



GeoAssist Limited

Civil, Environmental & Geotechnical

Client:

J Walker Homes Limited
Joshua House
35 Joshua Lane
Middleton
Manchester
M24 2AY

Contractor:

Verification and Validation Report – Imported Soils

Baytree Lane, Middleton,

September 2025

Site Ref: 6143/VBL V1.00 VRTD2

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Sheffield Street
Heaton Norris
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SK4 1RU

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Client:

J Walker Homes Limited
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Middleton
Manchester
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Contractor:

Verification and Validation Report

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Client:

J Walker Homes Limited
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M24 2AY

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Verification and Validation Report

1. Introduction

This report has been produced in order to provide information to verify the suitability of imported landscaping soils as detailed within Section 12 of the GeoAssist Phase II Risk Assessment referenced 6143 VBL Baytree Lane Middleton Phase II CLRA v1.00 Feb 2024. The measures detailed in the Phase II report were submitted under planning permission numbers 24/00306/FUL for the Construction of five new three bedroomed residential dwellings with associated car parking and landscaping works.

The report presents the verification evidence for soils imported to site as part of the landscaping scheme in areas demarked by the blue hatching on the plan in Appendix A to this report. The evidence provided will demonstrate that the soft landscaping is suitable for the intended use.

The approximate grid reference for the centre of the site is 388560, 406020 and the total area of the site is approximately 1100 m². The area of the site is outlined with a red line on the site plan in Appendix A1.

2. Description of the Site

2.1 Previous

The site is located on intersection of Baytree Lane and Damson Green in Middleton to the rear of The Old Cock Inn on Oldham Road. The site forms a regular square shape and the topography of the site is relatively level with the surrounding ground and streets. There were no permanent structures on site and the ground cover was made up of a metalled/tarmacadam surface with no significant soft landscaping other than a thin strip of grass along the edges. The site boundary is formed by; The Old Cock Inn to the north, Baytree Lane to the east over which a commercial steel stockist and fabrication is located. Damson Green and residential apartments to the south and Residential property to the west. At the time of the site walkover there was no obvious visual or olfactory observations of contaminants noted.

2.2 Present Development

The Completed development incorporates:

The 5 number 3 bedroom residential dwelling houses with associated off road car parking to the front and private gardens to the rear. There are no basements associated with this development.

3. Background Information

3.1 History of the Site

More comprehensive information regarding the historical use of the site can be found in the GeoAssist Phase I report for the site undertaken referenced 6143 VBL Baytree Lane Middleton Phase I PCLRA v1.00 Jan2024

3.2 Previous Investigations

The following site investigation reports and advice notes are known to have been produced for this site and have been referenced where considered appropriate. A very brief description of the information contained within is also provided.

Author	Date	Ref	Title / description
GeoAssist Ltd	Jan 2024	6143 VBL Baytree Lane Middleton Phase I PCLRA v1.00	Full Phase I Preliminary Contaminated Land Risk Assessment & Desk Based Study to inform intrusive works
GeoAssist Ltd	Feb 2024	6143 VBL Baytree Lane Middleton Phase II CLRA v1.00	Phase II Contaminated Land Risk Assessment & Ground Investigation Incorporating Window sampled holes and a deeper cable percussive borehole

4. Remediation

The Phase II report concluded that :

The soils on site presented a low risk to both, site end user receptors and the wider environment and that the production of a remediation scheme was not deemed to be a requirement for this site. However, validation sampling of imported soils would be a requirement.

The final landscape plan for the site is relatively straight forward and consists of concrete paving pathways and lawned areas only. Car parking bays are formed by tarmacadam surfacing.

4.1 Remediation Objectives

None Required

4.2 Verification Plan

Verification of imported soils only.

5. Verification

5.1 Volumes of Imported Soils.

Approximately 120 Tonnes (72m³) of topsoil has been imported for Landscaping the areas highlighted in Blue (Appendix A).

The soils were cleared for import based on the supplier declared certification (Appendix C1). Soils as imported were then sampled and tested. The Soils as imported were found to conform with the generic assessment criteria for residential with homegrown produce land use. Photographic evidence along with a plan of the soils sampling locations are presented in appendix C2 to this report. The Soils laboratory analytical results form appendix C3, the soils risk assessment forms appendix C4 to this report and the trial pit logs form appendix C5.

The trial pits noted that a minimum 300mm layer of topsoil was placed onto a white geotextile membrane in soft landscaping areas. The membrane was not penetrated in the trial pits so as to maintain integrity.

5.2 Chemical & Physical Testing to Confirm Compliance with Objectives

Other than the afore mentioned soil testing certification for confirmation that the soils are low risk no additional chemical or physical test results were required to be undertaken for the development.

