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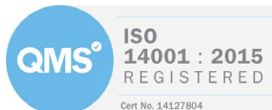
PHASE 2

ENVIRONMENTAL REPORT

job number	date
site address	
written by	checked by
issued by	



Please consider the environment before printing this report.



<ENVIRONMENTAL> <GEOTECHNICAL>



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Report on a Phase 2 Environmental Investigation

Location:	Greencore Food To Go 366 Stockley Close, West Drayton, Greater London, UB7 9BL		
For:	Micro Geotechnical Services Limited		
Report No.	C5470/25/E/8548	Report date:	September 2025

For and on behalf of **Rogers Geotechnical Services Ltd**

	
Steven Hale BSc FGS Geo-environmental Engineer	Rob Palmer MSc FGS ACIEH Engineering Director

Report Summary¹

Item	Comments	Section
Development	Construction of a new engineering workshop.	1.
Geology	Superficial geology – Langley Silt Member. Solid geology – London Clay Formation.	5.
Strata Conditions	Extended thickness of made ground present to termination depth of trial pits consisting of clayey to very clayey, gravelly SAND.	6.
Groundwater	None encountered during investigation.	6.2
Contamination	No contamination detected during works.	8.1

¹ This summary should not be relied upon to provide a comprehensive review. All of the information contained in this document should be considered.

1. Introduction

It is understood that the land at the existing Greencore Food To Go site is to be developed by the construction of a new engineering workshop. Consequently, a site investigation has been undertaken by Micro Geotechnical Services Limited in accordance with instruction from the client. This work was required in order to determine the nature of the underlying soils, to assess their engineering properties and to assist in the design of safe and economical foundations for the proposed development. This report takes into consideration the findings of the intrusive investigation and also the risk of any contamination present. This report describes the work undertaken, presents the data obtained and discusses the ground conditions in relation to the proposed works.

2. Limitations

The recommendations made and opinions expressed in this report are based on the ground conditions revealed by the site works, together with an assessment of the site and of the laboratory test results. Whilst opinions may be expressed relating to sub-soil conditions in parts of the site not investigated, for example between borehole positions, these are for guidance only and no liability can be accepted for their accuracy.

This report has been prepared in accordance with our understanding of current best practice. However, new information or legislation, or changes to best practice may necessitate revision of the report after the date of issue.

3. Desk Study

A Phase 1 Desk Study has been undertaken by Rogers Geotechnical Services (RGS) and the results were presented as report number C5470/25/E/8443 in September 2025. This report has been used during the current intrusive investigation.

4. Fieldworks

The fieldworks were undertaken on the 17th September 2025 and included the excavation of three hand-dug trial pits. The investigatory locations are shown on the site plan which is presented in Appendix 1 to this report.

4.1 Hand-dug Trial Pits

These trial pits were undertaken using hand digging techniques. The recovered samples were sealed and returned to the laboratory for logging and subsequent testing. The soils were described in general accordance with BS5930: 2015 +A1: 2020 and full descriptions are given on the trial pit records which are presented in Appendix 2. Also included on these records are the core diameters and percentages of core recovered.

5. Geology

The available published geological data for the site has been examined and the following table presents the anticipated geology.

Table 1: Geological Data for the Site

Strata Type	Strata Name ²	Previous Name ³	Description ³
Superficial Geology	Langley Silt Member	Langley Silt Formation	Varies from silt to clay, commonly yellow-brown and massively bedded.
Solid Geology	London Clay Formation	N/A	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.

6. Strata Conditions

In accordance with the geology of the area, the succession has been shown to include the following:

Table 2: Generalised Strata Profile

Depth m below ground level to underside of layer	Strata Type	Positions Encountered	Groundwater Strikes m below ground level
0.60 – 0.70	MADE GROUND (Dark brown, clayey, gravelly SAND)	All	None
+1.00	MADE GROUND (Dark brown, very clayey, gravelly SAND)	All	None

'+' denotes that the strata extended below the termination depth of the investigated positions, thus the extent of the deposit is only proven to the depths indicated

6.1 General Strata

The borehole records indicate that an extended thickness of clayey becoming very clayey, gravelly sand is present from the surface to termination depth (1.0m below ground level) within all locations.

6.2 Groundwater

No groundwater strikes were observed during the site investigation. However, it should be appreciated that the normal rate of boring does not permit the recording of an equilibrium water level for any one strike, moreover, groundwater levels are subject to seasonal variation or changes on local drainage conditions.

² Sources: British Geological Survey (NERC) Map Sheet 269; Windsor; Solid and Drift Edition, and GeoIndex Onshore Viewer [online resource from www.bgs.ac.uk]

³ Sources: British Geological Survey (NERC) Lexicon of Named Rock Units [online resource from www.bgs.ac.uk]

7. Laboratory Testing - Environmental

A suite of testing was conducted on samples from across the site and the following regime was undertaken.

