

VERIFICATION REPORT
of a site at
33 DAGMAR ROAD, FINSBURY PARK
for
SFP GROUP



**Contaminated
Land
Solutions**

t 020 8291 1354 e ask@gosolve.co.uk
4 De Frene Road, London, SE26 4AB

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Prepared by		Matthew Mayes, BSc (Environ), AMIEnvSc
Reviewed by		Peter George Eur.Ing. B.Eng., Dip.EM, C.Eng., MICE, MIEnvSc, MCMI, FRSPH
Approved for issue by		Peter George Eur.Ing. B.Eng., Dip.EM, C.Eng., MICE, MIEnvSc, MCMI, FRSPH
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Prepared by		Matthew Mayes, BSc (Environ), AMIEnvSc
Reviewed by		Peter George Eur.Ing. B.Eng., Dip.EM, C.Eng., MICE, MIEnvSc, MCMI, FRSPH
Approved for issue by		Peter George Eur.Ing. B.Eng., Dip.EM, C.Eng., MICE, MIEnvSc, MCMI, FRSPH
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CONTENTS

- 1 EXECUTIVE SUMMARY**
- 2 BRIEF**
- 3 PREVIOUS CONTAMINATION TESTING**
- 4 INITIAL GROUND INVESTIGATION**
- 5 REMEDIAL SITE WORKS**
 - 5.1 Excavation**
 - 5.2 Soft Landscaping**
- 6 VERIFICATION**
 - 6.1 Sampling and Testing Regime**
 - 6.2 Test Results**
 - 6.3 Water Supply Information**
- 7 DUTY OF CARE DOCUMENTATION**
- 8 CONCLUSIONS**

Appendix A – Site Location Plan

Appendix B – Sample Location Plans

Appendix C – Previous Contamination Testing

Appendix D – Initial Ground Investigation Test Results

Appendix E – Verification Test Results

Appendix F – Borehole and Verification Pit Logs

Appendix G – Photographs of Remediation

Appendix H – Photographs of Boreholes, Verification Pits and Capping

Appendix I – Duty of Care Documentation

Appendix J – Imported Fill Material Criteria

Appendix K – Simple Cover Systems

Appendix L – Benzo(a)pyrene Surrogate Marker Approach

1 EXECUTIVE SUMMARY

A phase 1 Desktop Study has been undertaken by Geosmart Information. A phase 2 environmental investigation, and phase 3 remediation strategy has been undertaken by GO Contaminated Land Solutions Ltd. This report provides verification in order to demonstrate that the site is ready for the proposed use.

In accordance with the Remediation Strategy the following remedial actions were required:

- Provide a barrier in order to remove the pathway between any residual contamination and site users.
- Remove all made ground from areas where soft landscaping is proposed to at least 600mm or to natural ground.
- Instal appropriate water supply pipe

When works were restarted following insolvency of the previous developer the status of remedial works was unknown. Therefore an initial ground investigation was undertaken which found no evidence of clean imported soils with exceedances for lead, benzo(b)fluoranthene and dibenzo(a,h)anthracene noted as well as the presence of asbestos at BH1. Therefore remediation in line with the original remediation strategy was required, with a further round of verification testing undertaken following the removal and import of clean soils.

The made ground within the soft landscaped areas has been removed by 600mm and replaced with clean imported sub soil and topsoil. Three samples were taken per source of imported soil following placement, and all results were below the relevant soil screening values, and no asbestos was identified.

The completion of these remediation measures has ensured that the identified risks are reduced such that the development does not pose an increased risk to human health.

2 BRIEF

SPF Group requested GO Contaminated Land Solutions complete a verification report for the site.

This report should be read in conjunction with the following reports:

- Phase 1 Desktop Study by GeoSmart Information
- Phase 2 environmental investigation, ref: 1733-P2E-1-A, issued 31 October 2019 by GO Contaminated Land Solutions Ltd
- Remediation Strategy, ref 1733-P3E-1, issued April 2020 by GO Contaminated Land Solutions Ltd

Additionally, a Remediation Method Statement (P15453 RMS Conditional Report) and a Validation Report (Dagmar Road – Condition 6C Validation) were submitted to the council by others, incorrectly using our logo. GO Contaminated Land Solutions holds no responsibility for the content of these reports, and their accuracy and reliability should not be assumed.

The London Borough of Haringey subsequently refused the Validation Report.

In August 2024, GO Contaminated Land Solutions were engaged to investigate the site and assess the suitability of the soils for the proposed residential end use.

3 PREVIOUS CONTAMINATION TESTING

The desk study report identified the potential for contamination of the site from its former light industrial use, car storage, a garage and from surrounding light industrial areas and the adjacent railway.

The Phase 2 Environmental Investigation involved the sampling of made ground from three locations across the site. Exceedances for lead and arsenic were identified within samples taken across the site. At the levels identified there is a potential risk to on-site and off-site receptors and appropriate remediation was recommended.

4 INITIAL GROUND INVESTIGATION

An initial investigation to determine ground conditions and confirm whether imported soils had been placed on site was undertaken by GO Contaminated Land Solutions on 30 August 2024.

Three boreholes were undertaken in the soft landscaping to the rear of the property.

The boreholes were progressed through the depth of made ground into the underlying natural stratum, apart from at BH2, which was halted on a solid obstruction at 0.75mbgl.

It was identified that no attempt had been made to import any clean soils to the site with the ground conditions generally comprising made ground with brick fragments. Refer to borehole logs within appendix F.

Two distinct layers of made ground were identified within each borehole, therefore samples were taken from both horizons. See tables below for sampling testing regime and test results above screening levels.

Test results have been compared to Atkins 2017 ATRISKsoil SSVs derived using CLEA for all sample locations. Assessment levels used are for residential with plant uptake.

Location Reference	Rationale for Location	Depth (mbgl)	Sampling, Testing & Monitoring
BH1	Samples were located to cover soft landscaping of the site	0.0 – 0.10	Metals, hydrocarbons, PAHs & asbestos
BH2		0.30 – 0.60	
BH3		0.05 – 0.20	
		0.30 – 0.60	
		0.10 – 0.30	
		0.70 – 0.90	

TEST RESULTS ABOVE SCREENING VALUES				
Determinand	Reference	Depth	Value (mg/kg)	Screening value (mg/kg)
Lead	BH1	0.30-0.60	333	200
Benzo(b)fluoranthene			3.45	2.6
Dibenzo(a,h)anthracene			0.68	0.24

ASBESTOS IDENTIFICATION		
Reference	Depth to (mbgl)	Result
BH1	0.30 – 0.60	Chrysotile (asbestos cement)

Lead, benzo(b)fluoranthene and dibenzo(a,h)anthracene exceedances were identified at BH1 at 0.30 – 0.60mbgl, as well as the presence of Chrysotile Asbestos Cement.

Given the presence of the exceedances and the lack of evidence of clean imported soils, GO Contaminated Land Solutions recommended that the made ground within the soft landscaping be removed to a depth of at least 600mm and replaced with clean imported subsoil and topsoil, in line with our original Remediation Strategy dated April 2020 ref. ref 1733-P3E-1.

The details of the remedial works and subsequent verification are outlined in sections 5 and 6 below.

5 REMEDIAL SITE WORKS

5.1 Excavation

Following the initial ground investigation, the made ground within the soft landscaped areas of the site has been removed to a depth of 600mm.

Photographs of remediation showing the depth and scale of excavations are included in appendix G.

Refer to appendix I for Waste Transport Certificates for material removed from site.

5.2 Soft Landscaping

In terms of human health for residents provision of a simple cover system comprising a layer of clean topsoil in soft landscaped areas should be sufficient to provide a reduction of the hazard to human health and to provide a suitable medium for plant growth. The BRE report recommends a minimum cover thickness of 300mm and an assumed mixing layer of 600mm, therefore giving maximum cover layer of 600mm.

A layer of subsoil and topsoil were used to achieve a total thickness of 600mm.

A plan of the verification pit locations is contained in appendix B and photographic evidence of the capping layer is contained in appendix H.

6 VERIFICATION

In order to demonstrate that the made ground within the soft landscape area has been removed to a depth of 600mm or to natural strata, photographs were taken of the areas following removal of made ground (Refer to appendix G).

Three verification pits were excavated to a minimum depth of 600mm to confirm the thickness of the capping layer.

Three samples were taken from the subsoil and the topsoil following placement, yielding a total of six samples. All test results were found to be below the relevant soil screening values, and no asbestos was identified.

Verification test results for the samples of imported fill are attached in appendix J. The samples were tested for a range of commonly occurring contaminants and indicators of contamination including those given by the Contaminated Land Exposure Assessment (CLEA). These include, heavy metals, aromatic and aliphatic hydrocarbons, in accordance with Environment Agency guidelines, and speciated PolyAromatic Hydrocarbon (PAH) and asbestos.

All the results have been compared to the Atkins 2017 ATRISKsoil SSVs for residential use with plant uptake. The average soil organic matter (SOM) across the samples was 9.1%, therefore assessment levels have been compared to the 6% SOM. These guideline values have been derived using the updated CLEA v1.071 model, previously published Category 4 Screening Levels (C4SLs) by DEFRA and information in the Environment Agency guidance SR2. Where ATRISKsoil SSVs have not been derived, the Category 4 Screening Levels have been used, and for determinands which do not have either of the above, the LQM/CIEH Suitable 4 Use Levels (S4ULs) assessment criteria have been used.

A plan of the proposed sample locations and validation pits is contained in appendix B.

6.1 Sampling and Testing Regime

Location Reference	Rationale for Location	Depth (mbgl)	Sampling, Testing & Monitoring
VP1	Samples were located to cover soft landscaping of the site	0.05 – 0.30	Tested for asbestos, metals, PAHs and TPHs
		0.30 – 0.60	
VP2		0.05 – 0.30	
		0.30 – 0.60	
VP3		0.05 – 0.30	
		0.30 – 0.60	

6.2 Test Results

The results have been compared to Atkins 2017 ATRISKsoil SSVs derived using CLEA for all sample locations. Assessment levels used are for residential with plant uptake. The average soil organic matter (SOM) across the samples was 9.1%, therefore assessment levels have been compared to the 6% SOM

TEST RESULTS ABOVE SCREENING VALUES				
Determinand	Reference	Depth	Value (mg/kg)	Screening value (mg/kg)
Dibenzo(a,h)anthracene	VP1	0.30 – 0.60	0.31	0.30

A very marginal exceedance for dibenzo(a,h)anthracene (DBAH) was noted at VP1 within the subsoil sample.

Four of the samples were below limit of detection for DBAH (<0.10 mg/kg). Using the LOD for the four samples, the result from VP2 (0.30 – 0.60m, 0.19mg/kg) and result from VP1 (0.30 – 0.60, 0.31mg/kg), the mean of the results is 0.15 mg/kg, which is well below the assessment criteria.

To further assess the risk, the benzo(a)pyrene surrogate marker approach was applied. The genotoxic PAH results were compared to the soil PAH coal tar mixtures used in the Culp et al. (1998) study, to determine if benzo(a)pyrene could serve as a reliable surrogate marker for other PAHs. The results were validated using the LQM PAH profiling tool, confirming that benzo(a)pyrene is appropriate for this dataset.

Since the benzo(a)pyrene concentration is below the screening value, the marginal exceedance of DBAH is not considered to pose any risk to either on-site or off-site receptors.

6.3 Water Supply Information

The client advised that an appropriate water supply installation has been made by Thames Water following all of their technical requirements.

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7 DUTY OF CARE DOCUMENTATION

The material removed was taken to an appropriate landfill facility, following Waste Acceptance Criteria (WAC) testing.

A record of “Duty of Care” documentation, waste transfer notes and tickets confirming receipt at the landfill is contained in appendix I.

Certificates for the imported soils are contained in appendix I.

8 CONCLUSIONS

The Phase 2 Environmental Investigation undertaken by GO Contaminated Land Solutions identified exceedances in lead and arsenic within samples taken from boreholes positioned across the site. Subsequently a further ground investigation was undertaken at the site which found exceedances for lead, benzo(b)fluoranthene and dibenzo(a,h)anthracene noted as well as the presence of asbestos at BH1. At these levels there is a potential risk to on-site and off-site receptors and appropriate remediation was recommended.

The soft landscaped areas across the site have been remediated. Made ground in the soft landscaped areas has been removed to a depth of 600mm with clean imported subsoils and topsoil used to bring back levels providing a suitable capping layer.

Imported soil depths were verified and six verification samples have been taken from the imported soils. No exceedances have been recorded for a residential with plant uptake scenario.

The completion of these remediation measures has ensured that the identified risks are mitigated such that the development does not pose an increased risk to human health.

