

abr:enviro

Ellington Road

Phase 1: Desktop Study

ABR4003
May 2026

Astral Towers
Betts Way
Crawley
RH10 9XA

	Name	Position	Signature	Date
Prepared	Colin Hiscock	Managing Director		22 nd May 2026
Reviewed	Nick Hammond	Senior Engineer		27 th May 2026
Authorised	Colin Hiscock	Technical Director		27 th May 2026

Issue	Date	Description	Prepared	Reviewed	Authorised
00	27 th May 2026	Final Report	CH	NH	CH

Table of Contents

Table of Contents	2
Executive Summary	3
Introduction	4
Environmental and Geological Setting	5
Site Geology	5
Site Hydrogeology and Hydrology	6
Environmentally Sensitive Areas	8
Land Use and Potential Contaminant Sources	9
Land Use Records - Past	9
Environmental Permits, Incidents and Registers	10
Waste and Landfill	11
Mining, Ground Workings and Natural Cavities	11
Radon and Background Soil Chemistry	12
Radon	12
Background Soil Chemistry (estimated by BGS)	12
Estimated Urban Soil Chemistry (estimated by BGS – on site)	12
Historic Mapping	13
Walkover Survey	14
Sources, Pathways and Receptors	15
Potential Sources	15
Potential Pathways	16
Potential Receptors	16
Preliminary Conceptual Site Model (CSM)	16
Recommendations	20
Consultees	21
Groundworks Watching Brief	21
Framework for Assessment	22
Flood Risk	22
Notes and Limitations	23
Limitations and Uncertainties	25

Executive Summary

The below table shows a snapshot of the recommendations concerning contamination. It is advised that the report is read in its entirety to gain a better understanding of our findings.

	No Investigation	Investigation Required
Soil	✓	
Ground Gas	✓	

Due to the proposed development plans, limited nature of historic development, geology, hydrogeology and limited quantity of surrounding contaminative land uses, we do not recommend any further works are required other than a watching brief.

It should be noted that the land will largely be excavated to allow for a basement. The rear gardens areas will be minimum 2.7 m below existing ground levels. The only part of the site that is remaining at the current level is the front entrance garden which will largely be hard scaping with some soft planting.

Introduction

ABR Environment Limited was instructed by Form 4 to produce a Phase 1: Desktop Study and Preliminary Risk Assessment Report required for planning application (Ref: HGY/2023/1406 - Haringey) for:

Demolition of the existing buildings and erection of 5 replacement residential units, arranged as two terraced houses and three flats.

It should be noted that the land will largely be excavated to allow for a basement. The rear gardens areas will be minimum 2.7 m below existing ground levels. The only part of the site that is remaining at the current level is the front entrance garden which will largely be hard scaping with some soft planting.

The address is 10 Ellington Road, Hornsey, London, N10 3DG This has been requested by the local authority Contaminated Land Officer (CLO).

Should the above change prior to occupation, this Risk Assessment will require revising.

The site outline and development plans can be viewed in Appendix A.

The objectives of this report are to:

- Establish the environmental setting, including sensitivity in relation to human health, surface water, groundwater and ecological receptors
- Review historical and recent uses to assess the potential for contamination to be present from past and current land-use
- Assess by qualitative means the potential nature and extent of contamination from those uses and the environmental risk and liabilities which may affect the site redevelopment
- Identify the prevalent source-pathway-receptor linkages present on site by means of a Tier 1 Contamination Risk Assessment which incorporates the formulation of a Conceptual Site Model (CSM)

During the production of this report the following information sources have been utilised:

- Data obtained from Environmental and other Regulatory Bodies
- Historical Ordnance Survey (OS) mapping
- Site walkover

The full information from these sources can be reviewed within Appendices B & C.

Environmental and Geological Setting

Information on the environmental and geological setting of the site is presented in Appendix B.

Site Geology

Site geology has been assessed using information from British Geological Survey (BGS) mapping and is summarised below:

Artificial/Made Ground	There are no records of Artificial / Made Ground
------------------------	--

Superficial Ground and Drift Deposits	There are no superficial deposits recorded on site
---------------------------------------	--

Bedrock Geology	The site is located on the London Clay Formation
-----------------	--

Landslips	There are no records within 250m
-----------	----------------------------------

Linear Features	There are no records within 250m
-----------------	----------------------------------

The following hazard ratings on site are:

Shrink swell clays	Moderate
Running sands	Very Low
Compressible deposits	Negligible
Collapsible deposits	Very Low
Landslides	Low
Ground dissolution	Negligible

Site Hydrogeology and Hydrology

These records are derived from Environment Agency and BGS data. Details of the source and coverage of specific records are provided in the Appendices.