5.3 Ongoing Monitoring

There is no ongoing monitoring programme associated with this site.

6. Final Site Conditions

Evidence provided herein demonstrates that a suitably inert growth medium has been imported for the final landscaping scheme. Insitu testing of imported soils has demonstrated that the soils are suitable for incorporation into the development and that they do not pose a risk to site end users by means of substances within. The site has been developed in accordance with the planning requirements for contaminated land.

The developer and all contractors employed by the developer were required to monitor for, and report any, evidence of contamination found during construction. None was encountered or reported.

The evidence presented herein demonstrates that all reasonably practicable steps have been taken to ensure the site meets the requirement for residential purposes and the risk to the occupiers from ground contamination is low to negligible in all reasonably foreseeable circumstances.



Matthew Benson BSc

Geotechnical/Environmental Engineer

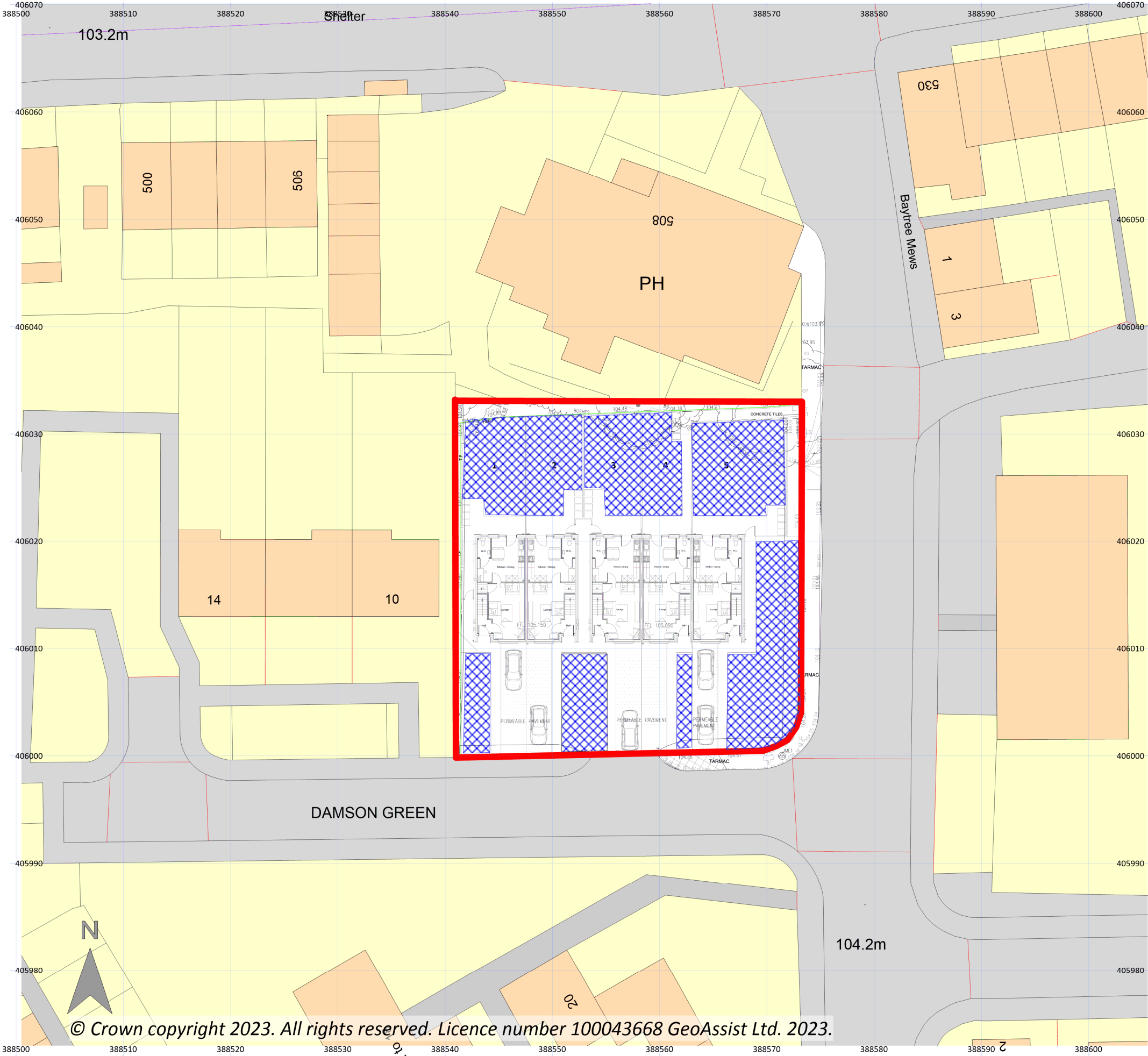


Mark Richardson MSc CEng MICE

Technical Director

This report has been prepared by GeoAssist Limited with all reasonable professional skill and care within the terms of the contract with J Walker Homes Limited. The report is confidential to J Walker Homes Limited, their/the named persons advisors and bankers, and GeoAssist Limited accepts no responsibility of whatever nature to third parties to whom this report may be divulged. GeoAssist Limited owns the copyright in this report. All rights are reserved, and unauthorised use is prohibited. J Walker Homes Limited may use the report for their/her/his own purposes. GeoAssist are not liable for any errors, omissions or facts contained within data provided by third parties.

A1 Site Plan Appendix A



A1 Site Plan

Site Name	Baytree Lane
Location	Middleton
GeoAssist Ref	6143VBL
Client	J Walker Homes Limited
	Joshua House 35 Joshua Lane Middleton Manchester M24 2AY
Planning Consultant	
NGR (centre of site)	388560,406020
Production Date	July 2025
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36

Do Not Scale

Appendix B

B1 Soil Delivery Notes

P. P. O'CONNOR
Committed To Excellence

WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY			
TICKET NO: 145287		DATE: 23-Apr-2025	
CUSTOMER: TARCON GROUNDWORK LIMITED		DEPOT: P36	
DELIVERY/COLLECTION ADDRESS: Bay tree Lane, Chadderton, Next to Old Cock Inn M24 2EL		ORDER NO:	
		HAULIER: PP O'Connor Plant Ltd	
