

Report on a

PHASE 1 GEOENVIRONMENTAL RISK ASSESSMENT

Ref: 23/36497 | Date: March 2023



For the site at:

**63 Mount View Road
London
N4 4SR**

Prepared for:

Dominic Land Architects

Ref: 23/36497
March 2023

DOCUMENT CONTROL

<i>Project</i>	63 Mount View Road, London, N4 4SR
<i>Document Type</i>	Report on a Phase 1 Risk Assessment
<i>Document Reference</i>	SAS 23/36497
<i>Document Status</i>	Final
<i>Revision</i>	-
<i>Changes</i>	-
<i>Date</i>	March 2023

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CONTENTS

EXECUTIVE SUMMARY

1.0 INTRODUCTION.....	5
1.1 PROJECT OBJECTIVES	5
1.2 SCOPE OF WORKS	6
1.3 DETAILS OF RESEARCH UNDERTAKEN	6
1.4 REPORT LIMITATIONS	7
1.5 CONFIDENTIALITY, COPYRIGHT AND REPRODUCTION	8
2.0 SITE DETAILS.....	9
2.1 SITE LOCATION	9
2.2 CURRENT USE OF THE SITE AND SURROUNDING LAND USES	10
2.3 SITE WALKOVER	10
2.4 DETAILS OF INTENDED FUTURE USES OF THE SITE	11
2.5 REFERENCES OF PLANNING APPLICATIONS	11
3.0 ENVIRONMENTAL SETTING.....	12
3.1 GEOLOGY	12
3.2 HYDROGEOLOGY	13
3.3 SENSITIVE LAND USE	14
3.4 SUMMARY OF POTENTIAL ENVIRONMENTAL RECEPTORS	14
4.0 INFORMATION ON SITE HISTORY AND LOCAL INDUSTRY	15
4.1 PRESENT USE AND ACTIVITIES	15
4.2 LANDFILL SITES AND WASTE	16
4.3 LAND RAISING OR LAND FILLING	16
4.4 POLLUTION INCIDENTS AND DISCHARGE CONSENTS	17
4.5 HISTORICAL MAPS	17
5.0 SITE DRAINAGE AND MAN-MADE POTENTIAL CONTAMINANT PATHWAYS	18
6.0 CONSULTATION WITH THE LOCAL AUTHORITY, THE ENVIRONMENT AGENCY, ETC.	18
7.0 REVIEW AND SUMMARY OF PREVIOUS REPORTS.....	19
8.0 CONCEPTUAL MODEL AND RISK ASSESSMENT	19
8.1 CONTAMINATION SOURCES	19
8.2 CONTAMINANTS OF CONCERN	20
8.3 RECEPTORS	21
8.4 CONTAMINANT LINKAGES	21
9.0 DIAGRAMMATIC CONCEPTUAL SITE MODEL.....	27
10.0 SUGGESTED NEXT STEPS.....	28
11.0 REFERENCES.....	29

APPENDIX A

SITE PHOTOGRAPHS

APPENDIX B

EXISTING SITE PLANS

APPENDIX C

PROPOSED SITE PLANS

APPENDIX D

ENVIROCHECK HISTORICAL MAPS

ENVIROCHECK GEOLOGICAL MAPS

ENVIROCHECK SITE SENSITIVITY MAPS

ENVIROCHECK ENVIRONMENTAL DATASHEET

EXECUTIVE SUMMARY

<i>Site Location</i>	63 Mount View Road, London, N4 4SR
<i>Proposed Development</i>	At the time of reporting (March 2023), the proposal for the site is to construct a single-storey extension to the rear, incorporating the footprint of an existing outbuilding. Converting the roof accommodation with two bedrooms and a basement under the footprint of the existing house.
<i>Historic and Current Activities</i>	- The site consists of a two-storey residential dwelling with a private front and rear garden. - From historical map evidence, it would appear that the site comprised undeveloped land prior to 1863, with the surrounding areas mainly comprising undeveloped land. In 1896 the site comprises a semi-detached residential dwelling and private garden to the rear of the property, with the surrounding area increasing significantly in residential use in all directions. - A Railway Line, Reservoir and Electrical Sub-stations have been present within 250m.
<i>Environmental Setting</i>	Bedrock Geology: London Clay (Unproductive). The closest surface water feature is the drain located 156m to the south-east of the site. There are no recorded historical landfill sites located within 1 kilometre of the site. There is one sensitive site within 250m. (Local Nature Reserves 220m S)
<i>Potential Contamination Sources</i>	On-site: Made Ground (not considered significant). Off-Site: Railway Lines, Electrical Sub-station
<i>Potential Risks</i>	Human Receptors: - Future users - Construction workers - Off-site neighbouring residents Environmental Receptors: - Drain (156m SE) - Local Nature Reserves (220m S) - Site flora/ecosystems Structural Receptors: - Building materials and services - Off-site neighbouring properties
<i>Recommendation</i>	No further investigation is considered warranted at this time.

