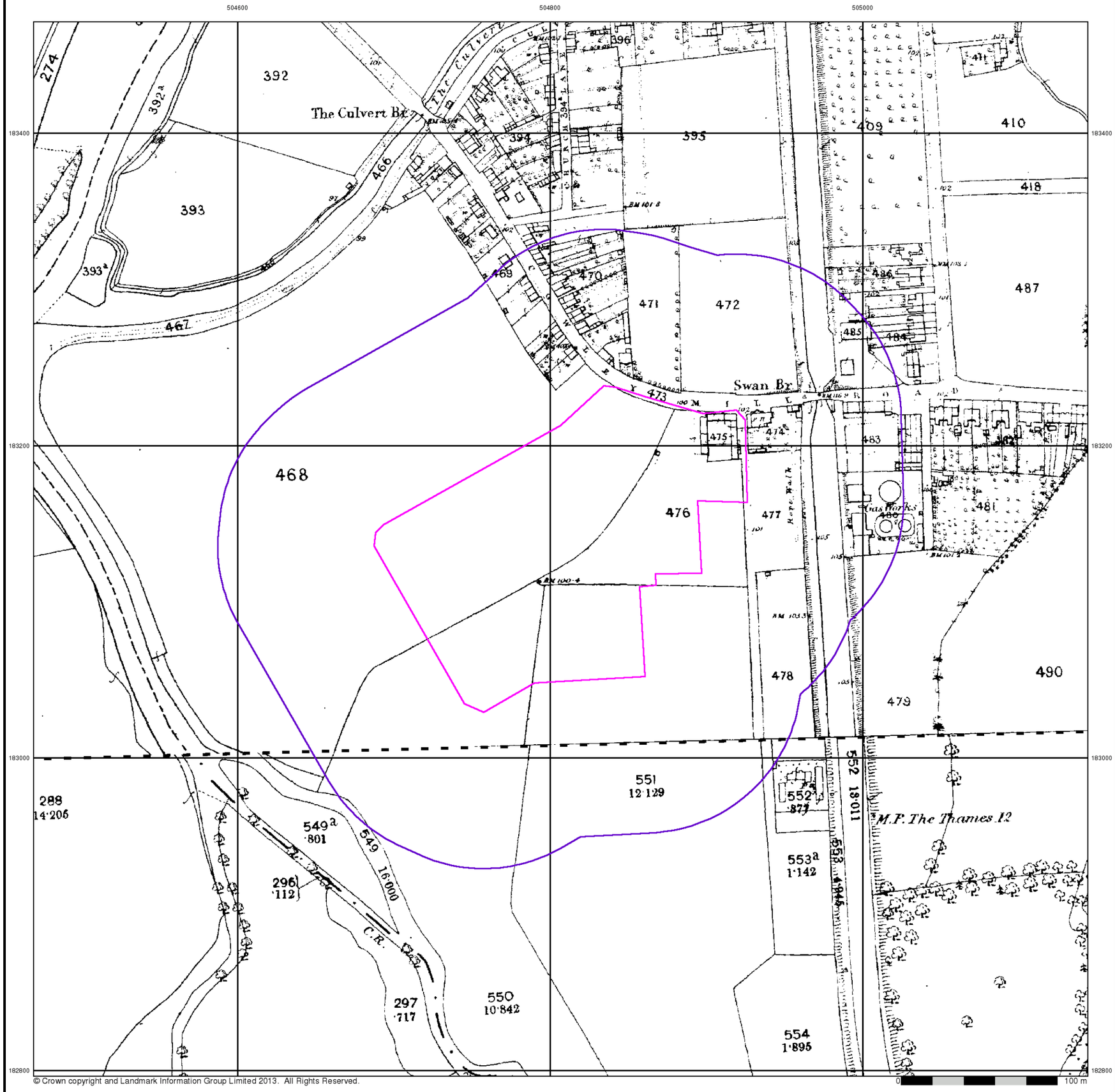
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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

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Middlesex

Published 1885 - 1892

Source map scale - 1:2,500

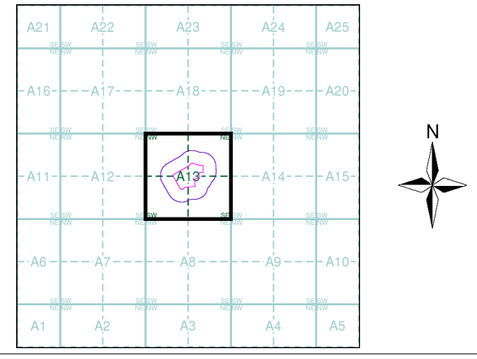
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

Map Name(s) and Date(s)

014_03
1885
1:2,500

014_07
1892
1:2,500

Historical Map - Segment A13



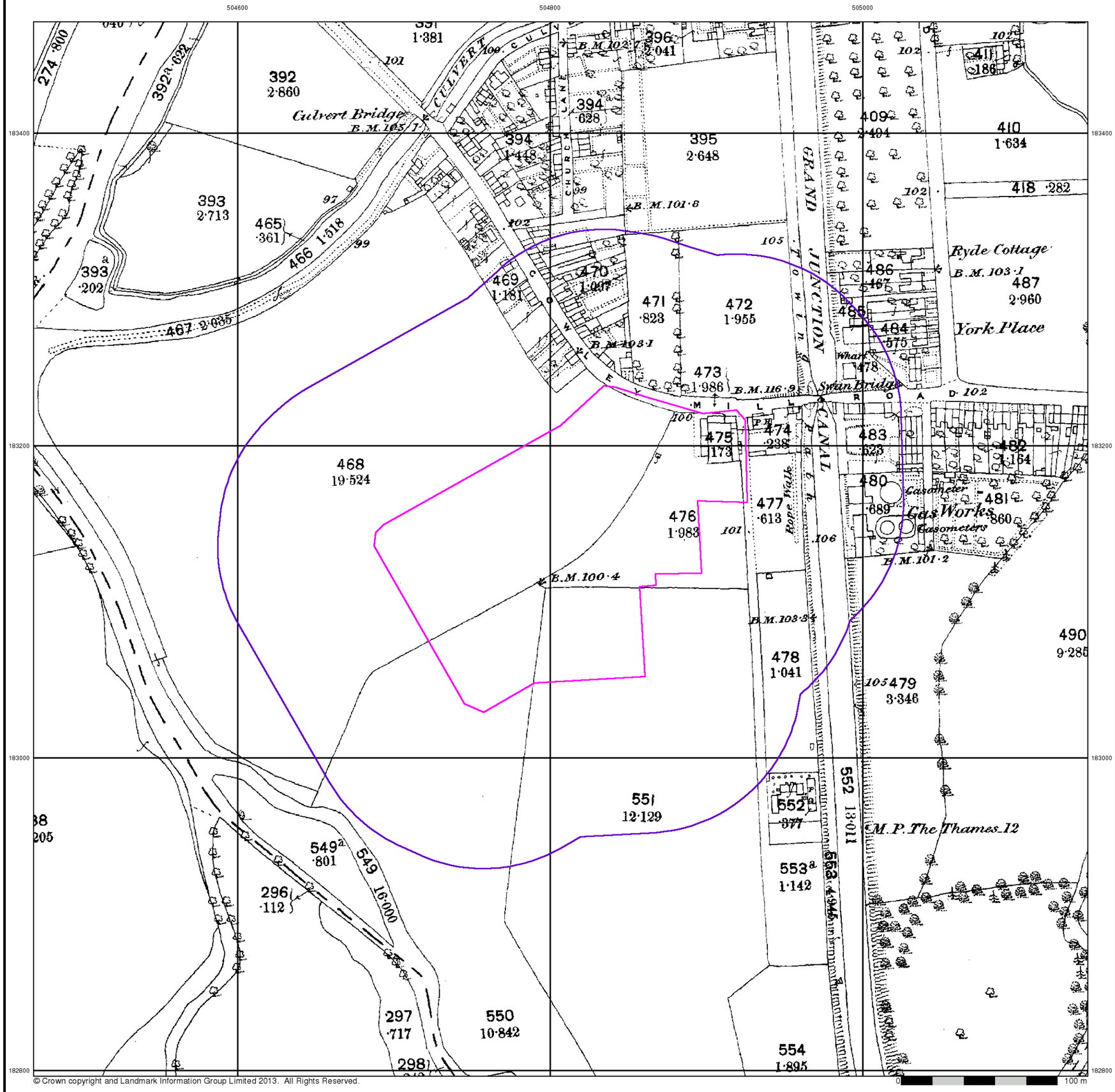
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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
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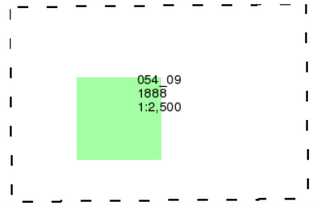
Buckinghamshire

Published 1888

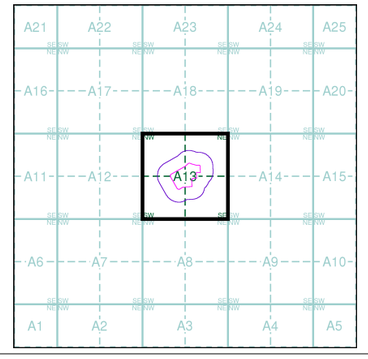
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



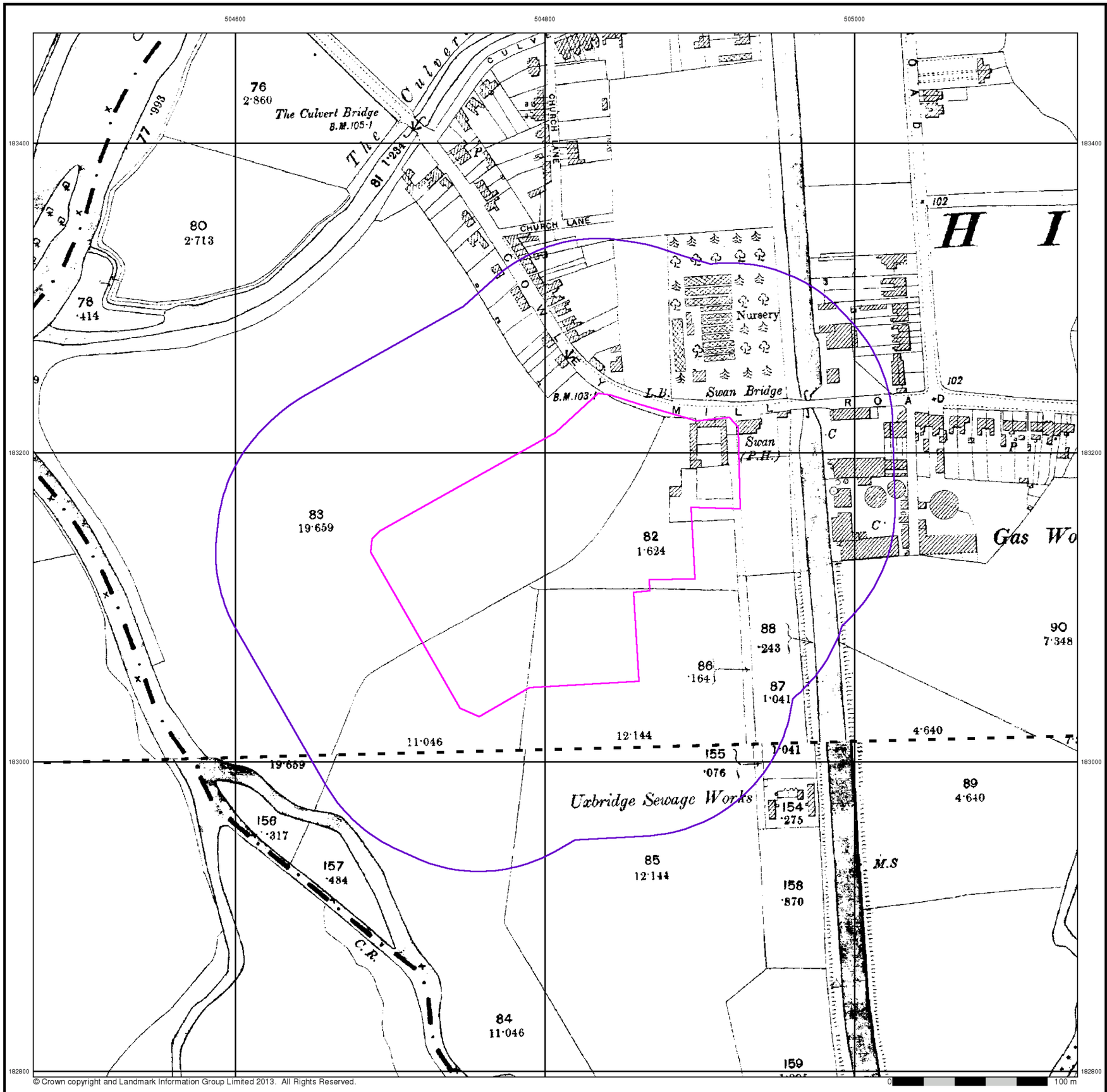
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National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

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Middlesex

Published 1896

Source map scale - 1:2,500

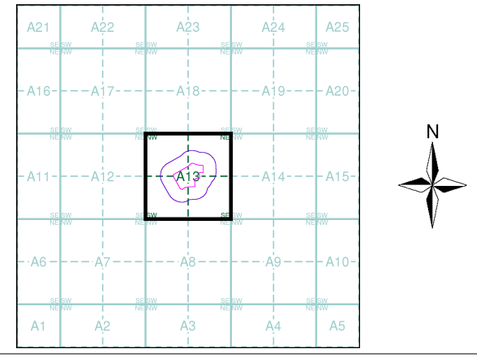
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

Map Name(s) and Date(s)

014_03
1896
1:2,500

014_07
1896
1:2,500

Historical Map - Segment A13



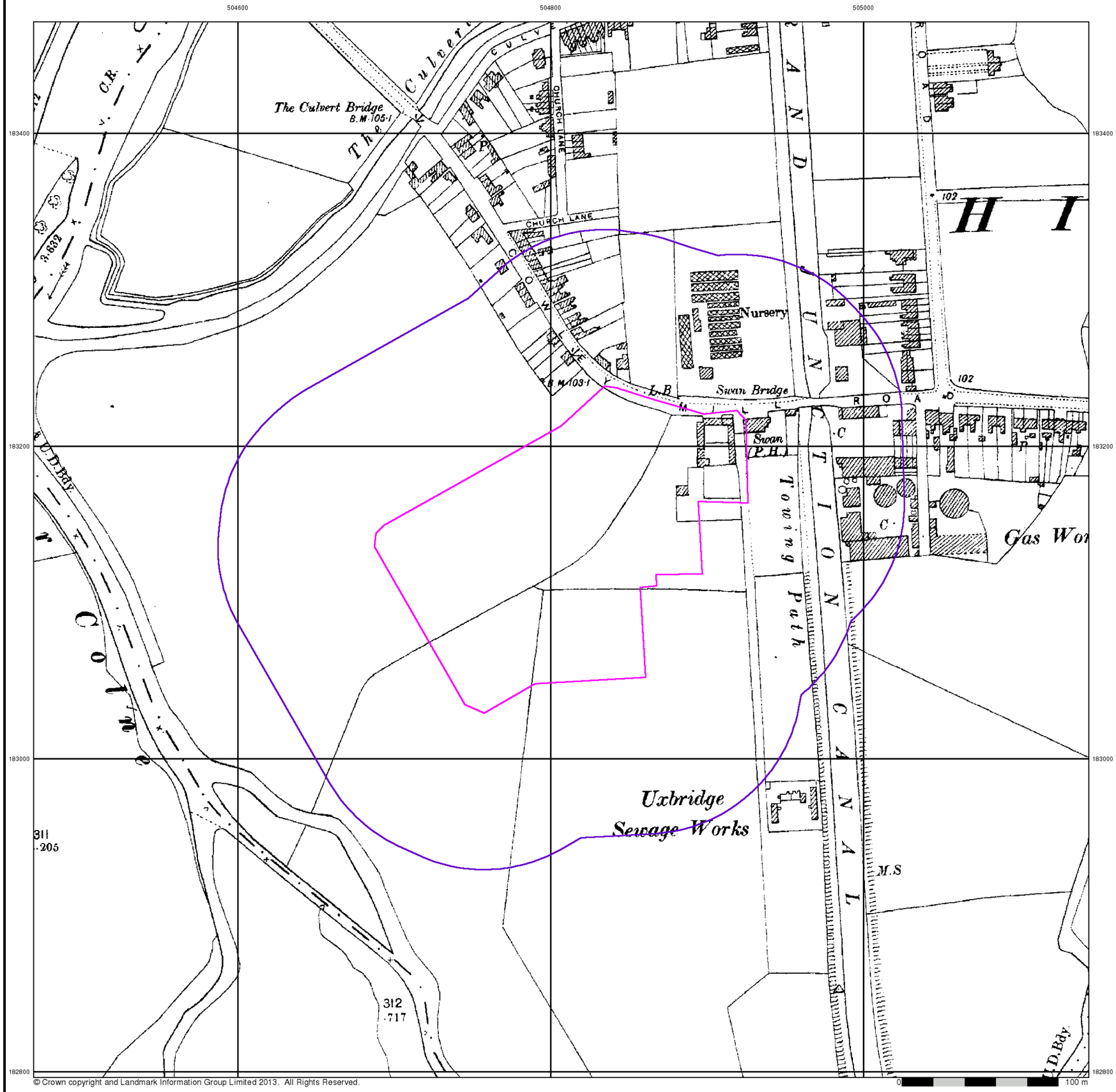
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National Grid Reference:	504810, 183140
Slice:	A
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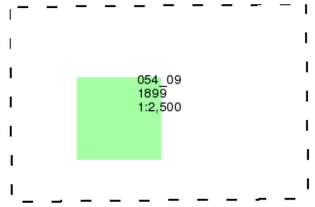
Buckinghamshire

Published 1899

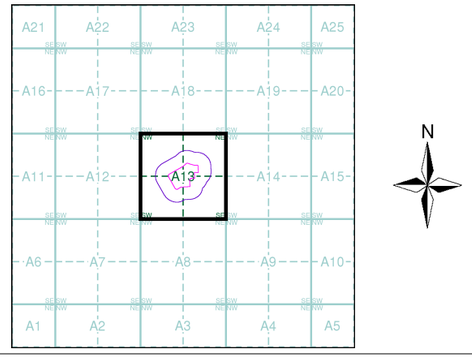
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



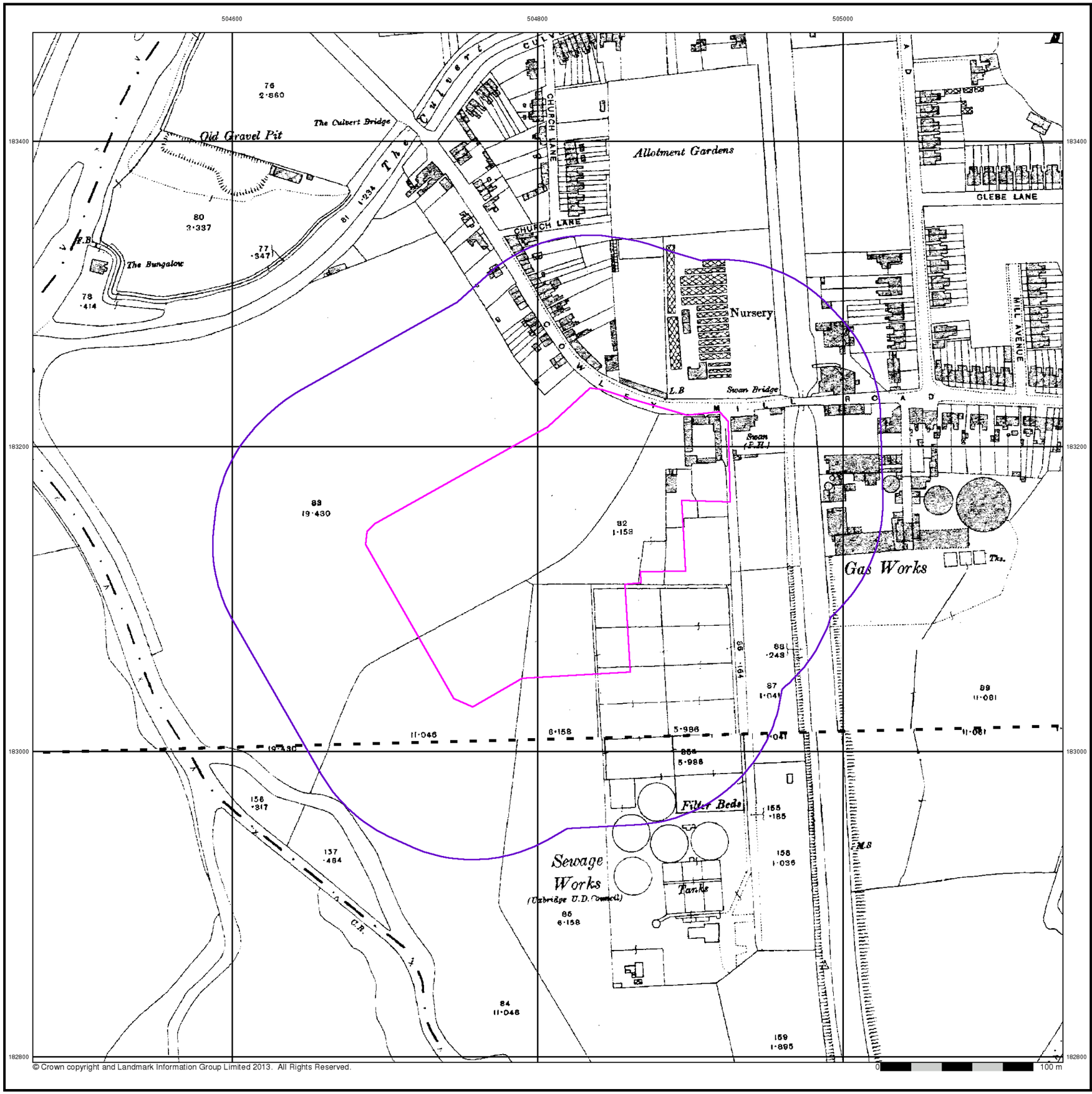
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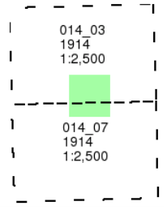
Middlesex