Principal Aquifer	Layers with high intergranular and/or secondary permeability capable of supporting water supplies at strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as Major Aquifers
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. These are generally aquifers formerly classified as Minor Aquifers
Secondary (B) Aquifer	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water bearing parts of former Non-Aquifers
Secondary Undifferentiated Aquifer	Layers that cannot be attributed to a category A or B rock type. These layers could have previously been described as a minor or a non-aquifer due to their variable characteristics
Unproductive strata	Rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

Aquifer and geological permeability are summarised below:

Aquifer within Superficial Deposits	There is no Aquifer recorded within the superficial deposits
---	--

Aquifer within Bedrock Geology	The site is located on an Unproductive Aquifer
--------------------------------------	--

Water Framework Directive Groundwater Bodies	The site is not located within a groundwater body
--	---

Groundwater Vulnerability	There are no data for this
------------------------------	----------------------------

Groundwater Abstraction Licences	There are none recorded within 500m
--	-------------------------------------

Surface Water Abstraction Licences	There are none recorded within 500m
--	-------------------------------------

Potable Water Abstraction Licences	There are none recorded within 500m
--	-------------------------------------

Source Protection Zones	The site is not located within an SPZ
-------------------------------	---------------------------------------

Surface Water Features	There is one located which is 119m NW and is for a manmade watercourse for removal of excess water
---------------------------	--

Environmentally Sensitive Areas

These records are derived from Environment Agency, Natural England, Historic England, English Heritage, Forestry Commission and UK Government data. Details of the source and coverage of specific records are provided in Appendices.

Environmental and Habitat Designations	There is a Local Nature Reserve located 44m S for a Parkland walk. Ancient woodland is located 343m west. The site is located within a SSSI impact zone.
Visual and Cultural Designations	There are no records of cultural or visual designations within 250m

Land Use and Potential Contaminant Sources

Information on past land use and potential contaminant sources is presented in Appendix B.

Land Use Records – Past

These records are derived from historical mapping and each record corresponds to a particular map revision date.

Land Use	Distance and Direction	Sources Summary
Cuttings	60m NW	N
Nursery	241m N	N
There are several Cuttings and Ground workings located within 500m		

Land Use Records – Current

Current land uses are summarised below:

Land Use	Distance and Direction	Sources Summary
Sub Station	140m N	N
Civil Engineers	145m NW	N
Several light industrial uses are recorded within 250m such as car servicing but none are of note		

Environmental Permits, Incidents and Registers

These records are derived from local authority, Health and Safety Executive and Environment Agency data. Details of the source and coverage of specific records are provided in the Appendices.

These data are summarised below:

Sites Determined as Contaminated Land	There are no records of sites determined as contaminated land under Part 2A of the Environmental Protection Act 1990 within 250m
Control of Major Accident Hazards (COMAH)	There are no records within 250m
Regulated Explosive Sites	There are no records within 250m. Note that details of some sites may be redacted for security reasons
Planning Hazardous Substances Consents	There are no records within 250m
Historic IPC Licensed Activities	There are no records within 250m
Part A (1) Licensed Activities	There are no records within 250m
Part A (2)/B Licensed Activities and Pollutant Release	There are 3 No releases – the closest is 164m north for a waste oil burner. The other 2 No are for a waste oil burner and a dry cleaners
Radioactive Substance Authorisations	There are no records within 250m
Licensed Discharges to Controlled Waters	There are no records within 250m
Pollutant release to Surface Waters (Red List)	There are no records within 250m
Pollutant Release to Public Sewer	There are no records within 250m
List 1 and List 2 Dangerous Substances	There are no records within 250m
Substantiated Pollution Incidents	The nearest is a single record which was 288m west and had no impact on land, air or water
Pollution Inventory Substances	There are no records within 250m
Pollution Inventory Waste transfers	There are no records within 250m
Pollution Inventory Radioactive Waste	There are no records within 250m

Waste and Landfill

These records are derived from Environment Agency, BGS, OS and local authority data. Details of the source and coverage of specific records are provided in the Appendices.

