Stantec

Technical Note

Project name	Former Nestle Factory, Hayes		
Client	Barratt West London		
Title	Supplementary Remediation Verification Report for Blocks B3, B4 and B9.		
Reference	333801896-STN-XX-XX-GE-TN-1001	**Status / Issue**	S2 / P02
Author	Joe Sparks *BSc MSc FGS*		
Checker	Wayne Lewis *BSc FGS*		
Approver	Anthony Elkins *BSc(Hons) MSc FGS*		
Date	22nd December 2025		

1 Introduction

Stantec Hydrock Limited (Stantec) has been commissioned by BDW Trading Limited (Barratt London) to prepare a supplementary Verification Report following the remediation and construction of Block B, Former Nestle Factory, Hayes, Middlesex UB3 4RF. (Approximate National Grid Reference: 510104E, 179224E)

A site wide Remediation Method Statement (RMS) has been produced in March 2018 (Hydrock Report ref. NES-HYD-XX-REM-GE-3000-S2-P1) detailing the overarching remedial approach for the wider development. Block B sits within the wider site RMS.

The remedial works undertaken by Barratt London and verified in this report address Block B geo-environmental remediation only. Stantec have produced a separate Geotechnical Feedback Report for Block B (FNF-HYD-XX-XX-GD-RP-GE-0010).

This report covers outstanding information for Block B3, B4 and B9 only. For verification information regarding the rest of Block B, please see report FNF-HYD-XX-XX-RP-GE-5010_P03, Dated June 2025.

Stantec have not held a watching brief role during these remediation works.

1.1 The Site

Block B occupies an area in the north of the wider Former Nestle site and is made up of nine blocks (B1-B9). This report has been undertaken as verification of Task C4: Installation of the engineered cover system for Block B3, B4 and B9 only.

See the Phasing Plan drawing (Makower Architects, Former Nestle Factory, Hayes, Masterplan-Phasing, Ref: MP701).

At the time of writing Blocks B1, B2, B5, B6, B7 and B8 have been verified and granted planning approval following issue of Stantec Hydrock report: FNF-HYD-XX-XX-RP-GE-5010_P03 dated 13th June 2025.

This technical note is to cover the outstanding landscaping validation works for Blocks B3, B4 and B9 only, and confirm their compliance with Task C4 the site wide RMS. For all other remediation tasks as set out in the sitewide RMS please refer to the previously issued Remediation Verification Report as detailed in Section 2.

2 Available Information

The following notable documents have been used in the preparation of this report:

- Sitewide RMS - Hydrock Report Ref: NES-HYD-XX-REM-GE-3000-S2-P1
- Remediation Verification Report for Block B (Excluding B3, B4 and B9) Ref: FNF-HYD-XX-XX-RP-GE-5010
- Contractor provided photos, TP5-8, Provided by Barratt.
- Soils Limited Trial Pit Logs (TP5-8), Dated 28th October 2025.
- Normec DETS laboratory reports Ref: 25-06325 and 25-09276.

It is noted that the site has been subject to extensive investigation and reporting, with full information available if required.

3 Task C4: Installation of the Engineered Cover system

Verification of the engineered cover system at Blocks B3, B4 and B9 were undertaken by Soils Limited on the 1st July and 28th October 2025. A location plan of cover system validation pits at Blocks B3, B4 and B9 is provided in Appendix A and Appendix B respectively (TP3 – TP8).

Chemical testing was carried out on six samples taken from landscaped areas across the relevant blocks, including screening for Metals, PAH, TPH, PCBs and asbestos identification. The required frequency of verification testing for materials of a natural source is of one per 250m^3. As such the number of samples has been taken to provide good spatial coverage across the landscaped areas of Blocks B3, B4 and B9, in general accordance with the RMS.

Barratt has not provided any new soil import/delivery tickets, and have informed Stantec that no new soils have been delivered since the previous Verification Report FNF-HYD-XX-XX-RP-GE-5010_P03 dated 13th June 2025.

Validation photos provided by Soils Limited show a sufficient thickness of cover system as per the RMS, with geotextile membrane visible at the base (>450mm with a minimum 150mm of Topsoil).

Asbestos has previously been found at Block B9 (in the locations HP108 and HP110). The results were quantified and both report loose fibres of chrysotile asbestos at <0.001% asbestos per soil mass (considered to be fugitive fibres).

Stantec cannot confirm that these soils at Block B9 have been replaced as no evidence has been provided to show replacement of these soils or that any new soils have been imported since that time.

From the additional sampling and in-situ verification pitting undertaken by Soils Limited, no exceedances of site RTVs were detected in the laboratory testing (including asbestos identification testing) and no visible asbestos was noted on logs provided by Soils Limited. As such, it is considered that the soils that were inspected and tested were generally compliant with the RMS. Full laboratory test results are provided in Normec DETS reports 25-06325 and 25-09276 (attached in Appendix C).

Although asbestos was previously identified in two locations within Block B9 (which indicated trace deposits of incidental fibres), two additional re-tests have been carrying out in Block B9, neither of which recorded the presence of any asbestos containing materials (either visually or through laboratory testing). On this basis, it is our recommendation that Block B9 has been installed in line with the requirements of the RMS.

4 Summary

Stantec did not maintain a watching brief role through any of the landscaping installation or verification works undertaken by Soils Ltd for Blocks B3, B4 and B9. However, from the evidence submitted combined with the findings of the previous remediation verification report (FNF-HYD-XX-XX-RP-GE-5010), Stantec believes that residual risks to human health have been reduced to an acceptable level due to the following:

- Laboratory testing provided by Barratt homes, are compliant with the sitewide RMS in Blocks B3, B4 and B9.
- Evidence submitted provided to verify that the thickness of the engineered cover system is compliant with the RMS in Blocks B3, B4 and B9.