1.0 INTRODUCTION

1.1 Project Objectives

At the request of Dominic Lamb Architects, a preliminary risk assessment was carried out to develop an outline conceptual model and to establish whether or not there are any potentially unacceptable risks arising from potential contamination at the above site in reference to the proposed development with a potential impact on sensitive receptors.

The outcome of this assessment would inform whether or not intrusive investigation would be required to enable further assessment of the need for the protection of the end-user, and other sensitive receptors, from the presence of contamination.

The project objectives include the following aims:

- To assess the presence, extent and nature of potential risk of pollution to end-users of the site, controlled waters and other potentially sensitive receptors.
- To identify further works, if any, needed to further assess, manage or mitigate any potential risks.
- To provide information relevant for planning approval.

The assessment is required by the London Borough of Haringey under planning regulations.

This report comprises a Phase 1 - Preliminary Risk Assessment to assess the potential for the presence of potential contamination on site and to identify potential receptors.

Planning permission granted by councils for development of Brownfield often have conditions attached which require the following site investigation to be undertaken and submitted to the local authority for approval:

1. Phase 1 - Preliminary Risk Assessment
2. Phase 2 - Intrusive Investigation
3. Phase 3 - Remediation Strategy
4. Phase 4 - Validation Report

This Phase 1 - Preliminary Risk Assessment is to be submitted to planning for approval.

1.2 Scope of Works

A preliminary risk assessment comprising a site reconnaissance and a desk-based analysis of study acquired site data has been undertaken and is summarised as follows:

1. A review of current activities and conditions at the site based on information from the Client, regulatory data and the results of a site walkover survey.
2. A review of the history of the site and surrounding area from historical maps and available anecdotal information.
3. An assessment of geological, hydrological and hydrogeological information pertaining to the site.
4. The development of a conceptual site model identifying potential sources, pathways, receptors and linkages, a preliminary qualitative risk assessment and identification of unacceptable risks.
5. Recommendations for further works, if necessary.

The site works were performed in accordance with the methods given in BS 5930+A2:2010 and BS EN ISO 22476-2&3:2005. The work was carried out in accordance with the methodologies detailed in the LCRM (Land Contamination: Risk Management).

The recommendations and comments given in this report are based on the information contained from the sources cited and may include information provided by the Client and other parties including anecdotal information. It must be noted that there may be special conditions prevailing at the site which have not been disclosed by the investigation and which have not been taken into account in the report. No liability can be accepted should such conditions alter the recommendations made in this report.

1.3 Details of Research Undertaken

A number of database searches have been undertaken, soliciting information of the current and historical uses of the site and surrounding area in order to complete a qualitative risk assessment associated with the development of the site. These include:

- Environmental Data Search 1:10000
- Environmental Data Search 1:2500
- Site Sensitivity Maps and Data Sheets
- Historical Maps
- Local Council consultation
- Consultation with the Client / Architect / Site representatives
- Google Search

1.4 Report Limitations

This report is prepared for Dominic Lamb Architects (herein called the 'Client'), for purposes agreed and in accordance with the terms and conditions set out in the Agreement between Site Analytical Services Limited and the client.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

The comments given in this report, and the opinions expressed herein, are based upon the readily available information collated for the report and an assessment based upon the current UK guidance, primarily the LCRM (Land Contamination: Risk Management).

This report has been prepared for the sole use of the Client for the purposes described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.

The accuracy of any map extracts cannot be guaranteed. It is possible that different conditions existed on-site, between and subsequent to the various map surveys appended.

Whilst the report may express an opinion on possible configurations of strata between or beyond exploratory holes discussed or on the possible presence of features based on visual, verbal or published evidence, this is for guidance only and no liability can be accepted for its accuracy.

The conceptual model is based on the information available at the time of conducting this assessment and is an interpretative assessment of the conditions at the site. It should be noted that the redevelopment and/or further investigation of the site may reveal additional information and therefore alter the conceptual model and the conclusion of this report.

There may be other sources of information not included in those listed that hold data relevant to the Phase 1 Desk Study undertaken at the site that could materially affect the conclusions made in this report.

This report does not include specific investigation for the presence of Japanese Knotweed at the subject site however, if obvious evidence of this is observed during the site walkover, details will be provided in this report. Specialist contractors should be commissioned to make detailed assessments and recommendations if these materials are suspected.

This report is prepared and written for the use stated herein; it should not be used for any other purposes without reference to Site Analytical Services Limited. The report has been prepared in relation to the proposed end-use and should another end-use been intended a further re-assessment may be required.

1.5 Confidentiality, Copyright and Reproduction

This document has been prepared by Site Analytical Services Limited in connection with a contract to supply goods and/or services and is submitted only on the basis of strict confidentiality. The contents must not be disclosed to third parties other than in accordance with the terms of the contract.

Site Analytical Services Limited accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

2.0 SITE DETAILS

2.1 Site Location

The site is located on the northern side of Mount View Road and the eastern side of Womersley Road at approximate postcode N4 4SR. The site consists of a two-storey residential dwelling with private garden to the front and rear.