		VEHICLE REG: MV23 WWJ	
		SITE CONTACT: Eric	
PRODUCT DESCRIPTION		QUANTITY	
Topsoil		GROSS WEIGHT	31,950
		TARE WEIGHT	12,300
		NET WEIGHT	19,650
TIME ARRIVED ONSITE:	11:11	CASH CUSTOMER:	
TIME FINISHED ONSITE:	11:16		
WAITING TIME/DAYWORK:	5.00	DRIVER NAME: DANIEL MURRAY	
SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND ARE SUBJECT TO OUR CONDITIONS OF SALE PRINT NAME: Chris CUSTOMER SIGNATURE: 			
<u>ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.</u> THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION. ALL VEHICLES ENTER CUSTOMERS PROPERTY AT CUSTOMER'S RISK. ALL GOODS ARE CARRIED SUBJECT TO RHA CONDITIONS OF ARRIAGE 1998. COPY AVAILABLE ON REQUEST.			
           			

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WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY						
TICKET NO:		145288		DATE:	23-Apr-2025	
CUSTOMER:		TARCON GROUNDWORK LIMITED		DEPOT:	P36	
DELIVERY/COLLECTION ADDRESS: Bay tree Lane, Chadderton, Next to Old Cock Inn M24 2EL			ORDER NO:			
			HAULIER:			PP O'Connor Plant Ltd
			VEHICLE REG:			MV23 WWJ
			SITE CONTACT:			Eric
PRODUCT DESCRIPTION			QUANTITY			
Topsoil			GROSS WEIGHT		31,980	
			TARE WEIGHT		12,300	
			NET WEIGHT		19,680	
TIME ARRIVED ONSITE:		14:14		CASH CUSTOMER:		
TIME FINISHED ONSITE:		14:14				
WAITING TIME/DAYWORK:		0.00		DRIVER NAME: DANIEL MURRAY		

CUSTOMER SIGNATURE:

Chick

ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.
THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION.
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salesledger@ppoconnor.co.uk

WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY			
TICKET NO:		145328	
DATE:		23-Apr-2025	
CUSTOMER:		TARCON GROUNDWORK LIMITED	
DEPOT:		P36	
DELIVERY/COLLECTION ADDRESS:		ORDER NO:	
Bay tree Lane, Chadderton, Next to Old Cock Inn M24 2EL			
		HAULIER: PP O'Connor Plant Ltd	
		VEHICLE REG: MV25 EXD	
		SITE CONTACT: Eric	
PRODUCT DESCRIPTION		QUANTITY	
Topsoil		GROSS WEIGHT	32,000
		TARE WEIGHT	12,000
		NET WEIGHT	20,000
TIME ARRIVED ONSITE:	13:37	CASH CUSTOMER:	
TIME FINISHED ONSITE:	13:39		
WAITING TIME/DAYWORK:	2.00	DRIVER NAME: JASON SAGER	
SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND ARE SUBJECT TO OUR CONDITIONS OF SALE PRINT NAME: Chris Ward CUSTOMER SIGNATURE: 			
<u>ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.</u> THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION. ALL VEHICLES ENTER CUSTOMERS PROPERTY AT CUSTOMER'S RISK. ALL GOODS ARE CARRIED SUBJECT TO RHA CONDITIONS OF ARRIAGE 1998. COPY AVAILABLE ON REQUEST.			
            			

