GEO-ENVIRONMENTAL CONSULTING

LAND OFF AMBROSE STREET, MANCHESTER

Remediation Verification Report



Report Ref: BEK-24060-3

Date: May 2026

GEO-ENVIRONMENTAL CONSULTING

Project Quality Assurance Information Sheet

Site	Land off Ambrose Street, Manchester
Report Title	Remediation Validation Report
Report Status	Final
Report No	BEK-24060-3
Date	May 2026
Prepared For	**GK CONSTRUCTION & PROJECT MANAGEMENT LIMITED** Suite 22 Railway House Railway Road Chorley PR6 0HW
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GEO-ENVIRONMENTAL CONSULTING

LAND OFF AMBROSE STREET, MANCHESTER

Remediation Verification Report

PROJECT NO: 24060

REPORT REF: BEK-24060-3

DATE: February 2025

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client. The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

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1. INTRODUCTION

1.1 Background

1.1.1 BEK Enviro (BEK) has been commissioned by GK Construction & Project Management Ltd to produce a Verification Report for the completion of the remediation works carried out at the Ambrose Street, Manchester, M12 5DD (hereafter referred to as 'the site').

1.1.2 Manchester City Council has granted Planning Permission (subject to conditions) for the *'Erection of five storey self-storage facility (Class B8) together with associated parking, circulation space and stores, landscaping, boundary treatment and roof mounted photovoltaic panels, following demolition of existing buildings'* at the site located off Ambrose Street, Manchester (Planning Application No: 13568/FO/2022).

1.1.3 The site has been subjected to previous site investigation, assessments and reporting, the details of which are provided within the following reports:

- Intelligent Environmental Services 'Asbestos Management Survey – Ambrose Street, West Gorton, Manchester, M12 5DD', Report Ref: A21097, dated March 2022.
- GeoAssist 'Phase 1 Desk Study and Preliminary Contaminated Land Risk Assessment – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ V1.00 PCLRA, dated August 2022
- GeoAssist 'Preliminary Coal Mining Risk Assessment Report (Desk Study) – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ CMRA V1.0, dated September 2022
- GeoAssist 'Geotechnical Ground Investigation – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-G, dated September 2022
- GeoAssist 'Geotechnical Ground Investigation – Concrete Floor Flab – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-G, dated January 2023
- GeoAssist 'Phase II Contaminated Land Risk Assessment – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-CLRA V1.00, dated January 2023
- GeoAssist 'Ground Gas Risk Assessment – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-GRA V1.00, dated January 2023
- BEK 'Supplementary Site Investigation Letter Report – Land off Ambrose Street, Manchester', Report Ref: BEK/24060/240606/GK, dated June 2024.

- BEK – Remediation Method Statement – Report Reference: BEK-24060-1 (Rev A), dated October 2024.

- BEK – Asbestos Management Plan – Report Reference: BEK-24060-2, dated June 2024.

1.1.4 The above reports have been submitted to and approved by Manchester City Council as required. The specific remediation measures recommended in the BEK Remediation Method Statement (RMS) have been implemented and the RMS should be read in conjunction with this report.

1.1.5 The proposed development is shown as Figure 1 below.



Figure 1: Proposed Development Layout

1.2 Limitations

1.2.1 This report has been prepared by BEK for the sole benefit of GK Construction & Project Management Ltd. The conclusions in this report are professional opinions of BEK based on the information available.

1.2.2 This document has been prepared for the commercial development located at off Ambrose Street, Manchester should not be relied upon or used for any other project. BEK accepts no responsibility or liability for the consequences of this document being used for a purpose other than that purpose for which it was commissioned.

2. REMEDIATION STRATEGY

2.0.1 The approved remediation works are detailed in the RMS (Report Ref: BEK-24060-2 (Rev A), dated October 2024).

2.0.2 In order to remove potential risks associated with contamination, specific remediation works have been recommended.