Published 1914

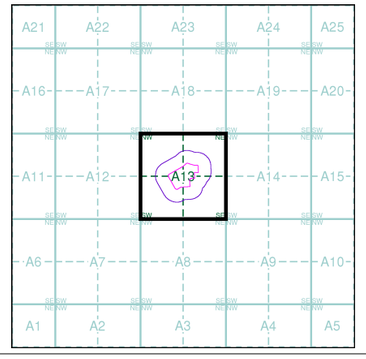
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



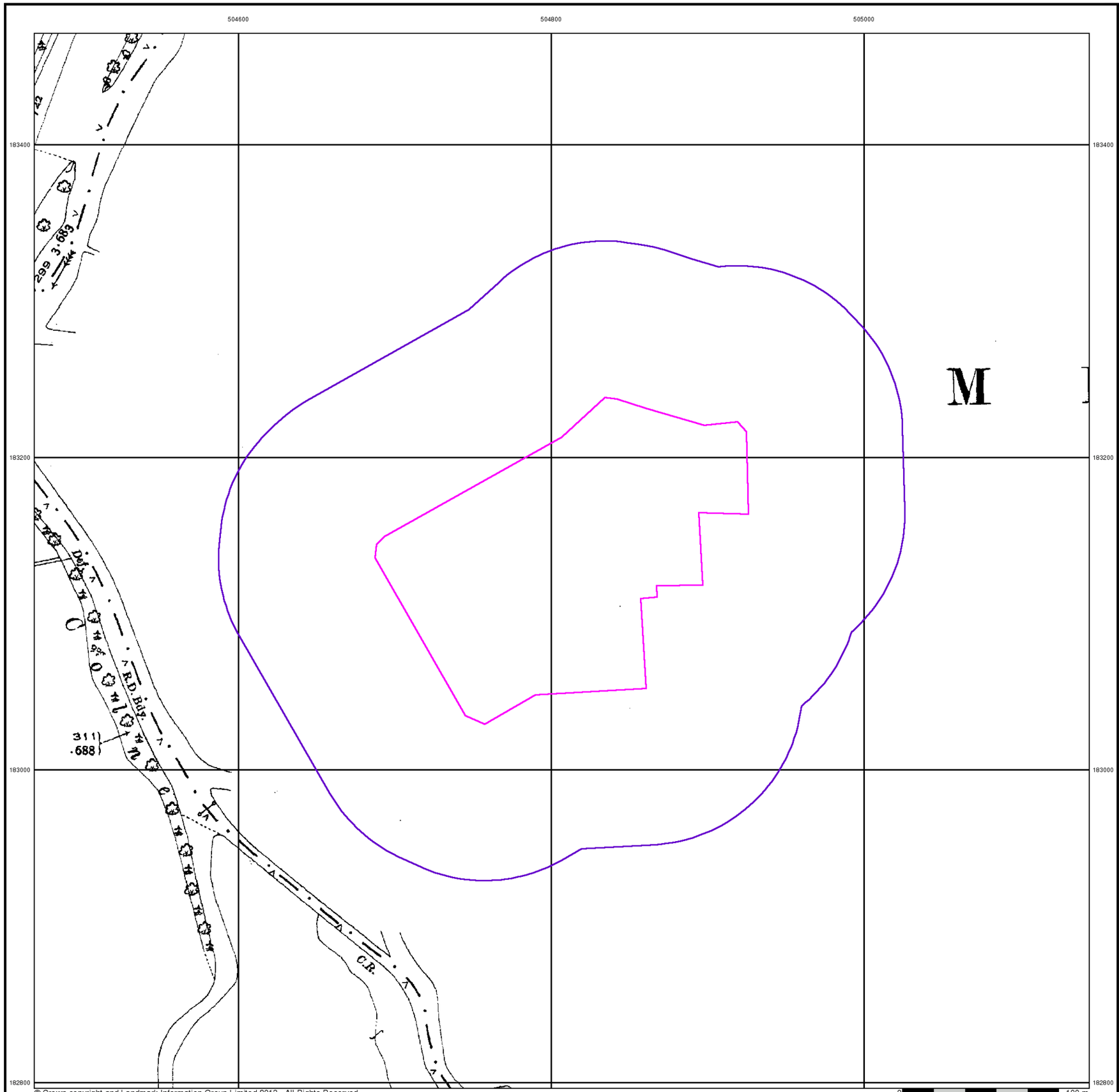
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Site Area (Ha):	2.92
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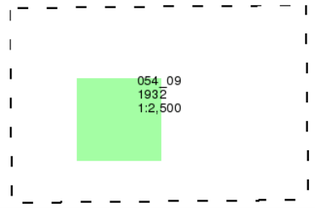
Buckinghamshire

Published 1932

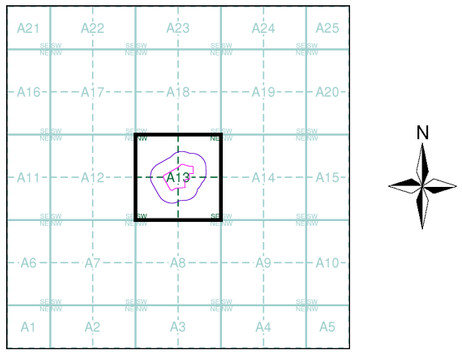
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



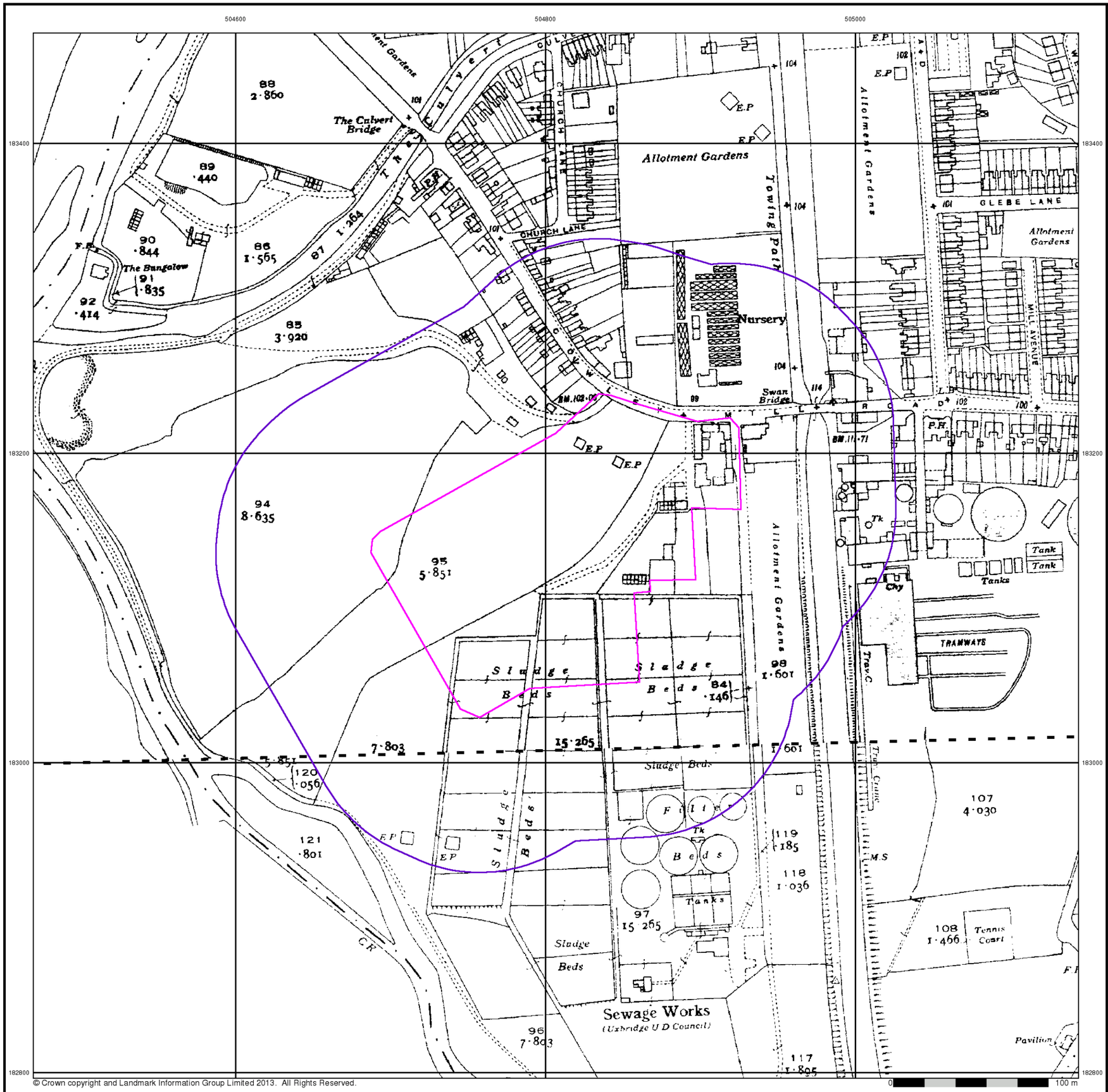
Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

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Middlesex

Published 1934

Source map scale - 1:2,500

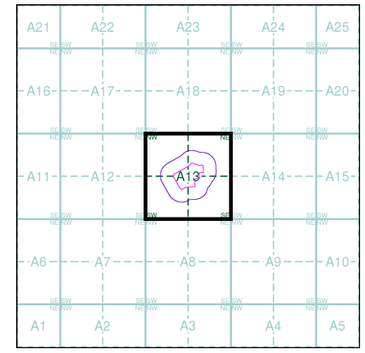
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Map Name(s) and Date(s)

014_03
1934
1:2,500

014_07
1934
1:2,500

Historical Map - Segment A13



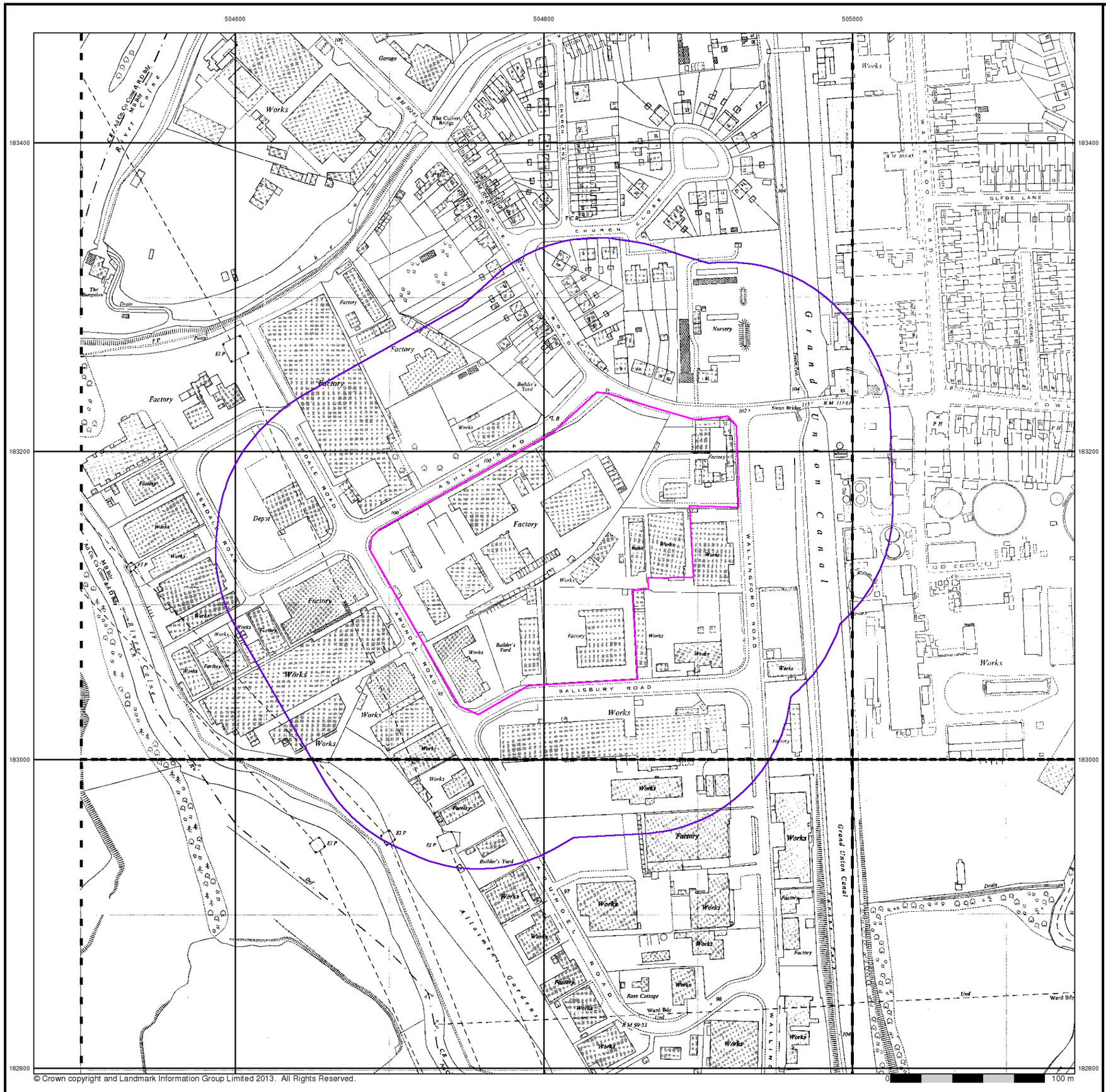
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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

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Ordnance Survey Plan

Published 1963

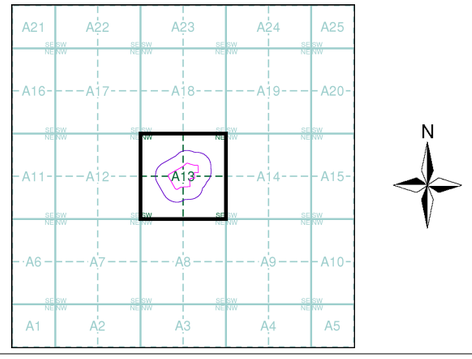
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ0483SE 1963 1:1,250	TQ0583SW 1963 1:1,250
TQ0482NE 1963 1:1,250	TQ0582NW 1963 1:1,250

Historical Map - Segment A13



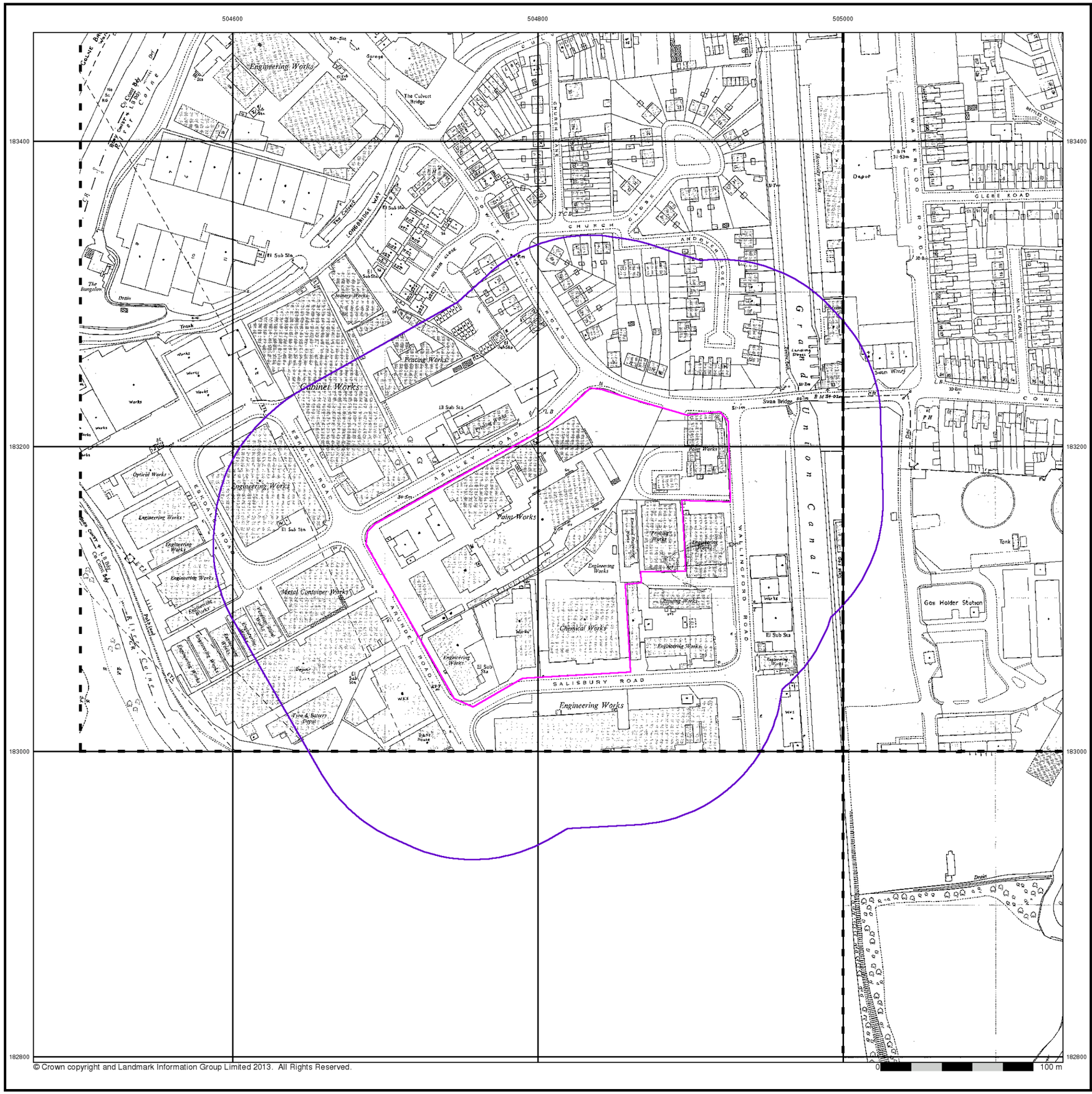
Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
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Slice:	A
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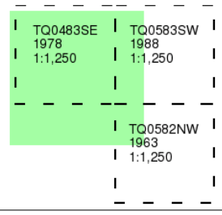
Additional SIMs

Published 1963 - 1988

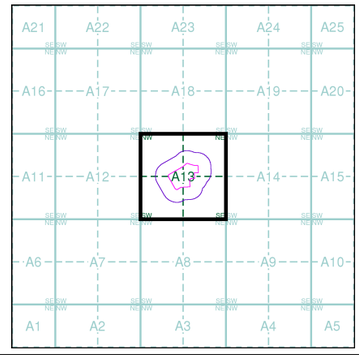
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

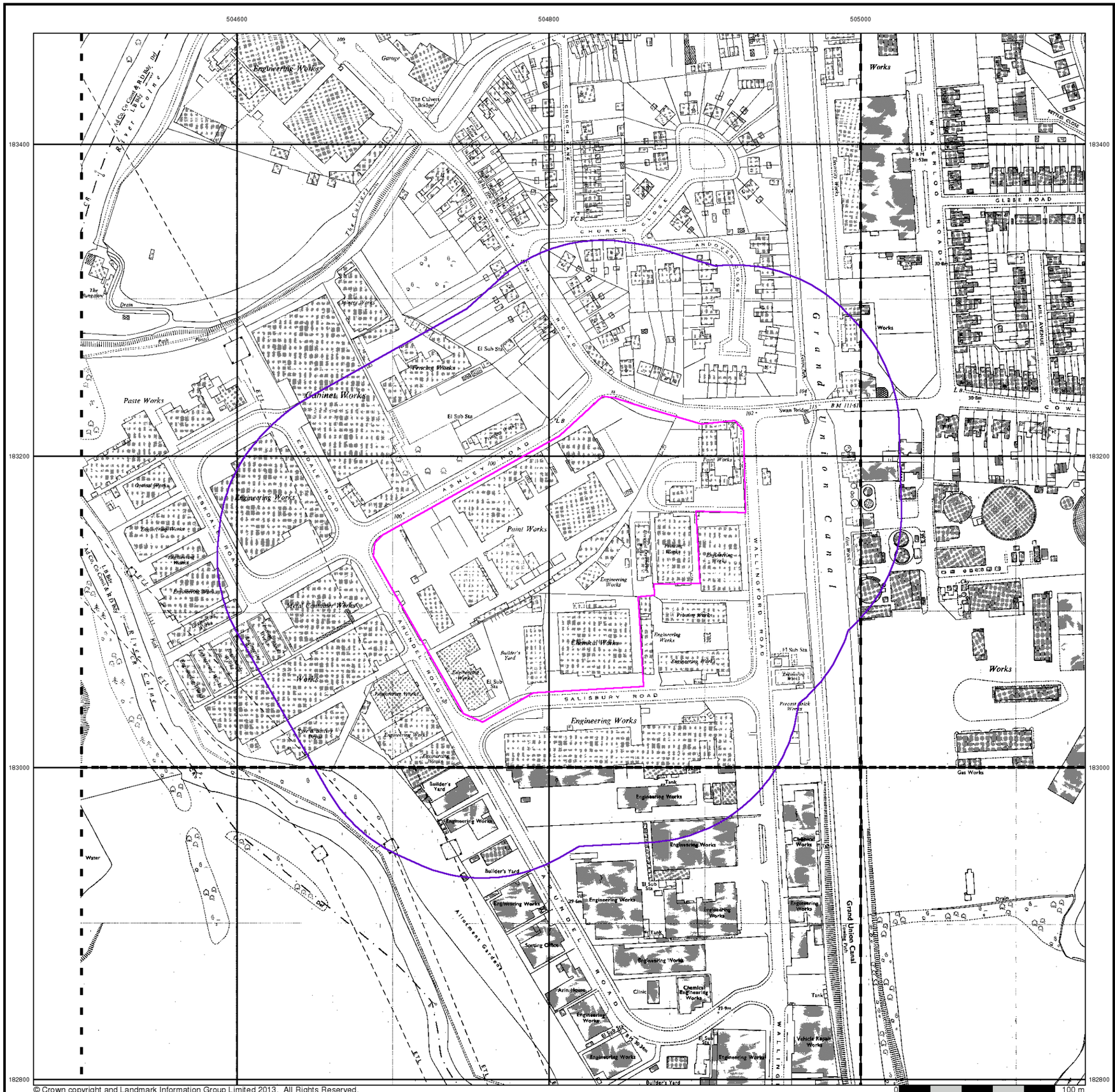
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Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