It is considered that the completed property is suitable for residential use.

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Appendix A – Site Location Plan

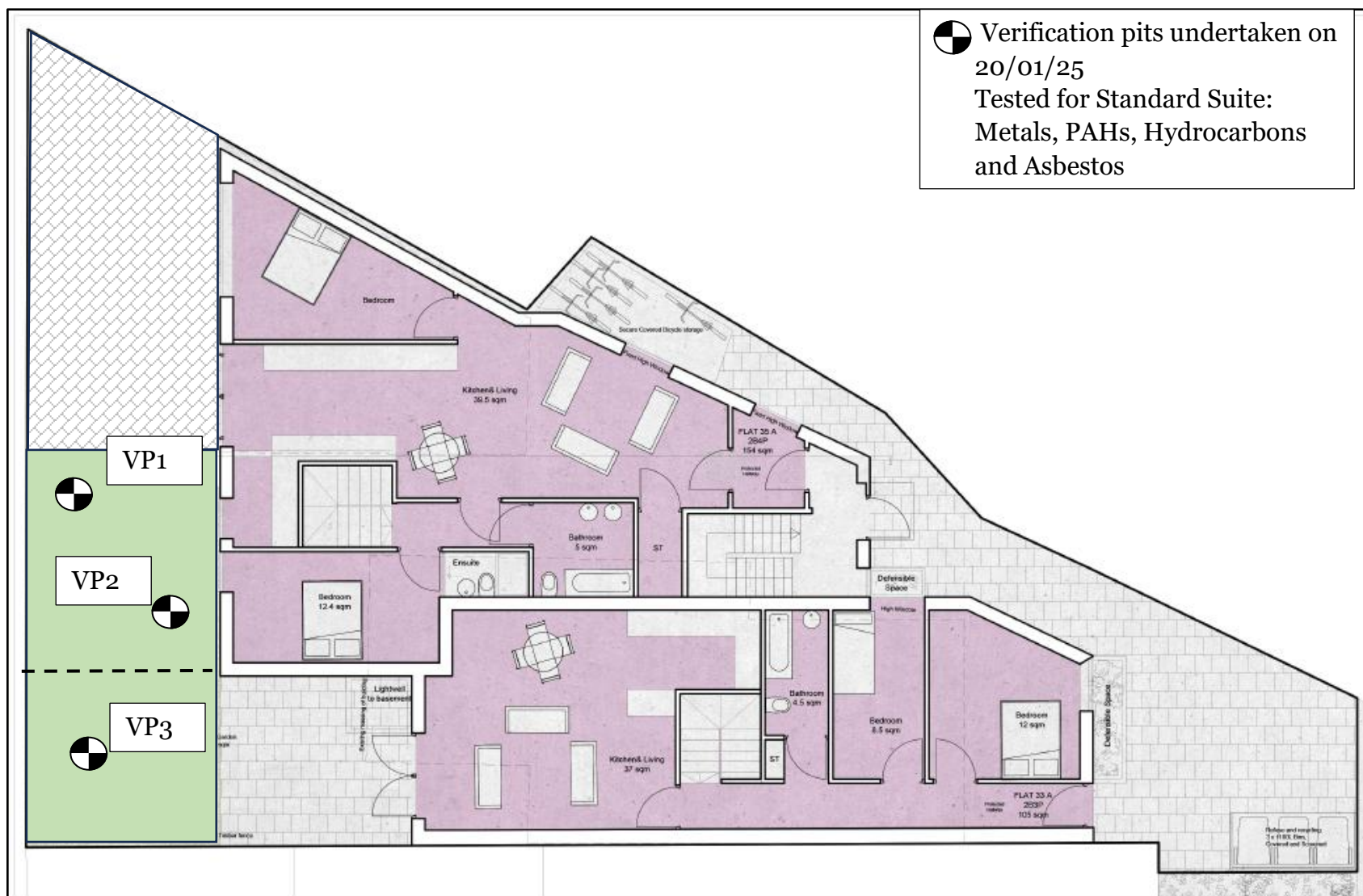




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Appendix B – Sample Location Plans







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Appendix C – Previous Contamination Testing



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone: (01424) 718618

cs@elab-uk.co.uk
info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 19-24908

Issue: 1

Date of Issue: 20/09/2019

Contact: Peter George

Customer Details: GO Contaminated Land Solutions Ltd
4 De Frene Road
Sydenham
London
SE26 4AB

Quotation No: Q14-00029

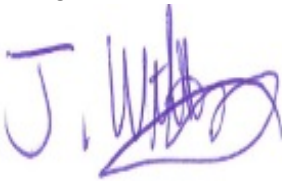
Order No: 1733

Customer Reference: 1733

Date Received: 18/09/2019

Date Approved: 20/09/2019

Details: Dagmar Road

Approved by: 

John Wilson, Quality Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

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Sample Summary

Report No.: 19-24908, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
184376	BH1 0.20 - 0.40	17/09/2019	18/09/2019	Sandy silty loam	
184377	BH2 0.30 - 0.50	17/09/2019	18/09/2019	Sandy silty loam	
184378	BH3A 0.15 - 0.30	17/09/2019	18/09/2019	Silty loam	

Results Summary

2683

Report No.: 19-24908, issue number 1

ELAB Reference	184376	184377	184378
Customer Reference			
Sample ID			
Sample Type	SOIL	SOIL	SOIL
Sample Location	BH1	BH2	BH3A
Sample Depth (m)	0.20 - 0.40	0.30 - 0.50	0.15 - 0.30
Sampling Date	17/09/2019	17/09/2019	17/09/2019

Determinand	Codes	Units	LOD			
Soil sample preparation parameters						
Moisture Content	N	%	0.1	24.6	14.7	15.6
Stones Content	N	%	0.1	44.9	41.7	14.7
Material removed	N	%	0.1	44.9	41.7	14.7
Description of Inert material removed	N		0	Stones,brick,clinker	Stones,brick,clinker	Stones,brick,clinker
Metals						
Arsenic	M	mg/kg	1	50.9	23.5	49.7
Cadmium	M	mg/kg	0.5	1.6	4.4	0.7
Chromium	M	mg/kg	5	51.4	55.4	60.4
Copper	M	mg/kg	5	326	379	214
Lead	M	mg/kg	5	982	797	571
Mercury	M	mg/kg	0.5	6.7	1.5	1.2
Nickel	M	mg/kg	5	49.7	40.8	40.8
Selenium	M	mg/kg	1	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	5	556	998	351
Inorganics						
Free Cyanide	N	mg/kg	1	< 1.0	< 1.0	< 1.0
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8
Miscellaneous						
pH	M	pH units	0.1	8.1	9.8	8.3
Soil Organic Matter	U	%	0.1	4.2	2.0	4.3
Phenols						
Total Monohydric Phenols	N	mg/kg	5	< 5	< 5	< 5
Polyaromatic hydrocarbons						
Naphthalene	M	mg/kg	0.1	0.3	0.2	0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Fluorene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	M	mg/kg	0.1	0.3	0.3	0.6
Anthracene	M	mg/kg	0.1	< 0.1	< 0.1	0.2
Fluoranthene	M	mg/kg	0.1	0.4	0.4	1.5
Pyrene	M	mg/kg	0.1	0.4	0.4	1.4
Benzo(a)anthracene	M	mg/kg	0.1	0.3	0.3	0.8
Chrysene	M	mg/kg	0.1	0.4	0.3	0.9
Benzo(b)fluoranthene	M	mg/kg	0.1	0.3	0.4	0.8
Benzo(k)fluoranthene	M	mg/kg	0.1	0.4	0.5	1.1
Benzo(a)pyrene	M	mg/kg	0.1	0.4	0.4	1.0
Indeno(1,2,3-cd)pyrene	M	mg/kg	0.1	0.3	0.4	0.7
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	0.2	0.2
Benzo[g,h,i]perylene	M	mg/kg	0.1	0.3	0.3	0.6
Total PAH(16)	M	mg/kg	0.4	4.1	4.3	10.1



Results Summary

2683

Report No.: 19-24908, issue number 1

ELAB Reference				184376	184377	184378
Customer Reference						
Sample ID						
Sample Type				SOIL	SOIL	SOIL
Sample Location				BH1	BH2	BH3A
Sample Depth (m)				0.20 - 0.40	0.30 - 0.50	0.15 - 0.30
Sampling Date				17/09/2019	17/09/2019	17/09/2019
Determinand	Codes	Units	LOD			
TPH CWG						
>C5-C6 Aliphatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01
>C6-C8 Aliphatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01
>C8-C10 Aliphatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0
>C10-C12 Aliphatic	N	mg/kg	1	< 1.0	1.5	< 1.0
>C12-C16 Aliphatic	N	mg/kg	1	< 1.0	2.5	< 1.0
>C16-C21 Aliphatic	N	mg/kg	1	< 1.0	4.3	< 1.0
>C21-C35 Aliphatic	N	mg/kg	1	11.8	89.1	6.7
>C35-C40 Aliphatic	N	mg/kg	1	1.8	32.7	1.8
>C5-C7 Aromatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01
>C7-C8 Aromatic	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01
>C8-C10 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0
>C10-C12 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0
>C12-C16 Aromatic	N	mg/kg	1	< 1.0	< 1.0	< 1.0
>C16-C21 Aromatic	N	mg/kg	1	< 1.0	1.2	< 1.0
>C21-C35 Aromatic	N	mg/kg	1	4.8	29.2	23.4
>C35-C40 Aromatic	N	mg/kg	1	2.1	9.1	20.6
Total (>C5-C40) Ali/Aro	N	mg/kg	1	20.5	170	52.6



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards on Sea, East Sussex, TN38 9BY
Tel: +44 (0)1424 718618, Email: info@elab-uk.co.uk, Web: www.elab-uk.co.uk

Results Summary

Report No.: 19-24908, issue number 1

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)
184376	0.20 - 0.40	BH1	Brown sandy soil, brick, clinker, stones	No asbestos detected	n/t	n/t	n/t	n/t
184377	0.30 - 0.50	BH2	Brown sandy soil, brick, clinker, mortar, stones, glass	No asbestos detected	n/t	n/t	n/t	n/t
184378	0.15 - 0.30	BH3A	Brown sandy soil, clinker, brick, stones	No asbestos detected	n/t	n/t	n/t	n/t

Method Summary

Report No.: 19-24908, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Free cyanide	N	As submitted sample	19/09/2019	107	Colorimetry
Hexavalent chromium	N	As submitted sample	19/09/2019	110	Colorimetry
pH	M	Air dried sample	20/09/2019	113	Electromeric
Aqua regia extractable metals	M	Air dried sample	19/09/2019	118	ICPMS
Phenols in solids	N	As submitted sample	19/09/2019	121	HPLC
PAH (GC-FID)	M	As submitted sample	20/09/2019	133	GC-FID
Low range Aliphatic hydrocarbons soil	N	As submitted sample	19/09/2019	181	GC-MS
Low range Aromatic hydrocarbons soil	N	As submitted sample	19/09/2019	181	GC-MS
Aliphatic hydrocarbons in soil	N	As submitted sample	19/09/2019	214	GC-FID
Aliphatic/Aromatic hydrocarbons in soil	N	As submitted sample	20/09/2019	214	GC-FID
Aromatic hydrocarbons in soil	N	As submitted sample	19/09/2019	214	GC-FID
Soil organic matter	U	Air dried sample	19/09/2019	BS1377:P3	Titrimetry
Asbestos identification	U	Air dried sample	19/09/2019	PMAN	Microscopy

Tests marked N are not UKAS accredited

Report Information

Report No.: 19-24908, issue number 1

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed.

ELAB are unable to provide an interpretation or opinion on the content of this report.

The results relate only to the sample received.