2.1 Asbestos Management Plan

2.1.1 An Asbestos Management Plan (AMP) should be prepared to manage and mitigate the potential risks from asbestos inhalation. The AMP should consider the ground conditions detailed in the Phase II Contaminated Land Risk Assessment to implement safe working procedures and mitigate any potential risks to contractors on site or the general public adjacent to the site. All groundworks should be carried out in accordance with the recommendations presented in the AMP. The groundworkers risk assessment and method statements should reflect the information presented herein and the AMP.

2.2 Contamination

2.2.1 Human health risks associated with ground contamination (asbestos) within detected during the GeoAssist and BEK site investigation.

2.2.2 To mitigate the potential risks to human health associated with the asbestos impacted soils it is recommended:

All soft landscaped areas will be capped with a minimum of 450 mm of clean suitable soil (300 mm subsoil and 150 mm topsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing.

2.3 Imported Material

2.3.1 Clean capping needs to be imported for the landscaped areas. The suitability of the soils should be independently validated to ensure a suitability for use.

2.4 Construction Workers

2.4.1 It is recommended that construction personnel involved with direct contact with the soils at the site use appropriate PPE equipment (i.e. boots, gloves and overalls).

2.4.2 In addition, hygiene facilities should be made available in accordance with general health and safety guidelines. The successful remediation/site works contractor should undertake a suitable Risk Assessment to confirm the appropriate level of PPE.

2.4.3 A copy of all reports relating to the site should be included in the site Health & Safety File and site workers should be made fully aware of the sites setting.

2.5 Unforeseen Circumstances

2.5.1 Any areas of previously unidentified potentially contaminated soils encountered during site construction works must be brought to the attention of BEK, to ensure that the recommendations herein apply. Any potentially contaminated soils should be left in-situ and subjected to further assessment, to potentially include further chemical testing and risk assessment.

2.6 Utilities

2.6.1 Prior to redevelopment of the site, BEK would recommend that a copy of this report and the previous reports (prepared by GeoAssist) relating to the site are supplied to utility companies, and that their recommendations relating to appropriate supply pipes are adhered to.

2.6.2 A UKWIR Risk Assessment has been prepared by BEK for the site which recommends standard PE water pipes are suitable for the site.

2.7 Concrete Mix Design

2.7.1 Precautions are required with respect to concrete classification. BEK recommends that, based on the results of the GeoAssist site investigation, that the minimum design sulphate class for the site should comply with DS-2 and the ACEC class AC-2.

2.7.2 Confirmation that the correct concrete mix has been used on site is outside the BEK validation remit.

2.8 Off-Site Disposal

2.8.1 The chemical testing regime for off-site disposal may be different to the chemical testing required to assess the suitability of the soils for retention on site and the risks to human health. Therefore, additional assessment may be required to classify the soils for off-site disposal with testing criteria to assess whether the soil is hazardous, non-hazardous or inert waste. However, existing laboratory test certificates will help inform the process. Any additional testing (principally for asbestos) should also be used in the classification of the waste soils for off-site disposal.

2.8.2 The receiving landfill may require additional specialist laboratory testing to further characterise the material proposed for disposal against Waste Acceptance Criteria (WAC). We would recommend early consultation between the Contractor and the receiving landfill to determine any specific laboratory testing requirements.

2.8.3 Individuals/companies removing soils from the site are bound by a duty of care and as such this should only be undertaken by an authorised person. All waste movements should be accompanied by a waste transfer note.

2.9 Re-Use of Waste Soils on Site

2.9.1 The re-use of waste soils generated at the site should be covered though environmental permit exemptions (if applicable) and/or through the preparation of a Material Management Plan as part of compliance with the Definition of Waste: Code of Practice (DoW:CoP).

2.9.2 The re-use of any site won material will require an assessment to confirm a certainty of use.

3. VERIFICATION OF WORKS

3.1 Supervision of Works

3.1.1 An Engineer from BEK attended the site as requested by GK Construction & Project Management Ltd the remediation works which were undertaken progressively. Regular liaison with GK Construction & Project Management Ltd during the works ensured a presence during key activities.

3.2 Capping System

3.2.1 Following the recommendations within the RMS, a capping system comprising clean imported topsoil has been installed to a depth of 450 mm in soft landscaped areas. The capping system was placed on a geotextile marker layer.