Appendix A Exploratory Hole Location Plans

KEY PLAN

Validation Locations June 2025

Trial Pit

Hand Pit

NOTES

1. Contains OS data © Crown copyright and database right (2021)

2. Base map - BOSK Masterplan Drawing: FNF-BOSK-90-XX-ZZ-DR-1000(1)_Ver2

REVISIONS

REV.	DRAWN BY INITIALS	CHECKED BY INITIALS	DATE	REVISION NOTES/COMMENTS
P02	JS	DH	12/06/2025	First issue

Stantec

CLIENT
BDW Trading Ltd

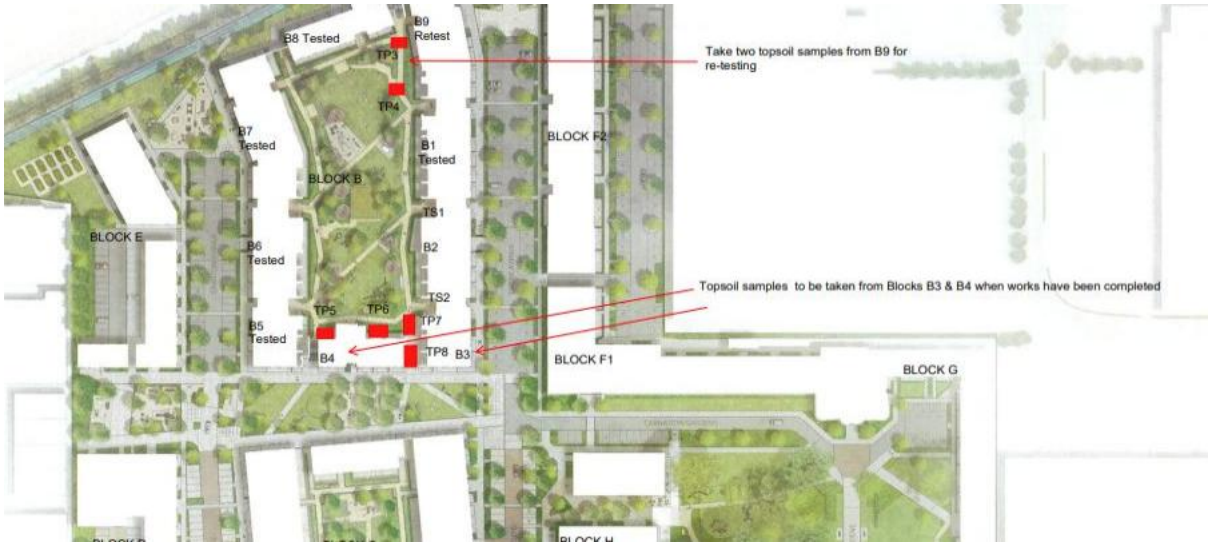
PROJECT
Former Nestle Site Hayes

TITLE
Block B Validated Landscaping areas - June 2025

STANTEC PROJECT NO.	SCALE @ A3
38533	1:750

PURPOSE OF ISSUE	STATUS
SUITABLE FOR INFORMATION	S2

DRAWING NO.	REVISION
38533-STN-XX-XX-DR-GE-1001	P02


B9
Retest
B8 Tested
TP3
TP4
Take two topsoil samples from B9 for
re-testing
B7
Tested
B1
Tested
BLOCK F2
BLOCK B
TS1
BLOCK E
B6
Tested
B2
TS2
Topsoil samples to be taken from Blocks B3 & B4 when works have been completed
TP5
TP6
TP7
B5
Tested
B4
TP8
B3
BLOCK F1
BLOCK G

Appendix B Contractor Provided Logs and Photographs

22025 Nestle Avenue, Hayes, UB3 4QW

TP5

TP6

TP7

TP8

Soils Limited – Nestle Site Photos 1st July 2025

TP3

TP4

Soils Limited
Newton House, Cross Road, Tadworth KT20 5SR
Tel: 01737 814221 Email: admin@soilslimited.co.uk

Trial Pit Log

Trial Pit No. **TP3** Sheet 1 of 1

Project Name: Nestle Avenue	Project No.: 22025	Method:	Hand excavated	Hole Type	TP
Location: Hayes, Greater London UB3 4QW		Plant:	Hand dug		
		Support:	None	Scale	1:25
Client: Features Landscape Design Limited	Trial Pit Length: 0.45m	Trial Pit Width: 0.45m			
Dates: 01/07/2025	Level:	Co-ords:		Logged By	JC

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (mAOD)	Legend	Stratum Description
	0.20	ES					Dark brown slightly sandy very gravelly SILT. Gravel is angular to rounded fine flint. Frequent roots, rootlets, and woody fragments. TOPSOIL.
	0.40	ES		0.45			End of Pit at 0.450m

General Remarks:
Rootlets observed to base of exploratory hole.

Groundwater Remarks: No groundwater encountered.

Sample Type
D: Disturbed
B: Bulk
J: Jar
W: Water

Soils Limited
Newton House, Cross Road, Tadworth KT20 5SR
Tel: 01737 814221 Email: admin@soilslimited.co.uk

Trial Pit Log

Trial Pit No. **TP4** Sheet 1 of 1

Project Name: Nestle Avenue	Project No.: 22025	Method: Hand excavated	Hole Type: TP
Location: Hayes, Greater London UB3 4QW		Plant: Hand dug	
		Support: None	Scale: 1:25
Client: Features Landscape Design Limited	Trial Pit Length: 0.45m	Trial Pit Width: 0.45m	
Dates: 01/07/2025	Level:	Co-ords:	Logged By: JC

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (mAOD)	Legend	Stratum Description
	0.20	ES					Dark brown slightly sandy very gravelly SILT. Gravel is angular to rounded fine flint. Frequent roots, rootlets, and woody fragments. TOPSOIL.
	0.50	ES					
				0.65			End of Pit at 0.650m

General Remarks:
Rootlets observed to base of exploratory hole.

Groundwater Remarks: No groundwater encountered.

Sample Type
D: Disturbed
B: Bulk
J: Jar
W: Water

Trial Pit

TP 5

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client
Barratt West London

Consultant
Soils Limited

Contractor
Soils Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.30	ES			(0.55)		Fine to coarse bark mulch over soft dark grey brown slightly clayey silty TOPSOIL. Occasional rare fine organic material (wood). Rare coarse dark grey brown sand.
						0.55		*End of Trial Pit at 0.55m*

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

Remarks

Method, Plant, Stability, Dimensions
0.55 - 0.55m GJB
L = 0.45m
W = 0.45m

Logger
GJB

Status: FINAL

Trial Pit

TP 5

SUPPLEMENTARY INFO

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client	Consultant	Contractor
Barratt West London	Soils Limited	Soils Limited

Sample Details

Sample ID	Type	Water Level (m)	Remarks
	ES		

Remarks

Method, Plant, Stability, Dimensions

0.55 - 0.55m GJB

L = 0.45m

W = 0.45m

Logger

GJB

Status: FINAL

Trial Pit

TP 6

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client
Barratt West London

Consultant
Soils Limited

Contractor
Soils Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.30	ES			(0.53)		Fine to coarse bark mulch over soft dark grey brown slightly clayey silty TOPSOIL. Occasional rare fine organic material (wood). Rare coarse dark grey brown sand.
						0.53		*End of Trial Pit at 0.53m*