- Metals – Cd, Cr^{VI}, Cu, Hg, Ni, Pb, V and Zn.
- Semi and Non-Metals - As, Se, Free CN⁻ and Phenols.
- Polycyclic aromatic hydrocarbons (PAHs).
- Petroleum hydrocarbons (TPHs).
- Others – pH, organic content and total/soluble SO₄²⁻.
- Asbestos.

This testing was undertaken by i2 Analytical Ltd and the results of all of the chemical testing are presented in Appendix 3 of this report.

8. Discussion of Ground Conditions - Environmental

8.1 Discussion of Test Results

It is understood that the site is to be developed by the construction of a new engineering workshop. Consequently, the site may be classified as a commercial end use.

8.1.1 Soil Samples

The results of the chemical testing undertaken on soil samples obtained during this investigation have been compared to the ATRISK soil screening values (SSVs) as compiled by WS Atkins plc. With respect to the results it should be appreciated that the soil organic matter (SOM) content for the samples tested was found to range between 3.9% and 4.6%. On this basis, it is considered that the screening values associated with 1% SOM should be adopted. These values have been derived in such a way as to adhere to the principles within the revised CLEA model and include the most current release of the SGVs. A list of subscribers is provided within the website⁴ and these include many local authorities.

A comparison of the results of the testing, together with the data given above, can be found within Appendix 3. These results indicate the following:

Table 3: Summary of Contaminated Areas

Location	Depth (m)	Contaminants found to be exceeding SSVs (Commercial)
HDTP1	0.20	None.
HDTP2	0.70	None.

Concentrations of phenols (total) were below the detection limits for the tests. Detectable levels of all other contaminants were recorded, but these fell below the associated Atrisk Soil Screening Values. In addition, no asbestos was detected within the soil samples tested.

⁴ <http://www.atrisksoil.co.uk/pages/general/subscribers.asp>

Waste Acceptance Criteria testing was undertaken on a sample obtained from trial pit HDTP1 at a depth of 0.20m below ground level. This test was carried out in order to advise what type of landfill may accept waste material. This testing found that all determinands fell within the Inert Waste Landfill criteria. It should be appreciated that discussions with landfill operators should take place before any waste is removed from site.

On the basis of the above information, the results of the investigation have concluded that the site is uncontaminated in regards to the intended end use.

8.2 Site Specific Risk Assessment

8.2.1 Approach

The presence of contamination hazards and the risks associated with them should be assessed in accordance with industry practice and the 'suitable for use' approach. This has been conducted with reference to The Department for Environment, Food and Rural Affairs (DEFRA) and The Environment Agency⁵ advice on the assessment of risks arising from the presence of contamination in soils and using the source-pathway-receptor approach.⁶ This method dictates that there must be a risk of contaminant produced at a 'source' in sufficient concentration to cause harm and there must be a 'pathway' for the contaminant to reach an identifiable 'receptor' for the linkage to be proved and a contamination hazard to be considered present. Not all substances are contaminants and not all contaminants are considered to be a risk. Indeed, DEFRA and The Environment Agency state that 'a contaminant is a substance which has the potential to cause harm, while a risk itself is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance.'⁷

8.2.2 Conceptual Ground Model and Risk Assessment

In view of the results of the chemical testing undertaken the conceptual site model is presented accordingly as Table 4.

The preliminary risk assessment has been evaluated with reference to the following ratings and definitions:

N/A -	A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.
Low -	A pollution linkage is unlikely and/or the likelihood of harm occurring is low and of minor consequence.
Moderate -	The linkage exists but the likelihood of harm occurring is not considered to be significant although remedial action may be necessary
High -	The linkage exists and the available data indicates that significant harm may be caused and remedial action could be necessary.

The results of the risk assessment are presented in Table 4.

⁵ R&D Publication CLR 8, 'Assessment of Risks to Human Health from Land Contamination: An overview of the Development of Soil Guideline Values and Related Research'.

⁶ The pollution linkage approach was developed by 'Circular 2/2000 Contaminated Land: Implementation of Part II of The Environmental Protection Act 1990' which provides meanings for the terms contained in The Environmental Protection Act 1990 Part IIA, the primary legislation for addressing the issues of contaminated land.

⁷ See 'Circular 2/2000 Contaminated Land: Implementation of Part II of The Environmental Protection Act 1990', appendix A.