Published 1968 - 1976

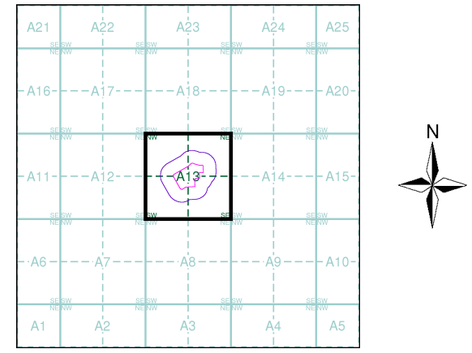
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ0483SE 1968 1:1,250	TQ0583SW 1976 1:1,250
TQ0482NE 1971 1:1,250	TQ0582NW 1971 1:1,250

Historical Map - Segment A13



Order Details

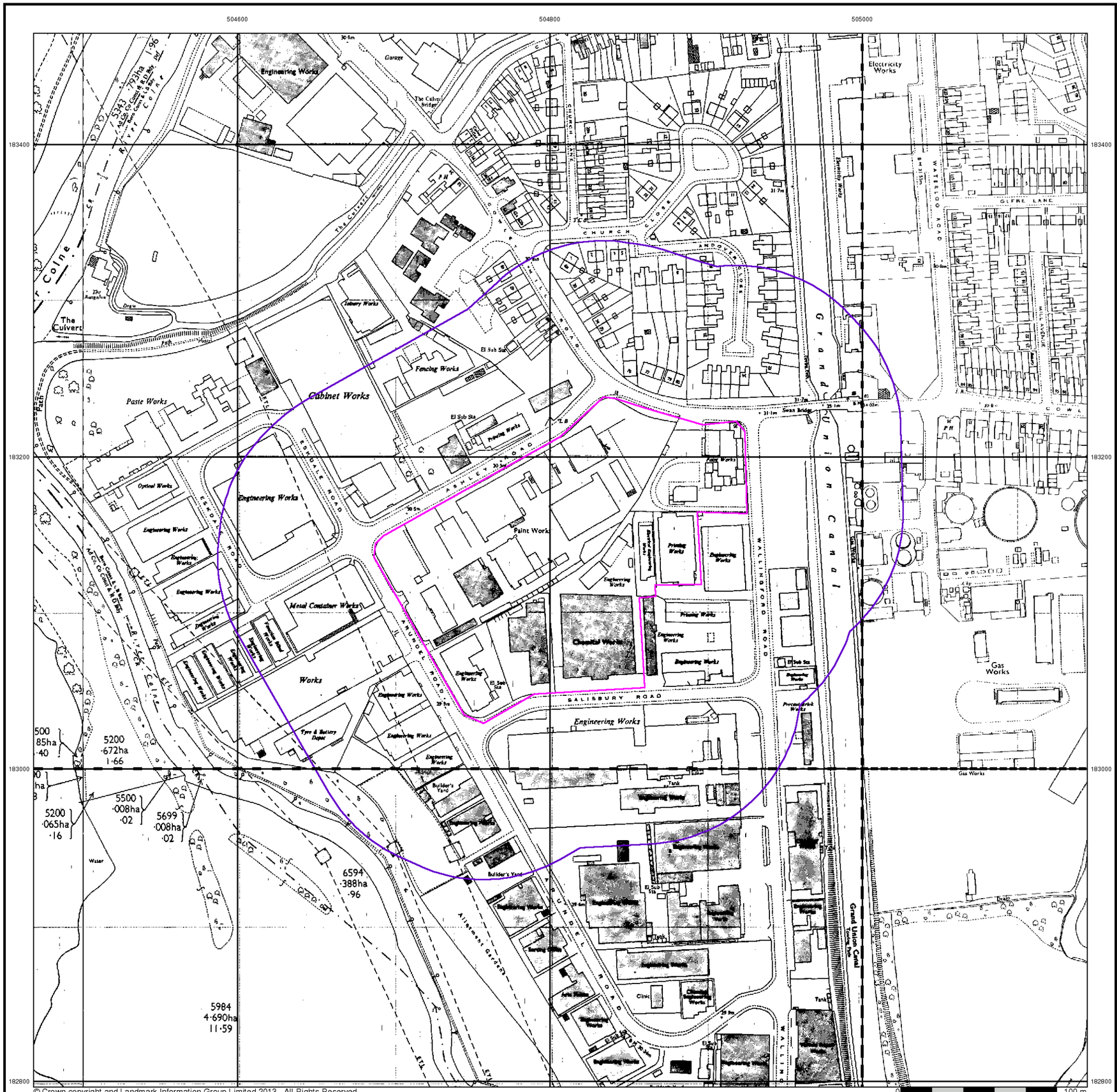
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

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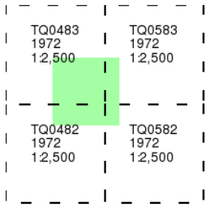
Ordnance Survey Plan

Published 1972

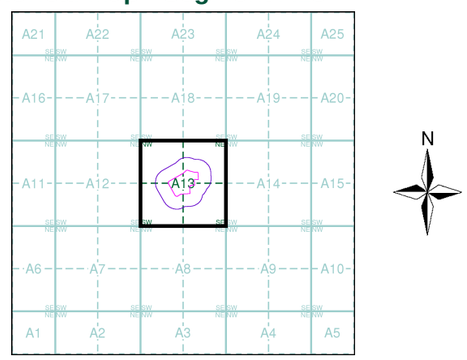
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
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Site Details

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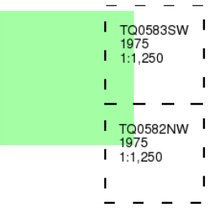
Supply of Unpublished Survey Information

Published 1975

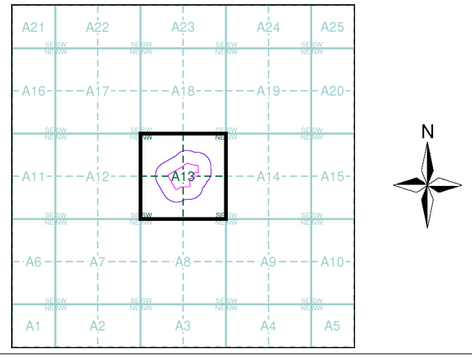
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a `work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

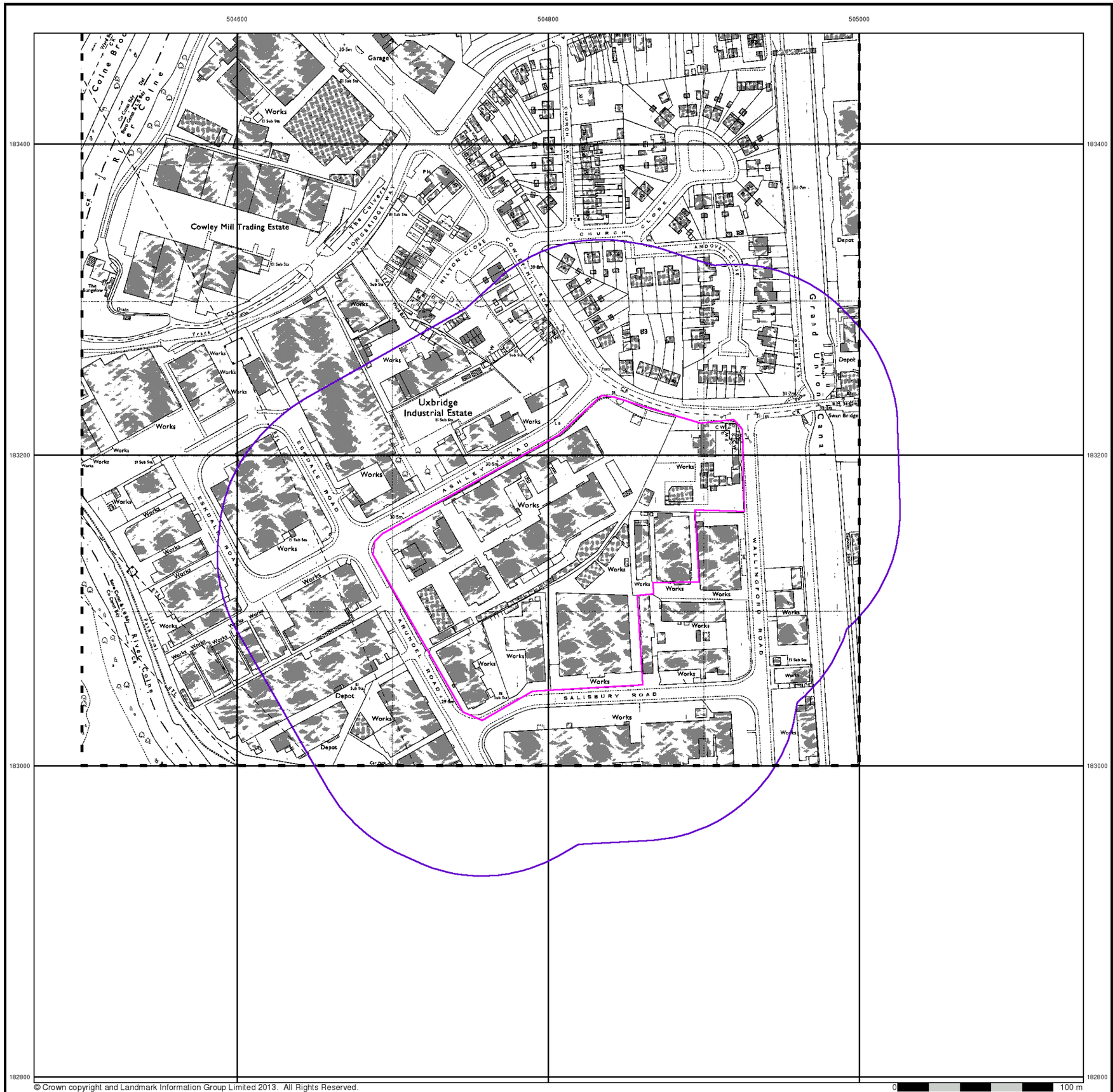
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

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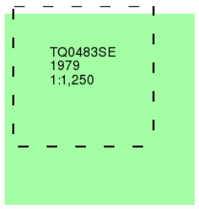
Ordnance Survey Plan

Published 1979

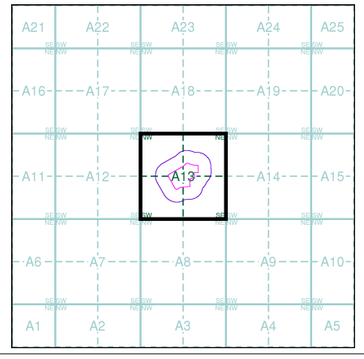
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

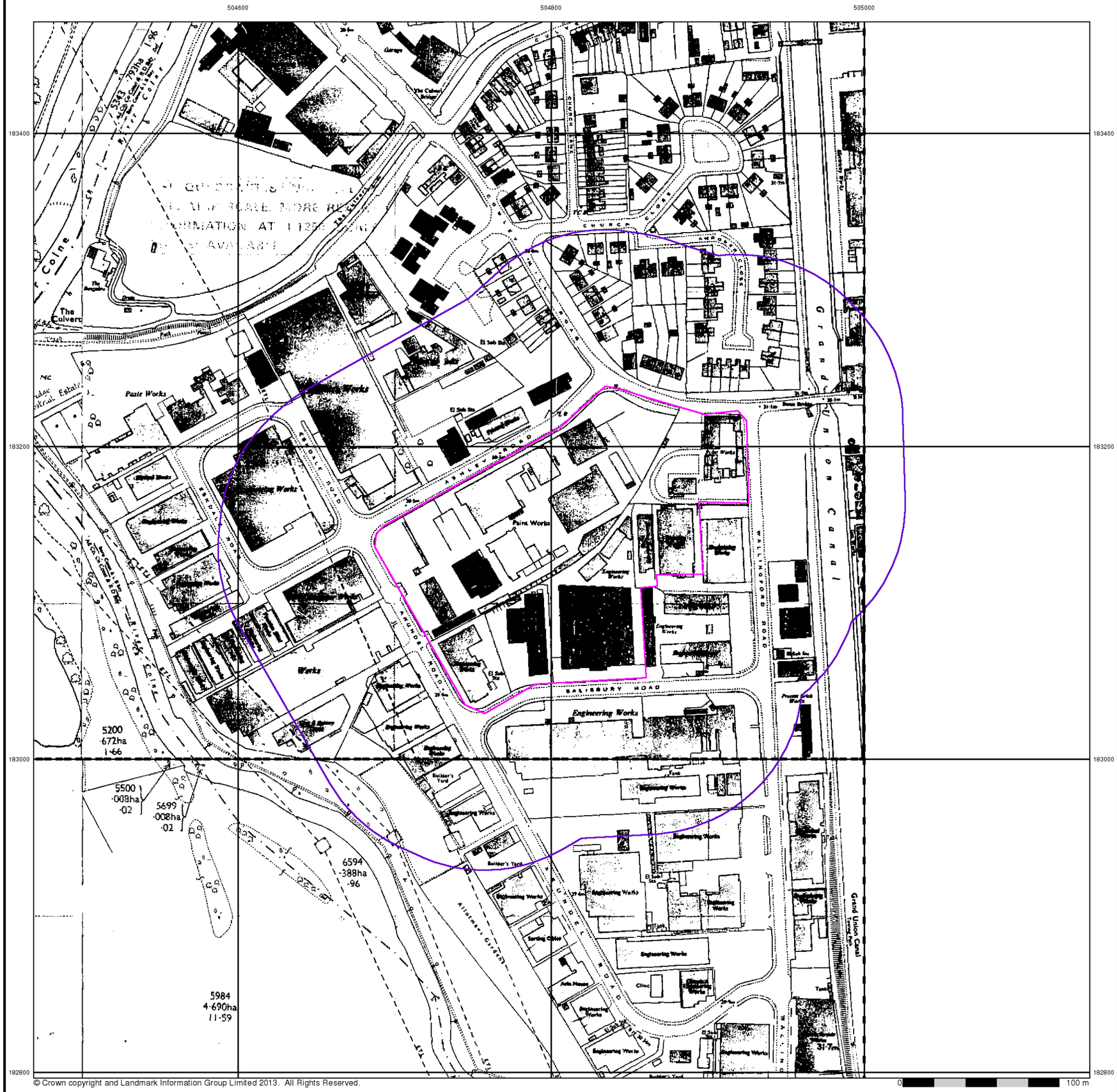
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

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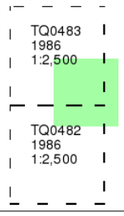
Additional SIMs

Published 1986

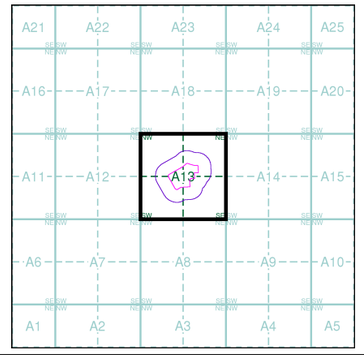
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

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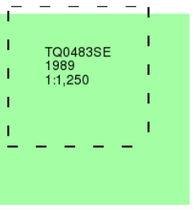
Additional SIMs

Published 1989

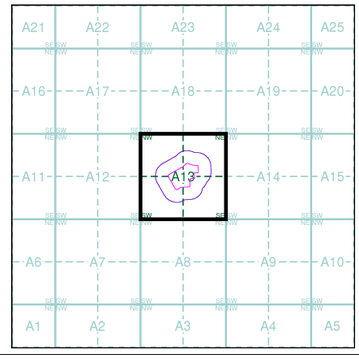
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

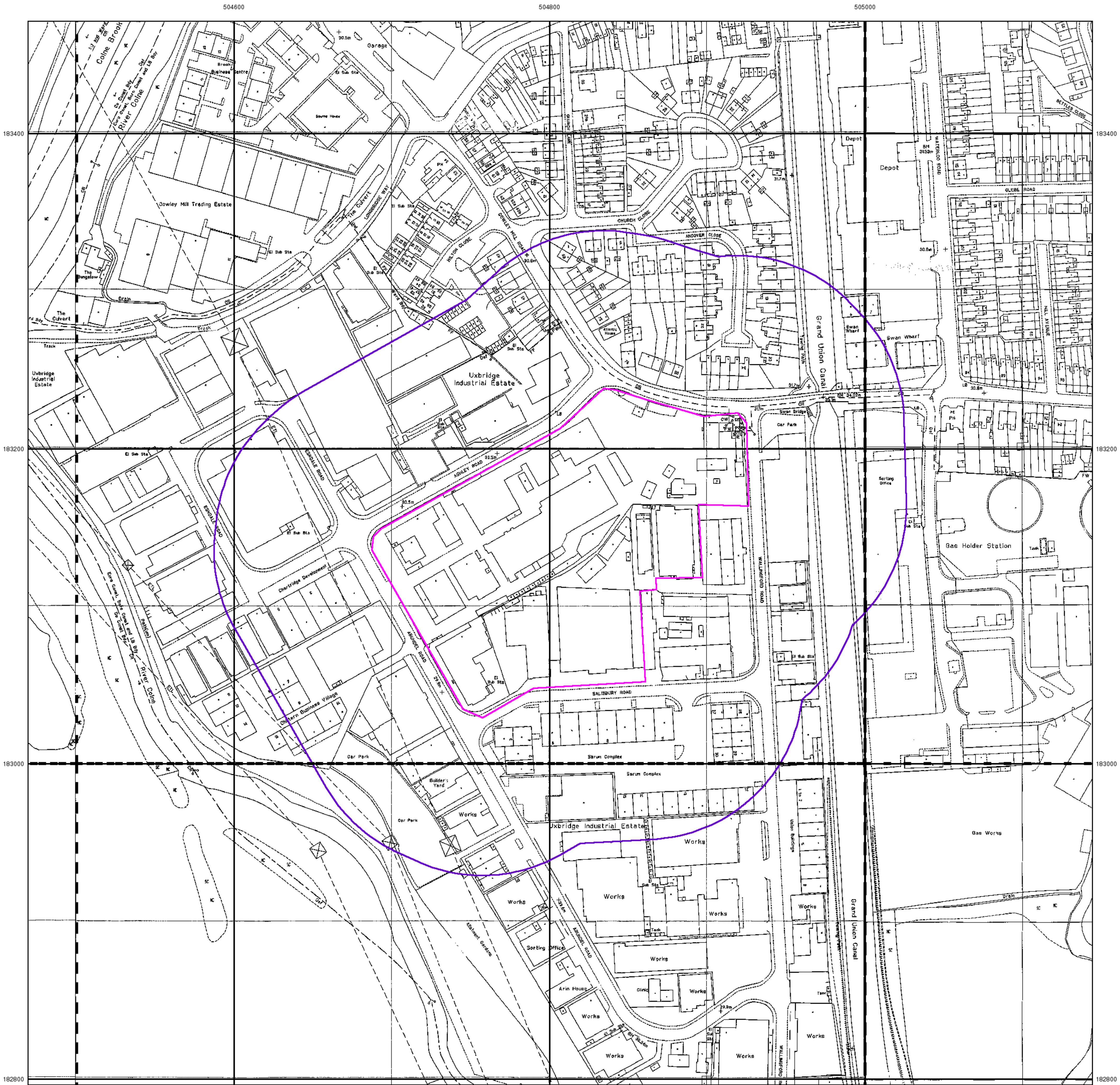
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

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Large-Scale National Grid Data

Published 1992

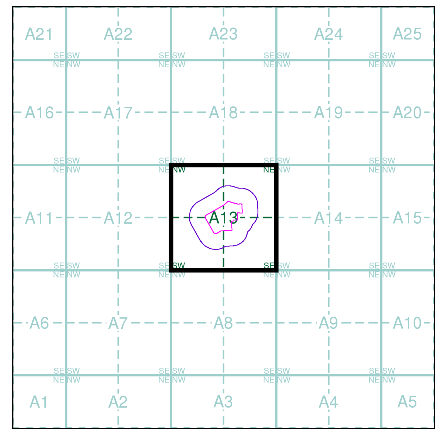
Source map scale - 1:1,250

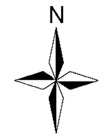
'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic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

Map Name(s) and Date(s)

TQ0483SW 1992 1:1,250	TQ0483SE 1992 1:1,250	TQ0583SW 1992 1:1,250
TQ0482NW 1992 1:1,250	TQ0482NE 1992 1:1,250	TQ0582NW 1992 1:1,250

Historical Map - Segment A13





Order Details

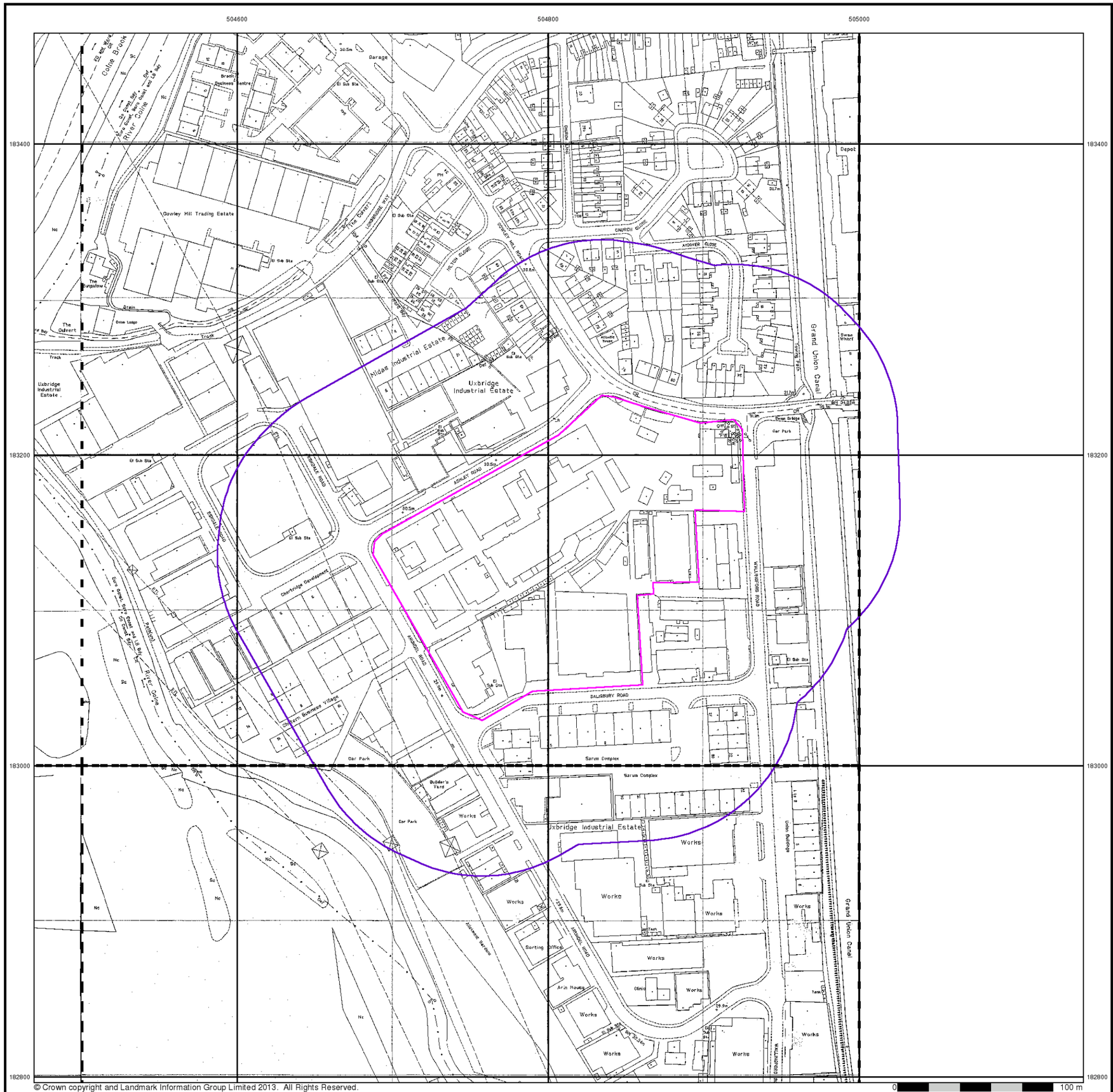
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