Imported Soil

3.2.2 GK Construction & Project Management Ltd imported approximately 58 m^3 of topsoil from PP O Connor located at 61 Mossley Road, Trafford Park, M17 1GJ. The topsoil was imported 'as dug' from Vistry Homes, Mill Lane, Warrington with the appearance of clean suitable soil. The soils imported were inspected by an engineer from BEK who can confirm that there was no anthropogenic content and no visual/olfactory evidence for the presence of contamination and visually, the soils were fit for purpose. Chemical source test data is presented in Appendix A.

3.2.3 The topsoil is described as 'dark grey organic very clayey slightly gravelly fine to coarse sand'. BEK has recovered samples of the topsoil (VS-TS-1 to VS-TS-6) following placement in the soft landscaping areas for chemical testing. Copies of the test results are presented in Appendix B.

3.2.4 The chemical test results have been compared to the assessment criteria set out in Table 3 of the RMS and BEK can confirm that based on the source test results provided, the soils are suitable for use.

Thickness

3.2.5 Capping layer thickness was checked by BEK within the soft landscaping areas to ensure the required thickness had been achieved. This was undertaken by excavating a series of trial holes to ensure the correct construction of the capping system and confirm capping thickness.

3.2.6 BEK can confirm that the soft landscaping areas capped with a minimum of 450 mm of topsoil and have been placed within the soft landscaping areas.

3.2.7 The presence of geotextile membrane was confirmed at the base of the trial holes within each location during our visits. Figure 2 below shows the soft landscaping capping thickness validation locations.

3.2.8 A selection of validation photographs can be seen in Appendix C.

3.2.9 The small strip of soft landscaping area along the western boundary of the site is noted to be underlain by concrete (as highlighted in the blue shaded area on Figure 2 below). The retaining brick wall and concrete curb stone infrastructure along the western site boundary has resulted in the soft landscaping section that runs between these features is underlain by solid concrete. As a result the emplaced topsoil capping system is between 300mm and 400 mm thick along the western site boundary. Hand excavated trial pits were conducted in these areas, that proved the imported topsoil and geotextile membrane was underlain by solid concrete below. See the photos in Appendix C.