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M17 1GJ



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WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY			
TICKET NO:		145372	
DATE:		23-Apr-2025	
CUSTOMER:		TARCON GROUNDWORK LIMITED	
DEPOT:		P36	
DELIVERY/COLLECTION ADDRESS:		ORDER NO:	
Bay tree Lane, Chadderton, Next to Old Cock Inn M24 2EL			
		HAULIER: PP O'Connor Plant Ltd	
		VEHICLE REG: MV23 WWO	
		SITE CONTACT: Eric	
PRODUCT DESCRIPTION		QUANTITY	
Topsoil		GROSS WEIGHT	31,980
		TARE WEIGHT	12,200
		NET WEIGHT	19,780
TIME ARRIVED ONSITE:	11:21	CASH CUSTOMER:	
TIME FINISHED ONSITE:	11:21		
WAITING TIME/DAYWORK:		DRIVER NAME: DARYLL HOLMES	
SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND ARE SUBJECT TO OUR CONDITIONS OF SALE PRINT NAME: Chris Ward CUSTOMER SIGNATURE: 			
<u>ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.</u> THIS MATERIAL IS SOLD SUBJECT TO THE TERMS AND CONDITIONS AS SHOW ON YOUR QUOTATION. ALL VEHICLES ENTER CUSTOMERS PROPERTY AT CUSTOMER'S RISK. ALL GOODS ARE CARRIED SUBJECT TO RHA CONDITIONS OF ARRIAGE 1998. COPY AVAILABLE ON REQUEST.			
            			

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WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY						
TICKET NO:		145373		DATE:	23-Apr-2025	
CUSTOMER:		TARCON GROUNDWORK LIMITED		DEPOT:	P36	
DELIVERY/COLLECTION ADDRESS: Bay tree Lane, Chadderton, Next to Old Cock Inn M24 2EL			ORDER NO:			
			HAULIER:			PP O'Connor Plant Ltd
			VEHICLE REG:			MV23 WWO
			SITE CONTACT:			Eric
PRODUCT DESCRIPTION			QUANTITY			
Topsoil			GROSS WEIGHT		31,980	
			TARE WEIGHT		12,200	
			NET WEIGHT		19,780	
TIME ARRIVED ONSITE:		14:02		CASH CUSTOMER:		
TIME FINISHED ONSITE:		14:02				
WAITING TIME/DAYWORK:		0.00		DRIVER NAME: DARYLL HOLMES		

SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND AM SUBJECT TO OUR CONDITIONS OF SALE

PRINT NAME: Chris Ward

CUSTOMER SIGNATURE: 

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P. P. O'CONNOR
Committed To Excellence

WASTE CARRIERS LICENCE NO: CBDU101751

CONVEYANCE NOTE / PROOF OF DELIVERY							
TICKET NO:		147457		DATE:	09-May-2025		
CUSTOMER:		TARCON GROUNDWORK LIMITED		DEPOT:	P36		
DELIVERY/COLLECTION ADDRESS: Bay tree Lane, Chadderton, Next to Old Cock Inn M24 2EL			ORDER NO:			BLS / PP01 / 519	
			HAULIER:			PP O'Connor Plant Ltd	
			VEHICLE REG:			MV71 WJL	
			SITE CONTACT:			Eric	
PRODUCT DESCRIPTION			QUANTITY				
Topsoil			GROSS WEIGHT		31,960		
			TARE WEIGHT		12,500		
			NET WEIGHT		19,460		
TIME ARRIVED ONSITE:		9:36		CASH CUSTOMER:			
TIME FINISHED ONSITE:		9:37					
WAITING TIME/DAYWORK:		1.00		DRIVER NAME: JASON GREGORY			

SIGNED ON BEHALF OF THE CUSTOMER, I ACKNOWLEDGE THE DETAILS ON THIS TICKET AS CORRECT AND AM SUBJECT TO OUR CONDITIONS OF SALE

PRINT NAME: Colin

CUSTOMER SIGNATURE: 

ALL RECYCLED PRODUCTS ARE PRODUCED IN COMPLIANCE WITH THE WRAP QUALITY PROTOCOL.
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Appendix C

- C1 Supplier Declared Soils Analysis
- C2 Site Photographs Insitu soils testing July 2025
and Plan
- C3 Imported Soils Analytical Test Results i2
- C4 Assessment of Analytical Test Results
- C5 Trial Pit Logs July 2025