Table 4: Conceptual Site Model and Site-Specific Risk Assessment

Conceptual Site Model			Site Specific Risk Assessment	
Pathways	Receptor	Linkage Present?	Risk Rating	Actions Required
Direct contact/dermal absorption/soil ingestion	Operative	Yes – contact with soil likely during works, however, no contamination was detected during the investigation.	Low	No further action required.
	End User	No – it is anticipated that the site will be wholly encapsulated by hard standing and permanent structure, severing any pathway.	N/A	
	Neighbours	Yes – residential and commercial area surround the site; however, no contamination was detected during the investigation.	Low	
Inhalation of Dust/Vapours	Operative	Yes – dust may be produced during works; however, no contamination was detected during the investigation.	Low	No further action required.
	End User	Yes – dust may be produced by end users, however, no contamination was detected during the investigation.	Low	
	Neighbours	Yes – residential and commercial properties located within 250m radius of the site, however, no contamination was detected during the investigation.	Low	
Ingestion of fruit/vegetables and/or waters	Operative	No – no edible plants or contained water sources in the area of the proposed new works.	N/A	No further action required.
	End User	No – there are no soft landscaped areas proposed as part of the development.	N/A	
	Neighbours	Yes – residential areas present within 250m of the site, however, no contamination was detected during the investigation.	Low	
Migration of hazardous gases via permeable strata or shallow mining activity	Operative	Yes – made ground present to site was not found to be significantly organic in nature or found to contain material that may produce bulk ground gases.	Low	No further action required.
	End User		Low	
	Neighbours		Low	

Spillage/loss/run off direct to receiving water	Controlled Waters	Yes – known controlled waters within 250m, however, no contamination was detected during the investigation.	Low	No further action required.
Migration via permeable unsaturated strata	Controlled Waters	No – unproductive aquifers are present beneath the site. In addition, permeability of underlying geology is considered to be low.	N/A	
Run off via drainage/sewers etc	Controlled Waters	Yes – old services may be present on site; however, no contamination was detected during the investigation.	Low	
Direct contact with contaminated soils	Plants	No – there are no soft landscaped areas proposed as part of the development.	N/A	No further action required.
Uptake via root system			N/A	
Direct contact with contaminated soils	Building Materials	Yes – it is not anticipated that ground conditions will affect building materials.	Low	No further action required.
Direct contact with contaminated groundwater				
Exposure to Radon	Operative	No – Not in a radon affected area.	N/A	Less than 1% of properties are above the action level. No radon protection measures required.
	End User			
UXO Risk	Operative	No – it is considered that the activities of the end users are unlikely to affect any UXO devices that may be present below the site.	Low	
	End User			

8.3 Indicative Remediation Strategy

In view of the site-specific risk assessment it is considered that it will not be necessary to undertake any specific remediation at this site. It should be appreciated, however, that careful inspection of the subgrade should be made during the groundworks. Should areas of contamination be detected then further testing may become necessary.

8.3.1 General Approach to Construction

In order to fulfil the objectives defined above it is likely that the following remedial strategy could be utilised. It is recommended that a pragmatic approach be undertaken, with observational techniques being employed at each stage of the work.

Ground-works

During the ground-works phase of the development, protection to the site operatives is required. The risk to site operatives is considered under the Health and Safety at Work Act 1974, together with regulations made under the act, which includes the Control of Substances Hazardous to Health (COSHH) regulations. Therefore, the risks to site personnel must be considered under the Construction Design and Management (CDM) regulations at the planning stage and be included in the contractor's Health and Safety Plan and site specific Method Statements. These documents should include the following main elements.

- Site operatives at all levels should be made aware of the fundamental principles of identifying potentially contaminated soils and the hazards of working with such soils not identified by the ground investigation.
- Personal hygiene facilities, including washing and messing, must be provided and site operatives encouraged to use them.
- Where work is undertaken in dry weather the site should be dampened down to avoid dust. In addition, dust masks must be provided to all site operatives for use at all times.
- Where vehicles are transferring soil to landfill site they should be covered to prevent any potential contamination of the surrounding area by dust.
- Any stockpiles of soil should be sheeted over to prevent excessive amounts of airborne dust.
- Where work is undertaken in wet weather, vehicle and wheel washing facilities are required to ensure that the vehicles leaving the site do not transfer any potential contamination to surrounding areas.

On completion of the ground-works a careful site inspection of the sub-grade would be required. Should visual or olfactory evidence of contamination be revealed then further testing may become necessary.

Construction

During the construction phase of the development the following items are required to protect the structure from the potential contaminants revealed at this site.

- Beneath, pavements and hard-standings clean inert granular sub-base should be employed.

8.4 Fill Materials

It should also be appreciated that any fill material, either site-won or imported, to be employed at the site should be subjected to the following assessment to determine its suitability.

Fill materials should be initially screened, by a suitably qualified engineer to establish that:

- It is a suitable growing media if it is to be employed as such, including compliance with BS3882 (2015)
- It is free from obvious contamination i.e. visual or olfactory evidence
- It has not come from areas where Japanese Knotweed or other invasive or injurious plants are suspected to be growing
- It is not a statutory nuisance, such as being odorous
- It is free from unsuitable material i.e. whole bricks, brick ties, timber or glass.

It should also be appreciated that any fill should be subjected to validation testing to assess its suitability. The following table has been taken from YALPAG⁸ documentation and may be used as a guide. Depending on the origin and nature of the material, not all fill will require the sampling frequency and testing indicated, although this should be in agreement with any regulatory bodies (such as the Local Authority).