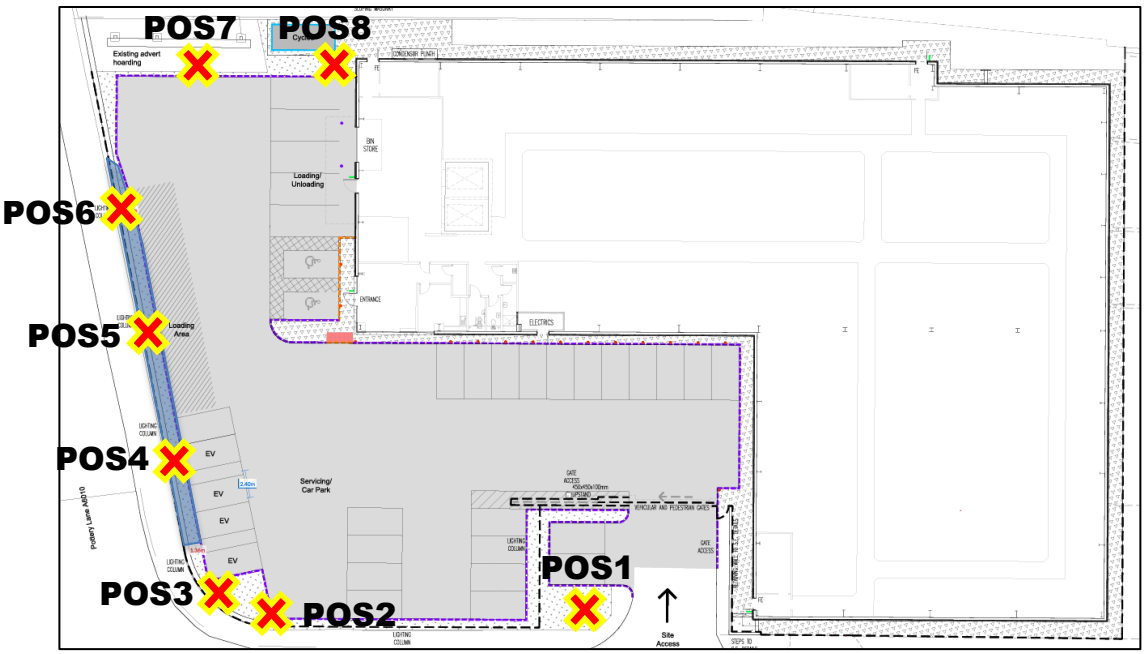


Figure 2: Soft Landscaping Capping Validation Locations

3.3 Asbestos Management Plan

3.3.1 An Asbestos Management Plan was completed by BEK (Report Ref: BEK-24060-2, dated June 2024) to manage and mitigate the risks associated with the asbestos identified on site.

3.4 Unrecorded Contamination & Associated Issues

3.4.1 The groundworkers did not report any visual or olfactory evidence of contamination impacted soils during any excavations.

4. CONCLUSIONS

4.1 BEK has supervised the implementation of the remediation works for the development at land located off Ambrose Street, Manchester.

4.2 The works have been carried out by GK Construction & Project Management Ltd and their appointed contractors, in accordance with the approved recommendations.

4.3 Based on the information herein, the remediation works have been completed in accordance with the approved Remediation Method Statement.

APPENDIX A

Source Test Results

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

PP O Connor

61 Mossley Road
Trafford Park
M17 1GJ

16th October 2025
Our Ref: TOHA/25/7037/SS
Your Ref: see below

Dear Sirs

Topsoil Analysis Report: Vistry Homes, Mill Lane, Warrington

We have completed the analysis of the soil sample recently submitted, referenced *Vistry Homes Warrington Topsoil,* and have pleasure reporting our findings.

The purpose of the analysis was to determine the suitability of the sample for general landscape purposes (trees, shrubs, amenity grass). In addition, the sample has been assessed to determine its compliance with the requirements of the British Standard for Topsoil *(BS3882:2015 – Specification for Topsoil - Table 1, Multipurpose Topsoil).*

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the topsoil source. The report and results should therefore not be used by third parties as a means of verification testing, validation testing or waste designation purposes.

SAMPLE EXAMINATION

The sample was described as a very dark grey (Munsell Colour 10YR 3/1), slightly moist, friable, non-calcareous SANDY LOAM with a well developed, fine to coarse granular structure*. The sample was virtually stone-free and no unusual odours or deleterious materials were observed.

*This appraisal of soil structure was made from examination of a disturbed sample. Structure is a key soil characteristic that may only be accurat

ANALYTICAL SCHEDULE

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

- particle size analysis (sand, silt, clay);
- stone content (2-20mm, 20-50mm, >50mm);
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- major plant nutrients (N, P, K, Mg);
- organic matter content;
- C:N ratio;
- heavy metals (As, B, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16 suite);
- aromatic and aliphatic TPH (C5-C35 banding);
- benzene, toluene, ethylbenzene, xylene (BTEX);
- asbestos screen.

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

RESULTS OF ANALYSIS

Particle Size Analysis and Stone Content

The sample fell into the *sandy loam* texture class, which is usually considered suitable for general landscape applications provided the physical condition of the soil is satisfactory.

The sample was virtually stone-free and, as such, stones should not restrict the use of the soil for general landscape purposes.

pH and Electrical Conductivity Values

The sample was acid in reaction (pH 5.6), with a pH value that would be considered suitable for general landscape purposes and in particular acid-loving species (calcifuges). This pH value is unlikely to be suitable for species known to specifically require or prefer alkaline soils.

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

The electrical conductivity value by $CaSO_4$ extract (*BS3882* requirement) fell below the maximum specified value (3300 µS/cm) given in *BS3882:2015 – Table 1*.

Organic Matter and Fertility Status

The sample was adequately supplied with organic matter and most major plant nutrients but was deficient in extractable potassium. This nutrient deficiency can be remedied by a suitable compost application.

The C:N ratio of the sample was acceptable for general landscape purposes.