Certificate of Analysis

Client: STUART BALDWIN
(T283) SED SERVICES LTD
LANDGATE FARM
LANDGATE LANE
BRYN
WIGAN WN4 0EJ

Originator: SOIL

Lab ID: 59487 - 717218
Sample ID: SED-BRYN
Sample Weight: 818g

Date Received: 06/12/2024
Date Reported: 20/12/2024

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Multipurpose Grade

				Compliant with range (Y/N)					
		Unit	Result	Multi-P	Acid	Calc	Low-F	Low-F	Low-F
								Acid	Calc
Texture:	Clay	% w/w	11						
	Silt	% w/w	20						
	Sand	% w/w	69						
	Textural Class		Sandy Loam	Y	Y	Y	Y	Y	Y
Organic Matter:		% w/w	6.9	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	0.7	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			8.3	Y	N	Y	Y	N	Y
Carbonate:		% w/w	5.5			Y			Y
Available	Nitrogen	% w/w	0.292	Y	Y	Y			
Plant	Phosphorus	mg/l	62.0 (4)*	Y	Y	Y	N	N	N
Nutrients:	Potassium	mg/l	1222.6 (6)*	Y	Y	Y			
	Magnesium	mg/l	203.4 (4)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	13.9	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	9.0						
Phytotoxic	Total Zinc	mg/kg	65.2	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	22.9	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	19.0	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	236.1						
Analysis:	Available Calcium	mg/l	1083.3						
	Conductivity	uS/cm	3103	Y					
Compliance:				Y	N	Y	N	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Teresa Clyne

Date: 20/12/2024

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

NRM Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS
Tel: +44 (0) 1344 886338 **Fax:** +44 (0) 1344 890972 **Email:** enquiries@nrm.uk.com **www:** nrm.uk.com



Analytical Report

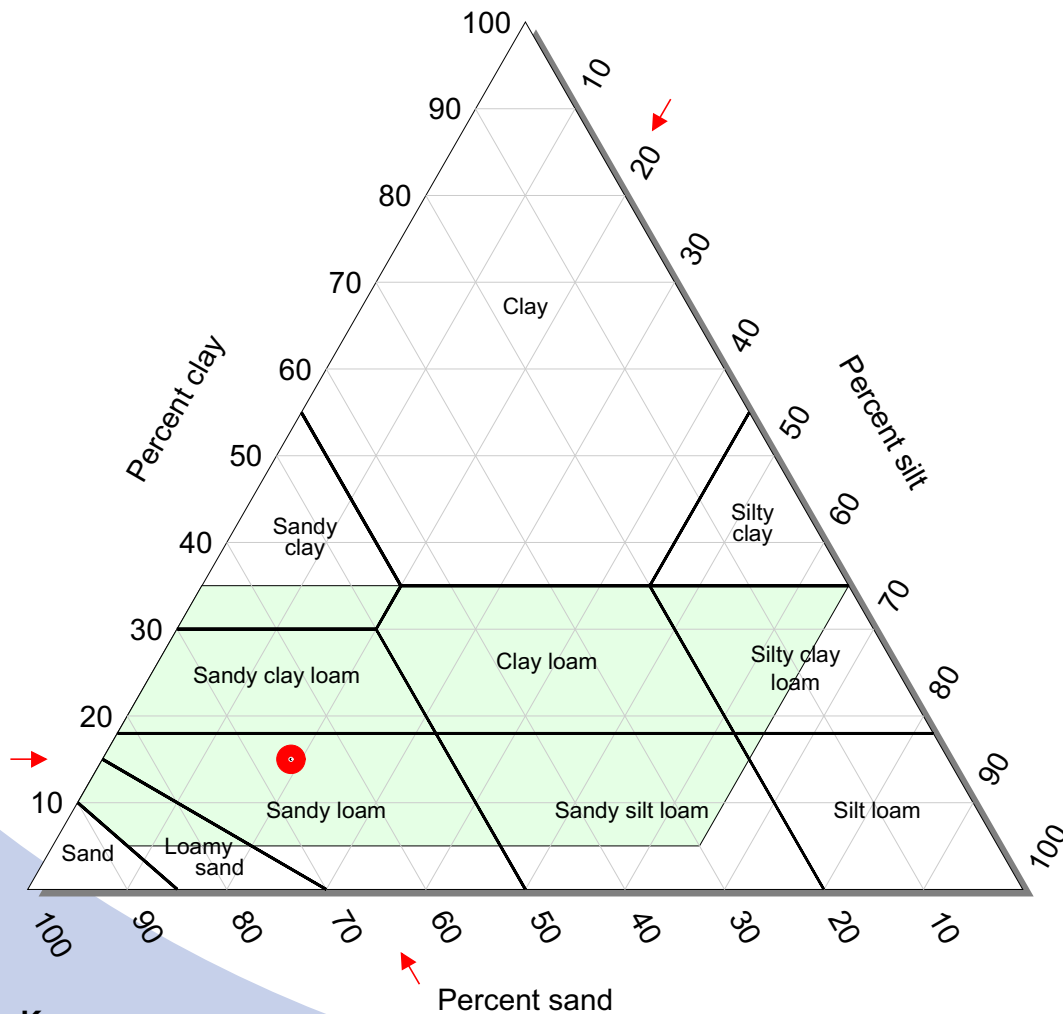
Client: STUART BALDWIN
(T283) SED SERVICES LTD
LANDGATE FARM
LANDGATE LANE
BRYN
WIGAN WN4 0EJ