Active or Recent Landfill	There are no records within 500m
Historic Landfill	There are no records within 500m
Non-Landfill Waste Records	There are no records within 400m of the site

Mining, Ground Workings and Natural Cavities

These records are derived by from BGS, OS, Coal Authority, Peter Brett Associates, Johnson Poole and Bloomer, Cheshire Brine Subsidence Compensation Board, British Gypsum, Mining Searches UK, Kaolin and Ball Clay Association and local authority data. Details of the source and coverage of specific records are provided in the Appendices. The data are summarised below:

Natural Cavities	There are no records within 500m
Mining Cavities	There are no records within 500m
BritPits Data (Surface and Underground Mineral Workings)	There are no records within 500m
Historic Mineral Planning Areas	There are no records within 500m
Surface Ground Workings	There are several records within 250m. The closest is a cuttings from 1996 and located 60-62m NW
Underground Workings	There are several records within 1000m. The closest is an Unspecified Shaft located 304m W from 1974
Coal Mining	There are no records held by the Coal Authority or by Johnson Poole and Bloomer within 250m
Non-Coal Mining	There are no records within 500m

Radon and Background Soil Chemistry

These records are derived by from BGS and Public Health England data. Details of the source and coverage of specific records are provided in the Appendices.

Radon

The study site is not located within a Radon Affected Area, as between 1-3% of properties are above the Radon Action Level. No radon protective measures are likely necessary for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment.

Background Soil Chemistry (estimated by BGS)

Arsenic	No data
Bio-accessible arsenic	No data
Lead	No data
Bio-accessible lead	No data
Cadmium	No data
Chromium	No data
Nickel	No data

Estimated Urban Soil Chemistry (estimated by BGS – on site)

Arsenic	26 mg/kg
Bio-accessible arsenic	4.6 mg/kg
Lead	321 mg/kg
Bio-accessible lead	221 mg/kg
Cadmium	1.1 mg/kg
Chromium	95 mg/kg
Copper	162 mg/kg
Nickel	45 mg/kg
Tin	26 mg/kg

Historic Mapping

The object of this search is to report on the evidence of site history and redevelopment of the site and its environs from available County Series, OS Maps and aerial photography. The below is a list of notable entries.

Year	On site	Off site
1865	The site appears to be a field	The area is largely rural with some development. The surrounding area is mostly residential
1873	No discernible changes	Several farms are present around 250m from the site
1879	No discernible changes	The surrounding area is slightly more developed
1894	No discernible changes	There is a railway present around 100m north west. The area is more developed
1896	No discernible changes	The railway is visible to the north west and a residential road with several houses is now present around 50m so the south
1913	The site now appears to occupy a piece of land that is on Ellington Road and is undeveloped	The surrounding area is largely developed with residential properties
1920	No discernible changes	No discernible changes
1935	The northern portion (top 20%) of the site is developed	No discernible changes
1936	No discernible changes	No discernible changes
1950	The site appears to be developed on the north, west and east with buildings that are the size of residential garages	No discernible changes
1951	No discernible changes	No discernible changes
1958	No discernible changes – mapping small scale	No discernible changes
1965	No discernible changes	The land to the east appears to be residential garage sized buildings. The railway to the north west has now been removed and replaced largely with open space
1970	No discernible changes	No discernible changes
1973	No discernible changes	No discernible changes
1979	No discernible changes	No discernible changes
1983	No discernible changes	No discernible changes

1991	No discernible changes	The garages to the east are now residential properties
2001	No discernible changes	No discernible changes
2003	No discernible changes	No discernible changes
2015	No discernible changes	No discernible changes
2025	No discernible changes	No discernible changes

The Historical OS Maps are available in Appendix C.

Walkover Survey

Date	18 th May 2026
Weather	Overcast / Sunny
Current Use	The front of the site is comprised of a building which has 7 No residential garages present and is 2 storeys high. This has access through to a rear courtyard area which is flanked by additional building / garages or residential nature
Topography	The site is generally flat with a slope towards the southeast
Structures	The building at the front is presumed to be original to late 1930's
Ground Covering	100% concrete in various states of repair
Drainage	Drainage was observed within the bounds of the site
Services	Present

Direction	Surrounding Land Use
North	Road - Residential
East	1990's housing
South	Residential
West	Residential

Potential on site sources

- None noted

Potential off-site sources

- None noted

Sources, Pathways and Receptors

Potential Sources

Source	Identified by	Location	Description
PACM's	Historical development	On site	PACM's could have been deposited as part of site redevelopment although this is considered unlikely due to the age of the building and limited development within or close to the site
General contamination / Made Ground	Historical mapping	On site	The site has seen limited development and therefore the potential for Made Ground is present but small