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

Remarks

Method, Plant, Stability, Dimensions
0.53 - 0.53m GJB
L = 0.45m
W = 0.45m

Logger
GJB

Status: FINAL

Trial Pit

TP 6

SUPPLEMENTARY INFO

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client	Consultant	Contractor
Barratt West London	Soils Limited	Soils Limited

Sample Details

Sample ID	Type	Water Level (m)	Remarks
	ES		

Remarks

Method, Plant, Stability, Dimensions

0.53 - 0.53m GJB

L = 0.45m

W = 0.45m

Logger

GJB

Status: FINAL

Trial Pit

TP 7

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client
Barratt West London

Consultant
Soils Limited

Contractor
Soils Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.30	ES			(0.50) 0.50		Fine to coarse bark mulch over soft dark grey brown slightly clayey silty TOPSOIL. Occasional rare fine organic material (wood). Rare coarse dark grey brown sand. *End of Trial Pit at 0.50m*

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

Remarks

Method, Plant, Stability, Dimensions
0.50 - 0.50m GJB
L = 0.45m
W = 0.45m

Logger
GJB

Status: FINAL

Trial Pit

TP 7

SUPPLEMENTARY INFO

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client	Consultant	Contractor
Barratt West London	Soils Limited	Soils Limited

Sample Details

Sample ID	Type	Water Level (m)	Remarks
	ES		

Remarks

Method, Plant, Stability, Dimensions

0.50 - 0.50m GJB

L = 0.45m

W = 0.45m

Logger

GJB

Status: FINAL

Trial Pit

TP 8

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client
Barratt West London

Consultant
Soils Limited

Contractor
Soils Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.30	ES			(0.54)		Fine to coarse bark mulch over soft dark grey brown slightly clayey silty TOPSOIL. Occasional rare fine organic material (wood). Rare coarse dark grey brown sand.
						0.54		*End of Trial Pit at 0.54m*

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

Remarks

Method, Plant, Stability, Dimensions
0.54 - 0.54m GJB
L = 0.45m
W = 0.45m

Logger
GJB

Status: FINAL

Trial Pit

TP 8

SUPPLEMENTARY INFO

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP				1:25

Project Name	Project No.	Start Date	End Date
Nestle Avenue, Hayes, UB3 4QW	22025	2025-10-28	2025-10-28

Client	Consultant	Contractor
Barratt West London	Soils Limited	Soils Limited

Sample Details

Sample ID	Type	Water Level (m)	Remarks
	ES		

Remarks

Method, Plant, Stability, Dimensions

0.54 - 0.54m GJB

L = 0.45m

W = 0.45m

Logger

GJB

Status: FINAL

Appendix C Laboratory Testing Results and Human Health Assessment Summary Sheet

Normec DETS

UKAS TESTING
4480

Alex Stratford
Soils Ltd
Thomas Telford House - Unit 11
Sun Valley Business Park
Winnall Close
Winchester
SO23 0LB

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

DETS Report No: 25-06325

Site Reference:	Nestle Avenue, Hayes, UB3 4QW
Project / Job Ref:	22025
Order No:	22025/AS
Sample Receipt Date:	04/07/2025
Sample Scheduled Date:	04/07/2025
Report Issue Number:	1
Reporting Date:	10/07/2025

Authorised by:

Steve Knight
Customer Support Manager

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

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

4480

Soil Analysis Certificate						
DETS Report No: 25-06325	**~Date Sampled**	01/07/25	01/07/25			
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied			
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP3	TP4			
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied			
~Order No: 22025/AS	**~Depth (m)**	0.40	0.20			
Reporting Date: 10/07/2025	**DETS Sample No**	781891	781892			

Determinand	Unit	RL	Accreditation					
Asbestos Screen [S]	N/a	N/a	ISO17025	Not Detected	Not Detected			
pH	pH Units	N/a	MCERTS	7.8	7.7			
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1			
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1			
Organic Matter (SOM)	%	< 0.1	MCERTS	8.5	9.8			
Arsenic (As)	mg/kg	< 2	MCERTS	9	9			
W/S Boron	mg/kg	< 1	NONE	2.2	1.9			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.3	0.3			
Chromium (Cr)	mg/kg	< 2	MCERTS	16	17			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	26	30			
Lead (Pb)	mg/kg	< 3	MCERTS	65	72			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	10	10			
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2			
Vanadium (V)	mg/kg	< 1	MCERTS	27	27			
Zinc (Zn)	mg/kg	< 3	MCERTS	86	93			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2			

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

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-06325	**~Date Sampled**	01/07/25	01/07/25			
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied			
~Site Reference: Nestle Avenue, Hayes, UB3 4OW	**~TP / BH No**	TP3	TP4			
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied			
~Order No: 22025/AS	**~Depth (m)**	0.40	0.20			
Reporting Date: 10/07/2025	**DETS Sample No**	781891	781892			

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	0.34	0.18			
Anthracene	mg/kg	< 0.1	MCERTS	0.12	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	1.16	0.98			
Pyrene	mg/kg	< 0.1	MCERTS	1.02	0.91			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.69	0.58			
Chrysene	mg/kg	< 0.1	MCERTS	0.58	0.48			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.72	0.60			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.24	0.28			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.62	0.49			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.37	0.36			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	0.13			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.35	0.32			
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	6.2	5.3			

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

Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 25-06325	**~Date Sampled**	01/07/25	01/07/25			
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied			
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP3	TP4			
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied			
~Order No: 22025/AS	**~Depth (m)**	0.40	0.20			
Reporting Date: 10/07/2025	**DETS Sample No**	781891	781892			

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	**MCERTS**	10	< 10			
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21			
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	**MCERTS**	8	4			
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	**MCERTS**	33	17			
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	40	21			
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Total	mg/kg	< 42	NONE	51	< 42			

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: 25-06325	**~Date Sampled**	01/07/25	01/07/25			
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied			
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP3	TP4			
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied			
~Order No: 22025/AS	**~Depth (m)**	0.40	0.20			
Reporting Date: 10/07/2025	**DETS Sample No**	781891	781892			

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

Normec DETS Limited
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Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
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Soil Analysis Certificate - PCB (7 Congeners)						
DETS Report No: 25-06325	**~Date Sampled**	01/07/25	01/07/25			
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied			
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP3	TP4			
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied			
~Order No: 22025/AS	**~Depth (m)**	0.40	0.20			
Reporting Date: 10/07/2025	**DETS Sample No**	781891	781892			

Determinand	Unit	RL	Accreditation					
PCB Congener 28	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
PCB Congener 52	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
PCB Congener 101	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
PCB Congener 118	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
PCB Congener 138	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
PCB Congener 153	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
PCB Congener 180	mg/kg	< 0.008	NONE	< 0.008	< 0.008			
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1	< 0.1			