Originator: SOIL

Lab ID: 59487 - 717218
Sample ID: SED-BRYN
Sample Weight: 818g

Date Received: 06/12/2024
Date Reported: 20/12/2024

Fig. 1. Textural Class: Sandy Loam (compliant)



Analytical Notes

Final page must indicate end of report. Page 3

Accreditation and method details

NRM is a UKAS-accredited testing laboratory (No 2334), accredited to BS EN ISO 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF communique dated April 2017). <http://ilac.org/?download=120917>

NRM is accredited for particular determinands in specific matrices as set out in the laboratory's current UKAS schedule of accreditation https://www.ukas.com/wp-content/uploads/schedule_uplds/00002/2334Testing-Multiple.pdf

Accreditation applies to the following parameters in this report and is applicable to SOIL samples only. All other tests within this report are unaccredited.

Test	Analysis SOP	Method Description
Fluoride	JAS-487	Sulphuric acid extraction (1:10 ratio) and determination by ion selective electrode
Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.
We cannot offer interpretation or opinions for results.

Sampling information

BS ISO 18512:2007 (Soil quality – Guidance on long and short-term storage of soil samples) states that for pH the period of stability and therefore holding time for a wet or 'fresh' soil sample is one week from sampling. Other determinants in the fresh sample may be considered stable for up to a month. Once the sample has been dried the sample may then be considered stable for up to 3 years. No records are maintained by NRM on date sampled or date dried so all samples within this report are considered not to be meeting the requirements of this BS / ISO. Consequently, all pH results given are those of the as-received sample and may not reflect the pH value of the sample when taken.

END OF REPORT

Site Name	Baytree Lane
Location	Middleton
GeoAssist Ref	6143VBL
Client	J Walker Homes Limited
	Joshua House 35 Joshua Lane Middleton Manchester M24 2AY
Planning Consultant	
NGR (centre of site)	388560,406020
Production Date	July 2025
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36

Do Not Scale



C2 Site Photographs

Site Name	Baytree Lane
Location	Middleton
GeoAssist Ref	6143VBL
Client	J Walker Homes Limited
	Joshua House 35 Joshua Lane Middleton Manchester M24 2AY
Planning Consultant	
NGR (centre of site)	388560,406020
Production Date	July 2025
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36

Do Not Scale

Plot 1 Read Garden TPA	Plot 2 Rear Garden TPB	Plot 5 Rear Garden TPC
TPA Sample, Arisings and white Membrane in Hole	TPB Sample, Arisings and white Membrane in Hole	TPC Sample, Arisings and white Membrane in Hole
Front Elevation	Front Elevation	Front Elevation



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i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

e: info@geoassist.co.uk

Analytical Report Number : 25-036861

Project / Site name:	Baytree Lane, Middleton	Samples received on:	11/07/2025
Your job number:	6143 VBL	Samples instructed on/ Analysis started on:	11/07/2025
Your order number:	2250710	Analysis completed by:	18/07/2025
Report Issue Number:	1	Report issued on:	18/07/2025
Samples Analysed:	3 soil samples		

Signed:

Rafał Szczepańczyk
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

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

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

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

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

Excel copies of reports are only valid when accompanied by this PDF certificate.