The following contaminants are potentially associated with the on-site sources:

- Historical development – Made Ground

Potential off-site sources

- None

Potential Pathways

Pathway	Medium	Properties
Direct Contact	Dust, solid and liquid phase	There may be direct contact with potentially impacted soil, PACM's and Made Ground across the site

Potential Receptors

Category	Receptor	Properties
Humans	End users (such as residents and visitors)	Potential contact with contaminated soils during use
	Construction workers	Reworking of PACM and general Made Ground impacted materials in underlying soils and roofing material during construction works can expose workers to contamination

Preliminary Conceptual Site Model (CSM)

The assessment is undertaken based on the current proposals for the site.

Any change in the development proposals for the site involving a change in end use class will result in a requirement for this assessment to be revised.

On Site						
Source	Pathways	Receptor	Severity	Probability	Risk	Justification
Made Ground possibly containing metals, TPH, PAH, VOC's and sVOC's	Ingestion, dermal contact, inhalation of dusts and vapours	Future end users and site visitors	Medium	Low likelihood	Low	Due to the limited historic development and potential for Made Ground on site, the presence of hydrocarbons is unlikely. In addition, the site is to be excavated to minimum 2.7m and any Made Ground will be removed as part of this exercise
		Construction Workers	Medium	Low likelihood	Low	Construction workers are likely to come into direct contact with soils during groundworks, and the risk of soils being contaminated is low. Safe working practices should be implemented, and appropriate personal protective equipment (PPE) should be used to mitigate any potential risk from contact with soils and shallow/perched groundwater
	Leaching through soils and migration via groundwater or soil pores	Controlled Waters	Medium	Low likelihood	Low	A low risk has been assessed due to the absence of any likely on-site sources for liquid contaminants
	Permeation of water pipes	Construction materials, future end users and site visitors	Medium	Low likelihood	Low	Hydrocarbons, especially aromatics are known to permeate plastic pipes. Provision of water supply pipes and proprietary barrier pipes are not likely to be required by the water supply company
	Uptake	Plant and Wildlife	Low	Low likelihood	Low	Due to the limited historic development and potential for Made Ground on site, the presence of contamination is unlikely

On Site						
Source	Pathways	Receptor	Severity	Probability	Risk	Justification
Asbestos at/near ground surface in Made Ground and from the building fabric	Inhalation of fibres in airborne dust	Future end users and site visitors	Medium	Unlikely	Low	No evidence of PACM's were found on site.
		Construction Workers	Medium	Low likelihood	Low	Construction workers are likely to come into direct contact with soils during groundworks, and the risk of soils being contaminated is low. Safe working practices should be implemented, and appropriate personal protective equipment (PPE) should be used to mitigate any potential risk from contact with soils and shallow/perched groundwater
Ground Gases: From Made Ground: H, CH ₄ , CO, CO ₂ and H ₂ S	Gas migration and build up within buildings (explosion/asphyxiation risk)	Future end users and building structures	N/A	N/A	Low	There is considered to be a very low possibility for production or migration of ground gases as no on-site sources were found

Off Site						
Source	Pathways	Receptor	Severity	Probability	Risk	Justification
Land uses in the vicinity possibly containing metals, TPH, PAH, VOC's and sVOC's	Leaching through soils and migration via groundwater or soil pore moisture	Future end users and site visitors	Medium	Low likelihood	Low	Development close to the study site has been relatively limited and comprised of residential properties
	Ingestion, dermal contact, inhalation of dusts/vapours	Future end users and site visitors	Medium	Likely	Low	A low-risk rating has been assessed due to the lack of contaminative sources within the surrounding area
Ground Gases: From Made Ground: H, CH ₄ , CO, CO ₂ and H ₂ S	Gas migration and build up within buildings (explosion/asphyxiation risk)	Future end users and building structures	Medium	Likely	Low	There is low possibility of ground gases from the surrounding area due to lack of sources within a suitable distance.

Recommendations

Based on the information obtained in this report, we would not recommend that any site investigation or further works are required.

However, a robust watching brief should be maintained by the contractor / groundworker to ensure that any unidentified or unexpected contamination is identified and investigated by a competent Environmental Consultant. This is especially prudent as access to the entire property was difficult at the time of the walkover.