The site is located in an area of predominantly residential use, with Harringay Train Station located approximately 730m to the east of the site.

The site is a rectangle shape and covers an approximate area of 0.05 Hectares with the general area being under the authority of the London Borough of Haringey.

The site is at National Grid Reference: TQ 306 880.

The site location map is presented below in Figure 1:



Figure 1 - Site Location Map

2.2 Current Use of the Site and Surrounding Land Uses

The site is currently in use as a two-storey residential dwelling with a private garden to the front and rear. The surrounding areas to the site are residential to the north, east and west. South of the site is an area occupied by an underground reservoir covered by grass. Further south there is the Parkland Walk.

An existing site plan is presented in Appendix B of this report.

2.3 Site Walkover

The site was visited on 8th March 2023 for the purpose of undertaking a site walkover survey.

<i>Access to the site</i>	Site accessed via vehicle and pedestrian entrance from Mount View Road.
<i>Current Use of the Site</i>	The site is currently a two-storey residential dwelling with a private garden in the front and rear of the property. There is a brick/concrete workshop/storage building on the eastern boundary with a small wooden shed located behind it. The main building has a conservatory on the north-eastern corner.
<i>Structures or Past Structures</i>	No evidence of historic structures was observed.
<i>Ground cover (Estimated)</i>	• 70% Hardstanding • 30% Soft Landscape/cover
<i>Made Ground</i>	The site consists of planted borders in the front garden, with planted areas in the rear garden with a lawn in the middle. Made Ground associated with the current development is unlikely to be extensive. No evidence of significant thicknesses of Made Ground or raised/filled ground was observed.
<i>On-Site Vegetation</i>	On site vegetation comprises small plants, large trees and shrubs in the front and rear gardens. There is no evidence of distress to the vegetation.
<i>Invasive Species</i>	None observed during the site walkover.
<i>Topography</i>	The site appears to be sloped gently in the east direction in the front of the property and sloped gently in the south-east direction at the rear of the property.
<i>Electrical Sub-stations/Electrical Services</i>	None observed on-site or on the boundaries during the site walkover.

<i>Fuel and/or Chemical Storage (Tanks/Drums)</i>	None observed during the site walkover.
<i>Asbestos Containing Material (ACM)</i>	None observed during the site walkover.
<i>Other Potential Contamination Sources</i>	None observed during the site walkover.
<i>Visual or Olfactory Signs of Contamination</i>	None observed during the site walkover.
<i>Off Site Potential Contaminant Sources</i>	None observed during the site walkover.
<i>Signs of Structural Instability</i>	There is no visual evidence of structural instability.
<i>Drainage/Services or Past Services/Buried Services</i>	There is an access cover located on the pathway in the front garden.
<i>Standing Water</i>	None observed during the site walkover.
<i>Water Courses</i>	None observed during the site walkover.
<i>General Comments</i>	From the walkover, the site appears to be in use a two-storey residential dwelling with a private front and rear garden, gently sloped in the south-east direction. The areas of vegetation consist of trees, shrubs and small plants which show no obvious sources of contamination.

2.4 Details of Intended Future Uses of the Site

At the time of reporting (March 2023), the proposal for the site is to construct a single-storey extension to the rear, incorporating the footprint of an existing outbuilding. Converting the roof accommodation with two bedrooms and a basement under the footprint of the existing house.

The proposed site plan is presented in Appendix C of this report.

2.5 References of Planning Applications

There are no relevant planning applications for the site registered on the London Borough of Haringey planning portal.

3.0 ENVIRONMENTAL SETTING

3.1 Geology

The Geological Survey of Great Britain (England and Wales) covering the area indicates the site to be underlain by the London Clay Formation with no overlying superficial deposits.

3.1.1 London Clay Formation

The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occur in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels.

3.1.2 Historical Boreholes

The British Geological Survey maintains an archive of historical exploratory borehole logs throughout the UK. SAS Limited has searched the database and have not found a borehole within 250m of the site. However, there is a borehole located 385m to the south-west of the site, under the name 'THE HIGHLANDS, ISLINGTON 4' and reference number 'TQ38NW375'.

3.1.3 Ground Stability Hazards

The records of the British Geological Survey indicate the following:

Ground Stability Hazard	Risk Assessment
Collapsible Ground	Very Low
Compressible Ground	No Hazard
Ground Dissolution	No Hazard
Landslide	Very Low
Running Sand	Very Low
Shrinking or Swelling Clay	Moderate
Coal Mining	Not Affected

3.1.4 Natural Ground Gases

Natural strata can present a source of ground gases, such as methane and carbon dioxide. The natural geological strata identified above are not considered to pose a ground gas risk.

The site is not in a Radon Affected Area (as defined by the Health Protection Agency), as less than 1% of properties are above the action level set by the Health Protection Agency. According to BR211 (by the Building Research Establishment), Radon Protection Measures are not required for new properties in these areas.

3.2 Hydrogeology

3.2.1 Groundwater

The Environment Agency Groundwater Protection Policy uses aquifer designations that are consistent with the Water Framework Directive. These designations reflect the importance of aquifers in terms of groundwater as a resource (drinking water supply) and also their role in supporting surface water flows and wetland ecosystems.