Potential Contaminants

With reference to *BS3882:2015 - Table 1*: Notes 3 and 4, there is a requirement to confirm levels of potential contaminants in relation to the topsoil's proposed end use. This includes human health, environmental protection and metals considered toxic to plants. In the absence of site-specific assessment criteria, the concentrations that affect human health have been compared with the *residential with home-grown produce* land use in the Suitable For Use Levels (S4ULs) presented in *The LQM/CIEH S4ULs for Human Health Risk Assessment* (2015) and the DEFRA SP1010: *Development of Category 4 Screening Levels* (C4SLs) *for Assessment of Land Affected by Contamination – Policy Companion Document* (2014).

Of the potential contaminants determined, none was found at levels that exceeded their guideline values.

Note: Due to the dark colour of the sample, the colorimetry analysis of hexavalent chromium could not be performed in this instance (noted as U/S - Unsuitable Sample on the certificate). Instead, the laboratory has provided additional unaccredited testing for hexavalent chromium in this sample by ion chromatography, which was reported to be less than the limit of detection (<1.80 mg/kg).

Phytotoxic Contaminants

Of the phytotoxic (toxic to plants) contaminants determined (copper, nickel, zinc), none was found at levels that exceeded the maximum permissible levels specified in *BS3882:2015 – Table 1*.

CONCLUSION

The purpose of the analysis was to determine the suitability of the topsoil sample for general landscape purposes. The analysis has also been undertaken to determine the sample's compliance with the requirements of the British Standard for Topsoil *(BS3882:2015 – Specification for Topsoil - Table 1, Multipurpose Topsoil).*

From the soil examination and subsequent laboratory analysis, the sample was described as an acid, non-saline, non-calcareous *sandy loam* with a well developed structure and very low stone content. The sample was adequately supplied with organic matter and most major plant nutrients but was deficient in extractable potassium. Of the potential contaminants determined, none exceeded their respective guideline values.

To conclude, based on our findings, the topsoil represented by this sample would be considered suitable for general landscape purposes (trees, shrubs and amenity grass), provided the extractable potassium deficiency is addressed by a suitable compost application, acid-loving species are selected and the physical condition of the soil is satisfactory.

The sample was largely compliant with the requirements of the British Standard for Topsoil *(BS3882:2015 – Specification for Topsoil – Table 1, Multipurpose Topsoil),* with the exception of the low extractable potassium level. On this occasion, this non-compliance would be considered minor when reviewed in the context of all other results, provided the nutrient deficiency is remedied by a suitable compost application.

RECOMMENDATIONS

Compost Application

To address the extractable potassium deficiency, we recommend applying and incorporating suitable compost (e.g. PAS100:2018 /Landscape Institute/WRAP grade (10mm screened) green compost) at a rate of **15%** by volume, ensuring the soil is dry and friable.

For planting purposes, the compost should be incorporated to a depth of 200mm and for grass areas the compost should be worked into the upper 100mm.

Soil Handling Recommendations

It is important to maintain the physical condition of the soil and avoid structural damage during all phases of soil handling (e.g. stockpiling, respreading, cultivating, planting, seeding or turfing). As a consequence, soil handling operations should be carried out when soil is sufficiently dry to be non-plastic (friable) in consistency.

It is important to ensure that the soil is not unnecessarily compacted by trampling or trafficking by site machinery, and soil handling should be stopped during and after heavy rainfall and not continued until the soil is friable in consistency.

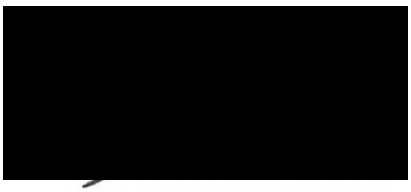
If the soil is structurally damaged and compacted at any stage during the course of soiling or landscaping works, it should be cultivated appropriately to relieve the compaction and to restore the soil's structure prior to any planting, turfing or seeding.