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

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

Analytical Report Number: 25-036861
Project / Site name: Baytree Lane, Middleton
Your Order No: 2250710

Lab Sample Number	612109	612110	612111
Sample Reference	TPA	TPB	TPC
Sample Number	C1	C1	C1
Water Matrix	N/A	N/A	N/A
Depth (m)	0.30	0.30	0.30
Date Sampled	09/07/2025	09/07/2025	09/07/2025
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	18	15
Total mass of sample received	kg	0.1	NONE	0.9	0.9	0.9

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA	SCA
Analysis completed	N/A	N/A	N/A	18/07/2025	18/07/2025	18/07/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.2	8.3	8.6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.03	0.027	0.028
Sulphide	mg/kg	1	MCERTS	1.7	2.4	1.8
Total Sulphur	mg/kg	50	MCERTS	410	290	340
Total Sulphur	%	0.005	MCERTS	0.041	0.029	0.034
Organic Matter (automated)	%	0.1	MCERTS	3.8	4	4.4

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.29
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.2
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.9
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.37
Fluoranthene	mg/kg	0.05	MCERTS	0.07	0.06	2.3
Pyrene	mg/kg	0.05	MCERTS	0.06	< 0.05	1.8
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06	< 0.05	0.74
Chrysene	mg/kg	0.05	MCERTS	0.06	< 0.05	0.75
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.07	< 0.05	0.78
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	< 0.05	0.41
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.06	< 0.05	0.69
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.26
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.34

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	10.9
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Analytical Report Number: 25-036861
 Project / Site name: Baytree Lane, Middleton
 Your Order No: 2250710

Lab Sample Number				612109	612110	612111
Sample Reference				TPA	TPB	TPC
Sample Number				C1	C1	C1
Water Matrix				N/A	N/A	N/A
Depth (m)				0.30	0.30	0.30
Date Sampled				09/07/2025	09/07/2025	09/07/2025
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.7	2.3	2.6
Barium (aqua regia extractable)	mg/kg	1	MCERTS	34	29	35
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.38	0.33	0.41
Boron (water soluble)	mg/kg	0.2	MCERTS	1.8	2.1	1.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	10	9.2	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	13	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	13	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.9	8.5	8.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	13	13	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	39	35	49

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



Analytical Report Number : 25-036861

Project / Site name: Baytree Lane, Middleton

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
612109	TPA	C1	0.3	Brown loam and sand with gravel and vegetation
612110	TPB	C1	0.3	Brown loam and sand with gravel and vegetation
612111	TPC	C1	0.3	Brown loam and sand with gravel and vegetation

Analytical Report Number : 25-036861

Project / Site name: Baytree Lane, Middleton

Water matrix abbreviations:

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

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Hexavalent chromium in soil (low level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	NONE
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

Analytical Report Number : 25-036861

Project / Site name: Baytree Lane, Middleton

Water matrix abbreviations:

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

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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

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

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

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

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

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

The result for sum should be interpreted with caution

Soils Risk Assessment

Site Reference: 6143 VBL
 Project Site: Baytree Lane
 Project Location: Middleton
 Client: J Walker Homes Limited

i2 Reference	Residential With HGP	TPA - C1	TPB - C1	TPC - C1
Customer Sample Ref:	C4SL / S4UL	0.3	0.3	0.3
	SOM 1% GAC	09/07/2025	09/07/2025	09/07/2025
Determinand				
Antimony	-	-	-	-
Arsenic	37	2.7	2.3	2.6
Barium	1300	34	29	35
Beryllium	1.7	0.38	0.33	0.41
Boron (water-soluble)	290	1.8	2.1	1.5
Cadmium	22	0.2	0.2	0.2
Chromium VI	910	10	9.2	11
Chromium*	21	1.2	1.2	1.2
Copper	2400	17	13	14
Cyanide(free)**	34	1	1	1
Cyanide(Total)	-	1	1	1
Lead	200	17	13	15
Mercury ¹	40	0.3	0.3	0.3
Nickel	130	8.9	8.5	8.8
pH	-	8.2	8.3	8.6
Phenols(Mono)	120	1	1	1
Selenium	250	1	1	1
SO4(Total)	-	0.03	0.027	0.028
Sulphide	-	1.7	2.4	1.8
Sulphur(Free)	-	410	290	340
Vanadium	-	13	13	13
Zinc	3700	39	35	49
Acenaphthene	210	0.05	0.05	0.29
Acenaphthylene	170	0.05	0.05	0.05
Anthracene	2400	0.05	0.05	0.37
Benzo(a)Anthracene	7.2	0.06	0.05	0.74
Benzo(a)Pyrene SM	5	0.06	0.05	0.69
Benzo(b)Fluoranthene	2.6	0.07	0.05	0.78
Benzo(ghi)Perylene	320	0.05	0.05	0.34
Benzo(k)Fluoranthene	77	0.06	0.05	0.41
Chrysene	15	0.06	0.05	0.75
Dibenzo(ah)Anthracene	0.24	0.05	0.05	0.05
Fluoranthene	280	0.07	0.06	2.3
Fluorene	170	0.05	0.05	0.2
Indeno(123-cd)Pyrene	27	0.05	0.05	0.26
Naphthalene	2.3	0.05	0.05	0.05
Phenanthrene	95	0.05	0.05	1.9
Pyrene	620	0.06	0.05	1.8
PAH(total)	500	0.8	0.8	10.9
Asbestos	Not-detected	Not-detected	Not-detected	Not-detected
SOM [#]	-	4	4	4
All Units mg/kg unless otherwise stated		Indicates Exceedance of Applicable Level		
Where no SOM is reported 1% SOM Criteria are used. For individual samples SOM value is used to adjust the assessment crieteria accordingly that that				
*Criteria Assumes Chromium III SM = Surrogate Marker Approach Culp <i>et al</i>				
**Criteria is derived considering acute effects on 1-2yo Female Receptor ingesting a single dose of 3g of soil				
***Criteria is derived considering Total TPH (C10 to C35) is formed entirley of a 50:50 Aliphatic and Aromatic Split C8-C10 range				
¹ GAC for inorganic mercury can normally be compared with chemical analysis for total mercury content because the equilibrium concentrations of ele				
[#] Criteria reported to zero decimal places				
Basis of Assessment Criteria:	CLEA v1.071	EA 2005 WAC (Human Health Value)		
		LQM S4UL		