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Large-Scale National Grid Data

Published 1994 - 1995

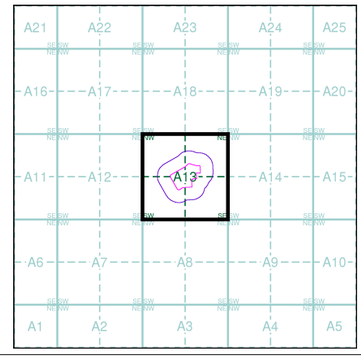
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ0483SW 1995 1:1,250	TQ0483SE 1995 1:1,250
TQ0482NW 1994 1:1,250	TQ0482NE 1995 1:1,250

Historical Map - Segment A13



Order Details

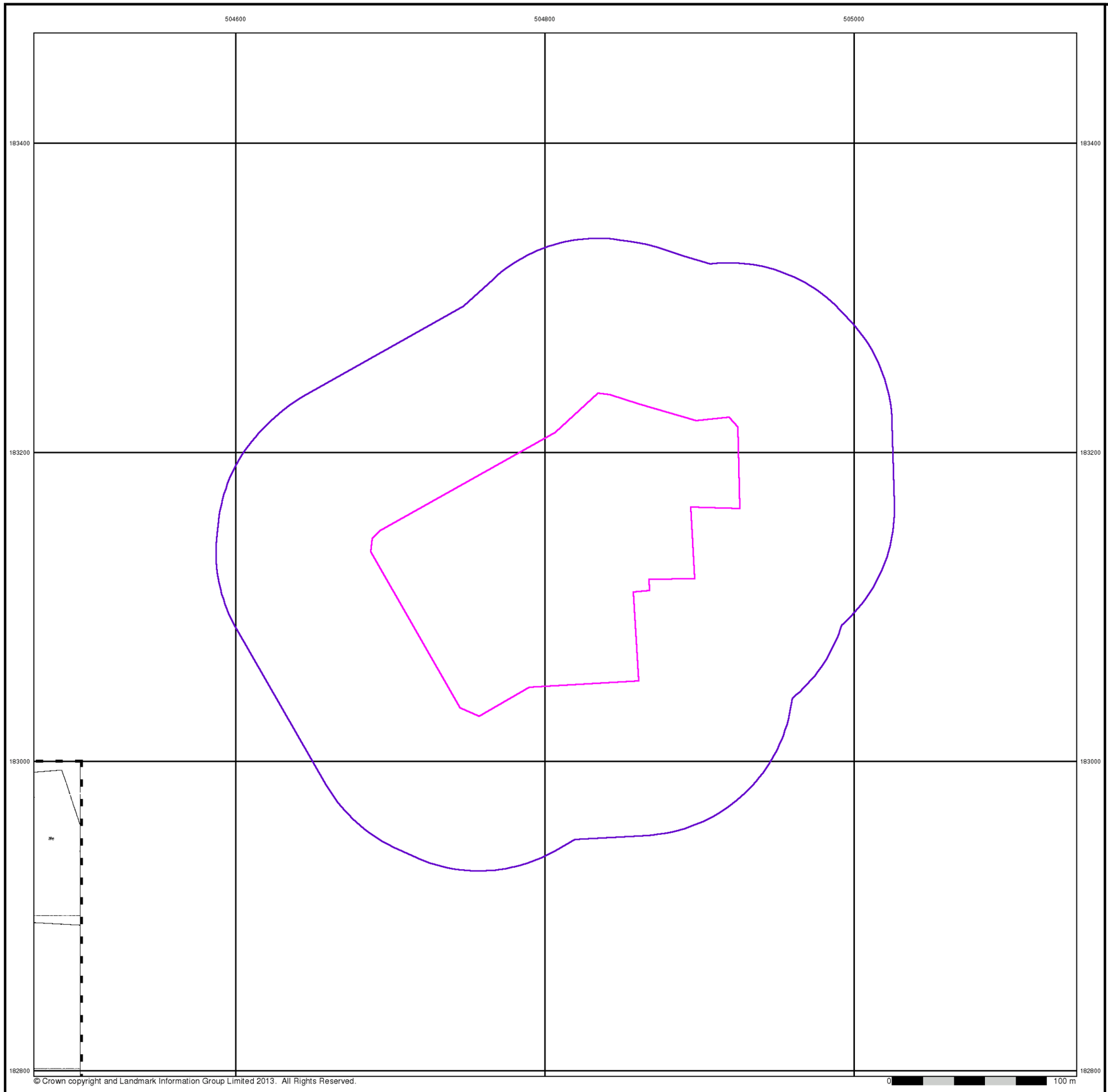
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	100

Site Details

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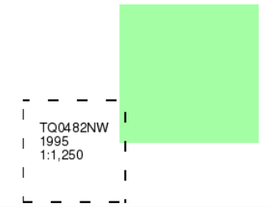
Large-Scale National Grid Data

Published 1995

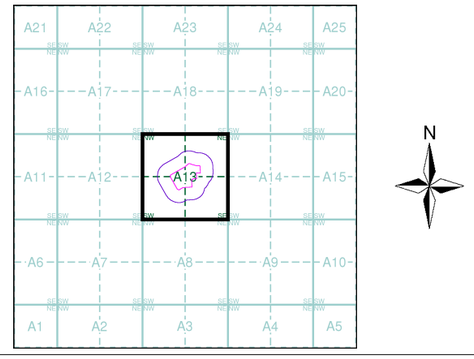
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

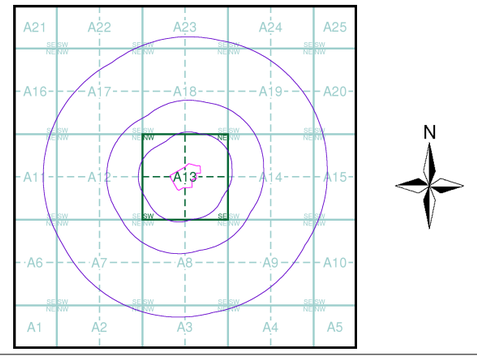
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1868	3
Buckinghamshire	1:10,560	1881 - 1883	4
Middlesex	1:10,560	1897	5
Buckinghamshire	1:10,560	1900	6
Middlesex	1:10,560	1920	7
Middlesex	1:10,560	1920	8
Buckinghamshire	1:10,560	1925 - 1926	9
Buckinghamshire	1:10,560	1932	10
Middlesex	1:10,560	1935	11
Middlesex	1:10,560	1938	12
Buckinghamshire	1:10,560	1938	13
Middlesex	1:10,560	1938	14
Historical Aerial Photography	1:10,560	1948	15
Historical Aerial Photography	1:10,560	1948	16
Ordnance Survey Plan	1:10,000	1960	17
Ordnance Survey Plan	1:10,000	1970 - 1974	18
Ordnance Survey Plan	1:10,000	1977	19
London	1:25,000	1985	20
Ordnance Survey Plan	1:10,000	1988	21
Ordnance Survey Plan	1:10,000	1990	22
10K Raster Mapping	1:10,000	2006	23
10K Raster Mapping	1:10,000	2013	24

Historical Map - Slice A



Order Details

Order Number: 52612649_1_1
Customer Ref: 13/2582
National Grid Reference: 504810, 183140
Slice: A
Site Area (Ha): 2.92
Search Buffer (m): 1000

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Fireproof Building
- Prominent Fireproof Building
- Non-fireproof Building
- Non-fireproof Building (non-dwelling)
- Factory, mill, and flour mill, with chimneys
- Factory, mill, and flour mill, without chimneys
- Power Station, drawn to scale
- Hydroelectric Power Station
- Radio Station, drawn to scale
- Telephone Station, drawn to scale
- Abandoned Open-pit Mine or Quarry
- Open-pit Salt Mine
- Pit
- Oil Deposit or Well
- Oil Seepage
- Tailings Pile
- Fuel Storage Tanks
- Natural Gas Tank
- Bench Mark
- Drill Hole
- Burial Mound
- Triangulation Point on Burial Mound
- Single-track Railroad
- Double-track Railroad and Station Building
- Coniferous Forest
- Deciduous Forest
- Mixed Forest
- Lawns
- Citrus Orchard
- Wet Ground
- Scattered Vegetation

243,8 — Values for prominent elevations

186.0 — Numbers for spot elevations, depth soundings, contour lines, etc.

0,2 — Velocity of the current, width of river bed, depth of river

Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	ъ (–)
Д д (D)	Л л (L)	У у (U)	ы (Y)
Е е (E)	М м (M)	Ф ф (F)	ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Partly Demolished Buildings
- Demolished Buildings
- Built-Up Area with Fireproof Buildings Predominant
- Built-Up Area with Non-Fireproof Buildings Predominant
- Individual Fireproof Building
- Prominent Industrial Building
- Individual Dwelling, Fireproof
- Ruins of an Individual Dwelling
- Factory or Mill Chimney
- Factory or Mill with Chimney (*бум.*)
- Factory or Mill without Chimney (*скип.*)
- Mine or Open Pit Mine (*медн.*)
- Operating Shaft or Mine (*кам. уг.*)
- Non-Operating Shaft or Mine
- Salt Mine (*сол.*)
- Tailings Pile
- Pit (–1.7)
- Stone Quarry (*гл. пес. кам.*)
- Gas Pump or Service Station
- Fuel Storage or Natural Gas Tank
- Oil or Natural Gas Derrick
- Small Hydroelectric Power Station
- Power Station
- Transformer Station (*б.тр.*)
- Cemetery
- Burial Mound (height in metres) (+8.1)
- Triangulation Point on Burial Mound (95.7)
- Triangulation Point (92.6)
- Bench Mark (52.1)
- Bench Mark (monumented) (71.1)
- Telegraph Office
- Telephone Station
- Radio Station
- Radio Tower
- Airfield or Seaplane Base
- Landing Strip
- Main Highway (Cut, Fill, Km Post, Plantings, Telegraph/Telephone Lines)
- Highway under Construction
- Improved Dirt Road (former truck road) (Width of Road 6, Steep Grade)
- Double-track Railroad with First Class Station (Small Bridge, *cm.*, Pipe (Culvert), Tunnel)
- Dismantled Railroad
- Railroad Under Construction
- Shore Embankment
- River or Ditch with Embankment (+2.4)
- Direction and velocity of current (0.2, 135.1, Water Gauge, Water Level Mark)
- Well (К. 125.0 гл.8м (г.-сол.))
- Water Reservoir or Rain Water Pit (*вдхр.*)
- Spring (156.2 кл.)
- Isobath with value (20)
- Heavy (Index) Contour Line
- Contour Line and Value (20)
- Half Contour Line
- Spot Elevation Value (347.1)
- Coniferous
- Deciduous
- Mixed
- Scrub

Key to Numbers on Mapping

TQ08_London

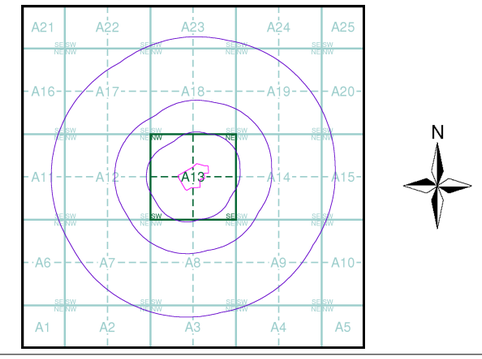
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1868	3
Buckinghamshire	1:10,560	1881 - 1883	4
Middlesex	1:10,560	1897	5
Buckinghamshire	1:10,560	1900	6
Middlesex	1:10,560	1920	7
Middlesex	1:10,560	1920	8
Buckinghamshire	1:10,560	1925 - 1926	9
Buckinghamshire	1:10,560	1932	10
Middlesex	1:10,560	1935	11
Middlesex	1:10,560	1938	12
Buckinghamshire	1:10,560	1938	13
Middlesex	1:10,560	1938	14
Historical Aerial Photography	1:10,560	1948	15
Historical Aerial Photography	1:10,560	1948	16
Ordnance Survey Plan	1:10,000	1960	17
Ordnance Survey Plan	1:10,000	1970 - 1974	18
Ordnance Survey Plan	1:10,000	1977	19
London	1:25,000	1985	20
Ordnance Survey Plan	1:10,000	1988	21
Ordnance Survey Plan	1:10,000	1990	22
10K Raster Mapping	1:10,000	2006	23
10K Raster Mapping	1:10,000	2013	24

Russian Map - Slice A



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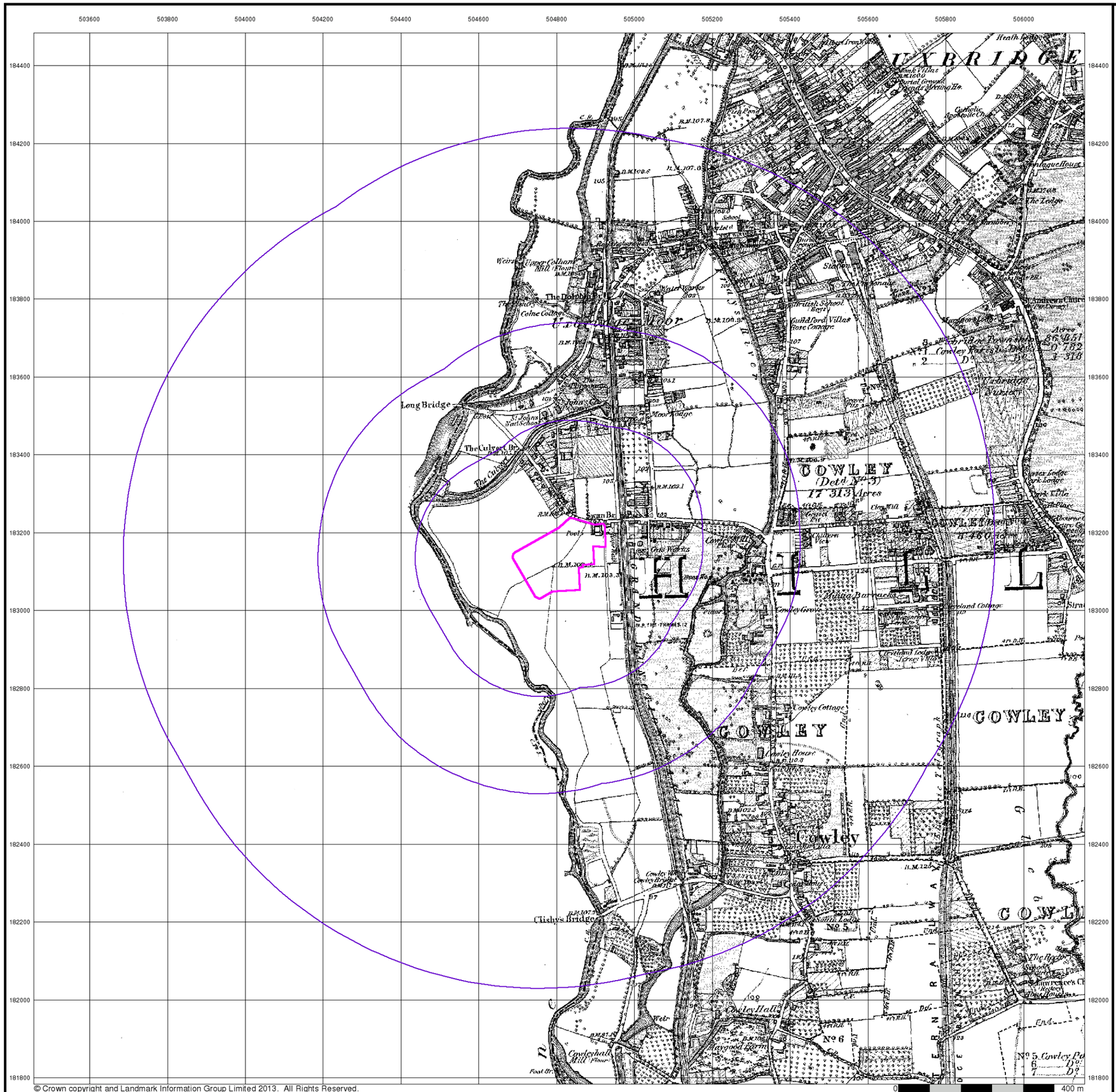
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Search Buffer (m):	1000

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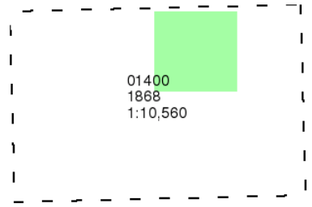
Middlesex

Published 1868

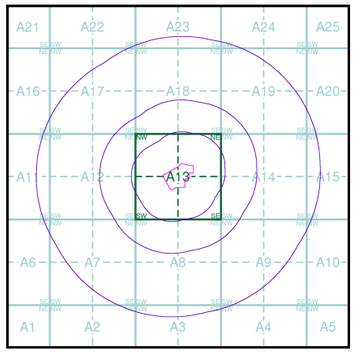
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Map Name(s) and Date(s)



Historical Map - Slice A



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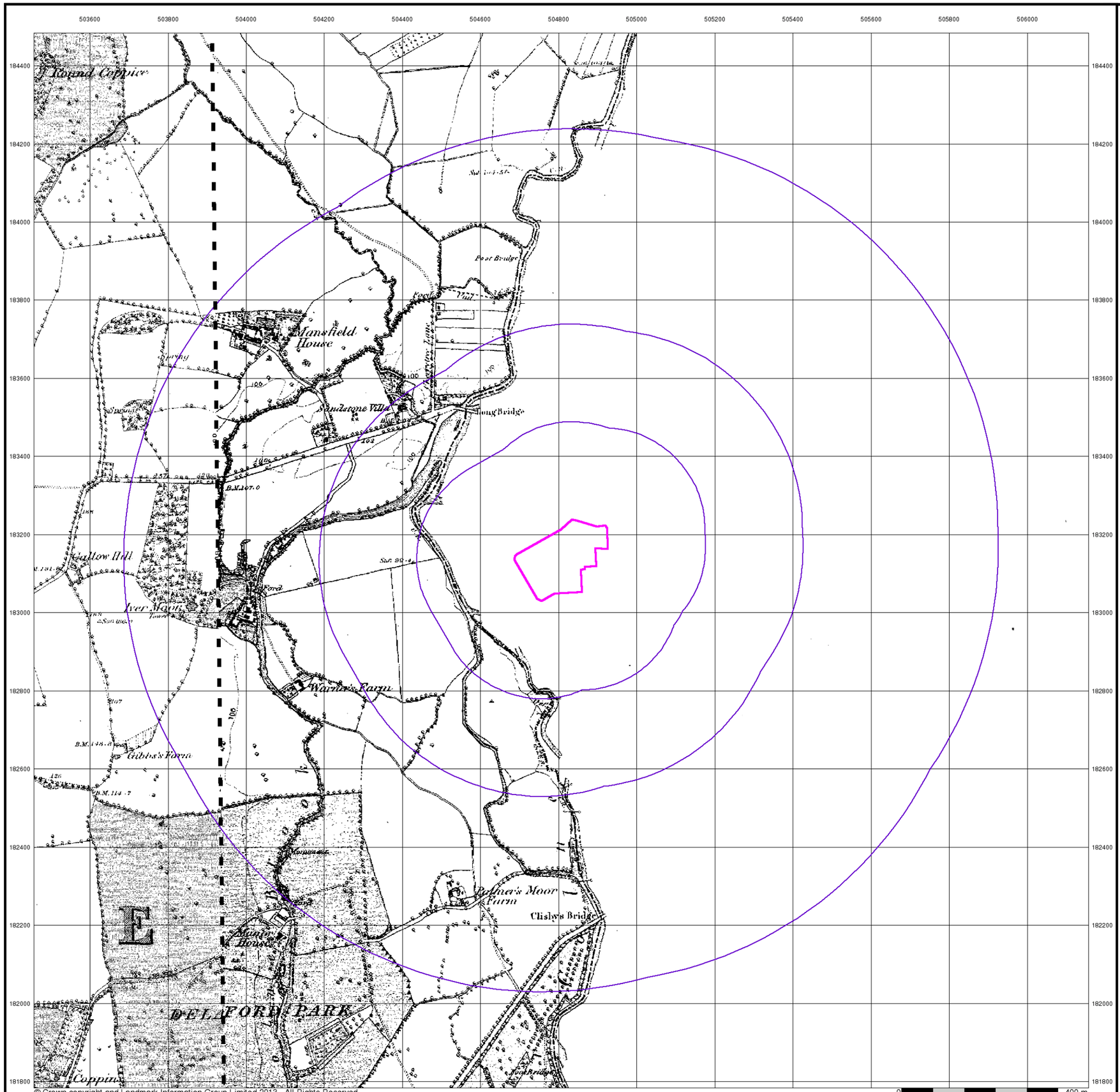
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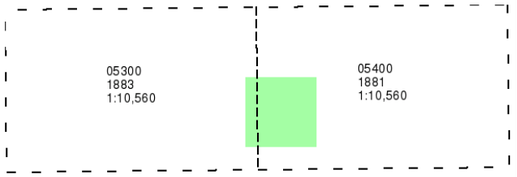
Buckinghamshire