Table 5: Validation Sampling and Testing		
Fill Type	Frequency	Minimum Determinands
Virgin Quarried Material	1 or 2 depending on the type of stone utilised, to confirm the inert nature of the material.	Standard metals/metalloids (should include as a minimum As, Cd, Cr, CrVI, Cu, Hg, Ni, Pb, Se, Zn)
Crushed Hardcore, Stone, Brick	Minimum 1 per 500m ³	Standard metals/metalloids (as above), PAH (16 USEPA speciation), asbestos, total TPH. Any additional analysis dependant on the history of the donor site (e.g. phenol, total cyanide, BTEX, MTBE).
Greenfield/ Manufactured Soils	Minimum 3 Dependent on source and receptor, between 1 per 50m ³ and 1 per 250m ³	Standard metals/metalloids (as above), PAH (16 USEPA speciation), asbestos, pH and soil organic matter (SOM) (or calculated from total organic carbon (TOC)).
Brownfield/ Screened Soils	Minimum 6 Dependent on source and receptor, between 1 per 50m ³ and 1 per 100m ³	Standard metals/ metalloids (as above), PAH (16 USEPA speciation), TPH (CWG banded), asbestos, pH and SOM (or calculated from TOC). Any additional analysis dependant on the history of the donor site (e.g. phenol, total cyanide, BTEX, MTBE)..

The screening values for the above regime should also be agreed with any regulatory bodies; however, the following is recommended in the first instance.

⁸ YALPAG Technical Guidance for Developers, Landowners and Consultants – Verification Requirements for Cover Systems V4.1 Appendix 1a, June 2021

Table 6: Fill Screening Values

Contaminant	Screening Value (Commercial) (mg/kg)				Reference
	1% SOM		6% SOM		
As	635		635		Atrisk ^{SOIL} SSVs
Cd	410		410		Atrisk ^{SOIL} SSVs
Cr(VI)	19.7	49.1	19.7	49.1	Atrisk ^{SOIL} SSVs
Cu	106000		106000		Atrisk ^{SOIL} SSVs
Hg	350		405		Atrisk ^{SOIL} SSVs
Ni	1770		1770		Atrisk ^{SOIL} SSVs
Pb	2310		2310		Atrisk ^{SOIL} SSVs
V	7490		7490		Atrisk ^{SOIL} SSVs
Zn	1100000		1100000		Atrisk ^{SOIL} SSVs

Please see summary sheet within Appendix 4 for full screening values including PAHs & TPHs.

The above screening values should be considered with respect to the Soil Organic Matter (SOM) of the subject material i.e. 1% SOM would be typical for granular fill and 6% SOM for topsoil. Testing should comply with UKAS and MCERTS, where applicable, and undertaken by an accredited laboratory.

Where the material has been derived from a commercial company, certificates or other industry quality protocol compliance i.e. WRAP should be obtained. However, it will be necessary to ensure that this documentation specifically related to the material being imported, it is no more than two months old and complies with the screening and frequency requirements given above.

Suitable fill materials should be either placed immediately or sufficiently quarantined to prevent cross-contamination. If it is necessary, the quarantined material should be placed on appropriate sheeting and covered to prevent it becoming mixed with contaminated soils or dust, or penetrated by mobile contaminants.

8.5 Verification Report

It is not anticipated that it will be necessary to produce a verification report for submission to any statutory authorities. However, should any fill be imported to site it may be necessary to produce a report characterising the suitability of the clean material. Such a report would include the derivation of the material, comments from a visual screen, the test results of chemical screening, delivery tickets where appropriate and the conditions by which the clean material has been stored and handled on site.

The report detailed above should be produced by a suitably qualified engineer. The number of verification areas for the development should be confirmed with any statutory authorities for the site.

9. Recommendations for Further Work

- This report should be forwarded to the relevant authorities as soon as practicable to ensure they have sufficient time to review and discuss any issues.
- Discussions with landfill operators in relation to the requirement for testing of materials to be disposed off-site (Waste Acceptance Criteria) and the suitability of imported materials.