The Bedrock Geology underlying the site has been classified as Unproductive Strata; rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

Unproductive Strata was noted on-site and therefore controlled waters (aquifers) are not considered to be vulnerable to potential contaminants that may be present on-site.

Any works or development, which may have an impact on surface water, aquifer or groundwater quality, must be approved by the Environment Agency prior to implementation.

3.2.2 Water Abstractions

The site is located within 1km of a source protection zone with a Zone II (Outer Protection Zone) located 499m east of the site.

There are 5 water abstraction licences within 1 kilometre of the site, with the closest being located 954m to the east of the site, at 'Lothair Road South - Nlars Point 17' with the source being 'Groundwater' and the abstraction listed as 'Water may be abstracted from a single point'. Due to the distance from the site is not considered a risk.

3.2.3 Hydrology and Drainage

The closest surface water feature is the drain located 156m to the south-east of the site. Due to the distance of the surface water feature from the site, it is not considered to be a vulnerable receptor to any potential contaminants that may be present on-site.

The site is not located in an area at risk from extreme flooding from rivers or sea without defences (Zone 2) or areas at risk from rivers or sea without defences (Zone 3).

Modelling of surface water flooding has been undertaken by the Environment Agency and was published on its website in January 2014; an extract from their model is presented within the Envirocheck Site Sensitivity maps. Whilst this map identifies three levels of risk (high, medium and low) it is understood that it is based at least in part on depths of flooding. The modelling shows predominately areas of no risk of flooding across the site, with areas of medium risk of flooding located on the eastern boundary of the site.

3.3 Sensitive Land Use

There are two sensitive land uses within 1 kilometre of the site.

- Local Nature Reserves (220m S)
- Local Nature Reserves (940m E)

3.4 Summary of Potential Environmental Receptors

Receptor Type	Receptor(s)	Comments
Groundwater	Unproductive Strata	Due to the presence of an Unproductive Strata beneath the site, the vulnerability is deemed Low .
Water Abstractions	954m E	Due to the distance from the site, the vulnerability is deemed Low .
Surface Water	Drain 156m SE	Due to the drain appearing to be at the foot of the reservoir slope on the opposite side from the site, the vulnerability from the site is deemed Low .
Sensitive Land	Local Nature Reserves 220m S	Due to the distance from the site, the vulnerability is deemed Low .

4.0 INFORMATION ON SITE HISTORY AND LOCAL INDUSTRY

4.1 Present Use and Activities

There are no entries in the contemporary trade directories on-site, however, there are 3No. within 250m of the site, 28No. within 500m and a further 201No. within one kilometre of the site. Of the 232No. listed directories, only the 3No. that are considered to pose a potential risk to the site are listed below.

4.1.1 Entries Within 250m

Trade	Distance (m)
Commercial Cleaning Services	102m NE
Foam Products - Rubber & Plastics	198m SE
Boilers - Servicing, Replacements & Repairs	220m SE

4.1.2 Fuel Station Entries

There are four fuel station recorded within 1 kilometre of the site, the closest is located 389m to the south-east of the site at '73, Stapleton Hall Road, Stroud Green, London, N4 3QF' and its status is currently described as 'Open'. Due to the distance of this fuel station from the site it is not considered to be a risk to the site. The potential contaminants associated with 'Petrol Filling Stations' have been included in the Outline Conceptual Model (Section 9.1.2).

4.1.3 Hazardous Sites

There are no Control of Major Accident Hazards (COMAH) sites, Explosive Sites, Notification of Installations Handling Hazardous Substances (NIHHS), Planning Hazardous Substance Consents or Planning Hazardous Substance Enforcements within 1 kilometre of the site.

There is local authority pollution prevention and controls found within 1 kilometre of the site, it is located 296m to the south-east of the site, under the name 'Ferme Park Dry Cleaners', located at '21 Ferme Park Road, London, N8 4DS' with the description 'PG6/46 Dry Cleaning' and the status is listed as 'Permitted'.

Due to the distance of the local authority pollution prevention and controls from the site, this is not considered to be a risk to the site.

4.2 Landfill Sites and Waste

There are no BGS recorded landfill sites located within 1 kilometre of the site.

There are no BGS Recorded Mineral Site located within 500m of the site.

There are no recorded historical landfill sites located within 1 kilometre of the site.

There are no registered radioactive substances within 1 kilometre of the site.

There are two licenced waste management facilities (locations) within 1 kilometre of the site. The closest is located 931m south-west of the site at 'Spears Road, London, N19 3QQ' and its licence status is described as 'Surrendered', dated 2nd February 1998. Due to the distance of the licenced waste management facility (location) from the site, it is not considered to be a risk to the site.

There are no licenced waste management facilities (landfill boundaries) located within 1 kilometre of the site.

There are no integrated pollution control registered waste sites within 1 kilometre of the site.

There are no registered waste transfer sites located within 1 kilometre of the site.