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Unless otherwise stated, sample information has been provided by the client

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



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Appendix D – Initial Ground Investigation Test Results

RESIDENTIAL WITH HOMEGROWN PRODUCE (R _{WH} HP) - SOM 1%											
Determinand	Unit	GAC	Source	Concentration						Number of Tests	Number of Exceedences
				BH1 (0.00-0.10)	BH1 (0.30-0.60)	BH2(0.05-0.20)	BH2(-0.30-0.60)	BH3 (0.10-0.30)	BH3 (0.70-0.90)		
Metals											
Arsenic	mg/kg	37.0	DEFRA C4SL	4.3	12.5	5.4	6.9	7.2	11.5	6	0
Cadmium	mg/kg	22.1	DEFRA C4SL	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	6	0
Chromium (III)	mg/kg	14300.0	ATRISK SSV	14.5	32.5	18.2	18.3	22.7	39.9	6	0
Copper	mg/kg	4730.0	ATRISK SSV	18	142	22.6	24.4	27.2	70.4	6	0
Lead	mg/kg	200.0	DEFRA C4SL	41.8	333	49.1	62.5	95.7	142	6	1
Mercury (Inorganic)	mg/kg	180.0	ATRISK SSV	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	6	0
Nickel	mg/kg	136.0	ATRISK SSV	7.1	19	9.1	9.4	11.3	18.9	6	0
Selenium	mg/kg	375.0	ATRISK SSV	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6	0
Zinc	mg/kg	20000.0	ATRISK SSV	58.8	456	74.1	92.7	97.6	142	6	0
Inorganics											
Free Cyanide	mg/kg	34.0	ATRISK SSV	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	6	0
Hexavalent Chromium	mg/kg	20.5	DEFRA C4SL	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	6	0
Miscellaneous											
Moisture Content	%	-	-	6	6.4	14.2	12	7.6	17.6	6	-
pH	pH units	-	-	8	7.7	8.1	8	8	7.9	6	-
Soil Organic Matter	%	-	-	4	4.4	4.6	3.3	5.6	3.7	6	-
Stones Content	%	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	6	-
Phenols											
Total Monohydric Phenols	mg/kg	280.0	LQWCIEH	<5	<5	<5	<5	<5	<5	6	0
Polyaromatic hydrocarbons											
Naphthalene	mg/kg	0.83	ATRISK SSV	< 0.02	0.05	< 0.02	< 0.02	< 0.02	< 0.02	6	0
Acenaphthylene	mg/kg	170.0	LQWCIEH	< 0.02	0.04	< 0.02	< 0.02	0.03	< 0.02	6	0
Acenaphthene	mg/kg	608.0	ATRISK SSV	< 0.02	0.12	< 0.02	0.03	< 0.02	< 0.02	6	0
Fluorene	mg/kg	735.0	ATRISK SSV	< 0.02	0.1	< 0.02	< 0.02	< 0.02	< 0.02	6	0
Phenanthrene	mg/kg	95.0	LQWCIEH	0.12	0.95	0.05	0.23	0.23	0.08	6	0
Anthracene	mg/kg	10200.0	ATRISK SSV	< 0.02	0.26	< 0.02	0.06	0.08	0.04	6	0
Fluoranthene	mg/kg	983.0	ATRISK SSV	0.4	2.45	0.18	0.64	0.73	0.36	6	0
Pyrene	mg/kg	668.0	ATRISK SSV	0.36	2.48	0.16	0.61	0.63	0.31	6	0
Benzo(a)anthracene	mg/kg	7.2	LQWCIEH	0.24	1.03	0.11	0.48	0.4	0.18	6	0
Chrysene	mg/kg	15	LQWCIEH	0.24	1.94	0.13	0.48	0.44	0.15	6	0
Benzo(b)fluoranthene	mg/kg	2.6	LQWCIEH	0.35	3.45	0.16	0.85	0.54	0.18	6	1
Benzo(k)fluoranthene	mg/kg	77	LQWCIEH	0.12	1.17	0.07	0.35	0.21	0.08	6	0
Benzo(a)pyrene	mg/kg	4.95	DEFRA C4SL	0.26	2.85	0.12	0.68	0.45	0.16	6	0
Indeno (1,2,3-cd) pyrene	mg/kg	27	LQWCIEH	0.23	2.92	0.12	0.61	0.38	0.13	6	0
Dibenzo(a,h)anthracene	mg/kg	0.24	LQWCIEH	0.05	0.68	0.03	0.14	0.08	0.03	6	1
Benzo(g,h,i)perylene	mg/kg	320	LQWCIEH	0.2	2.62	0.1	0.55	0.33	0.11	6	0
TPH CWG											
>C ₅ -C ₆ Aliphatic	mg/kg	42.7	ATRISK SSV	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	6	0
>C ₆ -C ₈ Aliphatic	mg/kg	99.3	ATRISK SSV	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6	0
>C ₈ -C ₁₀ Aliphatic	mg/kg	13.9	ATRISK SSV	4	<2	<2	<2	<2	<2	6	0
>C ₁₀ -C ₁₂ Aliphatic	mg/kg	81.7	ATRISK SSV	<2	<2	<2	<2	<2	<2	6	0
>C ₁₂ -C ₁₆ Aliphatic	mg/kg	385.0	ATRISK SSV	<3	<3	<3	<3	<3	<3	6	0
>C ₁₆ -C ₃₅ Aliphatic	mg/kg	210000.0	ATRISK SSV	<10	220	<10	<10	<10	<10	6	0
>C ₃₅ -C ₄₀ Aliphatic	mg/kg	65000.0	LQWCIEH	<10	<10	<10	<10	<10	<10	6	0
>C ₅ -C ₇ Aromatic (benzene)	mg/kg	0.14	ATRISK SSV	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	6	0
>C ₇ -C ₈ Aromatic (toluene)	mg/kg	113.0	ATRISK SSV	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	6	0
>C ₈ -C ₁₀ Aromatic	mg/kg	20.5	ATRISK SSV	<2	<2	<2	<2	<2	<2	6	0
>C ₁₀ -C ₁₂ Aromatic	mg/kg	70.0	ATRISK SSV	<2	<2	<2	<2	<2	<2	6	0
>C ₁₂ -C ₁₆ Aromatic	mg/kg	165.0	ATRISK SSV	<3	<3	<3	<3	<3	<3	6	0
>C ₁₆ -C ₂₁ Aromatic	mg/kg	319.0	ATRISK SSV	<3	4	<3	<3	<3	<3	6	0
>C ₂₁ -C ₃₅ Aromatic	mg/kg	1120.0	ATRISK SSV	<10	25	<10	<10	12	<10	6	0
>C ₃₅ -C ₄₄ Aromatic	mg/kg	1100.0	LQWCIEH	<10	<10	<10	<10	<10	<10	6	0



Elab Customer Services
The Environmental Laboratory Ltd
Unit 42, Windmill Road
Ponswood Industrial Estate
St Leonards-on-Sea
East Sussex
TN38 9BY

Normec DETS Limited
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 24-10377

Site Reference: 24-55513

Project / Job Ref: TPHCWG Analysis

Order No: None Supplied

Sample Receipt Date: 04/09/2024

Sample Scheduled Date: 04/09/2024

Report Issue Number: 1

Reporting Date: 10/09/2024

Authorised by:

Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



4480

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 24-10377	~Date Sampled	30/08/24	30/08/24	30/08/24	30/08/24	30/08/24
The Environmental Laboratory Ltd	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: 24-55513	~TP / BH No	370290	370291	370292	370293	370294
~Project / Job Ref: TPHCWG Analysis	~Additional Refs	BH1	BH1	BH2	BH2	BH3
~Order No: None Supplied	~Depth (m)	0.00 - 0.10	0.30 - 0.60	0.05 - 0.20	0.30 - 0.60	0.10 - 0.30
Reporting Date: 10/09/2024	DETS Sample No	736235	736236	736237	736238	736239

Determinand	Unit	RL	Accreditation	(n)				
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	4	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	14	< 3	< 3	< 3
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	206	< 10	< 10	< 10
Aliphatic >C34 - C44 : EH_CU_1D_AL	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	220	< 21	< 21	< 21
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	4	< 3	< 3	4
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	25	< 10	< 10	12
Aromatic >C35 - C44 : EH_CU_1D_AR	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	29	< 21	< 21	< 21
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	250	< 42	< 42	< 42

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Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 24-10377	~Date Sampled	30/08/24				
The Environmental Laboratory Ltd	~Time Sampled	None Supplied				
~Site Reference: 24-55513	~TP / BH No	370295				
~Project / Job Ref: TPHCWG Analysis	~Additional Refs	BH3				
~Order No: None Supplied	~Depth (m)	0.70 - 0.90				
Reporting Date: 10/09/2024	DETS Sample No	736240				

Determinand	Unit	RL	Accreditation				
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10			
Aliphatic >C34 - C44 : EH_CU_1D_AL	mg/kg	< 10	NONE	< 10			
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21			
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3			
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10			
Aromatic >C35 - C44 : EH_CU_1D_AR	mg/kg	< 10	NONE	< 10			
Aromatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21			
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42			

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Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 24-10377	~Date Sampled	30/08/24	30/08/24	30/08/24	30/08/24	30/08/24
The Environmental Laboratory Ltd	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: 24-55513	~TP / BH No	370290	370291	370292	370293	370294
~Project / Job Ref: TPHCWG Analysis	~Additional Refs	BH1	BH1	BH2	BH2	BH3
~Order No: None Supplied	~Depth (m)	0.00 - 0.10	0.30 - 0.60	0.05 - 0.20	0.30 - 0.60	0.10 - 0.30
Reporting Date: 10/09/2024	DETS Sample No	736235	736236	736237	736238	736239

Determinand	Unit	RL	Accreditation	(n)				
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

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Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 24-10377	~Date Sampled	30/08/24				
The Environmental Laboratory Ltd	~Time Sampled	None Supplied				
~Site Reference: 24-55513	~TP / BH No	370295				
~Project / Job Ref: TPHCWG Analysis	~Additional Refs	BH3				
~Order No: None Supplied	~Depth (m)	0.70 - 0.90				
Reporting Date: 10/09/2024	DETS Sample No	736240				

Determinand	Unit	RL	Accreditation				
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5			
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2			
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5			

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Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 24-10377	
The Environmental Laboratory Ltd	
~Site Reference: 24-55513	
~Project / Job Ref: TPHCWG Analysis	
~Order No: None Supplied	
Reporting Date: 10/09/2024	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
736235	370290	BH1	0.00 - 0.10	6.6	Brown sandy clay with stones and vegetation
736236	370291	BH1	0.30 - 0.60	8.6	Brown sandy gravel with stones and concrete
736237	370292	BH2	0.05 - 0.20	21.4	Brown loamy sand with stones and vegetation
736238	370293	BH2	0.30 - 0.60	17.4	Brown loamy sand with vegetation
736239	370294	BH3	0.10 - 0.30	8.8	Brown sandy clay with stones and concrete
736240	370295	BH3	0.70 - 0.90	24.4	Brown clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

Unsuitable Sample ^{u/s}

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Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 24-10377

The Environmental Laboratory Ltd

~Site Reference: 24-55513

~Project / Job Ref: TPHCWG Analysis

~Order No: None Supplied

Reporting Date: 10/09/2024

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

~Sample details provided by customer and can affect the validity of results



Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



List of HWOL Acronyms and Operators

DETS Report No: 24-10377

The Environmental Laboratory Ltd

~Site Reference: 24-55513

~Project / Job Ref: TPHCWG Analysis

~Order No: None Supplied

Reporting Date: 10/09/2024

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS_1D_MS
Ethylbenzene - HS_1D_MS
MTBE - HS_1D_MS
TPH - Aliphatic >C34 - C44 - raw data - EH_CU_1D_AL
TPH CWG - Aliphatic >C10 - C12 - EH_CU_1D_AL
TPH CWG - Aliphatic >C12 - C16 - EH_CU_1D_AL
TPH CWG - Aliphatic >C16 - C21 - EH_CU_1D_AL
TPH CWG - Aliphatic >C21 - C34 - EH_CU_1D_AL
TPH CWG - Aliphatic >C34 - C44 - EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C6 - HS_1D_MS_AL
TPH CWG - Aliphatic >C6 - C8 - HS_1D_MS_AL
TPH CWG - Aliphatic >C8 - C10 - EH_CU_1D_AL
TPH CWG - Aromatic >C10 - C12 - EH_CU_1D_AR
TPH CWG - Aromatic >C12 - C16 - EH_CU_1D_AR
TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
TPH CWG - Aromatic >C21 - C35 - EH_CU_1D_AR
TPH CWG - Aromatic >C35 - C44 - EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C7 - HS_1D_MS_AR
TPH CWG - Aromatic >C7 - C8 - HS_1D_MS_AR
TPH CWG - Aromatic >C8 - C10 - EH_CU_1D_AR
TPH CWG - Total >C5 - C44 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone: (01424) 718618

cs@elab-uk.co.uk
info@elab-uk.co.uk

Certificate of Analysis

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 24-55513

Issue: 1

Date of Issue: 13/09/2024

Contact: Peter George

Customer Details: GO Contaminated Land Solutions Ltd
4 De Frene Road
Sydenham
London
SE26 4AB

Quotation No: Q24-04324

Order No: Not Supplied

Customer Reference: 2831

Date Received: 02/09/2024

Date Approved: 13/09/2024

Details: 33 Dagmar Rd, Finsbury Park

Approved by:

Ben Rees, Customer Services Assistant



Sample Summary

Report No.: 24-55513, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
370290	BH1 0.00 - 0.10	30/08/2024	02/09/2024	Sandy silty loam	
370291	BH1 0.30 - 0.60	30/08/2024	02/09/2024	Sandy silty loam	
370292	BH2 0.05 - 0.20	30/08/2024	02/09/2024	Sandy silty loam	
370293	BH2 0.30 - 0.60	30/08/2024	02/09/2024	Sandy loam	
370294	BH3 0.10 - 0.30	30/08/2024	02/09/2024	Sandy silty loam	
370295	BH3 0.70 - 0.90	30/08/2024	02/09/2024	Silty clayey loam	



Results Summary

Report No.: 24-55513, issue number 1

ELAB Reference	370290	370291	370292	370293	370294	370295
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	BH1	BH1	BH2	BH2	BH3	BH3
Sample Depth (m)	0.00 - 0.10	0.30 - 0.60	0.05 - 0.20	0.30 - 0.60	0.10 - 0.30	0.70 - 0.90
Sampling Date	30/08/2024	30/08/2024	30/08/2024	30/08/2024	30/08/2024	30/08/2024

Determinand	Codes	Units	LOD						
Soil sample preparation parameters									
Moisture Content	N	%	0.1	6.0	6.4	14.2	12.0	7.6	17.6
Stones Content	N	%	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Material removed	N	%	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Description of Inert material removed	N		0	None	None	None	None	None	None
Metals									
Arsenic	M	mg/kg	1	4.3	12.5	5.4	6.9	7.2	11.5
Cadmium	M	mg/kg	0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	14.5	32.5	18.2	18.3	22.7	39.9
Copper	M	mg/kg	5	18.0	142	22.6	24.4	27.2	70.4
Lead	M	mg/kg	5	41.8	333	49.1	62.5	95.7	142
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8
Nickel	M	mg/kg	5	7.1	19.0	9.1	9.4	11.3	18.9
Selenium	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	5	58.8	456	74.1	92.7	97.6	142
Inorganics									
Free Cyanide	N	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Miscellaneous									
pH	M	pH units	0.1	8.0	7.7	8.1	8.0	8.0	7.9
Soil Organic Matter	U	%	0.1	4.0	4.4	4.6	3.3	5.6	3.7



Results Summary

Report No.: 24-55513, issue number 1

ELAB Reference	370290	370291	370292	370293	370294	370295
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	BH1	BH1	BH2	BH2	BH3	BH3
Sample Depth (m)	0.00 - 0.10	0.30 - 0.60	0.05 - 0.20	0.30 - 0.60	0.10 - 0.30	0.70 - 0.90
Sampling Date	30/08/2024	30/08/2024	30/08/2024	30/08/2024	30/08/2024	30/08/2024

Determinand	Codes	Units	LOD						
Phenols									
Total Monohydric Phenols	N	mg/kg	5	< 5	< 5	< 5	< 5	< 5	< 5
Polyaromatic hydrocarbons									
Naphthalene	SM	mg/kg	0.02	< 0.02	0.05	< 0.02	< 0.02	< 0.02	< 0.02
Acenaphthylene	SM	mg/kg	0.02	< 0.02	0.04	< 0.02	< 0.02	0.03	< 0.02
Acenaphthene	SM	mg/kg	0.02	< 0.02	0.12	< 0.02	0.03	< 0.02	< 0.02
Fluorene	S	mg/kg	0.02	< 0.02	0.10	< 0.02	< 0.02	< 0.02	< 0.02
Phenanthrene	SM	mg/kg	0.02	0.12	0.95	0.05	0.23	0.23	0.08
Anthracene	S	mg/kg	0.02	< 0.02	0.26	< 0.02	0.06	0.08	0.04
Fluoranthene	SM	mg/kg	0.02	0.40	2.45	0.18	0.64	0.73	0.36
Pyrene	SM	mg/kg	0.02	0.36	2.48	0.16	0.61	0.63	0.31
Benzo(a)anthracene	S	mg/kg	0.02	0.24	1.03	0.11	0.48	0.40	0.18
Chrysene	SM	mg/kg	0.02	0.24	1.94	0.13	0.48	0.44	0.15
Benzo(b)fluoranthene	SM	mg/kg	0.02	0.35	3.45	0.16	0.85	0.54	0.18
Benzo(k)fluoranthene	SM	mg/kg	0.03	0.12	1.17	0.07	0.35	0.21	0.08
Benzo(a)pyrene	S	mg/kg	0.02	0.26	2.85	0.12	0.68	0.45	0.16
Indeno(1,2,3-cd)pyrene	SM	mg/kg	0.02	0.23	2.92	0.12	0.61	0.38	0.13
Dibenzo(a,h)anthracene	SM	mg/kg	0.02	0.05	0.68	0.03	0.14	0.08	0.03
Benzo[g,h,i]perylene	SM	mg/kg	0.02	0.20	2.62	0.10	0.55	0.33	0.11
Total PAH(16)	NS	mg/kg	0.34	2.63	24.1	1.23	5.72	4.55	1.82



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards on Sea, East Sussex, TN38 9BY

Tel: +44 (0)1424 718618, Email: info@elab-uk.co.uk, Web: www.elab-uk.co.uk

Results Summary

Report No.: 24-55513, issue number 1

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

In accordance with procedures, a 1kg soil sample should be analysed. For amounts less than this caution should be used when analysing the data as sample size is smaller than the recommended amount, therefore samples could be deemed as not being representative of the materials present on site.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)	F/mm2 (l)
370290	0.00 - 0.10	BH1	Brown Soil, Stones, Clinker, Organics	No asbestos detected	n/t	n/t	n/t	n/t	n/t
370291	0.30 - 0.60	BH1	Brown Soil, Stones, Clinker, Brick, Organics	Chrysotile (Asbestos Cement)	n/t	n/t	n/t	n/t	n/t
370292	0.05 - 0.20	BH2	Brown Soil, Stones, Clinker, Organics	No asbestos detected	n/t	n/t	n/t	n/t	n/t
370293	0.30 - 0.60	BH2	Brown Soil, Stones, Clinker, Glass, Brick, Organics	No asbestos detected	n/t	n/t	n/t	n/t	n/t
370294	0.10 - 0.30	BH3	Brown Soil, Stones, Clinker, Plastic, Organics	No asbestos detected	n/t	n/t	n/t	n/t	n/t
370295	0.70 - 0.90	BH3	Brown Soil, Stones, Clinker, Brick, Organics	No asbestos detected	n/t	n/t	n/t	n/t	n/t



Method Summary

Report No.: 24-55513, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Free cyanide	N	As submitted sample	04/09/2024	107	Colorimetry
Hexavalent chromium	N	As submitted sample	03/09/2024	110	Colorimetry
pH	M	Air dried sample	03/09/2024	113	Electromeric
Aqua regia extractable metals	M	Air dried sample	03/09/2024	300	ICPMS
Phenols in solids	N	As submitted sample	03/09/2024	121	HPLC
Asbestos identification	U	Air dried sample	03/09/2024	281	Microscopy
Soil organic matter	U	Air dried sample	03/09/2024	BS1377:P3	Titrimetry

Tests marked N are not UKAS accredited

Report Information

Report No.: 24-55513, issue number 1

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"
LOD	LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination. Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed. ELAB are unable to provide an interpretation or opinion on the content of this report. The results relate only to the sample received. PCB congener results may include any coeluting PCBs Uncertainty of measurement for the determinands tested are available upon request Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

- | | |
|---|--|
| a | No date of sampling supplied |
| b | No time of sampling supplied (Waters Only) |
| c | Sample not received in appropriate containers |
| d | Sample not received in cooled condition |
| e | The container has been incorrectly filled |
| f | Sample age exceeds stability time (sampling to receipt) |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

End of Report



**Contaminated
Land
Solutions**

Appendix E – Verification Test Results

RESIDENTIAL WITH HOMEGROWN PRODUCE (R _{WH} HP) - SOM 6%											
Determinand	Unit	GAC	Source	Concentration						Number of Tests	Number of Exceedences
				VP1 (0.05-0.30)	VP1 (0.30 - 0.60)	VP2 (0.05-0.30)	VP2 (0.30 - 0.60)	VP3 (0.05-0.30)	VP3 (0.30 - 0.60)		
Metals											
Arsenic	mg/kg	37.0	DEFRA C4SL	17	23	8.8	8.7	8.2	11	6	0
Cadmium	mg/kg	22.1	DEFRA C4SL	0.5	0.99	0.2	0.4	0.3	0.5	6	0
Chromium (III)	mg/kg	14300.0	ATRISK SSV	36	75	19	17	22	24	6	0
Copper	mg/kg	4790.0	ATRISK SSV	31	56	21	31	24	36	6	0
Lead	mg/kg	200.0	DEFRA C4SL	0.16	0.56	0.09	0.24	0.07	0.23	6	0
Mercury (Inorganic)	mg/kg	180.0	ATRISK SSV	23.0	19.0	12.0	13.0	14.0	18	6	0
Nickel	mg/kg	136.0	ATRISK SSV	70	200	39	86	41	120	6	0
Selenium	mg/kg	375.0	ATRISK SSV	0.8	0.8	0.4	0.3	0.5	1.0	6	0
Zinc	mg/kg	20300.0	ATRISK SSV	140	150	76	120	99	170	6	0
Inorganics											
Free Cyanide	mg/kg	34.0	ATRISK SSV	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6	0
Hexavalent Chromium	mg/kg	20.5	DEFRA C4SL	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6	0
Miscellaneous											
Moisture Content	%	-	-	21	18	18	15	20.0	19.0	6	-
pH	pH units	-	-	7.6	7.7	7.8	7.7	7.8	7.4	6	-
Soil Organic Matter	%	-	-	4.3	5.7	19	12	7.6	6.0	6	-
Other material	-	-	-	Stones	Stones	Stones	Stones	Stones	Stones	6	-
Phenols											
Total Monohydric Phenols	mg/kg	1100.0	LQMCIEH	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	6	0
Polyaromatic hydrocarbons											
Naphthalene	mg/kg	12.2	ATRISK SSV	< 0.10	0.5	< 0.10	< 0.10	< 0.10	< 0.10	6	0
Acenaphthylene	mg/kg	920.0	LQMCIEH	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	6	0
Acenaphthene	mg/kg	2760.0	ATRISK SSV	< 0.10	1.1	< 0.10	< 0.10	< 0.10	< 0.10	6	0
Fluorene	mg/kg	2610.0	ATRISK SSV	< 0.10	1.1	< 0.10	< 0.10	< 0.10	< 0.10	6	0
Phenanthrene	mg/kg	440.0	LQMCIEH	0	6	0	1	<0.1	0.4	6	0
Anthracene	mg/kg	26200.0	ATRISK SSV	0.1	1.3	< 0.10	0.2	< 0.10	0.1	6	0
Fluoranthene	mg/kg	2980.0	ATRISK SSV	0.7	5.6	0.4	1.2	<0.3	0.6	6	0
Pyrene	mg/kg	2120.0	ATRISK SSV	0.6	4.7	0.4	1.1	<0.2	0.5	6	0
Benzo(a)anthracene	mg/kg	13	LQMCIEH	0.29	2.1	< 0.10	0.63	< 0.10	0.3	6	0
Chrysene	mg/kg	27	LQMCIEH	0.23	2.3	< 0.10	0.64	< 0.10	0.2	6	0
Benzo(b)fluoranthene	mg/kg	3.7	LQMCIEH	0.33	2.5	< 0.10	0.9	< 0.10	0.5	6	0
Benzo(k)fluoranthene	mg/kg	100	LQMCIEH	0.14	0.82	< 0.10	0.35	< 0.10	0.1	6	0
Benzo(a)pyrene	mg/kg	4.95	DEFRA C4SL	0.24	2	< 0.10	0.66	< 0.10	0.3	6	0
Indeno (1,2,3-cd) pyrene	mg/kg	41	LQMCIEH	0.17	1.3	< 0.10	0.57	< 0.10	0.3	6	0
Dibenzo(a,h)anthracene	mg/kg	0.3	LQMCIEH	< 0.10	0.31	< 0.10	0.19	< 0.10	< 0.10	6	1
Benzo(g,h,i)perylene	mg/kg	350	LQMCIEH	0.21	1.3	< 0.10	0.55	< 0.10	0.3	6	0
TPH CWG											
>C ₅ -C ₆ Aliphatic	mg/kg	369.0	ATRISK SSV	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	6	0
>C ₆ -C ₈ Aliphatic	mg/kg	1240.0	ATRISK SSV	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	6	0
>C ₈ -C ₁₀ Aliphatic	mg/kg	204.0	ATRISK SSV	< 0.05	< 0.05	0.1	< 0.05	< 0.05	< 0.05	6	0
>C ₁₀ -C ₁₂ Aliphatic	mg/kg	1180.0	ATRISK SSV	< 2.0	17.0	13.0	10.0	5.8	6.3	6	0
>C ₁₂ -C ₁₆ Aliphatic	mg/kg	4130.0	ATRISK SSV	< 1.0	500.0	39.0	15.0	6.1	5.0	6	0
>C ₁₆ -C ₃₅ Aliphatic	mg/kg	210100.0	ATRISK SSV	49.0	1130.0	1181.0	209.0	69.0	33.1	6	0
>C ₃₅ -C ₄₀ Aliphatic	mg/kg	110000.0	LQMCIEH	< 10	220.0	300.0	120.0	< 10	< 10	6	0
>C ₅ -C ₇ Aromatic (benzene)	mg/kg	0.87	ATRISK SSV	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	6	0
>C ₇ -C ₈ Aromatic (toluene)	mg/kg	780.0	ATRISK SSV	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	6	0
>C ₈ -C ₁₀ Aromatic	mg/kg	232.0	ATRISK SSV	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	6	0
>C ₁₀ -C ₁₂ Aromatic	mg/kg	468.0	ATRISK SSV	3.5	36.0	34.0	18.0	16.0	9.4	6	0
>C ₁₂ -C ₁₆ Aromatic	mg/kg	830.0	ATRISK SSV	4.0	77.0	46.0	13.0	14.0	4.7	6	0
>C ₁₆ -C ₂₁ Aromatic	mg/kg	1040.0	ATRISK SSV	30.0	660.0	530.0	120.0	90.0	38.0	6	0
>C ₂₁ -C ₃₅ Aromatic	mg/kg	1710.0	ATRISK SSV	33.0	290.0	870.0	170.0	92.0	66.0	6	0
>C ₃₅ -C ₄₄ Aromatic	mg/kg	1700.0	LQMCIEH	37.0	1000.0	450.0	110.0	50.0	20.0	6	0