Published 1881 - 1883

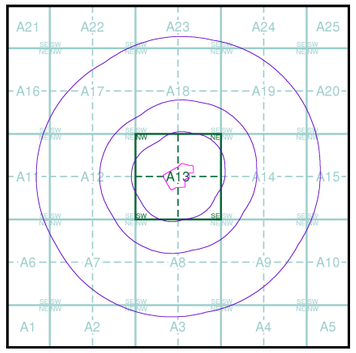
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Map Name(s) and Date(s)



Historical Map - Slice A



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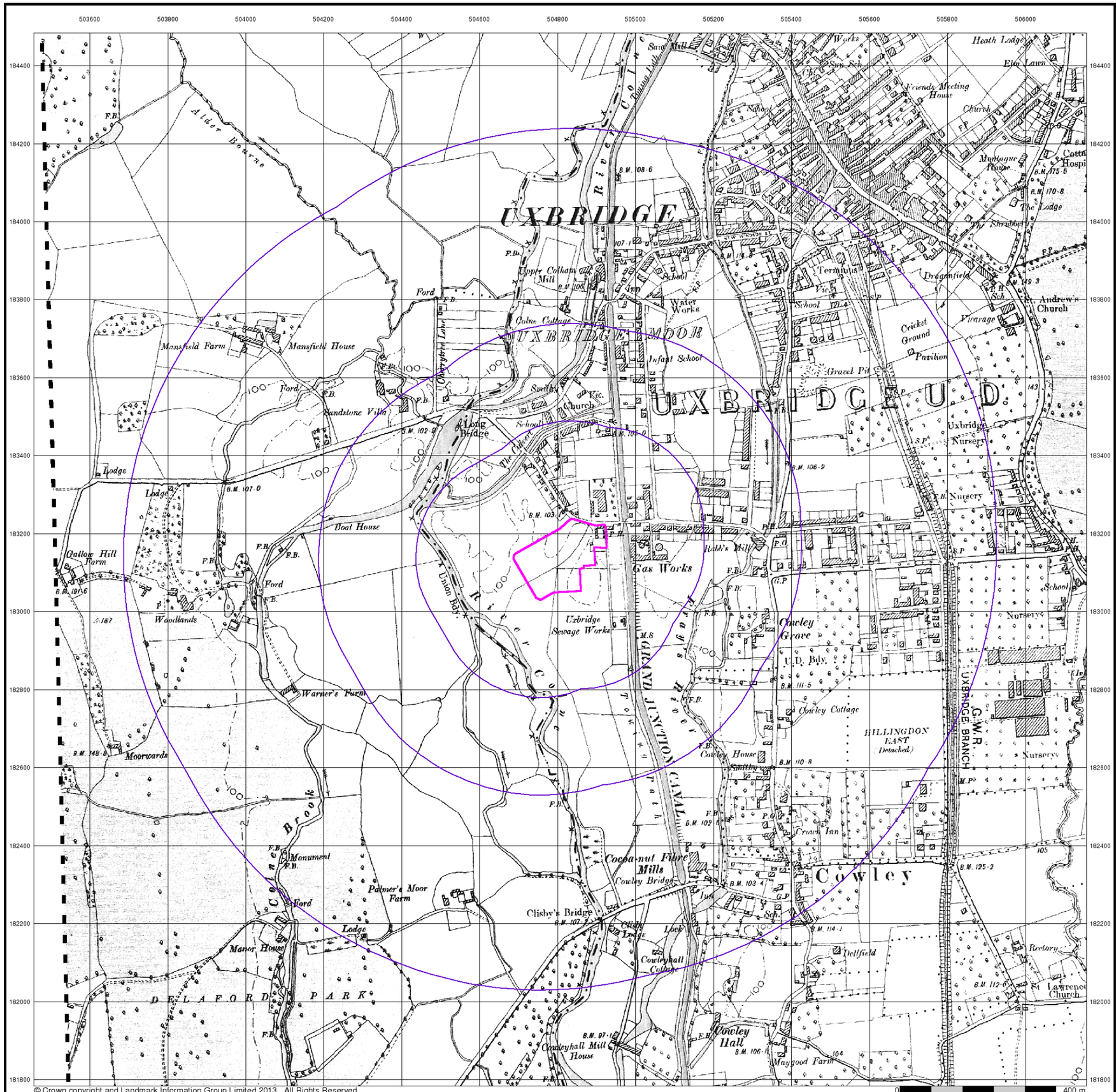
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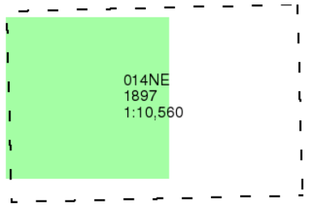
Middlesex

Published 1897

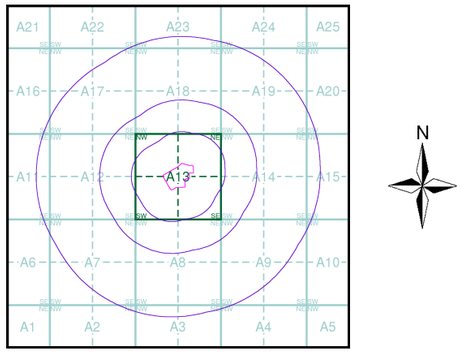
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Map Name(s) and Date(s)



Historical Map - Slice A



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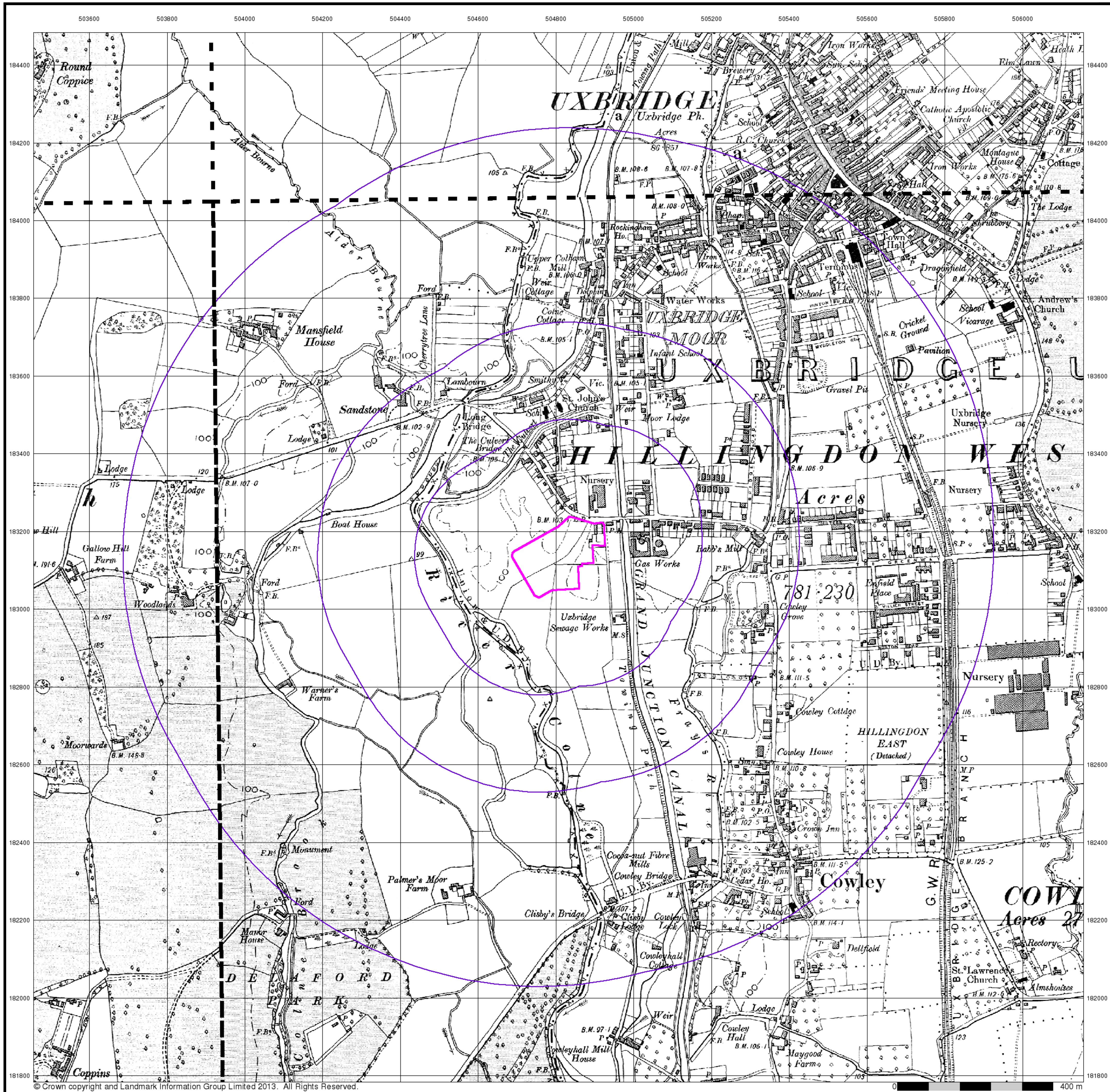
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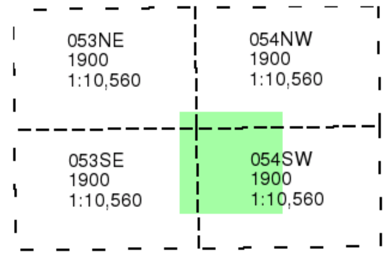
Buckinghamshire

Published 1900

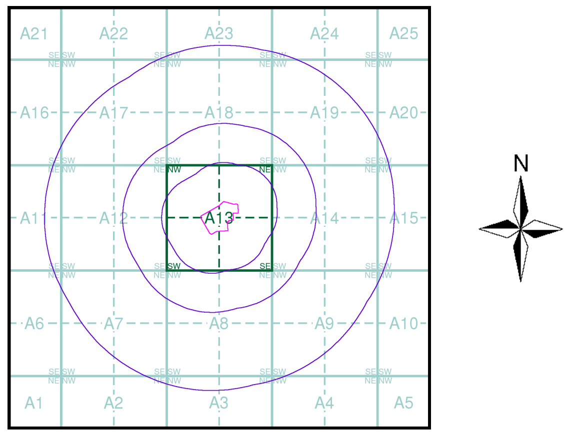
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Map Name(s) and Date(s)



Historical Map - Slice A



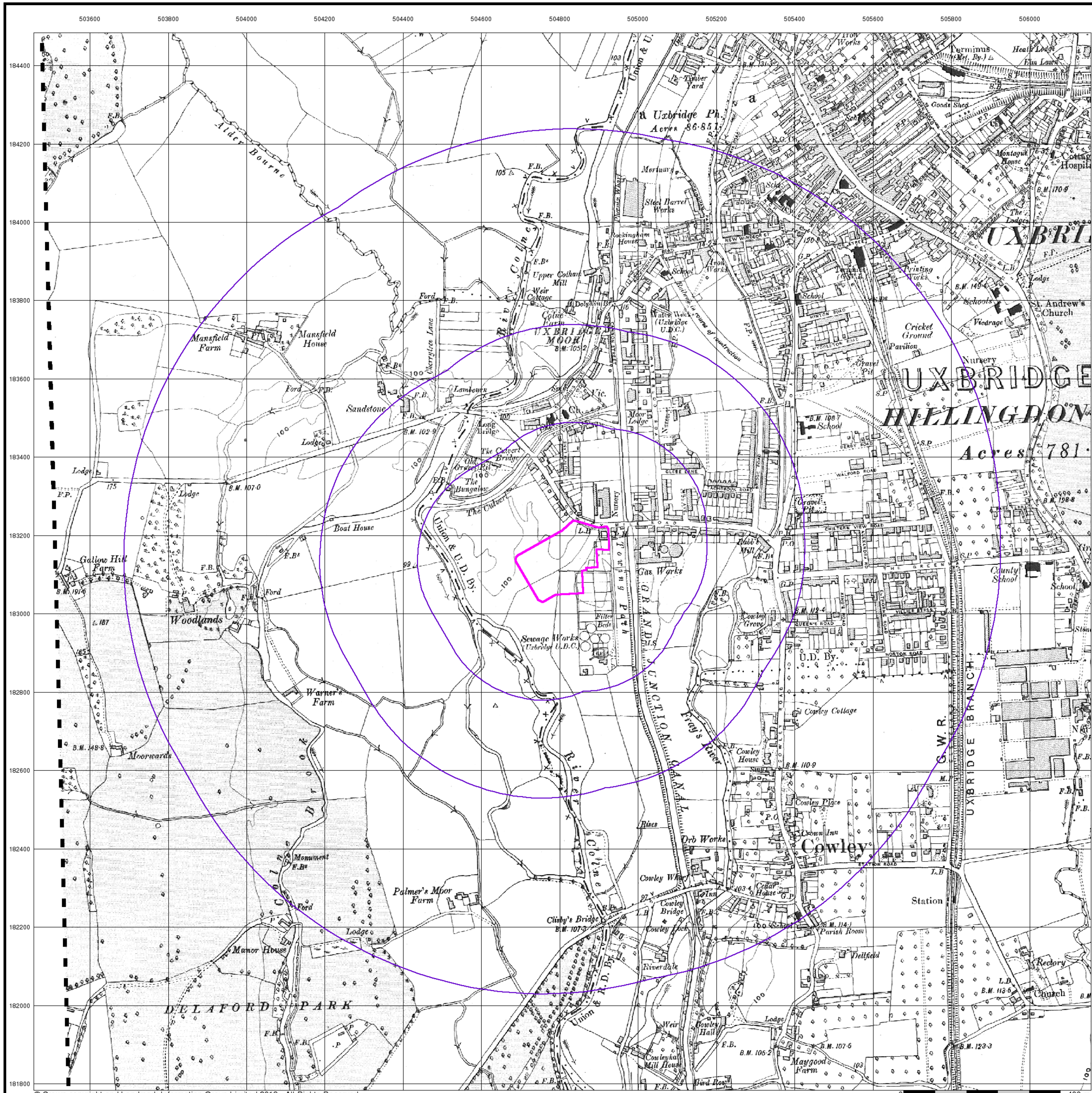
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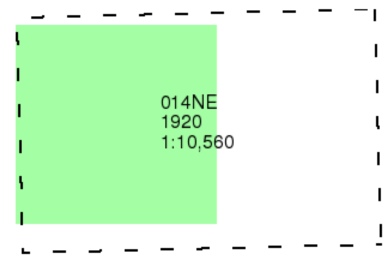
Middlesex

Published 1920

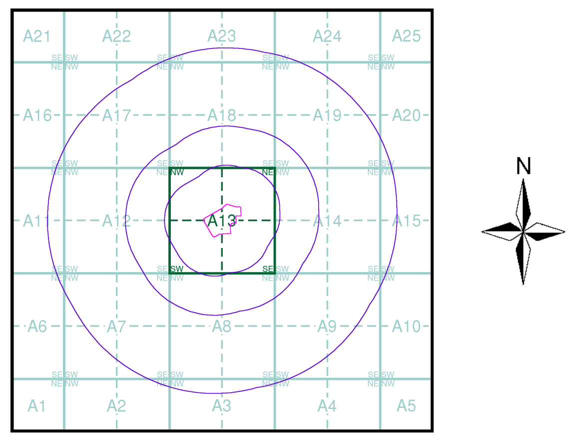
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A



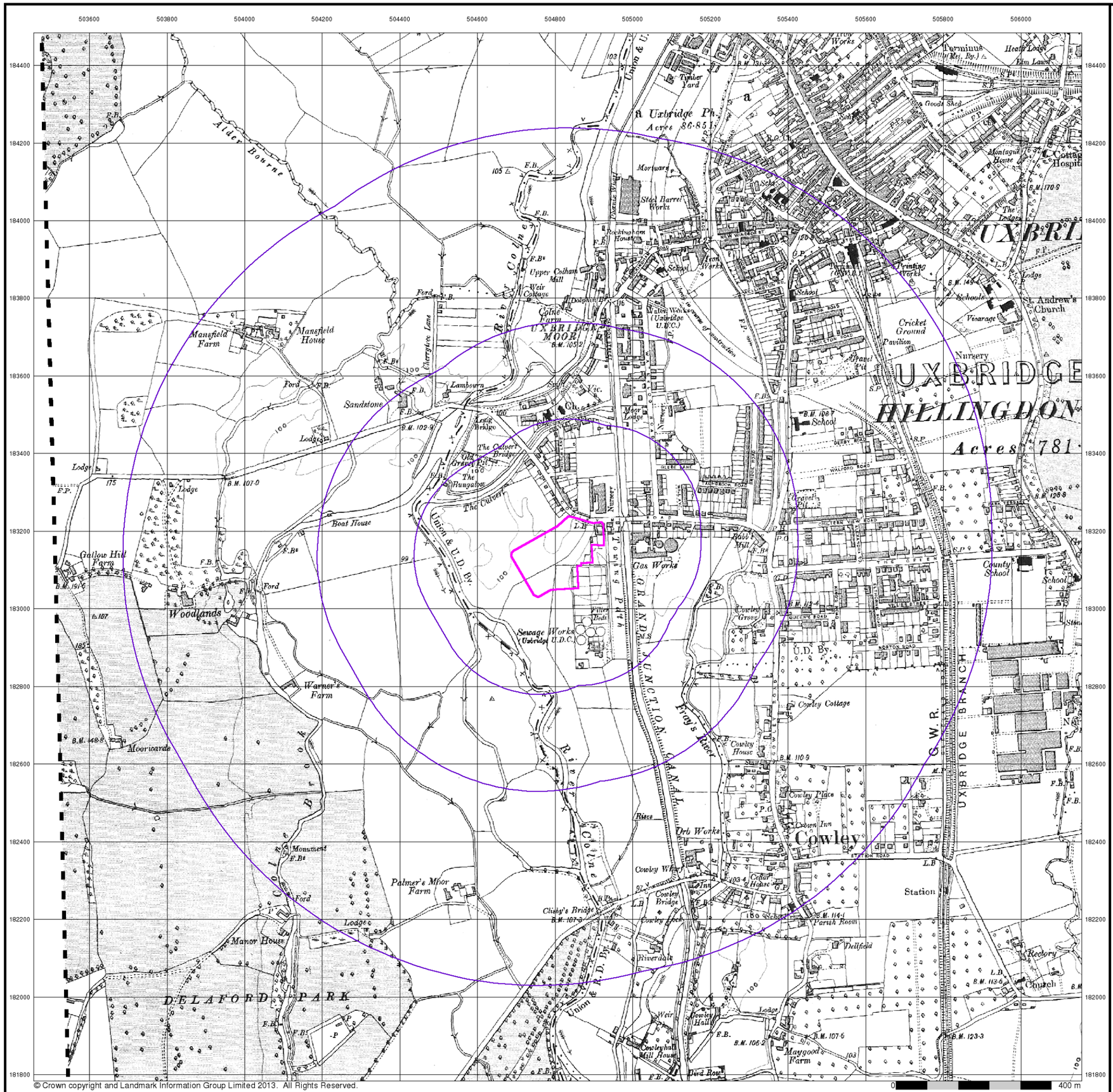
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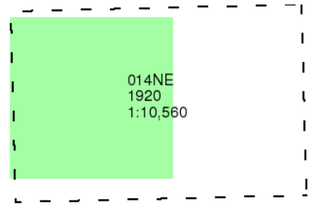
Middlesex

Published 1920

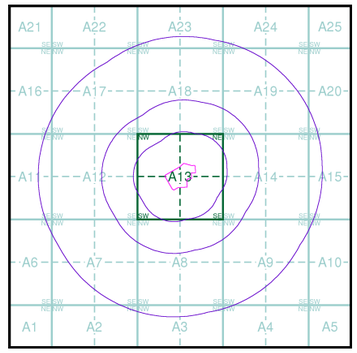
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Map Name(s) and Date(s)



Historical Map - Slice A



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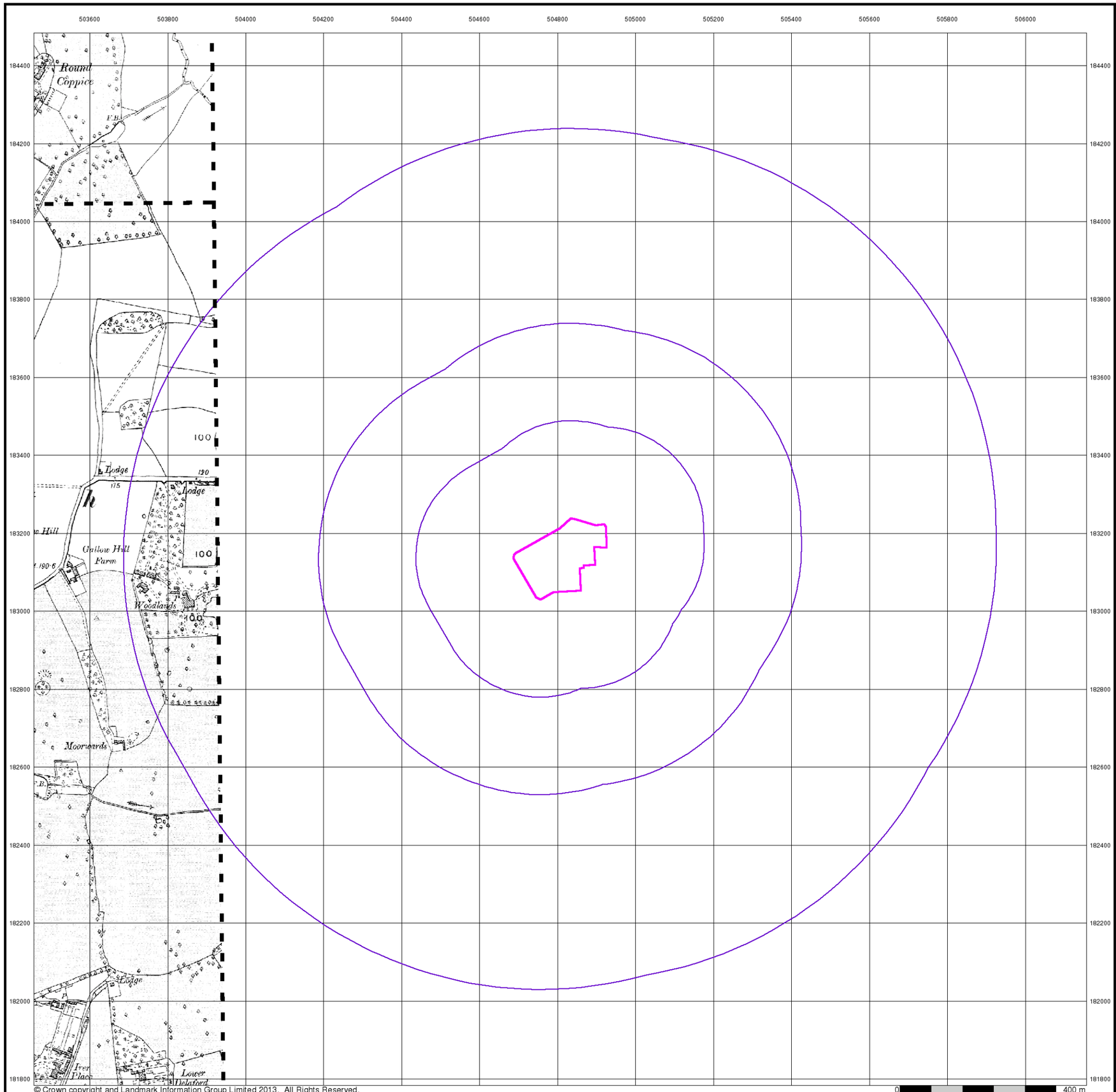
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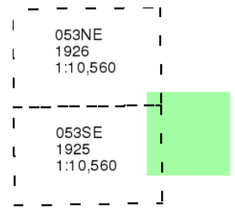
Buckinghamshire