There are two Registered Waste Treatment or Disposal sites located within 1 kilometre of the site. The closest located 932m south-west of the site, with the licence holder listed as 'G & T Gutteridge t/a Astoria Motors' located at 'Spears Road, ISLINGTON, London, N19 3QQ' under the site category 'Scrapyard' with its licence status described as 'Licence has completion certificate Surrendered' dated '2nd July 1996'. Due to the distance and age of the registered waste transfer site from the site, it is not considered to be a risk to the site.

There is no registered landfill site located within 1 kilometre of the site.

There is a Local Authority Landfill Coverage located on-site. However, there is no evidence to support the existence of a landfill on the site, hence it is not considered to be a risk to the site.

4.3 Land Raising or Land Filling

There is potentially infilled land (Non-Water) within 1km of the site, but none within 250m, so therefore it is not considered a risk to the site.

There are 14 potentially infilled land (Water) within 1km of the site, with one located 84m north-east of the site with the use classified as 'Unknown Filled Ground'. This is likely to be associated with the pond being infilled in 1935. Due to the age and location from the site this is considered not to be a risk to the site.

4.4 Pollution Incidents and Discharge Consents

There has been 1No. pollution incident to controlled waters within 1 kilometre of the site. It is located 558m to the north-west of the site, at 'CROUCH END' and the pollutant was listed as 'Oils - Unknown'. The incident was dated '30th March 1993'. Due to the distance and age of the incident, this is not considered to be a risk to the site.

There have been no discharge consents to controlled waters within 1 kilometre of the site.

There are no integrated pollution controls within 1 kilometre of the site.

4.5 Historical Maps

The site history was compiled from information available from a Landmark Envirocheck Report consisting of a series of past Ordnance Survey maps (scale 1:1,250 and 1:2,500 which are presented in Appendix D). Information was also sourced from Envirocheck Analysis (online database) containing a series of more recent Ordnance Survey maps and satellite images (scale 1:10,000). All relevant findings which are listed in the table below are applicable within a 250m radius of the site.

Date	Description of Site Use	Surrounding Site Use
1863-1864	The site is comprising of undeveloped land.	The surrounding areas of the site are predominantly undeveloped land in all directions. There is residential use evident north and north-west of the site.
1870-1873	The site remains essentially unchanged.	The surrounding areas to the west of the site have increased in residential use. A Railway Line is evident 233m south of the site.
1896	The site comprises a semi-detached residential dwelling with a glass roofed (conservatory?) structure attached to it, and private garden to the rear of the property.	The surrounding areas have increased significantly in residential use in all directions of the site. Crouch Hill Reservoirs are evident 32m south of the site.
1952-1955	The conservatory at the rear of the property is no longer shown.	The surrounding area of the site remains essentially unchanged.
1954-1981	The site remains essentially unchanged.	The surrounding area of the site remains essentially unchanged. An Electrical Sub-station is evident 234m south-west of the site.

Date	Description of Site Use	Surrounding Site Use
1987-1990	The site remains essentially unchanged.	An Electrical Sub-station is evident from 172m west of the site.
Current	The site visit indicates that structures not shown on the historic maps include a workshop/storage building on the eastern boundary and also a small shed.	Electrical Sub-stations are evident from 72m south-east of the site.

4.5.1 Historical Summary of Site

From historical map evidence, it would appear that the site comprised undeveloped land prior to 1863, with the surrounding areas mainly comprising undeveloped land in all directions, with some areas of residential use located north-west of the site. In 1896 the site comprises a semi-detached residential dwelling, with the surrounding area increasing significantly in residential use in all directions. Between 1952 to 1955 the conservatory to the rear of the property was demolished but a conservatory was observed during the site visit. In addition the site visit has identified a small structure on the eastern boundary of the site.

5.0 SITE DRAINAGE AND MAN-MADE POTENTIAL CONTAMINANT PATHWAYS

The site is in use as two storey residential dwelling and as such drainage should be anticipated to be present under and surrounding the site, which may potentially lead to lateral or vertical migration of potential pollutants on-site.

6.0 CONSULTATION WITH THE LOCAL AUTHORITY, THE ENVIRONMENT AGENCY, ETC.

Information from Local Authority was acquired via online portals and archives.

Consultation with the Environment Agency has not been undertaken; however, the Environment Agency have been cited within the information of the Envirocheck report with reference to groundwater, surface water, authorised processes and licenced waste management issues.

The Canal & River Trust were not consulted regarding navigable rivers and canals and English Nature were not consulted regarding ecological systems; however, their databases have been cited within the information of the Envirocheck report.

There was no additional consultation with other bodies/sources undertaken.

7.0 REVIEW AND SUMMARY OF PREVIOUS REPORTS

There have not been any previous reports available to us for review at the time of writing of this report.

8.0 CONCEPTUAL MODEL AND RISK ASSESSMENT

In accordance with current UK guidance on land contamination risk assessment, the following conceptual site model has been generated for the subject site.