GeoAssist Limited		Exploratory Hole Record Sheet					Ref: TPA	
Consultant: 0		Project: Baytree Lane					Sheet: 1	
		Location: Middleton						
Client: J Walker Homes Limited		Equipment: Hand Excavated					Ground Level: m.AOD	
							Co-ordinates: Easting: (m) Northing: (m)	
		Dates: 09/07/2025 to 09/07/2025						
Drilling Foreman: M Walton		STRATUM DESCRIPTION	Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson						Depth (m) from to	Sample Type/No	
0 Dark brown slightly silty sandy TOPSOIL. Membrane at 0.40m depth						0.30 0.40	C1	09/07/2025: On Completion of Trial Pit at 0.40m. Trial pit backfilled and reinstated.
-0.5 Exploratory Hole complete at 0.40m		0.40						
-1								
-1.5								
-2								
-2.5								
-3								
-3.5								
-4								
-4.5								
-5								
Remarks: The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.							Logged: M Benson Date: 11/07/2025 Checked: M Richardson Date: 11/07/2025 Site Ref: 6143/VBL Scale 1:25	

GeoAssist Limited		Exploratory Hole Record Sheet					Ref: TPB	
Consultant: 0		Project: Baytree Lane					Sheet: 1	
		Location: Middleton						
Client: J Walker Homes Limited		Equipment: Hand Excavated					Ground Level: m.AOD	
							Co-ordinates: Easting: (m) Northing: (m)	
		Dates: 09/07/2025 to 09/07/2025						
Drilling Foreman: M Walton		STRATUM DESCRIPTION	Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson						Depth (m) from to	Sample Type/No	
0 Dark brown slightly silty sandy TOPSOIL. Membrane at 0.30m depth			0.30			0.30 0.40	C1	09/07/2025: On Completion of Trial Pit at 0.30m. Trial pit backfilled and reinstated.
Exploratory Hole complete at 0.30m								
-0.5								
-1								
-1.5								
-2								
-2.5								
-3								
-3.5								
-4								
-4.5								
-5								
Remarks: The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.							Logged: M Benson Date: 11/07/2025 Checked: M Richardson Date: 11/07/2025 Site Ref: 6143/VBL Scale 1:25	

GeoAssist Limited		Exploratory Hole Record Sheet				Ref: TPC	
Consultant: 0		Project: Baytree Lane				Sheet: 1	
		Location: Middleton					
Client: J Walker Homes Limited		Equipment: Hand Excavated				Ground Level: m.AOD	
						Co-ordinates: Easting: (m) Northing: (m)	
		Dates: 09/07/2025 to 09/07/2025					
Drilling Foreman: M Walton		Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests		Field Records
Engineer/Geologist: M Benson					Depth (m) from to		
STRATUM DESCRIPTION							
0 Dark brown slightly silty sandy TOPSOIL. Membrane at 0.30m depth							
Exploratory Hole complete at 0.30m		0.30			0.30 0.40	C1	09/07/2025: On Completion of Trial Pit at 0.30m. Trial pit backfilled and reinstated.
-0.5							
-1							
-1.5							
-2							
-2.5							
-3							
-3.5							
-4							
-4.5							
-5							
Remarks:						Logged: M Benson	
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.						Date: 11/07/2025	
						Checked: M Richardson	
						Date: 11/07/2025	
						Site Ref: 6143/VBL	
						Scale 1:25	