Further details on soil handling are provided in Annex A of *BS3882:2015.*

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

Yours faithfully





Neema Senthil Kumar
BSc MSc
Graduate Soil Scientist

Rebecca Roberts
BSc MSc MISoilSci
Senior Soil Scientist

For & on behalf of Tim O'Hare Associates LLP

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	**PP O'Connor**
Project:	**Vistry Homes, Mill Lane, Warrington**
Job:	**Topsoil Analysis - BS3882:2015**
Date:	**16/10/2025**
Job Ref No:	**TOHA/25/7037/SS**

Sample Reference			**Vistry Homes Warrington Topsoil**
		Accreditation	
Clay (<0.002mm)	%	UKAS	15
Silt (0.002-0.063mm)	%	UKAS	13
Sand (0.063-2.0mm)	%	UKAS	72
Texture Class (UK Classification)	--	UKAS	SL
Stones (2-20mm)	% DW	GLP	1
Stones (20-50mm)	% DW	GLP	0
Stones (>50mm)	% DW	GLP	0
pH Value (1:2.5 water extract)	units	UKAS	5.6
Electrical Conductivity (1:2.5 water extract)	uS/cm	UKAS	404
Electrical Conductivity (1:2 $CaSO_4$ extract)	uS/cm	UKAS	2290
Exchangeable Sodium Percentage	%	UKAS	1.1
Organic Matter (LOI)	%	UKAS	4.6
Total Nitrogen (Dumas)	%	UKAS	0.18
C : N Ratio	ratio	UKAS	15
Extractable Phosphorus	mg/l	UKAS	45
Extractable Potassium	mg/l	UKAS	78
Extractable Magnesium	mg/l	UKAS	85
Total Arsenic (As)	mg/kg	MCERTS	15
Total Cadmium (Cd)	mg/kg	MCERTS	0.3
Total Chromium (Cr)	mg/kg	MCERTS	29
Hexavalent Chromium (Cr VI)	mg/kg	MCERTS	U/S
Total Copper (Cu)	mg/kg	MCERTS	49
Total Lead (Pb)	mg/kg	MCERTS	89
Total Mercury (Hg)	mg/kg	MCERTS	< 0.3
Total Nickel (Ni)	mg/kg	MCERTS	20
Total Selenium (Se)	mg/kg	MCERTS	< 1.0
Total Zinc (Zn)	mg/kg	MCERTS	100
Water Soluble Boron (B)	mg/kg	MCERTS	0.7
Total Cyanide (CN)	mg/kg	MCERTS	< 1.0
Total (mono) Phenols	mg/kg	MCERTS	< 1.0
Naphthalene	mg/kg	MCERTS	< 0.05
Acenaphthylene	mg/kg	MCERTS	< 0.05
Acenaphthene	mg/kg	MCERTS	0.13
Fluorene	mg/kg	MCERTS	0.09
Phenanthrene	mg/kg	MCERTS	1.00
Anthracene	mg/kg	MCERTS	0.26
Fluoranthene	mg/kg	MCERTS	1.50
Pyrene	mg/kg	MCERTS	1.40
Benz(a)anthracene	mg/kg	MCERTS	0.67
Chrysene	mg/kg	MCERTS	0.80
Benzo(b)fluoranthene	mg/kg	MCERTS	0.84
Benzo(k)fluoranthene	mg/kg	MCERTS	0.36
Benzo(a)pyrene	mg/kg	MCERTS	0.80
Indeno(1,2,3-cd)pyrene	mg/kg	MCERTS	0.34
Dibenzo(a,h)anthracene	mg/kg	MCERTS	0.10
Benzo(g,h,i)perylene	mg/kg	MCERTS	0.43
Total PAHs (sum USEPA16)	mg/kg	MCERTS	8.7
Aliphatic TPH >C5 - C6	mg/kg	MCERTS	< 0.010
Aliphatic TPH >C6 - C8	mg/kg	MCERTS	< 0.010
Aliphatic TPH >C8 - C10	mg/kg	MCERTS	< 0.010
Aliphatic TPH >C10 - C12	mg/kg	MCERTS	< 1.0
Aliphatic TPH >C12 - C16	mg/kg	MCERTS	< 2.0
Aliphatic TPH >C16 - C21	mg/kg	MCERTS	< 8.0
Aliphatic TPH >C21 - C35	mg/kg	MCERTS	< 8.0
Aliphatic TPH (C5 - C35)	mg/kg	MCERTS	< 10
Aromatic TPH >C5 - C7	mg/kg	MCERTS	< 0.010
Aromatic TPH >C7 - C8	mg/kg	MCERTS	< 0.010
Aromatic TPH >C8 - C10	mg/kg	MCERTS	< 0.020
Aromatic TPH >C10 - C12	mg/kg	MCERTS	< 1.0
Aromatic TPH >C12 - C16	mg/kg	MCERTS	< 2.0
Aromatic TPH >C16 - C21	mg/kg	MCERTS	< 10
Aromatic TPH >C21 - C35	mg/kg	MCERTS	22
Aromatic TPH (C5 - C35)	mg/kg	MCERTS	22
Benzene	mg/kg	MCERTS	< 0.005
Toluene	mg/kg	MCERTS	< 0.005
Ethylbenzene	mg/kg	MCERTS	< 0.005
p & m-xylene	mg/kg	MCERTS	< 0.008
o-xylene	mg/kg	MCERTS	< 0.005
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	MCERTS	< 0.005
Asbestos Screen	ND/D	ISO 17025	Not-detected