The purpose of the conceptual model is to identify:

- All potential source(s) of contamination at and / or within the immediate vicinity of the site.
- Any potentially sensitive receptor(s) which may be at risk from the above source(s).
- Any potential migration and / or exposure pathways which link the source(s) to the receptor(s).

Only if all three of the above elements are present i.e. a source-pathway-receptor, is a potential risk present. Such a relationship is termed a 'contaminant linkage'. The CSM describes in detail any potentially significant contaminant linkages present and justifies the exclusion of any potential contaminant linkages considered to be non-significant.

8.1 Contamination Sources

A review of the current and historical land uses indicated the potential significant contaminative land uses that may impact the site and have been compared to the industries highlighted in DoE industry profiles for potential contaminants of concern. Other potential contamination sources identified from the site walkover are also included.

8.1.1 On-Site Sources

Date	Feature
Present	Made Ground – Considering the site history and current use, no substantial thickness of Made Ground is anticipated and therefore no significant risk is considered to be present.

8.1.2 Off-Site Sources

Date	Feature	Distance & Direction from Site	Industrial Profile / Comment
1870-Present	Railway Lines	233m	Railway Land – the distance from the railway and the fact it is downslope of the site indicates that there is no significant risk to the site.
1954-Current	Electrical Sub-stations	From 72m SE	Sub-station – Due to the distance and size of the sub-stations this would not be a significant risk.
Current	Commercial Cleaning Services	102m NE	Address given appears to be a residential property rather than a business premises. No risk considered present.
Current	Foam Products - Rubber & Plastics	198m SE	Manufacturing - Address given appears to be a residential property rather than a business premises. No risk considered present.
Current	Boilers - Servicing, Replacements & Repairs	220m SE	Servicing & Repairs - Address given appears to be a residential property rather than a business premises. No risk considered present.

8.2 Contaminants of Concern

It is considered that the potential sources of contaminants identified during this assessment are either located sufficiently far from the site to pose little risk, or they are associated with residential addresses rather than commercial or industrial buildings.

Therefore, there are no contaminants of concern with the potential to impact the site.

8.3 Receptors

The receptors/resources considered to be affected by identified contamination during the assessment included the following:

- **Human Receptors:**
 - Future users
 - Construction workers
 - Off-site neighbouring residents

- **Environmental Receptors:**
 - Drain (156m SE)
 - Local Nature Reserves (220m S)
 - Site flora/ecosystems

- **Structural Receptors:**
 - Building materials and services
 - Off-site neighbouring properties

8.4 Contaminant Linkages

The following tables illustrate the hypothesised Source - Pathway - Receptor linkages for exposure to possible contaminants associated with industrial activity in the area, the current site conditions and the proposed development. For a linkage to exist there must be a Source and a Pathway and a Receptor.

The Conceptual Site Model summarises all the potential sources/pathways/receptors at this site.

Potential Consequence of Hazard-Receptor Linkage

Severe	Irreparable damage to buildings, structures, or the environment (explosion). A short-term risk to a particular ecosystem, or organism forming part of such ecosystem. Short term (acute) risk to human health likely to result in 'significant harm', as defined in EPA1990, Part IIA. Short term risk of pollution of sensitive water resources (major spillage of contaminants into controlled water).
Medium	A significant change to a particular ecosystem, or organism forming part of such ecosystem (death of species within a nature reserve). Chronic damage to human health (exceedances of GAC values). Pollution of sensitive water resources (Leaching of contaminants into major or minor aquifer).
Mild	Easily repairable effects of damage to buildings or structures (foundation damage). Significant damage to crops. Pollution of non-sensitive water resources.
Minor	Very slight non-structural damage or cosmetic harm to buildings or structures (discolouration of concrete). Non-permanent health effects to human health.

Likelihood of Hazard-Receptor Linkage

High likelihood	There is a pollution linkage and an event that appears very likely in the short term or inevitable in the long term, or there is evidence at the receptor of harm or pollution.
Likely	There is a pollution linkage, and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period, such event would take place, and is less likely in the shorter term.
Unlikely	There is a pollution linkage, but circumstances are such that it is improbable that an event would occur even in the long term.

8.4.1 Risk Classification Definitions

Risk	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Moderate/Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