Final Report

Report No.: 25-01925-1

Initial Date of Issue: 10-Feb-2025

Re-Issue Details:

Client GO Contaminated Land Solution

Client Address: 4 De Frere Road
Sydenham
London
SE26 4AB

Contact(s): Matthew Mayes
PDG

Project 2831 33 Dagmar Road, Finsbury Park

Quotation No.: Q24-36127 **Date Received:** 22-Jan-2025

Order No.: **Date Instructed:** 22-Jan-2025

No. of Samples: 6

Turnaround (Wkdays): 5 **Results Due:** 28-Jan-2025

Date Approved: 10-Feb-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 2831 33 Dagmar Road, Finsbury Park

Client: GO Contaminated Land Solution		Chemtest Job No.:				25-01925	25-01925	25-01925	25-01925	25-01925	25-01925
Quotation No.: Q24-36127		Chemtest Sample ID.:				1920526	1920527	1920528	1920529	1920530	1920531
		Sample Location:				VP1	VP1	VP2	VP2	VP3	VP3
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.05	0.3	0.05	0.3	0.05	0.3
		Bottom Depth (m):				0.3	0.6	0.3	0.6	0.3	0.6
		Date Sampled:				20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
ACM Type		U	2192		N/A	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	21	18	18	15	20	19
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand
pH at 20C		M	2010		4.0	7.6	7.7	7.8	7.7	7.8	7.4
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Arsenic		M	2455	mg/kg	0.5	17	23	8.8	8.7	8.2	11
Cadmium		M	2455	mg/kg	0.10	0.46	0.99	0.22	0.39	0.25	0.45
Chromium		M	2455	mg/kg	0.5	36	75	19	17	22	24
Copper		M	2455	mg/kg	0.50	31	56	21	31	24	36
Mercury		M	2455	mg/kg	0.05	0.16	0.56	0.09	0.24	0.07	0.23
Nickel		M	2455	mg/kg	0.50	23	19	12	13	14	18
Lead		M	2455	mg/kg	0.50	70	200	39	86	41	120
Selenium		M	2455	mg/kg	0.25	0.76	0.77	0.36	0.33	0.53	0.95
Zinc		M	2455	mg/kg	0.50	140	150	76	120	99	170
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	0.12	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	17	13	10	5.8	6.3
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	< 1.0	500	39	15	6.1	5.0
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	11	160	81	19	15	8.1
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	38	970	1100	190	54	25
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	220	300	120	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	49	1600	1300	230	81	45
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	49	1900	1600	350	81	45
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	3.5	36	34	18	16	9.4

Results - Soil

Project: 2831 33 Dagmar Road, Finsbury Park

Client: GO Contaminated Land Solution		Chemtest Job No.:	25-01925	25-01925	25-01925	25-01925	25-01925	25-01925
Quotation No.: Q24-36127		Chemtest Sample ID.:	1920526	1920527	1920528	1920529	1920530	1920531
		Sample Location:	VP1	VP1	VP2	VP2	VP3	VP3
		Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):	0.05	0.3	0.05	0.3	0.05	0.3
		Bottom Depth (m):	0.3	0.6	0.3	0.6	0.3	0.6
		Date Sampled:	20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025	20-Jan-2025
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD			
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	4.0	77	46
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	30	660	530
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	33	290	870
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	37	1000	450
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	70	1100	1500
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	110	2100	1900
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	120	2700	2700
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	160	4000	3500
Organic Matter		M	2625	%	0.40	4.3	5.7	19
Naphthalene		M	2800	mg/kg	0.10	< 0.10	0.48	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	1.1	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	1.1	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	0.47	5.8	0.23
Anthracene		M	2800	mg/kg	0.10	0.13	1.3	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	0.66	5.6	0.43
Pyrene		M	2800	mg/kg	0.10	0.58	4.7	0.39
Benzo[a]anthracene		M	2800	mg/kg	0.10	0.29	2.1	< 0.10
Chrysene		M	2800	mg/kg	0.10	0.23	2.3	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	0.33	2.5	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.14	0.82	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	0.24	2.0	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	0.17	1.3	< 0.10
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	0.31	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	0.21	1.3	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	3.5	33	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

Report Information

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com



Appendix F – Borehole and Verification Pit Logs

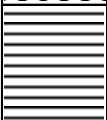


Contaminated
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Solutions

GO Contaminated Land Solutions
4 De Frene Rd
London, SE26 4AB

Tel.: 020 8291 1354
Email: askgo@gosolve.co.uk
Web: www.gosolve.co.uk

BOREHOLE LOG

Project		33 Dagmar Road, Finsbury Park				Project No.		2831	
Client		SPF Group				Survey date:		30 August 2024	
Log ID		BH1		Hole type: BH					
Water Strikes	Samples		Level (m OD)	Depth (m)	Legend	Stratum Description and Observations	Depth (m)		
	Type	depth (m)							
	C	0.00-0.10		0.10		MADE GROUND - SILT	-0.10		
							-0.20		
						-0.30			
						-0.40			
	C	0.30-0.60			MADE GROUND - SILT with white powder potentially gypsum, with brick fragments and a piece of glass	-0.50			
						-0.60			
						-0.70			
				0.80		-0.80			
						Mid brown CLAY with orange streaks	-0.90		
				0.95					
						Borehole Terminated	-1.00		
							-1.10		
							-1.20		
							-1.30		
							-1.40		
					-1.50				
					-1.60				
					-1.70				
☒ Water strike									
Remarks: Groundwater not noted during excavations. No visual or olfactory evidence of contamination noted.									
Key: C - Contamination sample W - Water sample P - PID test									

2831-P4E-1-Draft: 33 Dagmar Road, Finsbury Park
SFP Group



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London, SE26 4AB

Tel.: 020 8291 1354
Email: askgo@gosolve.co.uk
Web: www.gosolve.co.uk

BOREHOLE LOG

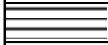
Project		33 Dagmar Road, Finsbury Park				Project No.		2831	
Client		SPF Group				Survey date:		30 August 2024	
Log ID		BH2		Hole type: BH					
Water Strikes	Samples		Level (m OD)	Depth (m)	Legend	Stratum Description and Observations	Depth (m)		
	Type	depth (m)							
	C	0.05-0.20		0.20		MADE GROUND - SILT with flecks of ash	-0.10		
							-0.20		
							-0.30		
							-0.40		
	C	0.30-0.60		0.75		MADE GROUND - SILT w ith sand and brick fragment, becoming clayey from 0.60m	-0.50		
								-0.60	
							-0.70		
						Halted on solid obstruction	-0.80		
							-0.90		
							-1.00		
							-1.10		
							-1.20		
							-1.30		
							-1.40		
							-1.50		
							-1.60		
							-1.70		
 Water strike									
Remarks: Groundwater not noted during excavations. No visual or olfactory evidence of contamination noted.									
Key: C - Contamination sample W - Water sample P - PID test									



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BOREHOLE LOG

Project		33 Dagmar Road, Finsbury Park				Project No.		2831	
Client		SPF Group				Survey date:		30 August 2024	
Log ID		BH3		Hole type: BH					
Water Strikes	Samples		Level (m OD)	Depth (m)	Legend	Stratum Description and Observations	Depth (m)		
	Type	depth (m)							
	C	0.10-0.30		0.70		MADE GROUND - SILT with flecks of ash	-0.10		
							-0.20		
							-0.30		
							-0.40		
							-0.50		
	C	0.70-0.90		0.90		MADE GROUND - grey CLAY with brick fragments	-0.60		
							-0.70		
							-0.80		
							-0.90		
							-1.00		
				0.95		Mid brown CLAY with orange and grey streaks	-1.10		
							-1.20		
							-1.30		
							-1.40		
							-1.50		
				Borehole Terminated	-1.60				
					-1.70				

Water strike

Remarks: Groundwater not noted during excavations. No visual or olfactory evidence of contamination noted.

Key: C - Contamination sampleW - Water sampleP - PID test

2831-P4E-1-Draft: 33 Dagmar Road, Finsbury Park
SPF Group



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BOREHOLE/PIT LOG

Project	33 Dagmar Road, Finsbury Park				Project No.	2831
Client	SPF Group				Survey date:	20 January 2025
Log ID		VP1		Hole type: Verification Pit		
Water Strikes	Samples	Level	Depth	Legend	Stratum Description and Observations	Depth
	Type	depth (m)	(m OD)	(m)		(m)
	C	0.05 - 0.30			TOPSOIL - Clayey SILT with organic material and occasional gravel	-0.10
						-0.20
						-0.30
	C	0.30-0.60			SUBSOIL - Clayey SILT with occasional gravel	-0.40
						-0.50
						-0.60
					Pit Terminated	-0.70
						-0.80
						-0.90
						-1.00
						-1.10
						-1.20
						-1.30
						-1.40
						-1.50
						-1.60
						-1.70
▽ Water strike						
Remarks: Groundwater not noted during excavations. No visual or olfactory evidence of contamination noted.						
Key: C - Contamination sample W - Water sample P - PID test						



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BOREHOLE/PIT LOG

Project	33 Dagmar Road, Finsbury Park				Project No.	2831	
Client	SPF Group				Survey date:	20 January 2025	
Log ID		VP2		Hole type: Verification Pit			
Water Strikes	Samples		Level (m OD)	Depth (m)	Legend	Stratum Description and Observations	Depth (m)
	Type	depth (m)					
	C	0.05 - 0.30			[Patterned Box]	TOPSOIL - Clayey SILT with organic material and occasional gravel	-0.10
	C	0.30-0.60				SUBSOIL - Clayey SILT with occasional gravel	-0.30
							-0.40
							-0.50
						Pit Terminated	-0.60
							-0.70
							-0.80
							-0.90
							-1.00
							-1.10
							-1.20
							-1.30
							-1.40
							-1.50
							-1.60
							-1.70

☒ Water strike

Remarks: Groundwater not noted during excavations. No visual or olfactory evidence of contamination noted.