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Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 25-06325	
Soils Ltd	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	
~Project / Job Ref: 22025	
~Order No: 22025/AS	
Reporting Date: 10/07/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
781891	TP3	None Supplied	0.40	8.4	Brown loamy sand with vegetation
781892	TP4	None Supplied	0.20	12	Brown loamy sand with vegetation

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

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Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-06325
Soils Ltd
~Site Reference: Nestle Avenue, Hayes, UB3 4QW
~Project / Job Ref: 22025
~Order No: 22025/AS
Reporting Date: 10/07/2025

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

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List of HWOL Acronyms and Operators
DETS Report No: 25-06325
Soils Ltd
~Site Reference: Nestle Avenue, Hayes, UB3 4QW
~Project / Job Ref: 22025
~Order No: 22025/AS
Reporting Date: 10/07/2025

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 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 >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 - Aliphatic C5 - C34 - HS_1D_MS+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 >C5 - C35 - 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 - C35 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS

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Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene,Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k) fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz (a,h)anthracene, Benzo(ghi)perylene and Coronene.
S	Subcontracted analysis
M	MCERTS accredited test
U	UKAS accredited test

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UKAS TESTING
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DETS Report No: 25-09276

Site Reference:	Nestle Avenue, Hayes, UB3 4QW
Project / Job Ref:	22025
Order No:	22025/AS
Sample Receipt Date:	31/10/2025
Sample Scheduled Date:	31/10/2025
Report Issue Number:	1
Reporting Date:	07/11/2025

Authorised by:

Steve Knight
Customer Support Manager

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

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Soil Analysis Certificate						
DETS Report No: 25-09276	**~Date Sampled**	30/10/25	30/10/25	30/10/25	30/10/25	
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP5	TP6	TP7	TP8	
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: 22025/AS	**~Depth (m)**	0.30	0.30	0.30	0.30	
Reporting Date: 07/11/2025	**DETS Sample No**	795138	795139	795140	795141	

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	
pH	pH Units	N/a	MCERTS	7.6	7.7	7.9	7.6	
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	
Organic Matter (SOM)	%	< 0.1	MCERTS	12.4	7.8	7.6	10.6	
Arsenic (As)	mg/kg	< 2	MCERTS	9	10	10	9	
W/S Boron	mg/kg	< 1	NONE	1.6	1.5	1.4	1.7	
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.2	0.3	0.3	0.3	
Chromium (Cr)	mg/kg	< 2	MCERTS	15	17	17	19	
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	
Copper (Cu)	mg/kg	< 4	MCERTS	26	24	24	41	
Lead (Pb)	mg/kg	< 3	MCERTS	56	55	61	63	
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	
Nickel (Ni)	mg/kg	< 3	MCERTS	10	11	11	12	
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	
Vanadium (V)	mg/kg	< 1	MCERTS	25	31	30	30	
Zinc (Zn)	mg/kg	< 3	MCERTS	83	86	82	91	
Total Phenols (monohydric)	mg/kg	< 2	NONE	6.8	8.4	6.8	5.8	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Analysis carried out on the dried sample is corrected for the stone content

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-09276	**~Date Sampled**	30/10/25	30/10/25	30/10/25	30/10/25	
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP5	TP6	TP7	TP8	
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: 22025/AS	**~Depth (m)**	0.30	0.30	0.30	0.30	
Reporting Date: 07/11/2025	**DETS Sample No**	795138	795139	795140	795141	

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.20	
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoranthene	mg/kg	< 0.1	MCERTS	0.40	0.53	0.37	0.66	
Pyrene	mg/kg	< 0.1	MCERTS	0.34	0.46	0.30	0.58	
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.20	0.40	0.20	0.33	
Chrysene	mg/kg	< 0.1	MCERTS	0.21	0.43	0.22	0.33	
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.26	0.58	0.37	0.38	
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.26	< 0.1	0.14	
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.21	0.47	0.29	0.31	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.27	0.18	0.17	
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	0.26	0.16	0.17	
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	1.6	3.7	2.1	3.3	

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Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 25-09276	**~Date Sampled**	30/10/25	30/10/25	30/10/25	30/10/25	
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP5	TP6	TP7	TP8	
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: 22025/AS	**~Depth (m)**	0.30	0.30	0.30	0.30	
Reporting Date: 07/11/2025	**DETS Sample No**	795138	795139	795140	795141	

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 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	
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	**MCERTS**	< 2	< 2	< 2	< 2	
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	**MCERTS**	< 2	< 2	< 2	< 2	
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	**MCERTS**	< 3	< 3	< 3	< 3	
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	**MCERTS**	< 3	< 3	< 3	< 3	
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	**MCERTS**	< 10	< 10	< 10	< 10	
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 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	
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	**MCERTS**	< 2	< 2	< 2	< 2	
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	**MCERTS**	< 2	< 2	< 2	< 2	
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	**MCERTS**	< 2	< 2	< 2	< 2	
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	**MCERTS**	< 3	< 3	< 3	< 3	
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	**MCERTS**	< 10	< 10	< 10	< 10	
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Total	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-09276	**~Date Sampled**	30/10/25	30/10/25	30/10/25	30/10/25	
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP5	TP6	TP7	TP8	
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: 22025/AS	**~Depth (m)**	0.30	0.30	0.30	0.30	
Reporting Date: 07/11/2025	**DETS Sample No**	795138	795139	795140	795141	

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

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Soil Analysis Certificate - PCB (7 Congeners)						
DETS Report No: 25-09276	**~Date Sampled**	30/10/25	30/10/25	30/10/25	30/10/25	
Soils Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	**~TP / BH No**	TP5	TP6	TP7	TP8	
~Project / Job Ref: 22025	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: 22025/AS	**~Depth (m)**	0.30	0.30	0.30	0.30	
Reporting Date: 07/11/2025	**DETS Sample No**	795138	795139	795140	795141	

Determinand	Unit	RL	Accreditation					
PCB Congener 28	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
PCB Congener 52	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
PCB Congener 101	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
PCB Congener 118	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
PCB Congener 138	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
PCB Congener 153	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
PCB Congener 180	mg/kg	< 0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	

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Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 25-09276	
Soils Ltd	
~Site Reference: Nestle Avenue, Hayes, UB3 4QW	
~Project / Job Ref: 22025	
~Order No: 22025/AS	
Reporting Date: 07/11/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
795138	TP5	None Supplied	0.30	29.8	Black loamy sand with vegetation
795139	TP6	None Supplied	0.30	10.9	Black loamy sand with vegetation
795140	TP7	None Supplied	0.30	23.4	Black loamy sand with vegetation
795141	TP8	None Supplied	0.30	23.7	Black loamy sand with vegetation