Published 1925 - 1926

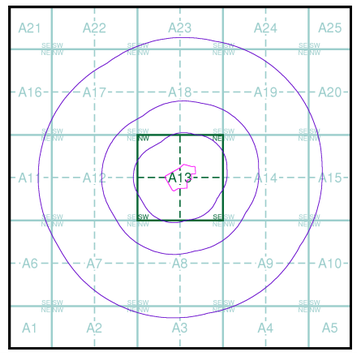
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Map Name(s) and Date(s)



Historical Map - Slice A



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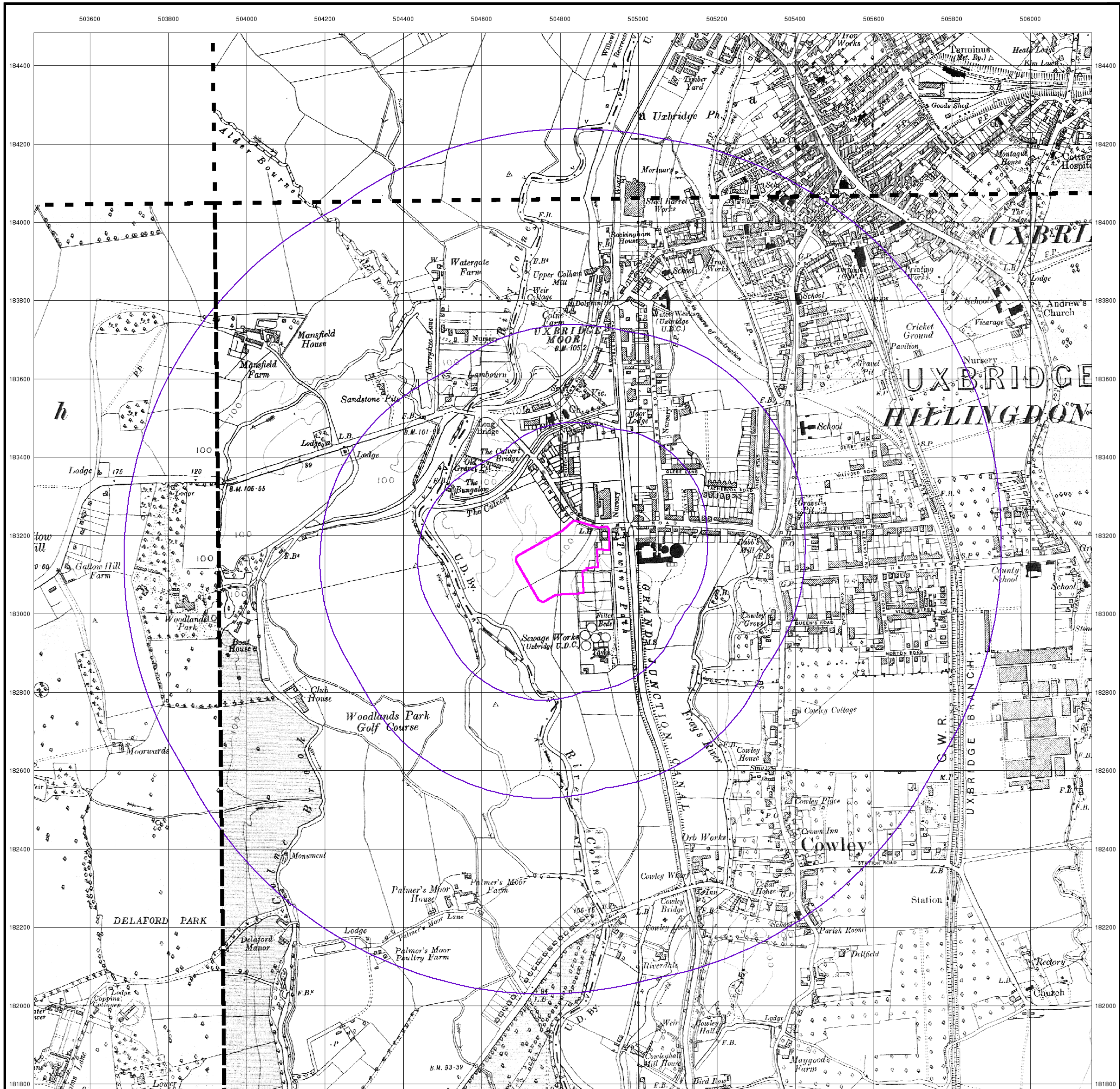
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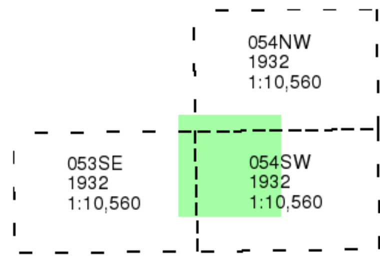
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Published 1932

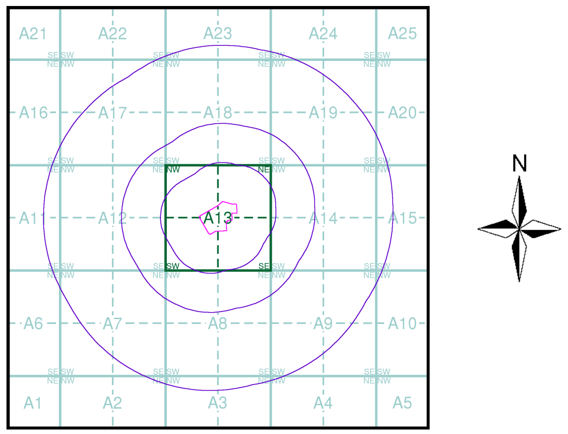
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Map Name(s) and Date(s)



Historical Map - Slice A



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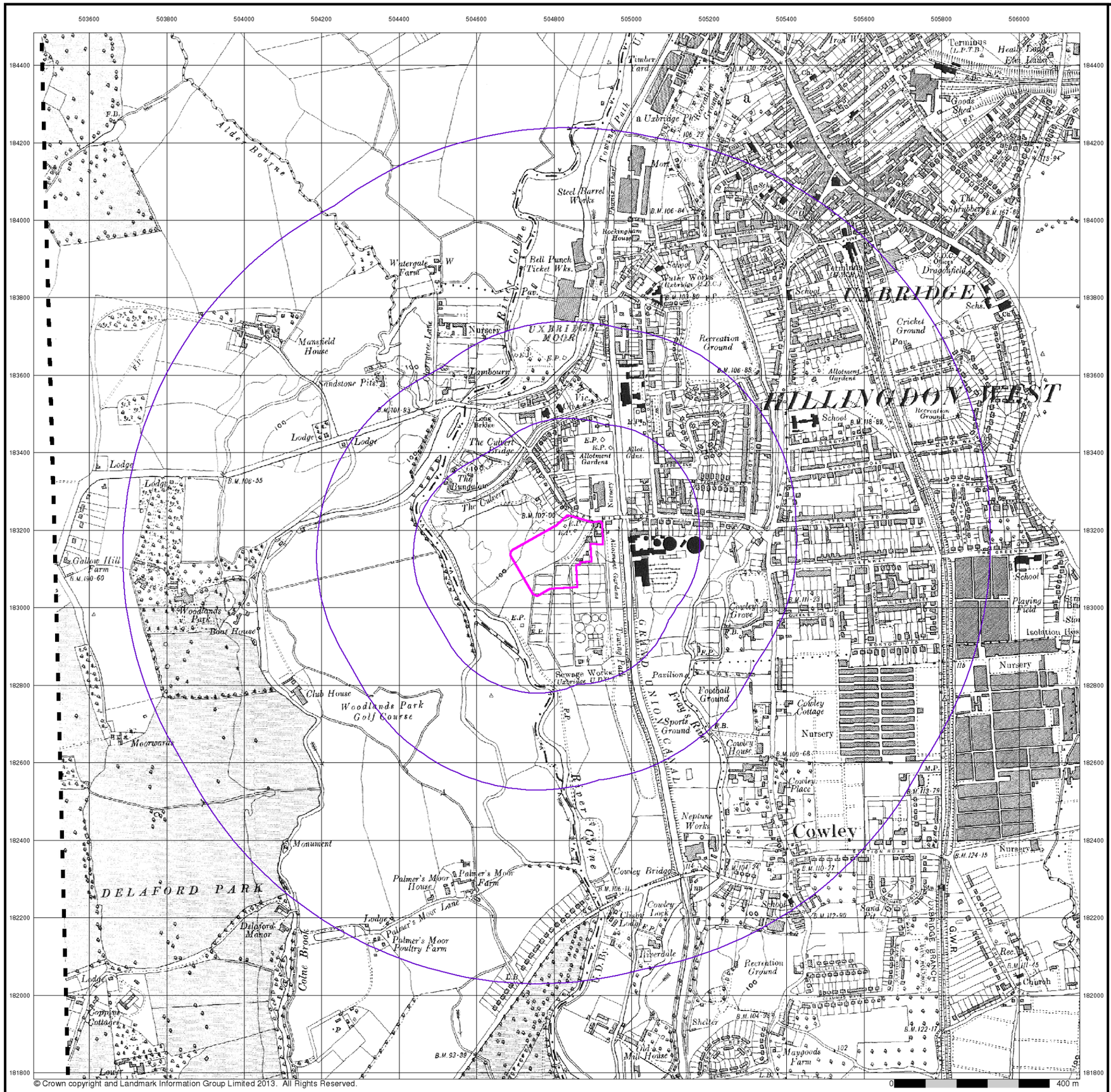
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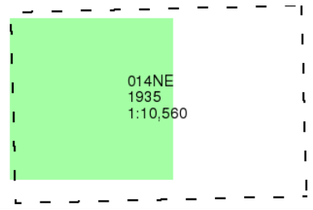
Middlesex

Published 1935

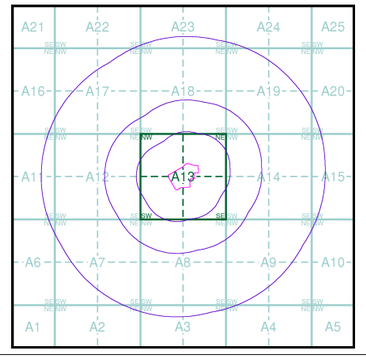
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps.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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

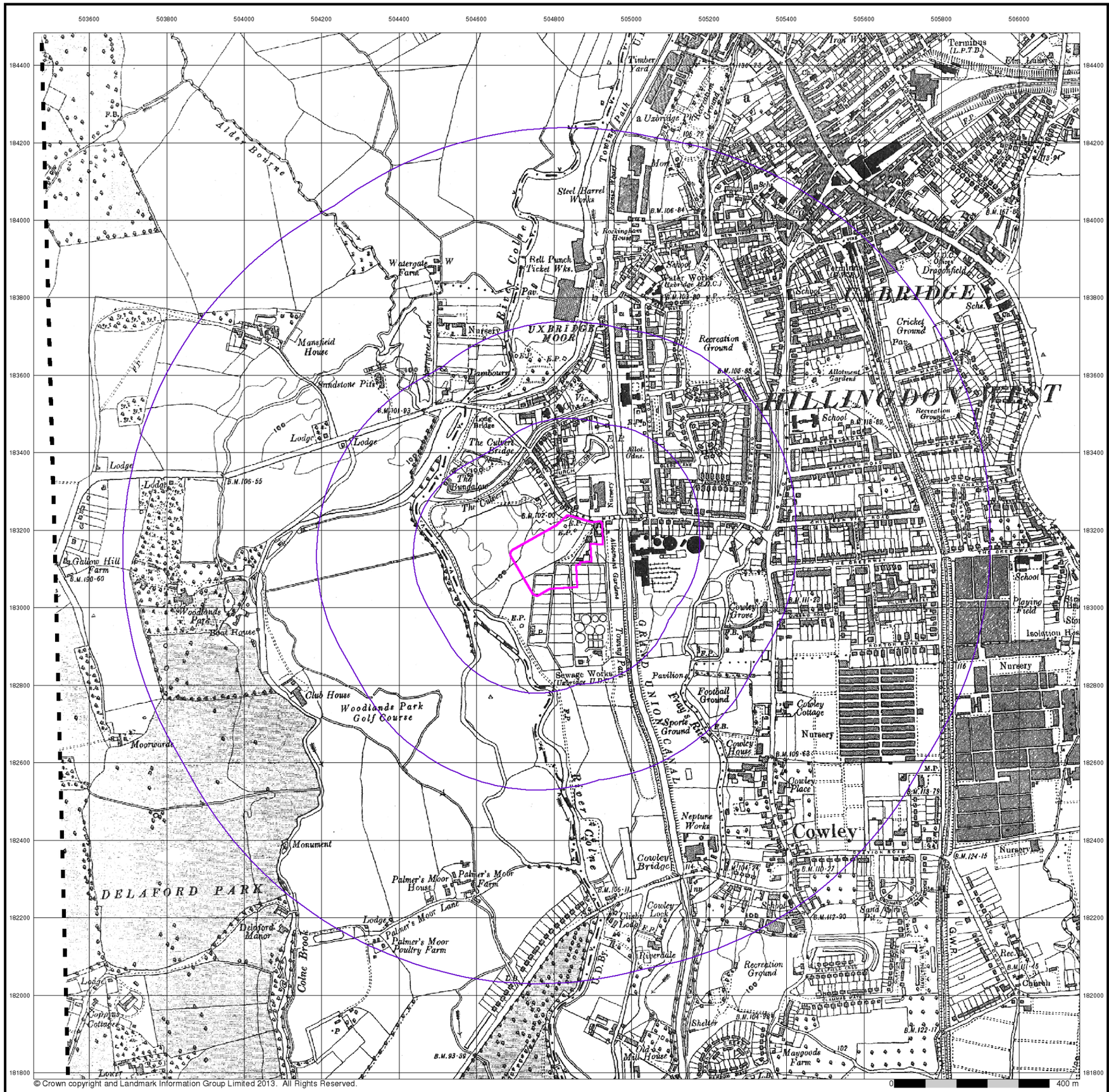
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Customer Ref:	13/2582
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Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

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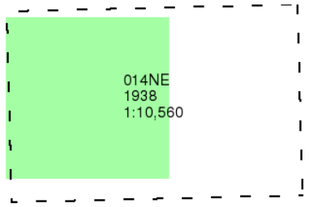
Middlesex

Published 1938

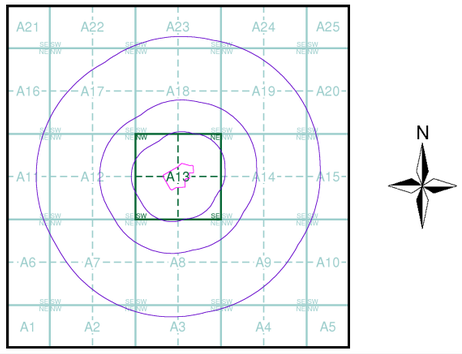
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Map Name(s) and Date(s)



Historical Map - Slice A

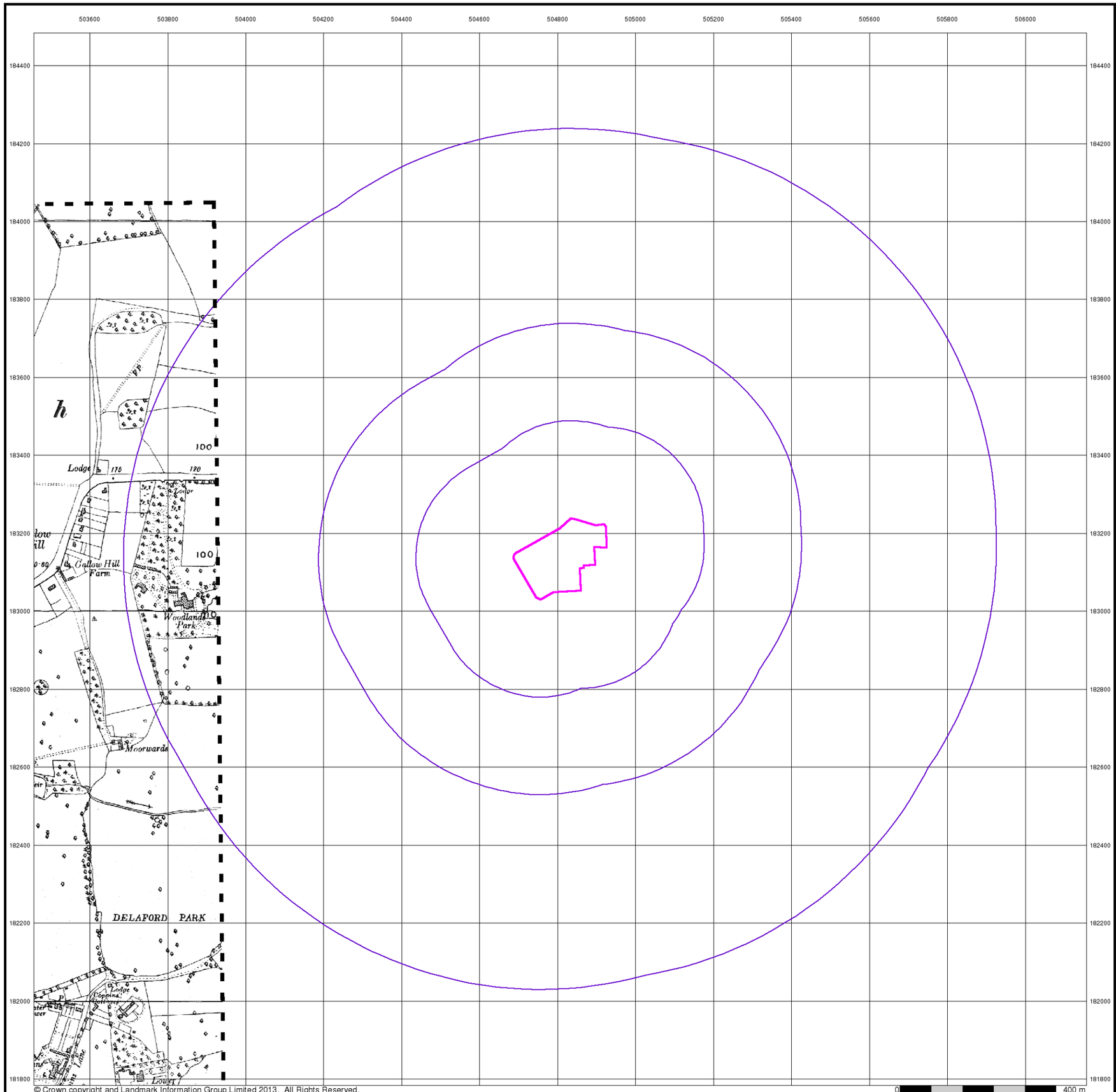


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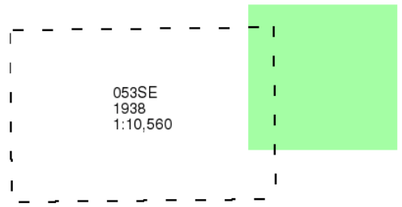
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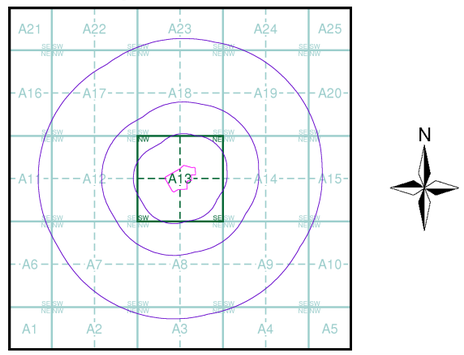
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Map Name(s) and Date(s)