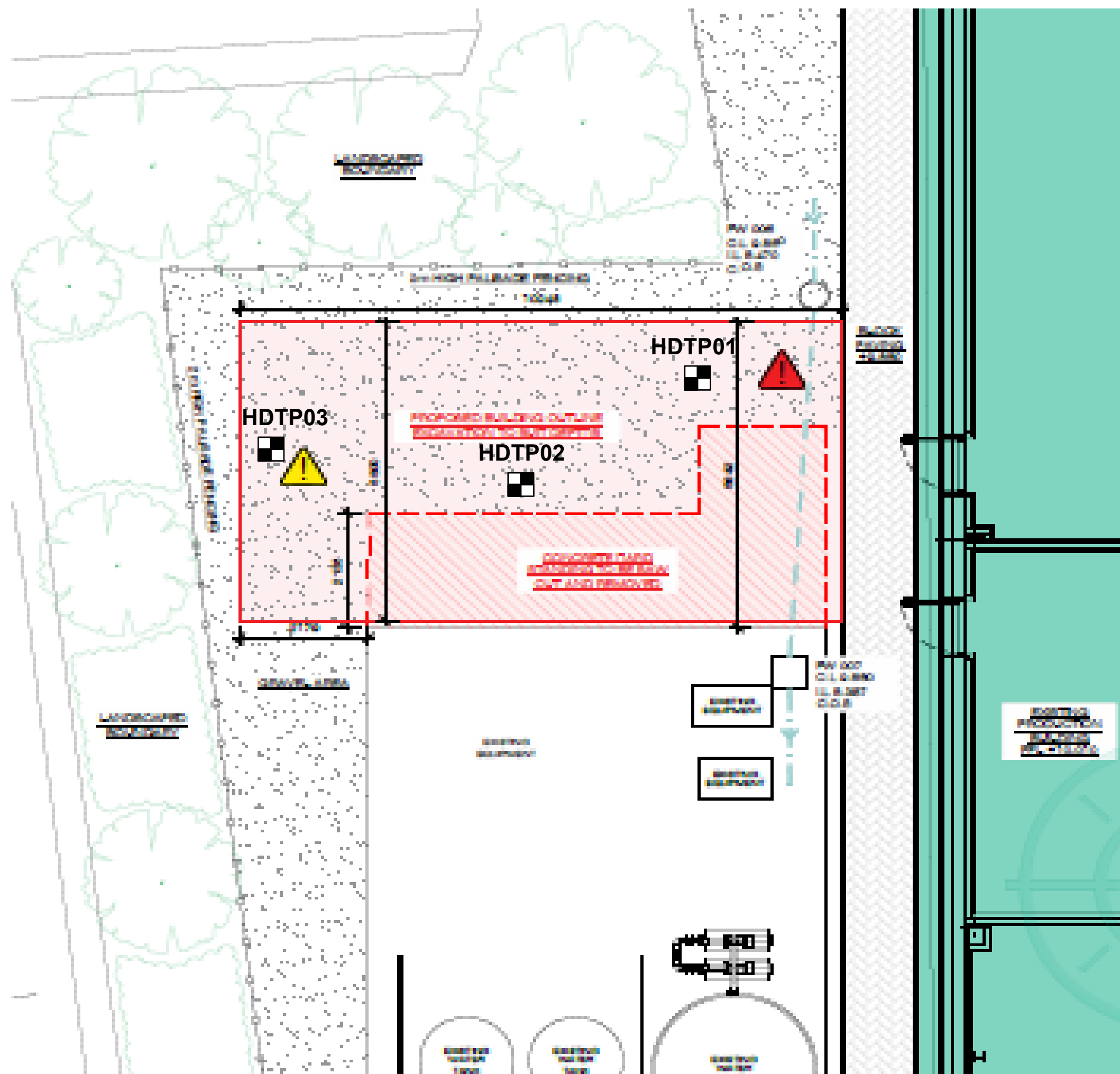
Clearly Rogers Geotechnical Services Ltd would be happy to offer advice with respect to the above and assist where necessary.

10. References

- British Geological Survey (NERC) (2025), BGS, Keyworth.
 - Geology of Britain Viewer:
(http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html)
 - Lexicon of Named Rock Units:
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- British Standards Institution (1990) BS1377: *British standard methods of test for soils for civil engineering purposes*, B.S.I., London.
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- British Standards Institution (2015 +A1: 2020) BS 5930: *Code of practice for ground investigations*, B.S.I., London.
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- British Standards Institution (2015 +A1:2019) BS8485: *Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*, B.S.I., London.
- British Standards Institution (2013), BS 8576 *Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds*.
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 - Part D: *Specifying concrete for general cast-in-situ use*.
- Department for Environment, Food and Rural Affairs and the Environment Agency (2009) DEFRA Science Report – Final SC050021/SR2, *Human Health toxicological assessment of contaminants in soil*. Environment Agency, Bristol.
- Department for Environment, Food and Rural Affairs and the Environment Agency (2009) DEFRA Science Report – SC050021/SR3, *Updated technical background to the CLEA model*. Environment Agency, Bristol.
- Department for Environment, Food and Rural Affairs (2014) SP1010: *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document*.
- Wilson S, Oliver S, Mallet H, Hutchings H, Card G, *Assessing risks posed by ground gasses to buildings*, CIRIA Report C665.

Appendix 1


Site Plan



Notes:

Hole locations approximate.