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

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Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-09276
Soils Ltd
~Site Reference: Nestle Avenue, Hayes, UB3 4QW
~Project / Job Ref: 22025
~Order No: 22025/AS
Reporting Date: 07/11/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	DS	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	DS	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	DS	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	DS	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	DS	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	DS	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	DS	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	DS	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	DS	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	DS	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	DS	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	DS	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	DS	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	DS	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	DS	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	DS	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	DS	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	DS	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	DS	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	DS	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	DS	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	DS	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

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List of HWOL Acronyms and Operators
DETS Report No: 25-09276
Soils Ltd
~Site Reference: Nestle Avenue, Hayes, UB3 4QW
~Project / Job Ref: 22025
~Order No: 22025/AS
Reporting Date: 07/11/2025

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 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 >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 - Aliphatic C5 - C34 - HS_1D_MS+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 >C5 - C35 - 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 - C35 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS

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Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene,Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k) fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz (a,h)anthracene, Benzo(ghi)perylene and Coronene.
^	No sampling date provided; unable to confirm if samples are within acceptable holding times
$	Samples exceeded their recommended holding times
C	Deviation due to exceeded time between Sampling and Receipt
S	Subcontracted analysis
M	MCERTS accredited test
U	UKAS accredited test

Assessment of Chemicals of Potential Concern to Human Health

Risk parameter:	Default - Human Health - residential without home-grown produce (6%SOM)
Client:	Barrat Homes
Site:	Nestle Block B3, B4 and B9
Job no.:	3E+08
Lab. report no(s).:	25-09276 and 25-06325

Data Filters

Zone	All
Strata	All
Depth Min (m bgl)	0.2
Depth Max (m bgl)	0.4
Dataset mean SOM%	9.45
Scenario SOM%	6