Historical Map - Slice A



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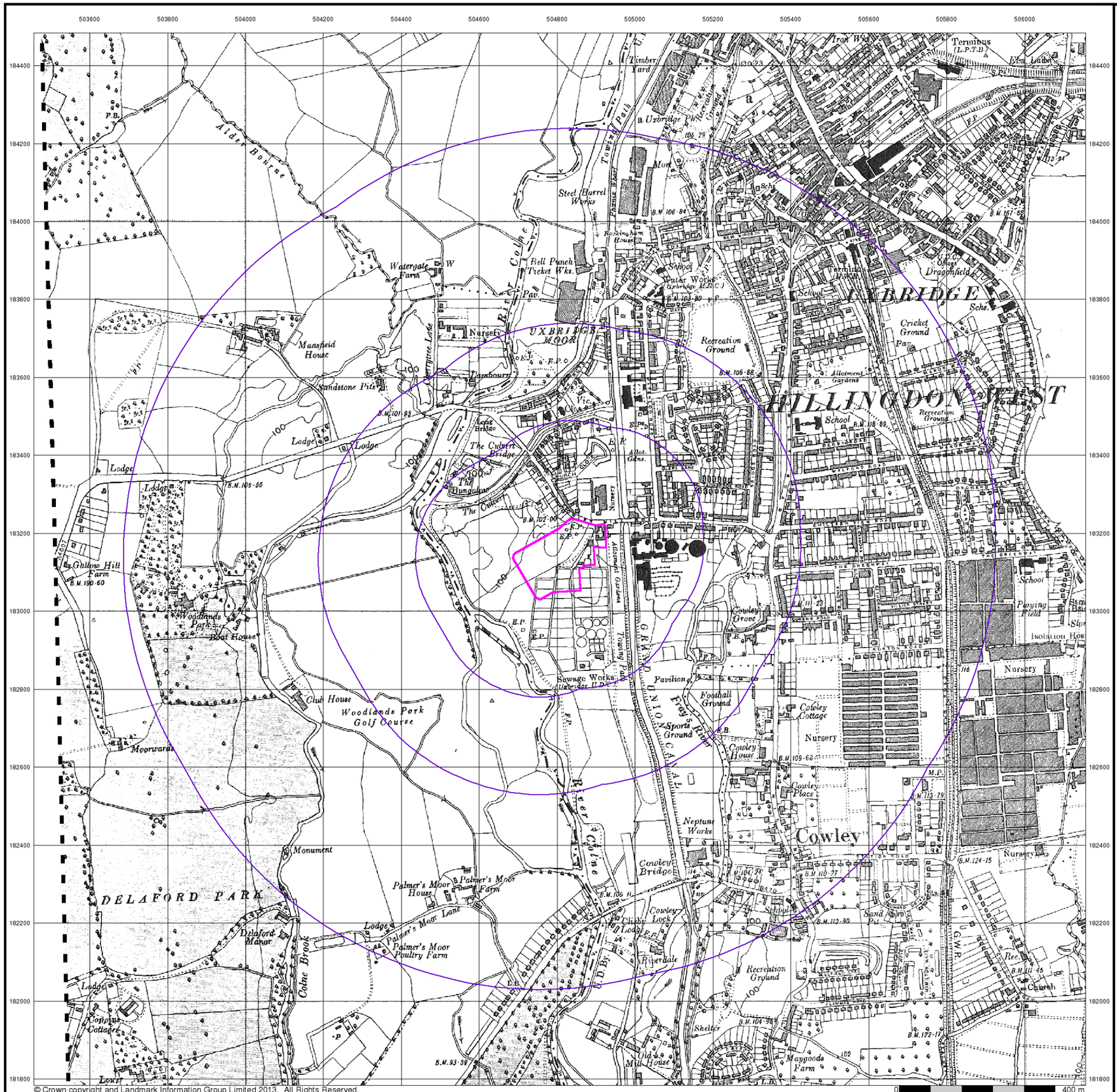
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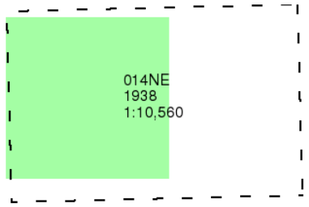
Middlesex

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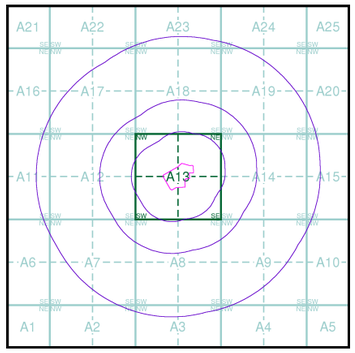
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Map Name(s) and Date(s)



Historical Map - Slice A

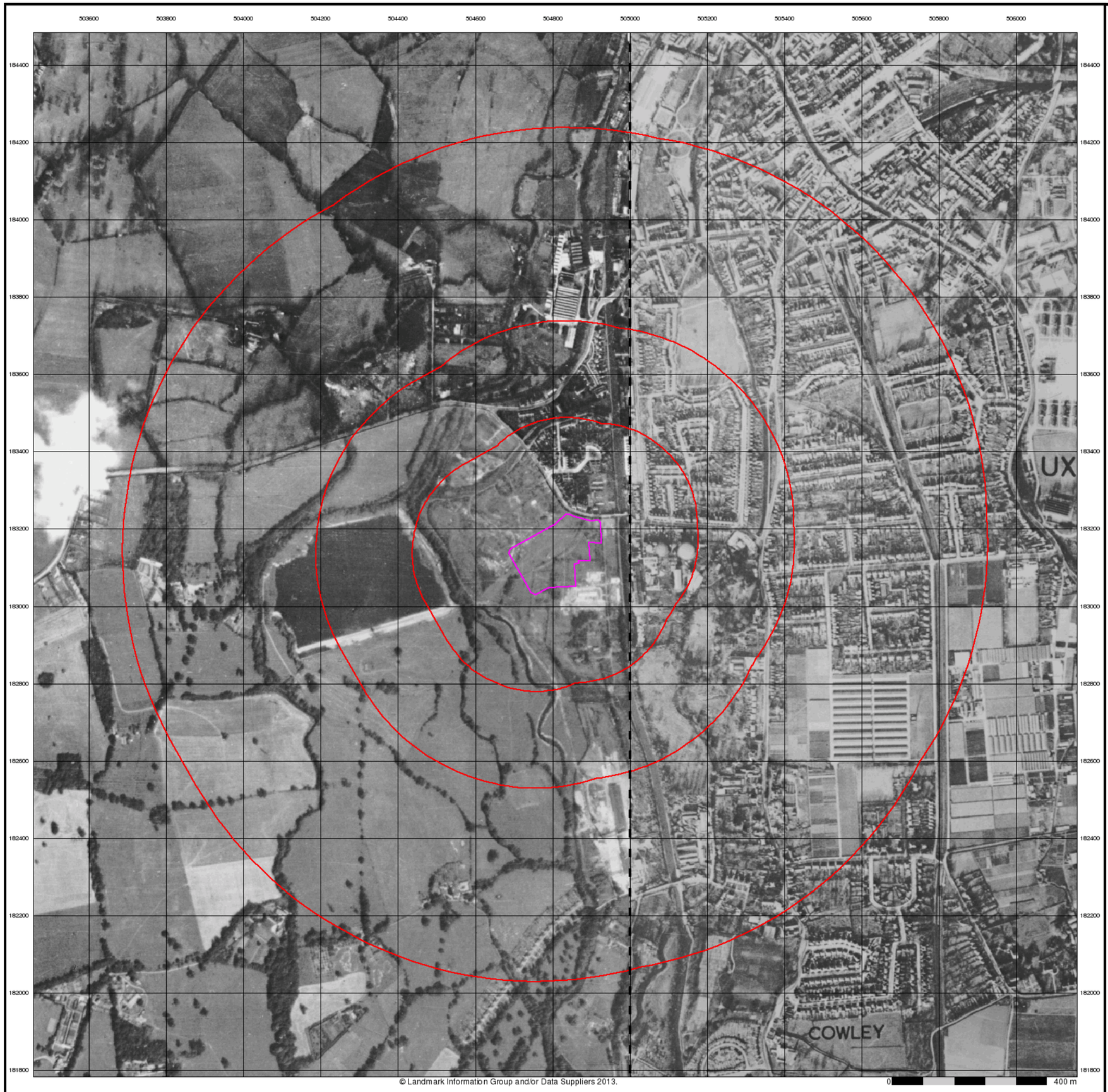


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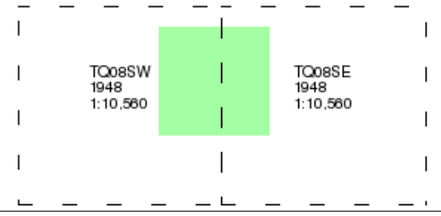
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Source map scale - 1:10,560

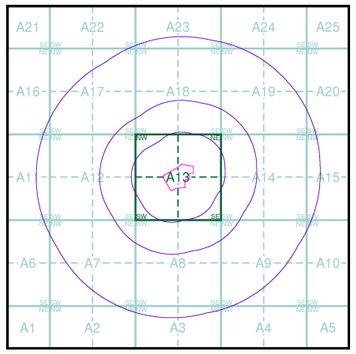
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the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

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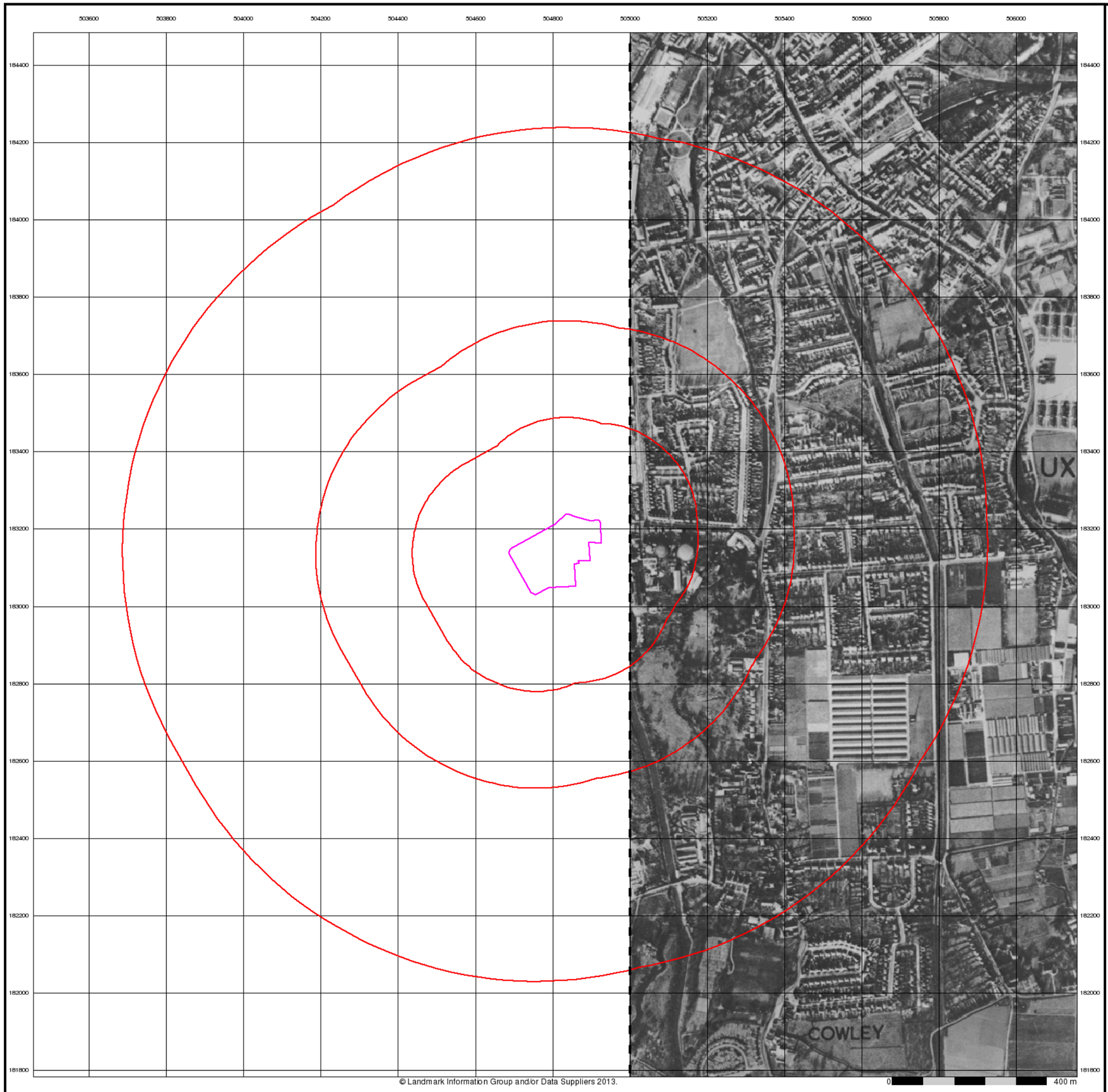
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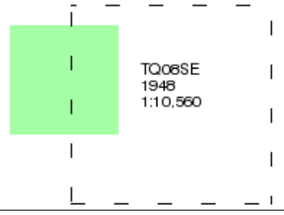
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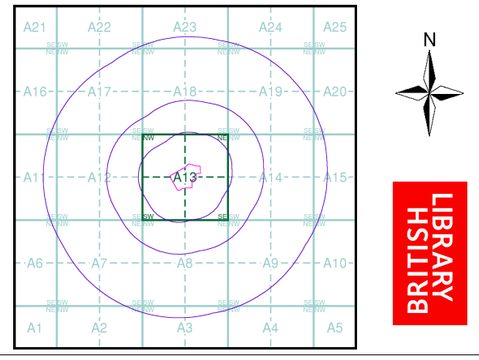
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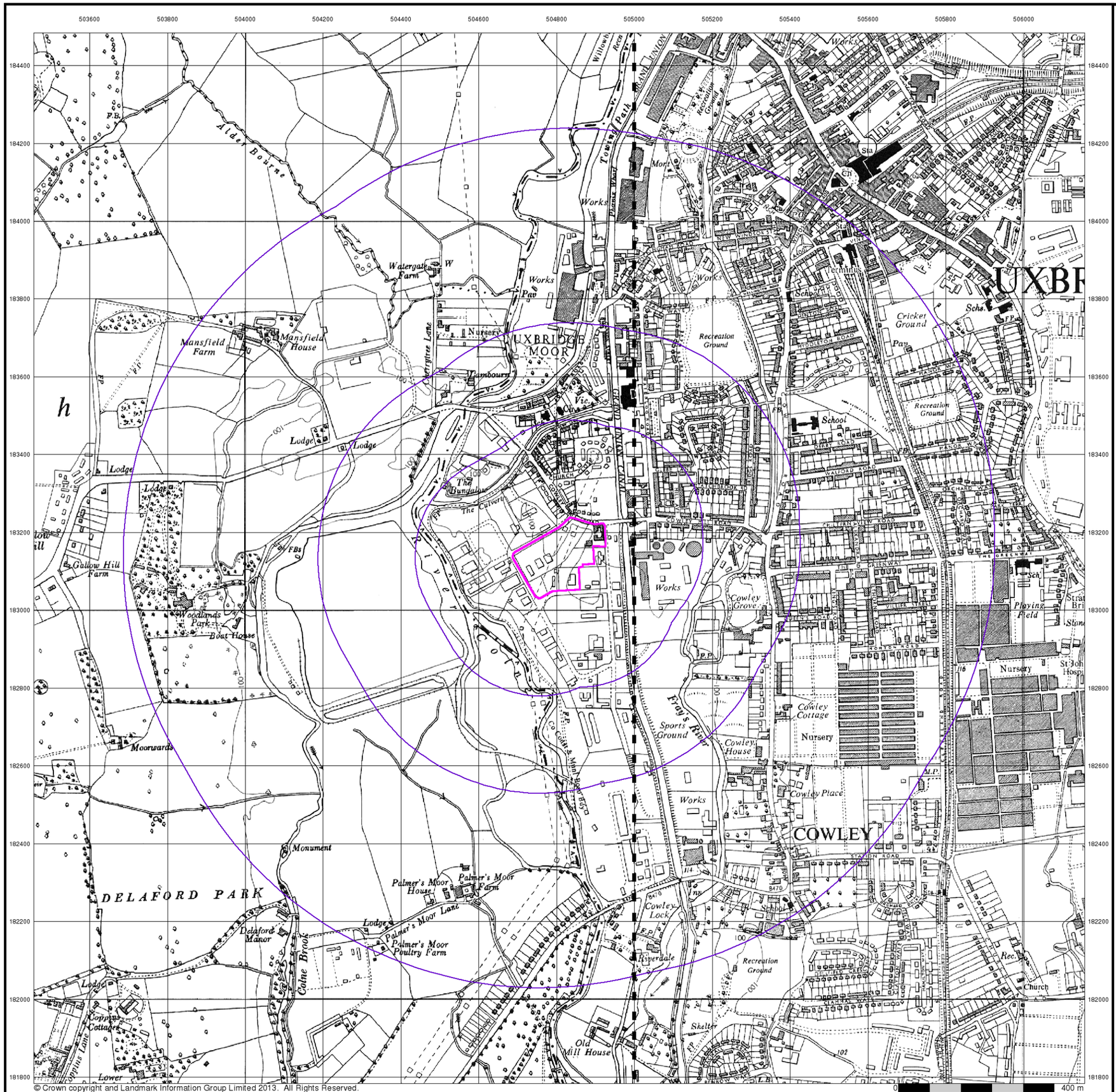
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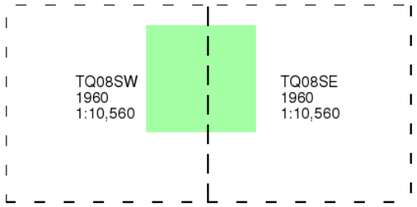
Ordnance Survey Plan

Published 1960

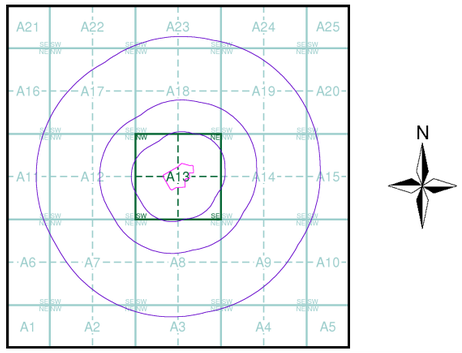
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

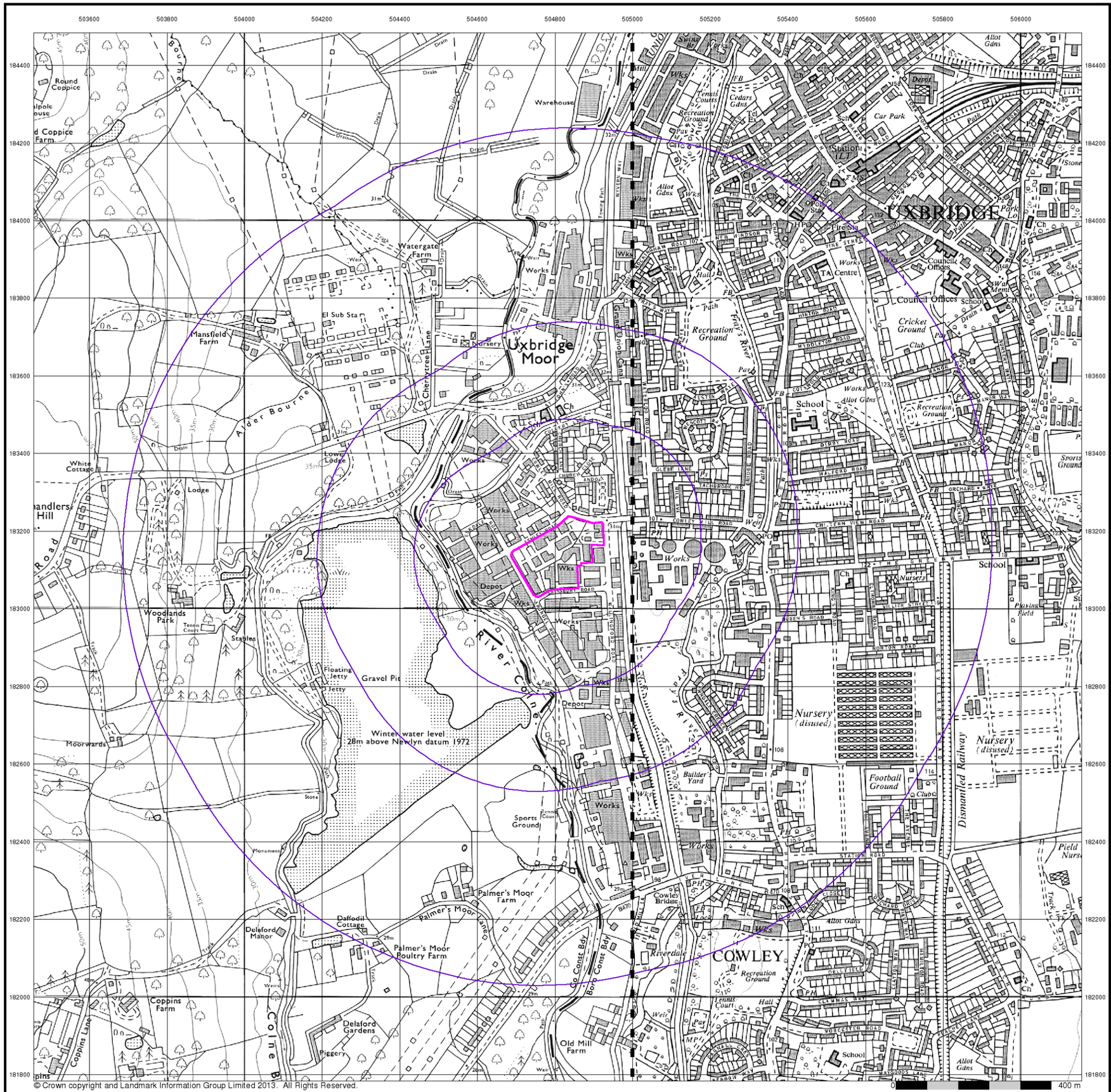
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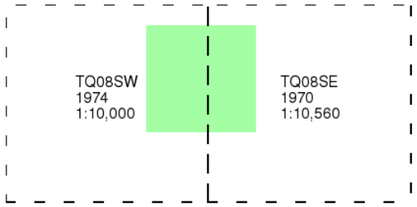
Ordnance Survey Plan

Published 1970 - 1974

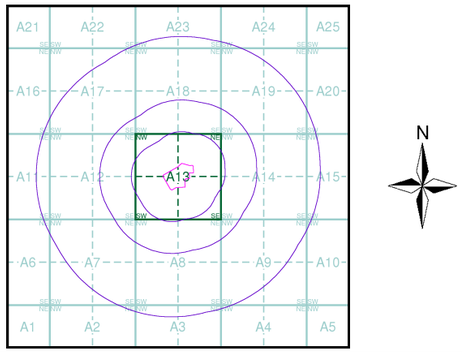
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Map Name(s) and Date(s)