Key

 Hand excavated trial pit

Appendix 2

Hand-dug Trial Pit Records

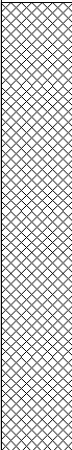
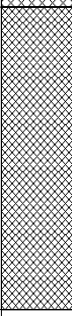
Excavation Method Hand excavated trial pit		Dimensions L 0.3 m x W 0.3 m x D 1.0 m		Ground Level (mOD)		Client LMP Solutions Ltd		Job Number 25.207	
		Location		Dates 17/09/2025		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	ES1				(0.60)	MADE GROUND (Pea shingle over dark brown slightly clayey gravelly fine to coarse sand with roots. Gravel is subangular to subrounded fine to coarse flint, brick and concrete with cobble sized fragments of concrete and fragments of fabric, metal and plastic)		
					0.60 (0.40)	MADE GROUND (Dark brown very clayey gravelly sand with abundant pockets of sandy gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick and concrete with cobble sized fragments of concrete)		
					1.00	Complete at 1.00m		



Remarks <ol style="list-style-type: none"> CAT4+ scanner used to sweep location prior to excavation. Trial pit excavated to 1.0 m without Sidewall collapse. No groundwater encountered. Pit backfilled with arisings to surface. 		
Scale (approx) 1:10	Logged By WS	Figure No. 25.207.HDP01

Excavation Method Hand excavated trial pit		Dimensions L 0.3 m x W 0.3 m x D 1.0 m		Ground Level (mOD)		Client LMP Solutions Ltd		Job Number 25.207	
		Location		Dates 17/09/2025		Engineer		Sheet 1/1	


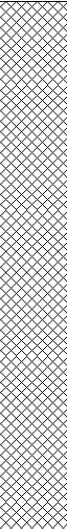
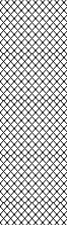

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.70	ES1				(0.60)	MADE GROUND (Pea shingle over dark brown slightly clayey gravelly fine to coarse sand with roots. Gravel is subangular to subrounded fine to coarse flint, brick and concrete with cobble sized fragments of concrete and fragments of fabric, metal and plastic)		
					0.60	MADE GROUND (Dark brown very clayey gravelly sand with abundant pockets of sandy gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick and concrete with cobble sized fragments of concrete)		
					(0.40)			
					1.00	Complete at 1.00m		



Remarks

- CAT4+ scanner used to sweep location prior to excavation.
- Trial pit excavated to 1.0 m without Sidewall collapse.
- No groundwater encountered.
- Pit backfilled with arisings to surface.

Scale (approx) 1:10	Logged By WS	Figure No. 25.207.HOTP02
-------------------------------	------------------------	------------------------------------

						Site Greencore, Heathrow		Trial Pit Number HOTP03	
Excavation Method Hand excavated trial pit		Dimensions L 0.3 m x W 0.3 m x D 1.0 m		Ground Level (mOD)		Client LMP Solutions Ltd		Job Number 25.207	
		Location				Dates 17/09/2025		Engineer	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
					<div> <div></div> <div>(0.70)</div> </div>	MADE GROUND (Dark brown clayey gravelly fine to coarse sand. Gravel is subangular to subrounded fine to coarse flint and brick with fragments of metal)			
					<div> <div></div> <div>0.70</div> </div>	... abundant fragments of reinforced steel bar at 0.65 m			
					<div> <div></div> <div>(0.30)</div> </div>	MADE GROUND (Dark brown very clayey gravelly sand with abundant pockets of sandy gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick and concrete with cobble sized fragments of concrete)			
					<div> <div></div> <div>1.00</div> </div>	Complete at 1.00m			
						Remarks 1. CAT4+ scanner used to sweep location prior to excavation. 2. Trial pit excavated to 1.0 m without Sidewall collapse. 3. No groundwater encountered. 4. Pit backfilled with arisings to surface.			
						Scale (approx) 1:10		Logged By WS	

Appendix 3

Laboratory Testing

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e: info-i2analytical@normecgroup.com

Analytical Report Number : 25-050334

Project / Site name:	Greencore Heathrow	Samples received on:	19/09/2025
Your job number:	25.207	Samples instructed on/ Analysis started on:	19/09/2025
Your order number:		Analysis completed by:	29/09/2025
Report Issue Number:	1	Report issued on:	29/09/2025
Samples Analysed:	2 soil samples		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 25-050334
Project / Site name: Greencore Heathrow

Lab Sample Number				686118	686119
Sample Reference				HDTP1-ES1	HDTP2-ES1
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				0.20	0.70
Date Sampled				17/09/2025	17/09/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	42.4	60.1
Moisture Content	%	0.01	NONE	9.8	13
Total mass of sample received	kg	0.1	NONE	2	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WIK	WIK
Analysis completed	N/A	N/A	N/A	25/09/2025	25/09/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.2	8.5
Organic Matter (automated)	%	0.1	MCERTS	4.6	3.9
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.7	2.2