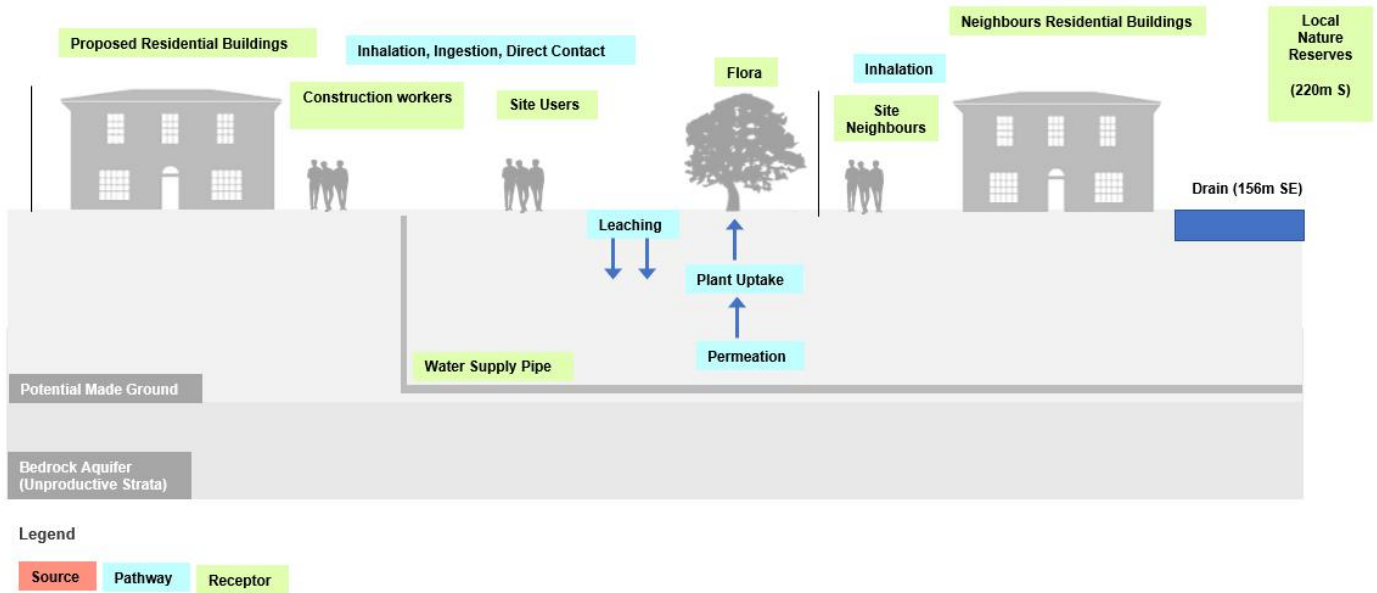
Contaminated Land Risk Assessment Table

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk	Very Low Risk

Feature/Source	Pathway	Receptor	Hazard (Potential Consequence)	Likelihood of Contaminant Linkage	Risk Assessment	Justification /Further Action
On-Site: Possible Made Ground	Direct soil and dust ingestion Dermal contact Inhalation of dust, vapours, and ground gases	Construction workers	Mild Acute and chronic toxicity, carcinogenic impact Fire and explosion	<i>Unlikely</i>	<i>Very Low Risk</i>	Significant redevelopment is planned. As such, groundwork would be involved in the construction process. Considering the site history, it is unlikely that significant contamination will be present. A good standard of site health and safety will be required during construction should be sufficient to protect workers. No further investigation is required.
	Dermal contact Inhalation of dust, vapours	Future users – open landscaped areas & gardens.	Mild Acute and chronic toxicity, carcinogenic impact	<i>Unlikely</i>	<i>Very Low Risk</i>	The proposed development will not contain any additional landscape areas. Considering the site history, it is unlikely that significant contamination will be present. No further investigation is required.
	Inhalation of vapours Inhalation of ground gases	Future residential users – within the building footprint	Mild Acute and chronic toxicity, carcinogenic impact Fire and explosion	<i>Unlikely</i>	<i>Very Low Risk</i>	Considering the site history, it is unlikely that significant contamination will be present. No further investigation is required.
	Inhalation of dust, vapours	Off-site receptors / neighbouring residents and property	Mild Acute and chronic toxicity, carcinogenic impact	<i>Unlikely</i>	<i>Very Low Risk</i>	The site is set in an area of residential use, No significant risks are considered present. No additional consideration is needed.
	Surface water run-off	Surface water	Mild Water pollution	<i>Unlikely</i>	<i>Very Low Risk</i>	The site and the immediate area are residential use. Due to the surface flood map, very little surface run off would be expected. No additional consideration is needed.
	Direct Contact	Built materials and services	Mild Degradation	<i>Unlikely</i>	<i>Very Low Risk</i>	Due to the history of the site significant contamination on site is not expected. No further investigation is required.

Feature/Source	Pathway	Receptor	Hazard (Potential Consequence)	Likelihood of Contaminant Linkage	Risk Assessment	Justification /Further Action
Off-Site: Railway Lines Electrical Sub-stations	Direct soil and dust ingestion	Construction workers	Mild Acute and chronic toxicity, carcinogenic impact Fire and explosion	Unlikely	Very Low Risk	Due to the distance to the site, there is no significant risk, therefore no additional specific investigation is needed.
	Dermal contact					
	Inhalation of dust, vapours					
	Dermal contact	Current/Future users.	Mild Acute and chronic toxicity, carcinogenic impact	Unlikely	Very Low Risk	Due to the distance to the site, there is no significant risk of contact with contaminated soils from off-site sources. No additional specific investigation is needed.
	Inhalation of dust					
	Inhalation of ground gas/vapours	Construction workers Current/Future site users	Mild Acute and chronic toxicity, asphyxiation. Fire and explosion	Unlikely	Very Low Risk	Although the Electrical sub-stations are close to the site, due to their size, there is no significant risk. No additional specific investigation is needed.