Historical Map - Slice A



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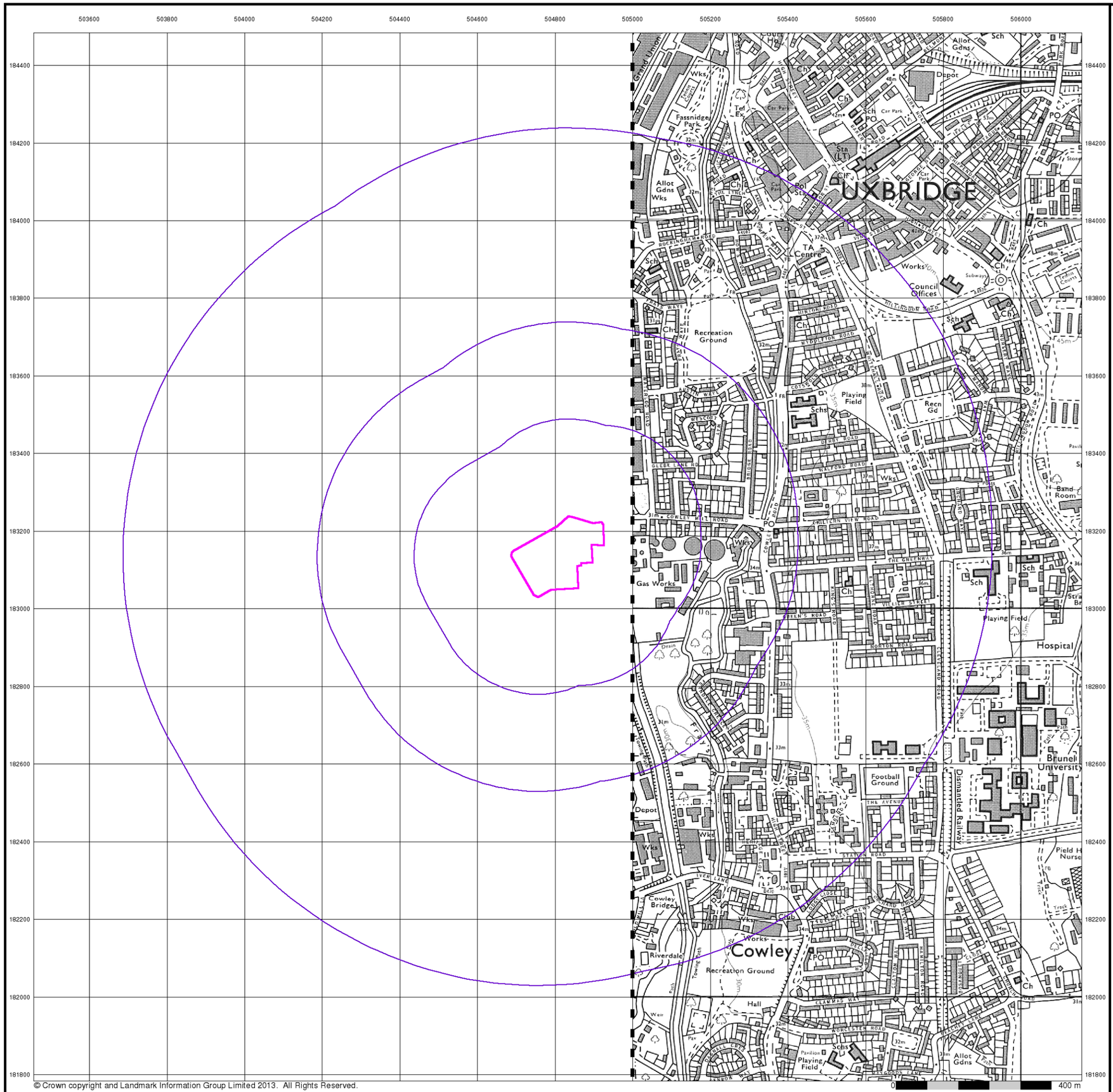
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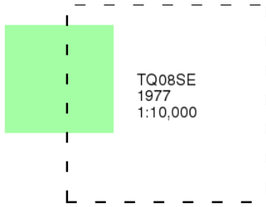
Ordnance Survey Plan

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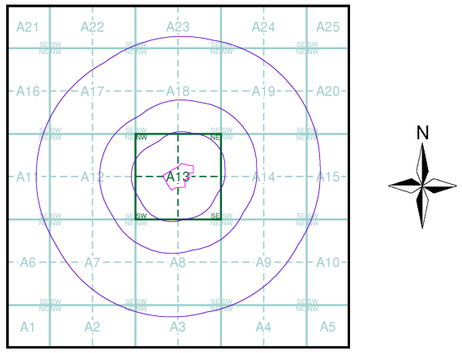
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

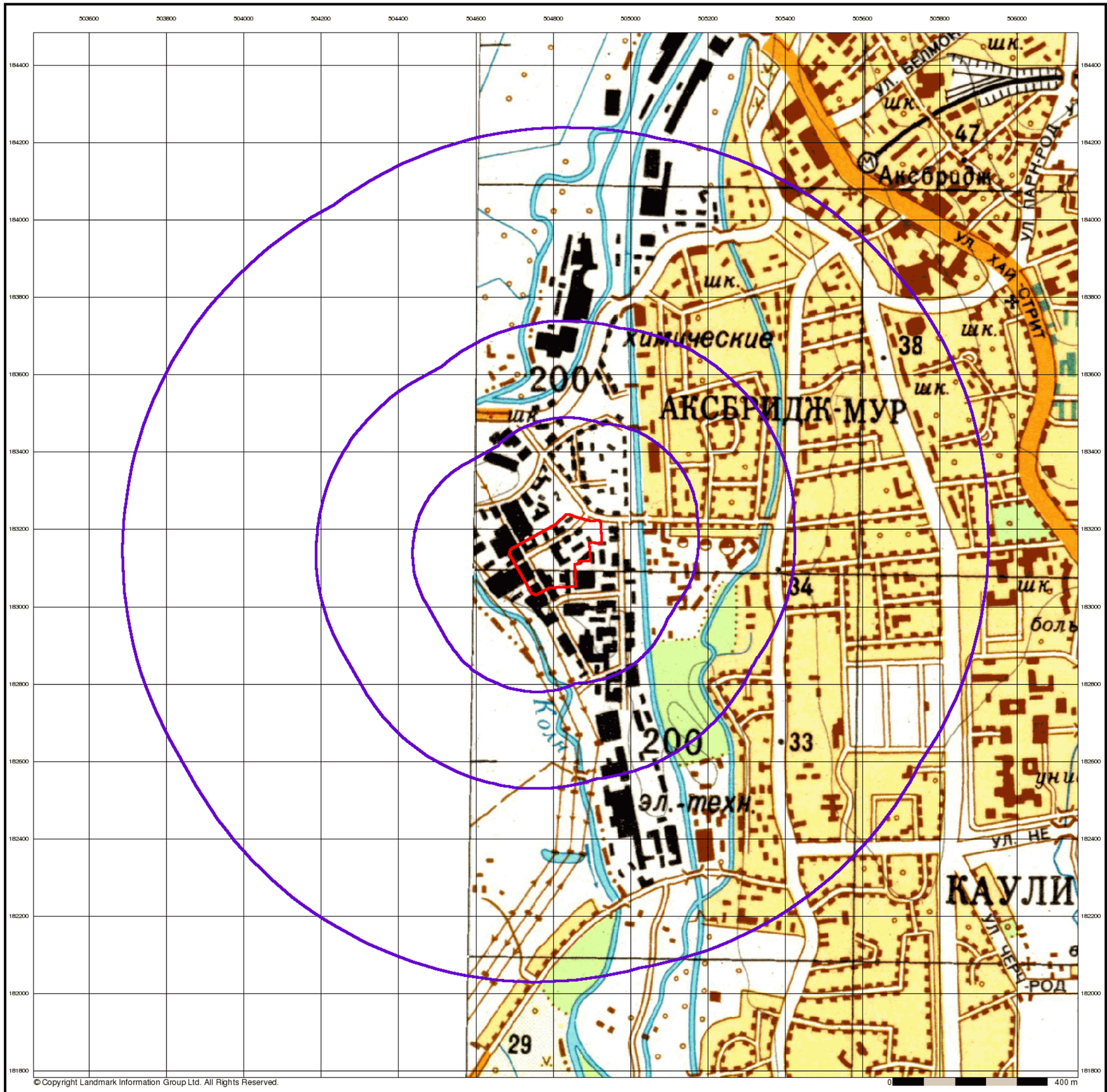
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London

Published 1985

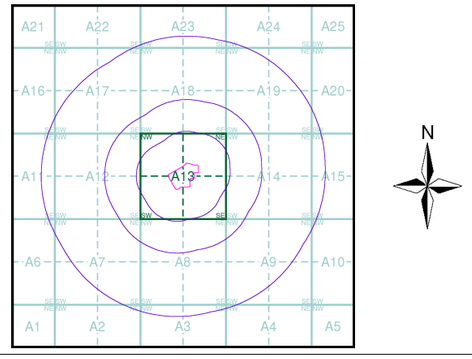
Source map scale - 1:25,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use.
They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

Order Number:	52612649_1_1
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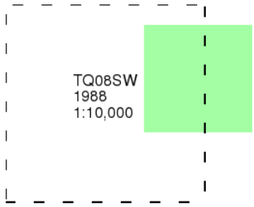
Ordnance Survey Plan

Published 1988

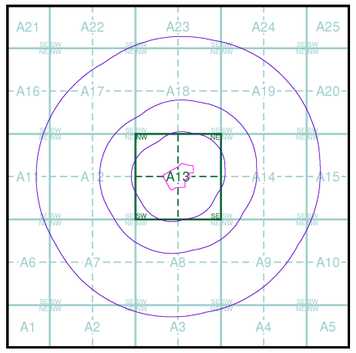
Source map scale - 1:10,000

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Historical Map - Slice A



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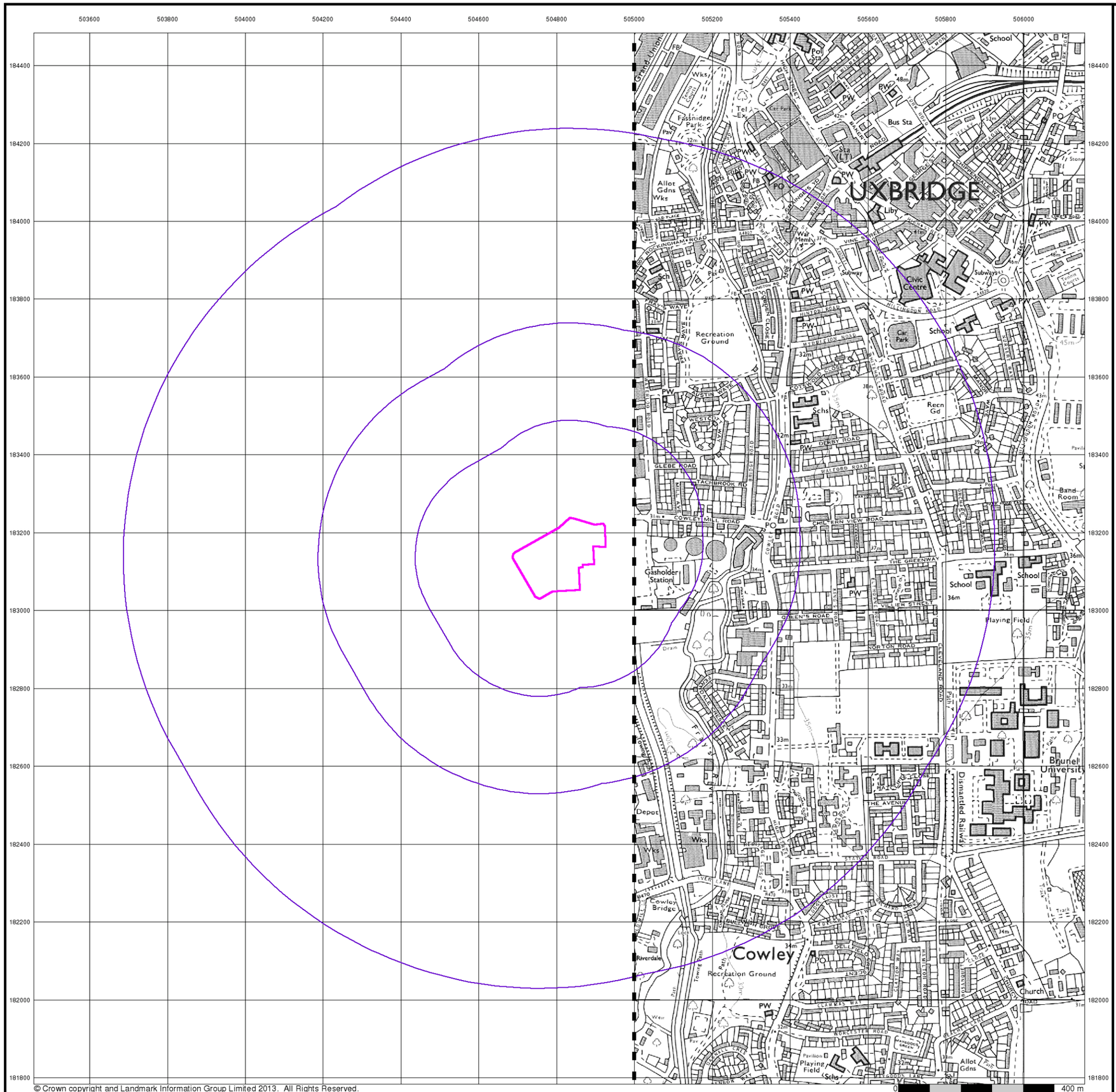
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Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

Trimite Ltd, Arundel Road, UXBRIDGE, Middlesex, UB8 2SD

Landmark Information Group

Tel: 0844 844 9952
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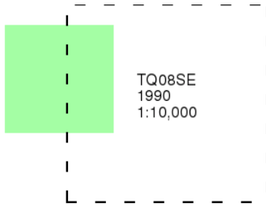
Ordnance Survey Plan

Published 1990

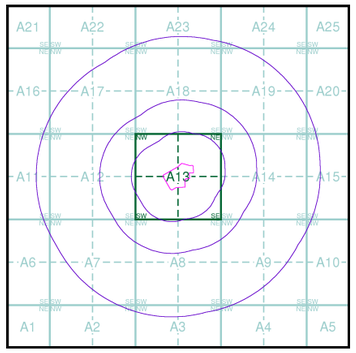
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

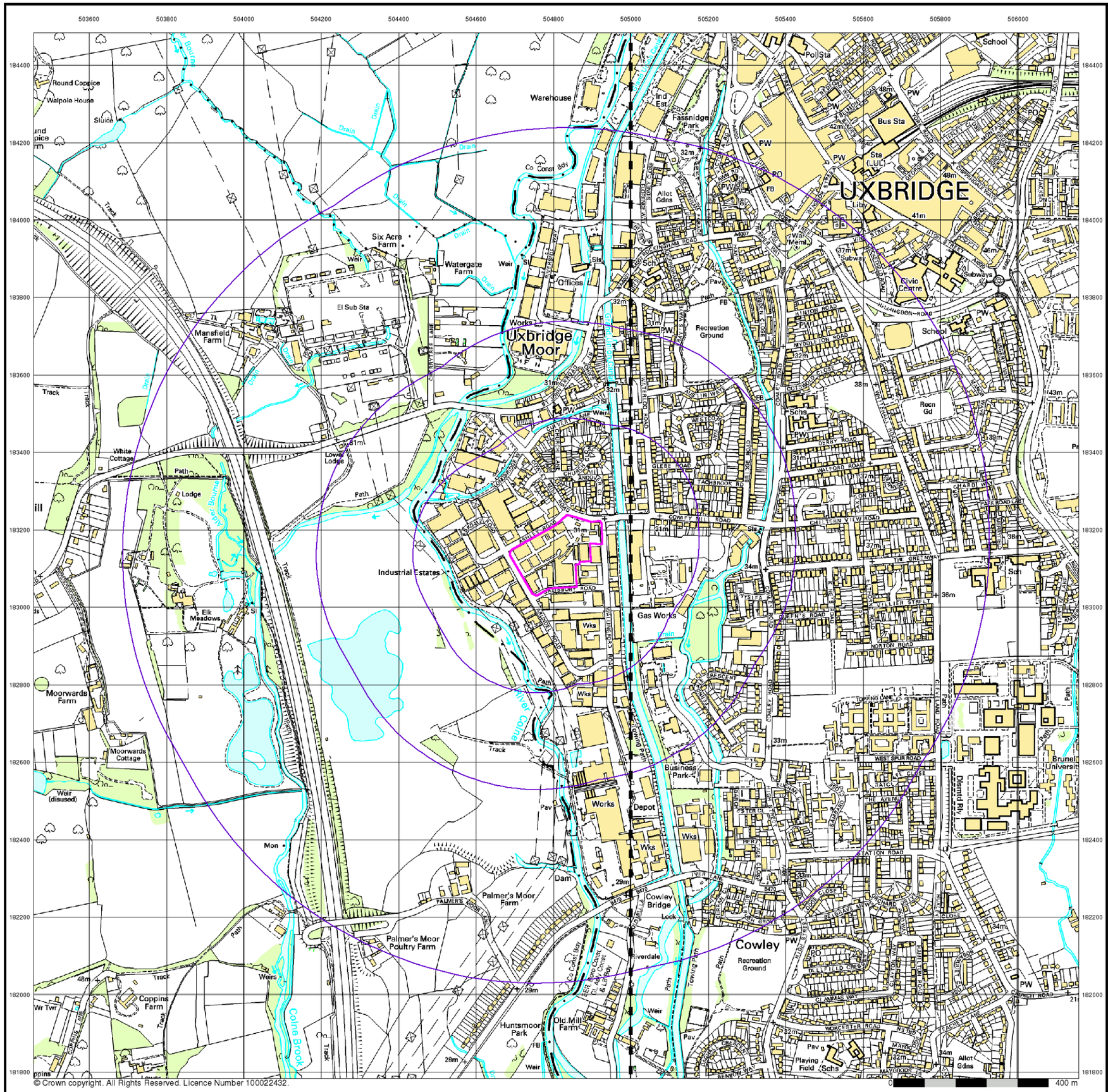
Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
Slice:	A
Site Area (Ha):	2.92
Search Buffer (m):	1000

Site Details

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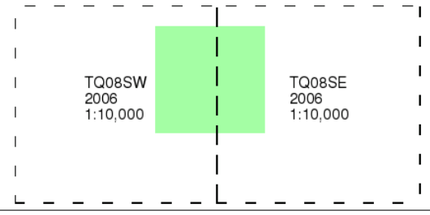
10k Raster Mapping

Published 2006

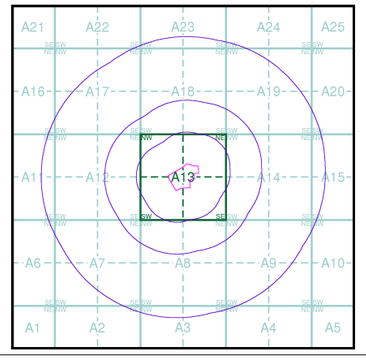
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



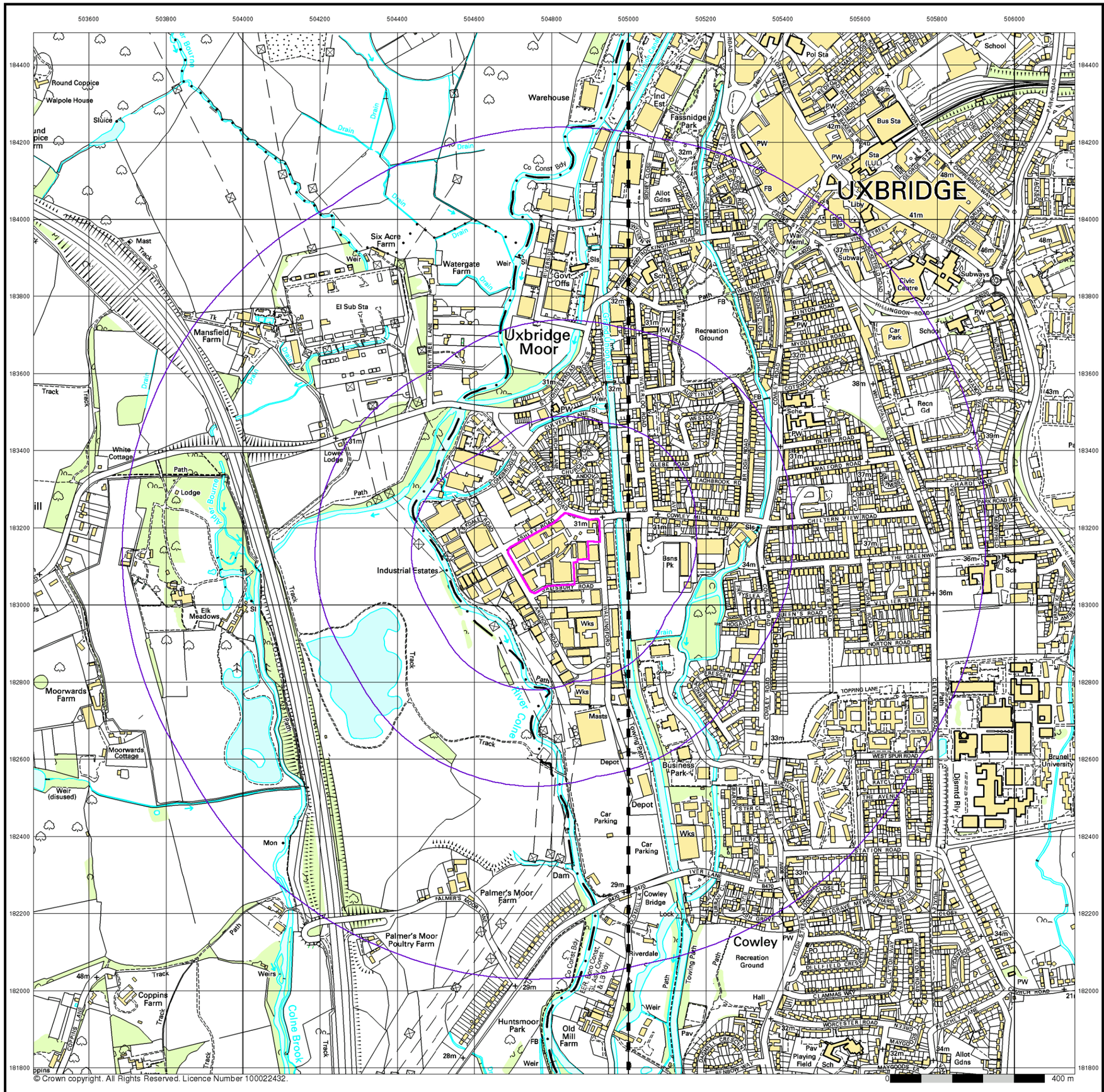
Order Details

Order Number:	52612649_1_1
Customer Ref:	13/2582
National Grid Reference:	504810, 183140
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Site Area (Ha):	2.92
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0 400 m

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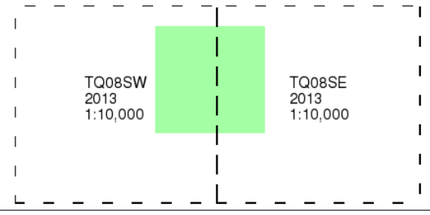
10k Raster Mapping

Published 2013

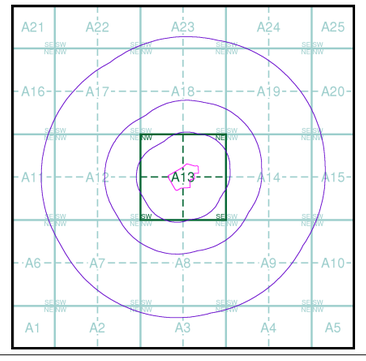
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



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