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	18
Boron (water soluble)	mg/kg	0.2	MCERTS	2.7	2.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	5.4	4.9
Chromium (hexavalent)	mg/kg	1.8	MCERTS	U/S ^{U/S} g	< 1.8
Chromium (VI) by IC	mg/kg	1.8	NONE	< 1.80	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	88	83
Copper (aqua regia extractable)	mg/kg	1	MCERTS	280	150
Lead (aqua regia extractable)	mg/kg	1	MCERTS	150	120
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	0.9
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	46	44
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	640	280

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 25-050334

Project / Site name: Greencore Heathrow

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
686118	HOTP1-ES1	None Supplied	0.2	Brown sandy loam with vegetation and stones
686119	HOTP2-ES1	None Supplied	0.7	Brown clay and sand with gravel and stones

Analytical Report Number : 25-050334
Project / Site name: Greencore Heathrow

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Cr(VI) in soils by Ion chromatography	Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection	In-house method	L130B	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

*U/S g- Unsuitable for analysis due to high colour intensity.



Sample Deviation Report



Normec
i2 Analytical

Analytical Report Number : 25-050334

Project / Site name: Greencore Heathrow

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container/Insufficient material provided c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
HDTP1-ES1	N/A	S	686118	b	Cr(VI) in soils by Ion chromatography	L130B	b
HDTP2-ES1	N/A	S	686119	b	Asbestos identification in Soil	A001B	b

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Analytical Report Number : 25-050336

Project / Site name:	Greencore Heathrow	Samples received on:	19/09/2025
Your job number:	25.207	Samples instructed on/ Analysis started on:	19/09/2025
Your order number:		Analysis completed by:	26/09/2025
Report Issue Number:	1	Report issued on:	26/09/2025
Samples Analysed:	1 10:1 WAC sample		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

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An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 25-050336
Project / Site name: Greencore Heathrow

Lab Sample Number	686131			
Sample Reference	HOTP1-ES1			
Sample Number	None Supplied			
Water Matrix	N/A			
Depth (m)	0.20			
Date Sampled	17/09/2025			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Stone Content	%	0.1	NONE	42.4
Moisture Content	%	0.01	NONE	9.8
Total mass of sample received	kg	0.1	NONE	2

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	7.4
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.7
Loss on Ignition @ 450°C	%	0.2	MCERTS	6.9
Acid Neutralisation Capacity	mmol/kg	-9999	NONE	1.7

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.28
Anthracene	mg/kg	0.05	MCERTS	0.07
Fluoranthene	mg/kg	0.05	MCERTS	0.85
Pyrene	mg/kg	0.05	MCERTS	0.74
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.45
Chrysene	mg/kg	0.05	MCERTS	0.54
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.88
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.32
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.59
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.48
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.58
Coronene	mg/kg	0.05	NONE	0.19

Total PAH

Total WAC-17 PAHs	mg/kg	0.85	NONE	6.01
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Petroleum Hydrocarbons

Mineral Oil (EC10 - EC40) EH_CU_1D_AL	mg/kg	10	NONE	130
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VOCs

Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

Total BTEX	µg/kg	10	MCERTS	< 10
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Analytical Report Number: 25-050336
Project / Site name: Greencore Heathrow

Lab Sample Number				686131
Sample Reference				HDTP1-ES1
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				0.20
Date Sampled				17/09/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	0.004
PCB Congener 118	mg/kg	0.001	MCERTS	0.003
PCB Congener 138	mg/kg	0.001	MCERTS	0.01
PCB Congener 153	mg/kg	0.001	MCERTS	0.008
PCB Congener 180	mg/kg	0.001	MCERTS	0.012
Total PCBs	mg/kg	0.007	MCERTS	0.038

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Waste Acceptance Criteria Analytical Results

Waste Acceptance Criteria Analysis Results				25-050336					
Report No:									
						Client: Micro Geotechnical Ltd			
Location				Greencore Heathrow					
Lab Reference (Sample Number)				686131		Landfill Waste Acceptance Criteria			
						Limits			
Sampling Date				17/09/2025		Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID				HDTPI-ES1					
Depth (m)				0.20					
Solid Waste Analysis									
TOC (%)**				2.7		3%		5%	
Loss on Ignition (%) **				6.9		--		--	
BTEX (µg/kg) **				< 10		6000		--	
Sum of PCBs (mg/kg) **				0.038		1		--	
Mineral Oil (mg/kg) <small>EH, 1D, CU, AL</small>				130		500		--	
Total PAH (WAC-17) (mg/kg)				6.01		100		--	
pH (units)**				7.4		--		>6	
Acid Neutralisation Capacity (mmol / kg)				1.7		--		To be evaluated	
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)				10:1		10:1		Limit values for compliance leaching test	
				mg/l		mg/kg		using BS EN 12457-2 at L/S 10 l/kg (mg/kg)	
Arsenic *				0.00693		0.0693	0.5	2	25
Barium *				0.0101		0.101	20	100	300
Cadmium *				< 0.000100		< 0.00100	0.04	1	5
Chromium *				0.001		0.01	0.5	10	70
Copper *				0.069		0.69	2	50	100
Mercury *				< 0.000500		< 0.00500	0.01	0.2	2
Molybdenum *				0.0095		0.095	0.5	10	30
Nickel *				0.012		0.12	0.4	10	40
Lead *				< 0.0010		< 0.010	0.5	10	50
Antimony *				< 0.0017		< 0.017	0.06	0.7	5
Selenium *				< 0.0040		< 0.040	0.1	0.5	7
Zinc *				0.0093		0.093	4	50	200
Chloride *				1.3		13	800	15000	25000
Fluoride*				0.075		0.75	10	150	500
Sulphate *				6.9		69	1000	20000	50000
TDS*				72		720	4000	60000	100000
Phenol Index (Monohydric Phenols) *				< 0.010		< 0.10	1	-	-
DOC				10.9		109	500	800	1000
Leach Test Information									
Stone Content (%)				42.4					
Sample Mass (kg)				2					
Dry Matter (%)				90					
Moisture (%)				9.8					