Key: C - Contamination sample W - Water sample P - PID test



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BOREHOLE/PIT LOG

Project	33 Dagmar Road, Finsbury Park				Project No.	2831
Client	SPF Group				Survey date:	20 January 2025
Log ID		VP3		Hole type: Verification Pit		
Water Strikes	Samples	Level	Depth	Legend	Stratum Description and Observations	Depth
	Type	depth (m)	(m OD)	(m)		(m)
	C	0.05 - 0.30			TOPSOIL - Clayey SILT with organic material and occasional gravel	-0.10
						-0.20
						-0.30
	C	0.30-0.60			SUBSOIL - Clayey SILT with occasional gravel	-0.40
						-0.50
						-0.60
					Pit Terminated	-0.70
						-0.80
						-0.90
						-1.00
						-1.10
						-1.20
						-1.30
						-1.40
						-1.50
						-1.60
						-1.70
▽ Water strike						
Remarks: Groundwater not noted during excavations. No visual or olfactory evidence of contamination noted.						
Key: C - Contamination sample W - Water sample P - PID test						



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Appendix G – Photographs of Remediation





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Appendix H – Photographs of Boreholes, Verification Pits and Capping

Initial Ground Investigation Visit 30-/08/2024

BH1



BH2



BH3

DATE	30.8.24	
JOB No.	2831	
JOB NAME	33 Dagmar Rd	
TRIAL PIT/ BOREHOLE No.	BH3	



Verification Visit 20/01/2025

VP1



VP2





VP3



Typical Views of Capping Layer





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Appendix I – Duty of Care Documentation



MARK LUCK LIMITED

Mark Luck Haulage Yard

Railway Sidings Wested Lane Swanley Kent BR8 8EE

Telephone: (01322) 613355 Fax: (01322) 613265

Website: www.markluckltd.co.uk

E-mail: info@markluckltd.co.uk

All Aggregates - Recycled Materials - Site Clearance - T/Soils

CONVEYANCE/CONTROLLED WASTE TRANSFER NOTE

Nº 972201



Section A.

Description of Waste/Material

15 Bulk Bags
Soil

CLIENT
SIC

EWC

Vehicle Reg. No.

GJ18 HXU

Cubic Metres

In Words

15 Bulk
Bag Screened
Soil

GROSS

TARE

NETT

Driver's Name

Paul T

Section B. Current Holder of Waste/Material/Collection Point

Name

Address

Waste Reg. No (if applicable)

Section C. Person Collecting Waste

MARK LUCK LIMITED

SIC Code 49.41

Registered Waste Carrier No. CBDU90780

Issued by KENT COUNTY COUNCIL

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011

Section D. Authorised Tip / Delivery Point / Daywork

Name

Stuart garden Centre

Address

35 Dagmer road

Authorised Tip No. (if applicable)

Finbury park
N4 J

Waiting time on Site/Daywork

Arrival Time

Departure Time

Allowance/TT

Hours Chargeable

Signed on behalf of Customer

PRINT NAME

N.B. To Customers, Authorised Agents, Representatives, or Responsible Persons signing this Delivery Ticket. This is in your interest - Please read this ticket fully and inspect material, agreeing quantity, quality and that everything is to your satisfaction, before finally signing this receipt note. We regret we cannot under any circumstances entertain any claims concerning quantity or quality, once the vehicle has left the site and a clear signature has been given. We Cannot accept responsibility for damage caused by our vehicles while delivering material to your site.

Signed by Driver

Signed on behalf of Customer

Date

12.12.24

PLEASE PRINT

BOON.H

Customers ordering vehicles off the public roads do so entirely at their own risk

Consignment Details:

Consignment Number:	D4021	Collection Date:	09/12/2024
Customer Ref:		Due Del Date:	10/12/2024
Tracking No:	0590238252563		
Service:	A		
Surcharges:	AM TL	Delivered Pallets:	8
Total Pallets:	10	Total Weight:	10,000

Consignment Notes:

Notes Line 1	DELIVER WITH T/LIFT - TUE 10 DEC	Notes Line 3	DELIVER COMPLETE ORDERS ONLY -
Notes Line 2	10 X Sub soil tonne bag	Notes Line 4	NO SPLIT DELIVERIES - ANY ISSUES CONTACT D59

Printed Name:

sorin

Date of Delivery:

10/12/2024

Time of Delivery:

08:26

POD Notes:

Signature



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Josh McEwan
MCM (SE) Ltd
7 Coppergate Mews
103-107 Brighton Road
Surbiton, Surrey
KT6 5NE

9th February 2024
Our Ref: TOHA/24/1227/5/SS
Your Ref: PO 380 296

Dear Sirs

Subsoil Analysis Report: MSBS1 – London & Essex

We have completed the analysis of the soil sample recently submitted, referenced *MSBS1 – London & Essex*, and have pleasure reporting our findings.

The purpose of the analysis was to determine the suitability of the subsoil sample for use in general landscape applications (trees, shrubs, amenity grass). In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Subsoil (*BS8601:2013 – Specification for subsoil and requirements for use – Table 1, Multipurpose Subsoil*), including analysis of potential contaminants.

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the subsoil source. The report and results should therefore not be used by third parties as a means of verification or validation testing, especially after the subsoil has left the MCM (SE) Ltd site.

SAMPLE EXAMINATION

The sample was described as a light yellowish brown (Munsell Colour 10YR 6/4), moist, friable, non-calcareous LOAMY SAND with a weakly developed, fine to medium granular structure*. The sample was slightly stony, comprising stones up to 50mm in size. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

*This appraisal of soil structure was made from examination of a disturbed sample. Structure is a key soil characteristic that may only be accurately assessed by examination in an in-situ state.

Tim O'Hare Associates LLP
Howbery Park Wallingford Oxfordshire OX10 8BA
T:01491 822653 E:info@toha.co.uk
www.toha.co.uk



Plate 1: Sample MSBS1 – London & Essex

ANALYTICAL SCHEDULE

The sample was submitted to a UKAS and MCERTS accredited laboratory for a range of physical and chemical tests to confirm the composition of the soil, and the concentration of selected potential contaminants. The following parameters were determined:

- detailed particle size analysis (5 sands, silt, clay);
- stone content (2-20mm, 20-75mm, >75mm);
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- organic matter content;
- heavy metals (As, B, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
- soluble sulphate, elemental sulphur, acid volatile sulphide;
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16 suite);
- aromatic and aliphatic TPH (C5-C35 banding);
- benzene, toluene, ethylbenzene, xylene (BTEX).

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below.

RESULTS OF ANALYSIS

Particle Size Analysis and Stone Content

The sample fell into the *loamy sand* texture class, which is usually considered suitable for subsoil materials in general landscape applications provided the soil's physical condition is satisfactory and compaction avoided.

Further detailed particle size analysis revealed the sample to have a relatively narrow particle size distribution, with a higher proportion of sand falling into the *medium sand* (0.25-0.50mm), and a lower proportion of *very fine sand* (0.05-0.15mm) and *fine sand* (0.15-0.25mm) classes. This would be considered suitable for subsoil in general landscape applications.

The stone content of the sample was low and, as such, stones should not restrict the use of the soil for use as subsoil in general landscape purposes.

pH and Electrical Conductivity Values

The sample was slightly acid in reaction (pH 6.6), with a pH value that would be considered ideal for subsoil in general landscape purposes.

The electrical conductivity (salinity) value (water extract) was very low, which indicates that soluble salts were not present at levels that would be harmful to plants.

The electrical conductivity value by CaSO₄ extract (*BS8601* requirement) fell below the maximum specified value (2800 µS/cm) given in *BS8601:2013 – Table 1*.

Organic Matter Content

The organic matter content was low (<2%) and compliant with *BS8601:2013 – Table 1*.

Potential Contaminants

With reference to *BS8601:2013 – Section 4.2: Note 2*, there is a requirement to confirm levels of potential contaminants in relation to the subsoil's proposed end use. This includes human health, environmental protection and metals considered toxic to plants. In the absence of site-specific assessment criteria, the concentrations of selected potential contaminants that affect human health have been assessed for the concentrations that affect human health have been assessed for *residential* end-use against the Suitable For Use Levels (S4ULs) presented in the LQM/CIEH S4ULs for Human Health Risk Assessment (2015) and the DEFRA SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document (2014).

Of the potential contaminants determined, none exceeded their respective guideline values.

Phytotoxic Contaminants

Of the phytotoxic (toxic to plants) contaminants determined (copper, nickel, zinc), none was found at levels that exceeded the maximum permissible levels specified in *BS8601:2013 – Table 1*.

CONCLUSION

The purpose of the analysis was to determine the suitability of the sample for use as subsoil in general landscape purposes (trees, shrubs, amenity grass). In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Subsoil (*BS8601:2013 – Specification for subsoil and requirements for use – Table 1, Multipurpose Subsoil*), including analysis of potential contaminants.

From the soil examination and subsequent laboratory analysis, the sample was described as a slightly acid, non-saline, non-calcareous loamy sand with a weakly developed structure and a low stone content. The organic matter content was low and consistent with subsoil. Of the potential contaminants determined, none exceeded their respective guideline values.

To conclude, based on our findings, the soil represented by this sample would be considered suitable as subsoil for general landscape purposes (trees, shrubs and amenity grass), provided the physical condition of the soil is satisfactory.

The sample was also fully compliant with the requirements of the British Standard for Subsoil (*BS8601:2013 – Specification for subsoil and requirements for use – Table 1, Multipurpose Subsoil*).

Soil Handling Recommendations

Reference should be made to Section 6.0 of *BS8601:2013* with regard to the handling and management of the subsoil:

“Soils generally lose strength and become less resistant to damage as they become wetter; therefore, it is essential that they are stripped, handled and trafficked only in the appropriate conditions of weather and soil moisture, and with suitable machinery. If sustained heavy rainfall (e.g. >10 mm in 24 h) occurs during soil stripping operations, work should be suspended and not restarted until the ground has had at least one dry day or until a suitable moisture content has been reached. A soil can be considered to have a suitable moisture content for stripping and handling if the whole thickness of the subsoil layer being stripped and/or handled is at a moisture content below the plastic limit as determined in accordance with BS 1377-2:1990 (incorporating Amendment No. 1).

Machinery should be selected and routed to minimise soil compaction.”

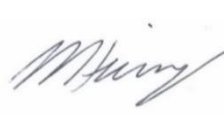
Further guidance is provided in Clauses 6.1–6.5.

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if we can be of further assistance.

Yours faithfully



Zoe Duffin
MBiol
Graduate Soil Scientist



Matthew Heins
BSc (Hons) MSoilSci
Senior Soil Scientist

For & on behalf of Tim O'Hare Associates LLP



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	MCM (SE) Ltd
Project:	BS Subsoil
Job:	Subsoil Analysis (BS8601:2013)
Date:	09/02/2024
Job Ref No:	TOHA/24/1227/5/SS

Sample Reference		Accreditation
Clay (<0.002mm)	%	UKAS
Silt (0.002-0.05mm)	%	UKAS
Very Fine Sand (0.05-0.15mm)	%	UKAS
Fine Sand (0.15-0.25mm)	%	UKAS
Medium Sand (0.25-0.50mm)	%	UKAS
Coarse Sand (0.50-1.0mm)	%	UKAS
Very Coarse Sand (1.0-2.0mm)	%	UKAS
Total Sand (0.05-2mm)	%	UKAS
Texture Class (UK Classification)	–	UKAS
Stones (2-20mm)	% DW	GLP
Stones (20-75mm)	% DW	GLP
Stones (>75mm)	% DW	GLP

pH Value (1:2.5 water extract)	units	UKAS
Electrical Conductivity (1:2.5 water extract)	uS/cm	UKAS
Electrical Conductivity (1:2 CaSO ₄ extract)	uS/cm	UKAS
Exchangeable Sodium Percentage	%	UKAS
Organic Matter (LOI)	%	UKAS

Total Arsenic (As)	mg/kg	MCERTS
Total Cadmium (Cd)	mg/kg	MCERTS
Total Chromium (Cr)	mg/kg	MCERTS
Hexavalent Chromium (Cr VI)	mg/kg	MCERTS
Total Copper (Cu)	mg/kg	MCERTS
Total Lead (Pb)	mg/kg	MCERTS
Total Mercury (Hg)	mg/kg	MCERTS
Total Nickel (Ni)	mg/kg	MCERTS
Total Selenium (Se)	mg/kg	MCERTS
Total Zinc (Zn)	mg/kg	MCERTS
Water Soluble Boron (B)	mg/kg	MCERTS
Total Cyanide (CN)	mg/kg	MCERTS
Total (mono) Phenols	mg/kg	MCERTS

Naphthalene	mg/kg	MCERTS
Acenaphthylene	mg/kg	MCERTS
Acenaphthene	mg/kg	MCERTS
Fluorene	mg/kg	MCERTS
Phenanthrene	mg/kg	MCERTS
Anthracene	mg/kg	MCERTS
Fluoranthene	mg/kg	MCERTS
Pyrene	mg/kg	MCERTS
Benz(a)anthracene	mg/kg	MCERTS
Chrysene	mg/kg	MCERTS
Benzo(b)fluoranthene	mg/kg	MCERTS
Benzo(k)fluoranthene	mg/kg	MCERTS
Benzo(a)pyrene	mg/kg	MCERTS
Indeno(1,2,3-cd)pyrene	mg/kg	MCERTS
Dibenzo(a,h)anthracene	mg/kg	MCERTS
Benzo(g,h,i)perylene	mg/kg	MCERTS
Total PAHs (sum USEPA16)	mg/kg	MCERTS