All values in mg/kg unless otherwise stated

CAS No / P Code	Chemical of Potential Concern	Units	LoD	No. Samples	Min. Value	Max. Value	Mean	Median	Standard Deviation	No. Samples >= GAC & > LoD	Soil Saturation Limit @6% SOM	GAC	GAC Source	Central Limit Theorem Statistical Assessment (after CL:AIRE 2020) Statistical Assessment?	Upper Confidence Limit 80%	Upper Confidence Limit 95%	Upper Confidence Limit 99%	Results of Significance Test	Date	Zone	Location	Depth (m bgl)	Strata
																			30/10/25		TP5	0.3	TS
																			30/10/25		TP6	0.3	TS
																			30/10/25		TP7	0.3	TS
																			30/10/25		TP8	0.3	TS
																			01/07/25		TP3	0.4	TS
																			01/07/25		TP4	0.2	TS
	Asbestos																						
P1020	Asbestos Identified	text	Y/N	6	-	-	-	-	No. of detects:	0	-	-	-		-	-	-	-			N	N	N
P1889	Asbestos Screen Name	text	Y/N	0	-	-	-	-	-		-		-										
12172-67-7	Actinolite detected	text	Y/N	0	-	-	-	-	-		-		-										
12172-73-5	Amosite detected	text	Y/N	0	-	-	-	-	-		-		-										
17068-78-9	Anthophyllite detected	text	Y/N	0	-	-	-	-	-		-		-										
12001-29-5	Chrysotile detected	text	Y/N	0	-	-	-	-	-		-		-										
12001-28-4	Crocidolite detected	text	Y/N	0	-	-	-	-	-		-		-										
14567-73-8	Tremolite detected	text	Y/N	0	-	-	-	-	-		-		-										
P1885	Asbestos Quant. (Stage 2)	%	0.001	0					No. > LOD:		-		-										
P1935	Asbestos Quant. Total	%	0.001	0					No. > LOD:		-		-										
P1826	Asbestos Quant. (Stage 3)	%	0.001	0					No. > LOD:		-		-										
-	Asbestos Quant. Total (Stages 2+3)	%	0.001	0					No. > LOD:		-		-										
P1880	Asbestos Containing Material Types Detected (ACM)	text	-	0	-	-	-	-	-		-		-										
	Hydrock Default Suite - FOC / SOM / pH										-												
P1085	FOC (dimensionless)	-	0.001	0							-		-										
-	SOM (calculated)	%	0.1724	6	7.60	12.40	9.45	9.15	1.85		-	-	-		-	-	-	-			12.4	7.8	7.6
P1334	pH (su)	pH Units	0.1	6	7.60	7.90	7.72	7.70	0.12		-	-	-		-	-	-	-			7.6	7.7	7.9
	Hydrock Default Suite - Metals & PAH																						
7440-38-2	Arsenic	mg/kg	1	6	9.00	10.00	9.33	9.00	0.52	0	NR	40	C4SL - CL:AIRE 2014	Y	9.64	9.88	10.18	Potentially Suitable for Use			9	10	10
7440-41-7	Beryllium	mg/kg	0.06	0										Y									
7440-42-8	Boron	mg/kg	0.2	6	1.40	2.20	1.72	1.65	0.29	0	NR	11000	Hydrock Derived	Y	1.89	2.02	2.20	Potentially Suitable for Use			1.6	1.5	1.4
7440-43-9	Cadmium	mg/kg	0.2	6	0.20	0.30	0.28	0.30	0.04	0	NR	150	C4SL - CL:AIRE 2014	Y	0.31	0.33	0.35	Potentially Suitable for Use			0.2	0.3	0.3
16065-83-1	Chromium (III)	mg/kg	1	6	15.00	19.00	16.83	17.00	1.33	0	NR	890	Hydrock Derived	Y	17.63	18.23	19.02	Potentially Suitable for Use			15	17	17
18540-29-9	Chromium (VI)	mg/kg	1.8	0										Y									
7440-47-3	Chromium (Total)	mg/kg	1	0										N									
7440-50-8	Copper	mg/kg	1	6	24.00	41.00	28.50	26.00	6.50	0	NR	7100	Hydrock Derived	Y	32.42	35.33	39.21	Potentially Suitable for Use			26	24	24
7439-92-1	Lead	mg/kg	1	6	55.00	72.00	62.00	62.00	6.26	0	NR	310	C4SL - CL:AIRE 2014	Y	65.77	68.57	72.31	Potentially Suitable for Use			56	55	61
7439-97-6	Mercury, inorganic	mg/kg	0.3	6	0.30	0.30	0.30	0.30	0.00	0	NR	300	Hydrock Derived	Y	0.30	0.30	0.30	Potentially Suitable for Use			0.3	0.3	0.3
7440-02-0	Nickel	mg/kg	1	6	10.00	12.00	10.67	10.50	0.82	0	NR	180	Hydrock Derived	Y	11.16	11.52	12.01	Potentially Suitable for Use			10	11	11
7782-49-2	Selenium	mg/kg	1	6	1.00	1.00	1.00	1.00	0.00	0	NR	430	Hydrock Derived	Y	1.00	1.00	1.00	Potentially Suitable for Use			1	1	1
7440-62-2	Vanadium	mg/kg	1	6	25.00	31.00	28.33	28.50	2.34	0	NR	1200	Hydrock Derived	Y	29.74	30.79	32.18	Potentially Suitable for Use			25	31	30
7440-66-6	Zinc	mg/kg	1	6	82.00	93.00	86.83	86.00	4.36	0	NR	40000	Hydrock Derived	Y	89.46	91.40	94.00	Potentially Suitable for Use			83	86	82
P1095	Cyanide (free)	mg/kg	1	6	1.00	1.00	1.00	1.00	0.00	0	NR	24	Acute Risk - SoBRA 2020	Y	1.00	1.00	1.00	Potentially Suitable for Use			1	1	1
P1186	Total Phenols (Monohydric)	mg/kg	1	6	2.00	8.40	5.30	6.30	2.69	0	70308	690	Hydrock Derived	Y	6.92	8.12	9.73	Potentially Suitable for Use			6.8	8.4	6.8
83-32-9	Acenaphthene	mg/kg	0.1	6	0.10	0.10	0.10	0.10	0.00	0	336	7400	Hydrock Derived	Y	0.10	0.10	0.10	Potentially Suitable for Use			0.1	0.1	0.1
208-96-8	Acenaphthylene	mg/kg	0.1	6	0.10	0.10	0.10	0.10	0.00	0	506	7400	Hydrock Derived	Y	0.10	0.10	0.10	Potentially Suitable for Use			0.1	0.1	0.1
120-12-7	Anthracene	mg/kg	0.1	6	0.10	0.12	0.10	0.10	0.01	0	6.96	38000	Hydrock Derived	Y	0.11	0.11	0.12	Potentially Suitable for Use			0.1	0.1	0.1
56-55-3	Benz(a)anthracene	mg/kg	0.1	6	0.20	0.69	0.40	0.37	0.20	0	10.27	16	Hydrock Derived	Y	0.52	0.61	0.73	Potentially Suitable for Use			0.2	0.4	0.2
50-32-8	Benzo(a)pyrene	mg/kg	0.1	6	0.21	0.62	0.40	0.39	0.15	0	5.46	5.3	C4SL - CL:AIRE 2014	Y	0.49	0.56	0.65	Potentially Suitable for Use			0.21	0.47	0.29
205-99-2	Benzo(b)fluoranthene	mg/kg	0.1	6	0.24	0.58	0.35	0.33	0.13	0	7.29	4.1	Hydrock Derived	Y	0.43	0.48	0.56	Potentially Suitable for Use			0.26	0.58	0.37
191-24-2	Benzo(ghi)perylene	mg/kg	0.1	6	0.10	0.35	0.18	0.10	0.12	0	0.09	360	Hydrock Derived	Y	0.25	0.31	0.38	Potentially Suitable for Use			0.1	0.1	0.1
207-08-9	Benzo(k)fluoranthene	mg/kg	0.1	6	0.10	0.28	0.19	0.19	0.08	0	4.12	110	Hydrock Derived	Y	0.24	0.27	0.32	Potentially Suitable for Use			0.1	0.26	0.1
218-01-9	Chrysene	mg/kg	0.1	6	0.21	0.58	0.38	0.38	0.15	0	2.64	32	Hydrock Derived	Y	0.46	0.53	0.62	Potentially Suitable for Use			0.21	0.43	0.22
53-70-3	Dibenz(ah)anthracene	mg/kg	0.1	6	0.10	0.13	0.11	0.10	0.01	0	0.024	0.32	Hydrock Derived	Y	0.11	0.12	0.13	Potentially Suitable for Use			0.1	0.1	0.1
206-44-0	Fluoranthene	mg/kg	0.1	5					-	0	113	1600	Hydrock Derived	Y	-	-	-	Insufficient samples				0.4	0.53
86-73-7	Fluorene	mg/kg	0.1	6	0.10	0.10	0.10	0.10	0.00	0	183	5000	Hydrock Derived	Y	0.10	0.10	0.10	Potentially Suitable for Use			0.1	0.1	0.1
193-39-5	Indeno(123cd)pyrene	mg/kg	0.1	6	0.10	0.37	0.24	0.23	0.11	0	0.37	46	Hydrock Derived	Y	0.31	0.36	0.42	Potentially Suitable for Use			0.1	0.27	0.18
91-20-3	Naphthalene	mg/kg	0.1	6	0.10	0.10	0.10	0.10	0.00	0	432	85	C4SL - CL:AIRE 2024	Y	0.10	0.10	0.10	Potentially Suitable for Use			0.1	0.1	0.1
85-01-8	Phenanthrene	mg/kg	0.1	6	0.10	0.34	0.17	0.14	0.09	0	214	1600	Hydrock Derived	Y	0.23	0.27	0.33	Potentially Suitable for Use			0.1	0.1	0.1
129-00-0	Pyrene	mg/kg	0.1	6	0.30	1.02	0.60	0.52	0.30	0	13.2	3800	Hydrock Derived	Y	0.78	0.92	1.10	Potentially Suitable for Use			0.34	0.46	0.3
P1310	PAH 16 Total	mg/kg	1.6	6	1.60	6.20	3.70	3.50	1.79			-		N	-	-	-	-			1.6	3.7	2.1
	TPH fractions																						
P1407	TPH ali EC05-EC06	mg/kg	0.01	6	0.01	0.01	0.01	0.01	0.000	0	1150	160	Hydrock Derived	N	-	-	-	-			0.01	0.01	0.01
P1408	TPH ali >EC06-EC08	mg/kg	0.05	6	0.05	0.05	0.05	0.05	0.000	0	736	530	Hydrock Derived	N	-	-	-	-			0.05	0.05	0.05
P1409	TPH ali >EC08-EC10	mg/kg	2	6	2.00	2.00	2.00	2.00	0.000	0	451	150	Hydrock Derived	N	-	-	-	-			2	2	2
P1410	TPH ali >EC10-EC12	mg/kg	2	6	2.00	2.00	2.00	2.00	0.00	0	283	770	Hydrock Derived	N	-	-	-	-			2	2	2
P1411	TPH ali >EC12-EC16	mg/kg	3	6	3.00	3.00	3.00	3.00	0.00	0	142	4400	Hydrock Derived	N	-	-	-	-			3	3	3
-	TPH ali >EC16-EC21	mg/kg	3	6	3.00	3.00	3.00	3.00	0.00			-		N	-	-	-	-			3	3	3
-	TPH ali >EC21-EC35	mg/kg	10	6	10.00	10.00	10.00	10.00	0.00			-		N	-	-	-	-			10	10	10
P1938	TPH ali >EC16-EC35	mg/kg		0										N									
P1415	TPH ali >EC35-EC44	mg/kg	8.4	4	8.40	8.40	8.40	8.40	0.00	0	51	110000	Hydrock Derived	N	-	-	-	-			8.4	8.4	8.4