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3. This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 25-050336
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Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
686131	HDTP1-ES1	None Supplied	0.2	Brown sandy loam with vegetation and stones

Analytical Report Number : 25-050336
Project / Site name: Greencore Heathrow

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1 ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
One stage WAC 10:1 leachate preparation	One stage batch test at a liquid to solid ratio of 10 L/kg	BS EN 12457-2-2002	L043B	W	ISO 17025
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047-PL	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID	In-house method	L076B	D	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025

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Project / Site name: Greencore Heathrow

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

Appendix 4

Fill Screening Values

Atkins ATRISK Soil Screening Values (SSVs) - Commercial Landuse

Tox Data Report No.	Compound	Commercial (mg/kg)				Reference
	<i>Metals</i>	1% SOM		6% SOM		
3	Cadmium	410		410		C
4	Chromium VI	19.7	49.1	19.7	49.1	B/C
	Copper	106000		106000		A+
7	Mercury	350.00		405.00		A/D
8	Nickel	1770		1770		A+
	Lead	2310		2310		C
	Zinc	1100000		1100000		A+
	Vanadium	7490		7490		A+
	<i>Semi and Non Metals</i>					
1	Arsenic	635		635		C
10	Selenium	13000		13000		A
	Free Cyanide	373		373		A
9	Phenols (total)	685		3170		A
	<i>Poly Aromatic Hydrocarbons</i>	Free product	No free product	Free product	No free product	
20	Naphthalene	75	90.1	432	1050	A+
	Acenaphthene	156.8	83600	106000		A+
	Fluorene	66500		72000		A+
	Anthracene	535000		544000		A+
	Fluoranthene	72200		72600		A+
	Pyrene	54100		54400		A+
	Benzo(a)anthracene	1.71	131	10.3	142	A
2	Chrysene	0.44	14000	2.64	14300	A
2	Benzo(b)fluoranthene	1.22	142	7.29	144	A
2	Benzo(k)fluoranthene	0.686	1430	4.12	1440	A
2	Benzo(a)pyrene	26.1	76.3	26.2	76.3	B/C
2	Dibenz(a,h)anthracene	0.00393	14.3	0.0236	14.4	A*
2	Indeno(1,2,3-cd)pyrene	0.0614	142	0.368	144	A*
2	Benzo(g,h,i)perylene	0.0187	1440	0.112	1450	A*
	<i>Petroleum Hydrocarbons</i>					
	Aliphatic C5-C6	327	4490	1100	29400	A+
	Aliphatic C6-C8	157	10400	769	98200	A+
	Aliphatic C8-C10	82.4	1370	476	14800	A+
	Aliphatic C10-C12	49.9	7900	297	69500	A+
	Aliphatic C12-C16	20.9	34000	126	139000	A+
	Aliphatic C16-C21	3620000		3620000		A+
	Aliphatic C21-C35	3620000		3620000		A+
	Aromatic C5-C7 (Benzene)	12.5		98		A+
	Aromatic C7-C8 (Toluene)	834	27900	4360	183000	A+
	Aromatic C8-C10	613	2210	3600	20800	A+
	Aromatic C10-C12	369	12300	2190	53800	A+
	Aromatic C12-C16	155	41300	65400		A+
	Aromatic C16-C21	28400		28400		A+
	Aromatic C21-C35	28400		28400		A+
	<i>Others</i>					
Asbestos						
A = WS ATKINS PLC, ATRISK SOIL SCREENING VALUES BASED ON 1% SOIL ORGANIC MATTER						
A+ = Values updated June 2017.						
A* Atrisk's SSV is lower than Chemtest's detectable limit for this compound.						
B = health criterion values, which are available from toxicological reviews published in the C4SL project methodology report.						
C = Category 4 Screening Levels (C4SLs) based on 1% soil organic matter.						
D - Value provided is based on Methyl Mercury. Should elemental mercury be observed or a source be known then a limit of 7.95 should be used.						