Aliphatic TPH >C5 - C6	mg/kg	MCERTS
Aliphatic TPH >C6 - C8	mg/kg	MCERTS
Aliphatic TPH >C8 - C10	mg/kg	MCERTS
Aliphatic TPH >C10 - C12	mg/kg	MCERTS
Aliphatic TPH >C12 - C16	mg/kg	MCERTS
Aliphatic TPH >C16 - C21	mg/kg	MCERTS
Aliphatic TPH >C21 - C35	mg/kg	MCERTS
Aliphatic TPH (C5 - C35)	mg/kg	MCERTS
Aromatic TPH >C5 - C7	mg/kg	MCERTS
Aromatic TPH >C7 - C8	mg/kg	MCERTS
Aromatic TPH >C8 - C10	mg/kg	MCERTS
Aromatic TPH >C10 - C12	mg/kg	MCERTS
Aromatic TPH >C12 - C16	mg/kg	MCERTS
Aromatic TPH >C16 - C21	mg/kg	MCERTS
Aromatic TPH >C21 - C35	mg/kg	MCERTS
Aromatic TPH (C5 - C35)	mg/kg	MCERTS

Benzene	mg/kg	MCERTS
Toluene	mg/kg	MCERTS
Ethylbenzene	mg/kg	MCERTS
p & m-xylene	mg/kg	MCERTS
o-xylene	mg/kg	MCERTS
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	MCERTS

LS = LOAMY SAND

Visual Examination

The sample was described as a light yellowish brown (Munsell Colour 10YR 6/4), moist, friable, non-calcareous LOAMY SAND with a weakly developed, fine to medium granular structure. The sample was slightly stony, comprising stones up to 50mm in size. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

Results of analysis should be read in conjunction with the report they were issued with

The contents of this certificate shall not be reproduced without the express written permission of Tim O'Hare Associates LLP.

MSBS1 - London & Essex

10
8
12
19
40
9
3
82
LS
9
3
0

6.6
225
2142
1.2
0.5

2
< 0.2
9.4
< 1.8
4.5
4.7
< 0.3
5.6
< 1.0
14
< 0.2
< 1.0
< 1.0

< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.80

< 0.020
< 0.020
< 0.050
< 1.0
< 2.0
< 8.0
< 8.0
< 10
< 0.010
< 0.010
< 0.050
< 1.0
< 2.0
< 10
< 10
< 10

< 0.005
< 0.005
< 0.005
< 0.005
< 0.005
< 0.005

Zoe Duffin
MBiol
Graduate Soil Scientist



Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US

Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Dandy's Topsoil
4th Avenue, Zone 2
Deeside Industrial Park
Deeside
Flintshire
CH5 2NR

Attention: Simon Hughes

CERTIFICATE OF ANALYSIS

Date of report Generation:	26 September 2024
Customer:	Dandy's Topsoil
Sample Delivery Group (SDG):	240918-22
Your Reference:	Screened Topsoil
Location:	Sealand Road, Chester
Report No:	741995
Order Number:	1237

We received 1 sample on Tuesday September 17, 2024 and 1 of these samples were scheduled for analysis which was completed on Thursday September 26, 2024. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.

Incorrect sampling dates and/or sample information will affect the validity of results.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Lauren Ellis

General Manager Western Europe Environmental



CERTIFICATE OF ANALYSIS

Validated

SDG: 240918-22 Report Number: 741995 Superseded Report:
Client Ref.: Screened Topsoil Location: Sealand Road, Chester

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
30375000	SCREENED TOPSOIL			

Only received samples which have had analysis scheduled will be shown on the following pages.



CERTIFICATE OF ANALYSIS

Validated

SDG: 240918-22
Client Ref.: Screened Topsoil

Report Number: 741995
Location: Sealand Road, Chester

Superseded Report:

Results Legend



Test



No Determination
Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)

30375000

Customer
Sample Reference

SCREENED
TOPSOIL

AGS Reference

Depth (m)

Container

BAG

Sample Type

S

Boron Water Soluble

All

NDPs: 0
Tests: 1

X

Cyanide Comp/Free/Total/Thiocyanate

All

NDPs: 0
Tests: 1

X

Easily Liberated Sulphide

All

NDPs: 0
Tests: 1

X

Hexavalent Chromium (s)

All

NDPs: 0
Tests: 1

X

Metals in solid samples by OES

All

NDPs: 0
Tests: 1

X

PAH by GCMS

All

NDPs: 0
Tests: 1

X

pH

All

NDPs: 0
Tests: 1

X

Phenols by HPLC (S)

All

NDPs: 0
Tests: 1

X

Sample description

All

NDPs: 0
Tests: 1

X

Total Sulphate

All

NDPs: 0
Tests: 1

X

Total Sulphur

All

NDPs: 0
Tests: 1

X



CERTIFICATE OF ANALYSIS

Validated

SDG: 240918-22
Client Ref.: Screened Topsoil

Report Number: 741995
Location: Sealand Road, Chester

Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
-----------	----------	------	-----------------	--------	-------------	--------	------------	-------------	-------

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
30375000	SCREENED TOPSOIL		Dark Brown	Loamy Sand	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.



CERTIFICATE OF ANALYSIS

Validated

SDG: 240918-22
Client Ref.: Screened Topsoil

Report Number: 741995
Location: Sealand Road, Chester

Superseded Report:

Results Legend		Customer Sample Ref.	SCREENED TOPSOIL				
# ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. * Subcontracted - refer to subcontractor report for accreditation status. ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery (F) Trigger breach confirmed 1-4* Sample deviation (see appendix)		Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Unspecified Solid (UNS) 17/09/2024 240918-22 30375000				
Component	LOD/Units	Method					
Moisture Content Ratio (% of as received sample)	%	PM024	19	\$			
Catechol	<0.01 mg/kg	TM062 (S)	<0.01	\$			
Phenol	<0.01 mg/kg	TM062 (S)	0.0124	\$			
Cresols	<0.01 mg/kg	TM062 (S)	0.0248	\$			
Resorcinol	<0.05 mg/kg	TM062 (S)	<0.05	\$			
Xylenols	<0.015 mg/kg	TM062 (S)	<0.015	\$			
1-Naphthol	<0.01 mg/kg	TM062 (S)	<0.01	\$			
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)	<0.01	\$			
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)	<0.015	\$			
Phenols, Total Detected 5 specified	<0.06 mg/kg	TM062 (S)	<0.06	\$			
Phenols, Total Detected 8 Speciated	<0.13 mg/kg	TM062 (S)	<0.13	\$			
Sulphur, Total	<0.02 %	TM132	0.05	\$			
pH	1 pH Units	TM133	8.21	\$			
Chromium, Hexavalent	<0.6 mg/kg	TM151	<0.6	\$			
Cyanide, Total	<1 mg/kg	TM153	<1	\$			
Cyanide, Free	<1 mg/kg	TM153	<1	\$			
Thiocyanate	<1 mg/kg	TM153	1.12	\$			
Sulphide, Easily liberated	<15 mg/kg	TM180	<15	\$			
Arsenic	<0.6 mg/kg	TM181	9.46	\$			
Cadmium	<0.02 mg/kg	TM181	0.184	\$			
Chromium	<0.9 mg/kg	TM181	10.4	\$			
Copper	<1.4 mg/kg	TM181	16.3	\$			
Lead	<0.7 mg/kg	TM181	62.7	\$			
Mercury	<0.1 mg/kg	TM181	<0.1	\$			
Nickel	<0.2 mg/kg	TM181	12.6	\$			
Selenium	<1 mg/kg	TM181	1.19	\$			
Zinc	<1.9 mg/kg	TM181	140	\$			
Sulphate, Total	<48 mg/kg	TM221	521	\$			
Boron, water soluble	<1 mg/kg	TM222	<1	\$			



CERTIFICATE OF ANALYSIS

Validated

SDG: 240918-22
Client Ref.: Screened Topsoil

Report Number: 741995
Location: Sealand Road, Chester

Superseded Report:

Table of Results - Appendix

Method No	Description
PM024	Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material
TM132	ELTRA CS800 Operators Guide
TM133	Determination of pH in Soil and Water using the GLpH pH Meter
TM221	Determination of Acid Extractable Sulphate in Soils by ICP OES
TM062 (S)	Determination of Phenols in Soils by HPLC
TM153	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM218	The determination of PAH in soil samples by GC-MS
TM222	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM180	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique
TM151	Determination of Hexavalent Chromium using Kone analyser
TM181	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 240918-22
Client Ref.: Screened Topsoil

Report Number: 741995
Location: Sealand Road, Chester

Superseded Report:

Test Completion Dates

Lab Sample No(s) 30375000
Customer Sample Ref. SCREENED TOPSOIL
AGS Ref.
Depth
Type Unspecified

Boron Water Soluble	24-Sep-2024
Cyanide Comp/Free/Total/Thiocyanate	25-Sep-2024
Easily Liberated Sulphide	23-Sep-2024
Hexavalent Chromium (s)	23-Sep-2024
Metals in solid samples by OES	26-Sep-2024
PAH by GCMS	24-Sep-2024
pH	25-Sep-2024
Phenols by HPLC (S)	23-Sep-2024
Sample description	18-Sep-2024
Total Sulphate	24-Sep-2024
Total Sulphur	26-Sep-2024



CERTIFICATE OF ANALYSIS

SDG: 240918-22
Client Ref: Screened Topsoil

Report Number: 741995
Location: Sealand Road, Chester

Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH₄ by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEx). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Matrix interference
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to late arrival of instructions or samples
§	Sampled on date not provided

20. Asbestos

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

WASTE TRANSFER NOTE: EXCHANGE

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1972182 Date 02-December-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	CONTAMINATED SOIL DO NOT TIP
Waste Type Soil & Stones Containing Dang	SIC Code	
EWC Code 17 05 03	Time On Site 14:48	
Vehicle Reg CF70 GBN	Time Off Site 14:49	
Driver Hassan Karami	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Hassan Karami
	Date 02-December-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

The following waste must not be put in a skip. These items are hazardous, please contact us for quotation.

Aerosols (of any kind), Asbestos, Batteries (of any sort), Carpet, Computer Monitors, Fluorescent Tubes, Freezers, Fridges, Gas Bottles (including Ballon Gas and Fire Extinguishers), Liquid Waste, Mattresses, Oil (full or empty), Paint Tins (unless completely empty), Pesticides and any other Chemicals, Plasterboard, Rubber, Solvents, Televisions, Tyres, Varnishes. No household or commercial seating (including Sofas, Sofa Beds, Armchairs, Chairs, Sofa cushions, Stools, Bean bags) that include a textile, upholstered or foam component are allowed to be placed into the skip.

Should any of these items be found in a skip, additional charges will be applied.

You are responsible for the container whilst on hire. Any damages caused during this period will be charged to the Hirer. If the skip/container is stolen, replacement costs will be the responsibility of the Hirer. Any unauthorised relocation which results in damage or obstruction of access to our skip will be liable to a surcharge. The hirer must not light fires in the container, overload the containers weight or above the sides. The hirer will obtain and ensure all permits are valid. Covers and lighting on a skip subject to permit licence remain the Hirer's responsibility. Our hire period is 14 days. Waiting times are calculated after 30 minutes and wasted journeys are costed on vehicle type.

Hirers ordering vehicles off the public highway do so entirely at their own risk. When requesting our vehicles to leave the public highway, we do not accept any liability for any damage to either private property and/or public access i.e., kerbs, pavements, manholes etc.
Full Terms and Conditions are available on request.

For and on behalf of the customer, I have read and accept all the Terms and Conditions.
I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin

WASTE TRANSFER NOTE: EXCHANGE

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1972183 Date 03-December-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	CONTAMINATED SOIL DO NOT TIP
Waste Type Soil & Stones Containing Dang	SIC Code	
EWC Code 17 05 03	Time On Site 15:46	
Vehicle Reg CF70 GBN	Time Off Site 15:54	
Driver Hassan Karami	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Hassan Karami
	Date 03-December-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

The following waste must not be put in a skip. These items are hazardous, please contact us for quotation.

Aerosols (of any kind), Asbestos, Batteries (of any sort), Carpet, Computer Monitors, Fluorescent Tubes, Freezers, Fridges, Gas Bottles (including Ballon Gas and Fire Extinguishers), Liquid Waste, Mattresses, Oil (full or empty), Paint Tins (unless completely empty), Pesticides and any other Chemicals, Plasterboard, Rubber, Solvents, Televisions, Tyres, Varnishes. No household or commercial seating (including Sofas, Sofa Beds, Armchairs, Chairs, Sofa cushions, Stools, Bean bags) that include a textile, upholstered or foam component are allowed to be placed into the skip.