Assessment of Chemicals of Potential Concern to Human Health

Risk parameter:	Default - Human Health - residential without home-grown produce (6%SOM)
Client:	Barrat Homes
Site:	Nestle Block B3, B4 and B9
Job no.:	3E+08
Lab. report no(s).:	25-09276 and 25-06325

Data Filters

Zone	All
Strata	All
Depth Min (m bgl)	0.2
Depth Max (m bgl)	0.4
Dataset mean SOM%	9.45
Scenario SOM%	6

All values in mg/kg unless otherwise stated

CAS No / P Code	Chemical of Potential Concern	Units	LoD	No. Samples	Min. Value	Max. Value	Mean	Median	Standard Deviation	No. Samples >= GAC & > LoD	Soil Saturation Limit @6% SOM	GAC	GAC Source	Central Limit Theorem Statistical Assessment (after CL:AIRE 2020)					Date	30/10/25	30/10/25	30/10/25	30/10/25	01/07/25	01/07/25		
																			Zone								
																			Location	TP5	TP6	TP7	TP8	TP3	TP4		
																			Depth (m bgl)	0.3	0.3	0.3	0.3	0.4	0.2		
														Statistical Assessment?	Upper Confidence Limit			Results of Significance Test	Strata	TS	TS	TS	TS	TS	TS		
															80%	95%	99%										
-	TPH ali >EC5-EC35	mg/kg	21	6	21.00	21.00	21.00	21.00	0.00			-		N	-	-	-	-		21	21	21	21	21	21		
-	TPH ali >EC5-EC44	mg/kg	10	0										N													
P1441	TPH aro EC05-EC07	mg/kg	0.01	6	0.01	0.01	0.01	0.01	0.00	0	4708	1400	Hydrock Derived	N	-	-	-	-		0.01	0.01	0.01	0.01	0.01	0.01		
P1355	TPH aro >EC07-EC08	mg/kg	0.05	6	0.05	0.05	0.05	0.05	0.00	0	4357	3900	Hydrock Derived	N	-	-	-	-		0.05	0.05	0.05	0.05	0.05	0.05		
P1356	TPH aro >EC08-EC10	mg/kg	2	6	2.00	2.00	2.00	2.00	0.00	0	3578	270	Hydrock Derived	N	-	-	-	-		2	2	2	2	2	2		
P1357	TPH aro >EC10-EC12	mg/kg	2	6	2.00	2.00	2.00	2.00	0.00	0	2149	1200	Hydrock Derived	N	-	-	-	-		2	2	2	2	2	2		
P1358	TPH aro >EC12-EC16	mg/kg	2	6	2.00	2.00	2.00	2.00	0.00	0	1004	2500	Hydrock Derived	N	-	-	-	-		2	2	2	2	2	2		
P1359	TPH aro >EC16-EC21	mg/kg	3	6	3.00	8.00	4.00	3.00	2.00	0	321	1900	Hydrock Derived	N	-	-	-	-		3	3	3	3	8	4		
P1360	TPH aro >EC21-EC35	mg/kg	10	6	10.00	33.00	15.00	10.00	9.25	0	29	1900	Hydrock Derived	N	-	-	-	-		10	10	10	10	33	17		
P1362	TPH aro >EC35-EC44	mg/kg	8.4	0										N													
-	TPH aro >EC5-EC35	mg/kg	21	6	21.00	40.00	24.17	21.00	7.76			-		N	-	-	-	-		21	21	21	21	40	21		
-	TPH aro >EC5-EC44	mg/kg	10	0										N													
-	Total TPH >EC5-EC44	mg/kg	42	6	42.00	51.00	43.50	42.00	3.67			-		N	-	-	-	-		42	42	42	42	51	42		
	VOCs - BTEX & MTBE																										
71-43-2	Benzene	mg/kg	2	6	0.00	0.00	0.00	0.00	0.00	0	4708	3.3	C4SL - CL:AIRE 2014	N	-	-	-	-		0.002	0.002	0.002	0.002	0.002	0.002		
108-88-3	Toluene	mg/kg	5	6	0.01	0.01	0.01	0.01	0.00	0	4357	3900	Hydrock Derived	N	-	-	-	-		0.005	0.005	0.005	0.005	0.005	0.005		
100-41-4	Ethylbenzene	mg/kg	2	6	0.00	0.00	0.00	0.00	0.00	0	2844	440	Hydrock Derived	N	-	-	-	-		0.002	0.002	0.002	0.002	0.002	0.002		
95-47-6	Xylene, o-	mg/kg	2	6	0.00	0.00	0.00	0.00	0.00	0	2618	480	Hydrock Derived	N	-	-	-	-		0.002	0.002	0.002	0.002	0.002	0.002		
-	Xylene, p- (or combined m & p)	mg/kg	2	6	0.00	0.00	0.00	0.00	0.00			-		N	-	-	-	-		0.002	0.002	0.002	0.002	0.002	0.002		
1634-04-4	MTBE	mg/kg	5	6	0.01	0.01	0.01	0.01	0.00	0	62749	320	Hydrock Derived	N	-	-	-	-		0.005	0.005	0.005	0.005	0.005	0.005		
	VOCs - other benzenes																										
98-82-8	Iso-propylbenzene	mg/kg	1	0										N													
103-65-1	Propylbenzene	mg/kg	1	0										N													
95-63-6	1,2,4-Trimethylbenzene	mg/kg	1	0										N													
108-67-8	1,3,5-Trimethylbenzene	mg/kg	1	0										N													
	VOCs - chlorobenzenes																										
108-86-1	Bromobenzene	mg/kg	1	0										N													
108-90-7	Chlorobenzene	mg/kg	1	0										N													
95-50-1	1,2-Dichlorobenzene	mg/kg	1	0										N													
541-73-1	1,3-Dichlorobenzene	mg/kg	1	0										N													
106-46-7	1,4-Dichlorobenzene	mg/kg	1	0										N													
118-74-1	Hexachlorobenzene	mg/kg	0.3	0										N													
608-93-5	Pentachlorobenzene	mg/kg		0										N													
87-61-6	1,2,3-trichlorobenzene	mg/kg	1	0										N													
120-82-1	1,2,4-trichlorobenzene	mg/kg	1	0										N													
108-70-3	1,3,5-trichlorobenzene	mg/kg		0										N													
634-66-2	1,2,3,4-tetrachlorobenzene	mg/kg		0										N													
634-90-2	1,2,3,5-tetrachlorobenzene	mg/kg		0										N													
95-94-3	1,2,4,5-tetrachlorobenzene	mg/kg		0										N													
	VOCs - chloroalkanes & alkanes																										
75-27-4	Bromodichloromethane	mg/kg	1	0										N													
75-25-2	Bromoform (aka tribromethane)	mg/kg	1	0										N													
75-00-3	Chloroethane	mg/kg	1	0										N													
75-01-4	Chloroethene (aka vinyl chloride)	mg/kg	1	0										N													
74-87-3	Chloromethane	mg/kg	1	0										N													
75-34-3	1,1-Dichloroethane	mg/kg	1	0										N													
107-06-2	1,2-Dichloroethane	mg/kg	1	0										N													
75-35-4	1,1-Dichloroethene	mg/kg	1	0										N													
156-59-2	Cis 1,2 Dichloroethene	mg/kg	1	0										N													
156-60-5	Trans 1,2 Dichloroethene	mg/kg	1	0										N													
75-09-2	Dichloromethane	mg/kg		0										N													
78-87-5	1,2-Dichloropropane	mg/kg	1	0										N													
67-72-1	Hexachloroethane	mg/kg	0.05	0										N													
127-18-4	Tetrachloroethene	mg/kg	1	0										N													
630-20-6	1,1,1,2-Tetrachloroethane	mg/kg	1	0										N													
79-34-5	1,1,2,2-Tetrachloroethane	mg/kg	1	0										N													
56-23-5	Tetrachloromethane	mg/kg	1	0										N													
79-01-6	Trichloroethene	mg/kg	1	0										N													
71-55-6	1,1,1-Trichloroethane	mg/kg	1	0										N													
79-00-5	1,1,2 Trichloroethane	mg/kg	1	0										N													
67-66-3	Trichloromethane	mg/kg	1	0										N													
	Other phenols & chlorophenols																										
108-95-2	Phenol	mg/kg	0.2	0										N													