9.0 DIAGRAMMATIC CONCEPTUAL SITE MODEL



10.0 SUGGESTED NEXT STEPS

The information from the preliminary risk assessment and conceptual site model has not identified any unacceptable risks from potential contaminants.

The proposed development at the site is to construct a single-storey extension to the rear, incorporating the footprint of an existing outbuilding. Converting the roof accommodation with two bedrooms and a basement under the footprint of the existing house. It is considered that further investigation is considered unwarranted at this time.

If during development of the site any previously unidentified potential sources of contamination are encountered then these may need to be assessed and a targeted ground investigation undertaken in order to determine the actual risk, if any, that is present.

11.0 REFERENCES

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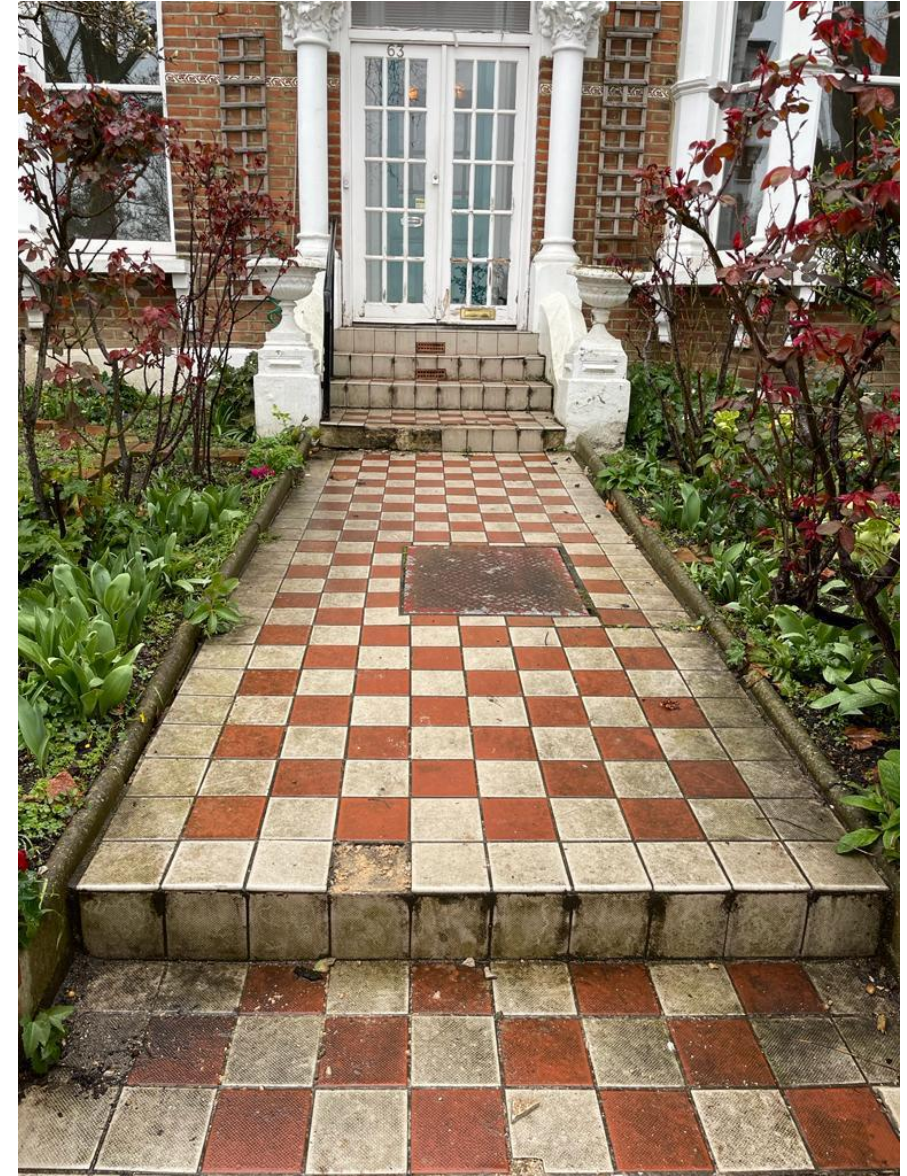
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A P P E N D I X A

Site Photographs



Photograph 1 – View of the front of the property from Mount View Road.



Photograph 2 – View of the entrance of the property and the man-hole on the pathway.



Photograph 3 – Views of the left and right-hand side of the front garden of the property.



Photograph 4 – View of the front garden standing at the entrance of the property.



Photograph 5 – View of the rear garden of the property.



Photograph 5 – View of the rear garden standing on the left-hand side.



Photograph 6 – View of the rear garden standing on the right-hand side.



Photograph 7 – View of the foliage in the rear garden.



Photograph 8 – View of the rear of the property.



Photograph 9 – View of the shed and outbuilding at the rear of the property.



Photograph 10 – Additional view of the rear garden standing at the furthest part of the rear garden.



Photograph 11 – View of the side of the property in the rear garden.