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I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin

WASTE TRANSFER NOTE: EXCHANGE

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1979261 Date 04-December-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	CONTAMINATED SOIL DO NOT TIP
Waste Type Soil & Stones Containing Dang	SIC Code	
EWC Code 17 05 03	Time On Site 13:21	
Vehicle Reg CF70 GBN	Time Off Site 13:27	
Driver Hassan Karami	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Hassan Karami
	Date 04-December-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

The following waste must not be put in a skip. These items are hazardous, please contact us for quotation.

Aerosols (of any kind), Asbestos, Batteries (of any sort), Carpet, Computer Monitors, Fluorescent Tubes, Freezers, Fridges, Gas Bottles (including Ballon Gas and Fire Extinguishers), Liquid Waste, Mattresses, Oil (full or empty), Paint Tins (unless completely empty), Pesticides and any other Chemicals, Plasterboard, Rubber, Solvents, Televisions, Tyres, Varnishes. No household or commercial seating (including Sofas, Sofa Beds, Armchairs, Chairs, Sofa cushions, Stools, Bean bags) that include a textile, upholstered or foam component are allowed to be placed into the skip.

Should any of these items be found in a skip, additional charges will be applied.

You are responsible for the container whilst on hire. Any damages caused during this period will be charged to the Hirer. If the skip/container is stolen, replacement costs will be the responsibility of the Hirer. Any unauthorised relocation which results in damage or obstruction of access to our skip will be liable to a surcharge. The hirer must not light fires in the container, overload the containers weight or above the sides. The hirer will obtain and ensure all permits are valid. Covers and lighting on a skip subject to permit licence remain the Hirer's responsibility. Our hire period is 14 days. Waiting times are calculated after 30 minutes and wasted journeys are costed on vehicle type.

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I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin

WASTE TRANSFER NOTE: EXCHANGE

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1972185 Date 05-December-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	ONLY ACCEPT SKIP IF CLEAN CONCRETE- DO NOT ACCEPT IF THERE IS SOIL IN THE SKIP- CONTAMINATED SOIL ON SITE
Waste Type mixtures of concrete, bricks, tiles	SIC Code	
EWC Code 17 01 07	Time On Site 13:56	
Vehicle Reg CF70 GBN	Time Off Site 14:08	
Driver Hassan Karami	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Hassan Karami
	Date 05-December-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

The following waste must not be put in a skip. These items are hazardous, please contact us for quotation.

Aerosols (of any kind), Asbestos, Batteries (of any sort), Carpet, Computer Monitors, Fluorescent Tubes, Freezers, Fridges, Gas Bottles (including Ballon Gas and Fire Extinguishers), Liquid Waste, Mattresses, Oil (full or empty), Paint Tins (unless completely empty), Pesticides and any other Chemicals, Plasterboard, Rubber, Solvents, Televisions, Tyres, Varnishes. No household or commercial seating (including Sofas, Sofa Beds, Armchairs, Chairs, Sofa cushions, Stools, Bean bags) that include a textile, upholstered or foam component are allowed to be placed into the skip.

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For and on behalf of the customer, I have read and accept all the Terms and Conditions.
I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin

WASTE TRANSFER NOTE: EXCHANGE

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1972186 Date 06-December-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	CONTAMINATED SOIL DO NOT TIP
Waste Type Soil & Stones Containing Dang	SIC Code	
EWC Code 17 05 03	Time On Site 13:30	
Vehicle Reg OJ20 GBN	Time Off Site 13:36	
Driver Hassan Karami	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Hassan Karami
	Date 06-December-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

The following waste must not be put in a skip. These items are hazardous, please contact us for quotation.

Aerosols (of any kind), Asbestos, Batteries (of any sort), Carpet, Computer Monitors, Fluorescent Tubes, Freezers, Fridges, Gas Bottles (including Ballon Gas and Fire Extinguishers), Liquid Waste, Mattresses, Oil (full or empty), Paint Tins (unless completely empty), Pesticides and any other Chemicals, Plasterboard, Rubber, Solvents, Televisions, Tyres, Varnishes. No household or commercial seating (including Sofas, Sofa Beds, Armchairs, Chairs, Sofa cushions, Stools, Bean bags) that include a textile, upholstered or foam component are allowed to be placed into the skip.

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I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin

WASTE TRANSFER NOTE: COLLECTION

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 2020143 Date 08-January-2025 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	CONTAMINATED SOIL DO NOT TIP
Waste Type Hardcore from another GBN site	SIC Code	
EWC Code 17 01 07BH	Time On Site 15:28	
Vehicle Reg G11 GBN	Time Off Site 16:07	
Driver ASHLEY RAMOCAN	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name ASHLEY RAMOCAN
	Date 08-January-2025

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

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Full Terms and Conditions are available on request.

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I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Artan

WASTE TRANSFER NOTE: COLLECTION

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1981242 Date 09-December-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	CONTAMINATED SOIL DO NOT TIP
Waste Type Soil & Stones Containing Dang	SIC Code	
EWC Code 17 05 03	Time On Site 14:31	
Vehicle Reg CF70 GBN	Time Off Site 14:35	
Driver Hassan Karami	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Hassan Karami
	Date 09-December-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

The following waste must not be put in a skip. These items are hazardous, please contact us for quotation.

Aerosols (of any kind), Asbestos, Batteries (of any sort), Carpet, Computer Monitors, Fluorescent Tubes, Freezers, Fridges, Gas Bottles (including Ballon Gas and Fire Extinguishers), Liquid Waste, Mattresses, Oil (full or empty), Paint Tins (unless completely empty), Pesticides and any other Chemicals, Plasterboard, Rubber, Solvents, Televisions, Tyres, Varnishes. No household or commercial seating (including Sofas, Sofa Beds, Armchairs, Chairs, Sofa cushions, Stools, Bean bags) that include a textile, upholstered or foam component are allowed to be placed into the skip.

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Full Terms and Conditions are available on request.

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I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin

WASTE TRANSFER NOTE: EXCHANGE

Account Number APG502 **Site Address**

APR GROUP LTD	35 DAGMAR ROAD, 35 DAGMAR ROAD FINSBURY PARK, LONDON, N4 4NY	Ticket Number 1970728 Date 29-November-2024 Order Number DAG01
	Site Contact Contact Site Tel 07912 253021	

Skip Details

Special Instructions

Skip Size 8 YARD SKIP	Area Hackney	Skip must be tipped at Keltbray, Silvertown-lucy spoke with Cliff regarding this
Waste Type Soil & Stones Containing Dang	SIC Code	
EWC Code 17 05 03	Time On Site 13:17	
Vehicle Reg JD16 GBN	Time Off Site 13:56	
Driver Bogdan Burciu	Quantity 1	

	Haulier Sortera Ltd
	Waste Carrier Licence No. CB3132RU / 100302
	Waste Carrier Signature 
	Print Name Bogdan Burciu
	Date 29-November-2024

An electronic copy of this Waste Transfer Note is available upon request.

Warning - Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip.

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For and on behalf of the customer, I have read and accept all the Terms and Conditions.
I agree to the waste description (EWC) and that the waste transferred is as stated above.
I confirm that I have fulfilled the duty to apply the waste hierarchy as requested by regulations 12 of the Waste Regulations 2011 for (England and Wales)

Customer Signature



Print Name Sorin



**Contaminated
Land
Solutions**

Appendix J – Imported Fill Material Criteria

RESIDENTIAL WITH HOMEGROWN PRODUCE (R _w HP) - SOM 6%			
Determinand	Unit	GAC	Source
Metals			
Arsenic	mg/kg	37.0	DEFRA C4SL
Cadmium	mg/kg	22.1	DEFRA C4SL
Chromium (III)	mg/kg	14300.0	ATRISK SSV
Copper	mg/kg	4790.0	ATRISK SSV
Lead	mg/kg	200.0	DEFRA C4SL
Mercury (Inorganic)	mg/kg	180.0	ATRISK SSV
Nickel	mg/kg	136.0	ATRISK SSV
Selenium	mg/kg	375.0	ATRISK SSV
Zinc	mg/kg	20300.0	ATRISK SSV
Inorganics			
Free Cyanide	mg/kg	34.0	ATRISK SSV
Hexavalent Chromium	mg/kg	20.5	DEFRA C4SL
Miscellaneous			
Moisture Content	%	-	-
pH	pH units	-	-
Soil Organic Matter	%	-	-
Other material	-	-	-
Phenols			
Total Monohydric Phenols	mg/kg	1100.0	LQM/CIEH
Polyaromatic hydrocarbons			
Acenaphthene	mg/kg	2760.0	ATRISK SSV
Acenaphthylene	mg/kg	920.0	LQM/CIEH
Anthracene	mg/kg	26200.0	ATRISK SSV
Benzo(a)anthracene	mg/kg	13	LQM/CIEH
Benzo(a)pyrene	mg/kg	4.95	DEFRA C4SL
Benzo(b)fluoranthene	mg/kg	3.7	LQM/CIEH
Benzo(g,h,i)perylene	mg/kg	350	LQM/CIEH
Benzo(k)fluoranthene	mg/kg	100	LQM/CIEH
Chrysene	mg/kg	27	LQM/CIEH
Dibenzo(a,h)anthracene	mg/kg	0.3	LQM/CIEH
Fluoranthene	mg/kg	2980.0	ATRISK SSV
Fluorene	mg/kg	2610.0	ATRISK SSV
Indeno (1,2,3-cd) pyrene	mg/kg	41	LQM/CIEH
Naphthalene	mg/kg	12.2	ATRISK SSV
Phenanthrene	mg/kg	440.0	LQM/CIEH
Pyrene	mg/kg	2120.0	ATRISK SSV
TPH CWG			
>C ₅ -C ₆ Aliphatic	mg/kg	369.0	ATRISK SSV
>C ₆ -C ₈ Aliphatic	mg/kg	1240.0	ATRISK SSV
>C ₈ -C ₁₀ Aliphatic	mg/kg	204.0	ATRISK SSV
>C ₁₀ -C ₁₂ Aliphatic	mg/kg	1180.0	ATRISK SSV
>C ₁₂ -C ₁₆ Aliphatic	mg/kg	4130.0	ATRISK SSV
>C ₁₆ -C ₃₅ Aliphatic	mg/kg	210100.0	ATRISK SSV
>C ₃₅ -C ₄₀ Aliphatic	mg/kg	110000.0	LQM/CIEH
>C ₅ -C ₇ Aromatic (benzene)	mg/kg	0.87	ATRISK SSV
>C ₇ -C ₈ Aromatic (toluene)	mg/kg	780.0	ATRISK SSV
>C ₈ -C ₁₀ Aromatic	mg/kg	232.0	ATRISK SSV
>C ₁₀ -C ₁₂ Aromatic	mg/kg	468.0	ATRISK SSV
>C ₁₂ -C ₁₆ Aromatic	mg/kg	830.0	ATRISK SSV
>C ₁₆ -C ₂₁ Aromatic	mg/kg	1040.0	ATRISK SSV
>C ₂₁ -C ₃₅ Aromatic	mg/kg	1710.0	ATRISK SSV
>C ₃₅ -C ₄₄ Aromatic	mg/kg	1700.0	LQM/CIEH
Asbestos			



**Contaminated
Land
Solutions**

Appendix K – Simple Cover Systems

The following was concluded in the BRE report, *Cover systems for land regeneration*:

- “• The main earthworm activity is likely to be in the top 300mm of topsoil.
- Burrowing animals such as moles, rats and mice generally cause greatest disturbance in the top 500mm, however, rabbits and badgers should be considered separately, particularly for areas of public open space (see Section 5.2.2).
- Roots are likely to remain within soils that contain sufficient nutrients and moisture and in addition penetration of plant roots is inhibited within compacted soils. Therefore, provided cover system soil conditions are suitable and the underlying contaminated material is suitably compacted, plant roots are likely to remain within the cover, although this is more likely the greater the thickness of cover provided.
- Double digging of gardens is unlikely to exceed 600mm depth.
- The average depth to undisturbed ground in the gardens investigated was 460mm.

Therefore, it is considered a reasonable assumption that any disturbance or intermixing of soils is unlikely to exceed 600mm depth. A conservative estimate assumes complete intermixing. Hence, for this research it has been assumed that the material used for the cover system will eventually intermix completely with the underlying material to a maximum depth of 600mm.”



Appendix L – LQM Benzo(a)pyrene Surrogate Marker Approach



Based on Figure 2 in HPA (2010) "Risk assessment approaches for polycyclic aromatic hydrocarbons (PAHs)" Version 5