Assessment of Chemicals of Potential Concern to Human Health

Risk parameter:	Default - Human Health - residential without home-grown produce (6%SOM)
Client:	Barrat Homes
Site:	Nestle Block B3, B4 and B9
Job no.:	3E+08
Lab. report no(s).:	25-09276 and 25-06325

Data Filters

Zone	All
Strata	All
Depth Min (m bgl)	0.2
Depth Max (m bgl)	0.4
Dataset mean SOM%	9.45
Scenario SOM%	6

All values in mg/kg unless otherwise stated

CAS No / P Code	Chemical of Potential Concern	Units	LoD	No. Samples	Min. Value	Max. Value	Mean	Median	Standard Deviation	No. Samples >= GAC & > LoD	Soil Saturation Limit @6% SOM	GAC	GAC Source	Central Limit Theorem Statistical Assessment (after CL:AIRE 2020)					Date	30/10/25	30/10/25	30/10/25	30/10/25	01/07/25	01/07/25		
																			Zone								
																			Location	TP5	TP6	TP7	TP8	TP3	TP4		
																			Depth (m bgl)	0.3	0.3	0.3	0.3	0.4	0.2		
														Statistical Assessment?	Upper Confidence Limit			Results of Significance Test	Strata	TS	TS	TS	TS	TS	TS		
															80%	95%	99%										
95-57-8	2-Chlorophenol	mg/kg	0.1	0										N													
120-83-2	2,4-Dichlorophenol	mg/kg	0.3	0										N													
105-67-9	2,4-Dimethylphenol	mg/kg	0.3	0										N													
95-48-7	2-Methylphenol	mg/kg	0.3	0										N													
108-39-4	3-Methylphenol	mg/kg		0										N													
106-44-5	4-Methylphenol	mg/kg	0.2	0										N													
87-86-5	Pentachlorophenol	mg/kg		0										N													
88-06-2	2,3,4,6-Tetrachlorophenol	mg/kg		0										N													
88-06-2	2,4,6-Trichlorophenol	mg/kg	0.1	0										N													
	Phthalates																										
117-81-7	Bis (2-ethylhexyl) phthalate	mg/kg		0										N													
85-68-7	Butyl benzyl phthalate	mg/kg	0.3	0										N													
84-66-2	Diethyl Phthalate	mg/kg	0.2	0										N													
84-74-2	Di-n-butyl phthalate	mg/kg	0.2	0										N													
117-84-0	Di-n-octyl phthalate	mg/kg		0										N													
	Pesticides																										
309-00-2	Aldrin	mg/kg		0										N													
1912-24-9	Atrazine	mg/kg		0										N													
72-54-8	DDD	mg/kg		0										N													
75-55-9	DDE	mg/kg		0										N													
50-29-3	DDT	mg/kg		0										N													
62-73-7	Dichlorvos	mg/kg		0										N													
60-57-1	Dieldrin	mg/kg		0										N													
959-98-8	Endosulfan - alpha	mg/kg		0										N													
33213-65-9	Endosulfan - beta	mg/kg		0										N													
319-84-6	Hexachlorocyclohexanes - alpha (inc. Lindane)	mg/kg		0										N													
319-85-7	Hexachlorocyclohexanes - beta (inc. Lindane)	mg/kg		0										N													
58-89-9	Hexachlorocyclohexanes - gamma (inc. Lindane)	mg/kg		0										N													
	Non-dioxin-like PCBs																										
7012-37-5	PCB-28	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	172	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
35693-99-3	PCB-52	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	46.2	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
37680-73-2	PCB-101	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	156	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
31508-00-6	PCB-118	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	4188	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
35065-28-2	PCB-138	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	1.05	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
35065-27-1	PCB-153	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	27.2	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
35065-29-3	PCB-180	mg/kg	0.008	6	0.01	0.01	0.01	0.01	0.00	0	26.2	0.091	Hydrock Derived	N	-	-	-	-		0.008	0.008	0.008	0.008	0.008	0.008		
-	Total PCB (ICES7)	mg/kg	<0.1	6	0.10	0.10	0.10	0.10	0.00			-		N	-	-	-	-		0.1	0.1	0.1	0.1	0.1	0.1		