Additionally, an R&D asbestos survey must be carried out.

Consultees

This report must be sent to the relevant Local Authority (LA) to seek their comments and subsequent approval. Works may be delayed, or additional SI required should the LA not be able to provide comment, or the works are commenced prior to obtaining comment.

Groundworks Watching Brief

If during construction works any material is noted to show visual and/or olfactory signs of contamination, ABR Environment must be contacted for advice.

If any landscaping materials are to be imported on site, they must be tested to check that they are suitable for the intended use.

Framework for Assessment

Risks are assessed within the risk management framework established in Part IIA of the Environmental Protection Act (EPA) 1990 introduced by Section 57 of the Environment Act 1995 which provides a statutory definition of contaminated land. To fall within this definition it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that:

“Significant harm is being caused or there is a significant possibility of such harm being caused; or Pollution of controlled water is being or is likely to be caused.” Risk from contamination is assessed in accordance with the Land Contamination Risk Management Framework (LCRM) prepared by the Environment Agency on 8 October 2020. This considers possible linkages between contaminant sources and potential receptors which could be harmed or polluted.

The key aspect of the framework is the development of a Conceptual Site Model (CSM) which considers the potential contaminant linkages between potential contaminant sources, the receptors, and the pathways by which the receptors could be exposed to the contaminants. For a risk of environmental harm to occur due to of ground contamination, **all** the following elements must be present:

Source	A substance that can cause pollution or harm
Pathway	A route by which the contaminant can reach the receptor
Receptor	Something which could be adversely affected by the contaminant

If all are present then the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The qualitative risk assessment (QRA) and conceptual site model (CSM) has been undertaken in accordance with Annex 4 of the R&D publication 66, Guidance for the Safe Development of Housing on Land Affected by Contamination (NHBC/EA/CIEH, 2008) which updates and supersedes CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001).

Where it is considered that there is no credible linkage, this is indicated in the table. In accordance with the R&D66 guidance, if there is no pollution linkage then there is no requirement to apply tests for probability and consequence.

Flood Risk

This report does not replace a hydrogeological survey or Flood Risk Assessment and specialist studies may need to be undertaken to ascertain the risks posed from flooding.

Notes and Limitations

ABR take no responsibility for conditions which have not been revealed by the boreholes, or which occur between boreholes. Whilst every effort has been made to interpret the conditions between investigation locations, such information is only indicative, and liability cannot be accepted for its accuracy.

The information contained in this report is intended for the use of the named client (or their approved contractors). Should a third party rely on any part of this report, that party does so wholly at its own risk and ABR disclaim any liability to such parties. Should the purposes for which the report is used, or the proposed use of the site change, this report may no longer be valid and further use of reliance upon the report in those circumstances shall be at the client's sole and own risk. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. ABR should in all such altered circumstances be commissioned to review and update this report accordingly.

The following table details the applicable distances relevant to sections to focus on the information directly relevant to the site. Information from outside these radii will be referenced when relevant.

Section	Reference Distance
Geology	50m (underlying geology) or 250m (structural features, borehole records)
Hydrogeology	250m (aquifers, surface water) or 1,000m (abstractions)
Environmentally Sensitive Areas	500m (environmental designations) or 250m (habitat, visual and cultural designations)
Land Use Records	250m. Several records may refer to the same feature where it is present over time. Differences in distances quoted from the study site may be due to geolocation errors
Environmental Permits, Incidents and Registers	250m
Waste and Landfill	500m (landfills) or 250m (non-landfill waste operations)
Mining, Ground Working and Natural Cavities	250m
Radon and Background Soil Chemistry	50m
Historic Mapping	100m. Each map represents a snapshot of the site and its environs at the date of the survey. Changes that had occurred at other times may not have been recorded on the maps and could represent an unidentified hazard to the site. The information reported might not represent all pertinent information that could be obtained. The interpretation of the maps and other data commented on in this report is subjective

Limitations and Uncertainties

ABR have prepared this report with all reasonable skill, care and diligence. The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources.

The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned.

Information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data with respect to site conditions. Should additional information become available which may influence the opinion expressed in this report, ABR reserves the right to review such information and, if warranted, to alter the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed.

The recommendations contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry practices at this time and as such are not a guarantee that the study site is free of hazardous conditions.

This report has been prepared solely for the use of the named client and may not be relied upon by other parties without written consent from ABR. ABR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.