SL = SANDY LOAM

Visual Examination

The sample was described as a very dark grey (Munsell Colour 10YR 3/1), slightly moist, friable, non-calcareous SANDY LOAM with a well developed, fine to coarse granular structure. The sample was virtually stone-free and no unusual odours or deleterious materials were observed.

[redacted]

Neema Senthil Kumar
BSc MSc
Graduate Soil Scientist

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

APPENDIX B

BEK Validation Samples Test Results

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 26/03692
Issue Number: 1 **Date:** 09 April, 2026

Client:
BEK Enviro Ltd
2 Landwick Court
Metcalfe Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: *Mick Buckley/James Mashiter/Adam
Project Name: Ambrose Street, Manchester
Project Ref: N/A
Order No: 8977-24060-AH
Date Samples Received: 25/03/26
Date Instructions Received: 26/03/26
Date Analysis Completed: 09/04/26

Approved by:

[redacted]

Amy Riding
Client Manager

Envirolab Job Number: 26/03692

Client Project Name: Ambrose Street, Manchester

Client Project Ref: N/A

Lab Sample ID	26/03692/1	26/03692/2	26/03692/3	26/03692/4	26/03692/5	26/03692/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-1	VS-TS-2	VS-TS-3	VS-TS-4	VS-TS-5	VS-TS-6				
Depth to Top										
Depth To Bottom										
Date Sampled	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5AE	5AE	5AE	5AE	5AE	5AE				
% Stones >10mm$_A$	12.6	4.8	<0.1	5.3	7.9	13.4		% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	6.97	7.07	6.41	7.04	6.65	7.15		pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.05	0.04	<0.01	0.08	0.02	0.09		g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	540	560	590	580	530	630		mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		mg/kg	0.2	A-T-050s
Organic Matter$_D$$^{M\#}$	5.20	4.90	6.69	5.74	8.32	4.11		% w/w	0.14	A-T-032s
Arsenic$_D$$^{M\#}$	11	9	14	8	12	10		mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium$_D$	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-024s
Copper$_D$$^{M\#}$	31	26	48	22	36	25		mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	15	15	13	15	13	14		mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	58	52	95	41	69	45		mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17		mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	15	13	16	13	14	13		mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	60	56	88	48	76	49		mg/kg	1	A-T-024s

Envirolab Job Number: 26/03692

Client Project Name: Ambrose Street, Manchester

Client Project Ref: N/A

Lab Sample ID	26/03692/1	26/03692/2	26/03692/3	26/03692/4	26/03692/5	26/03692/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-1	VS-TS-2	VS-TS-3	VS-TS-4	VS-TS-5	VS-TS-6				
Depth to Top										
Depth To Bottom										
Date Sampled	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5AE	5AE	5AE	5AE	5AE	5AE				
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-				A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A	N/A	N/A	N/A				A-T-045

Envirolab Job Number: 26/03692

Client Project Name: Ambrose Street, Manchester

Client Project Ref: N/A

Lab Sample ID	26/03692/1	26/03692/2	26/03692/3	26/03692/4	26/03692/5	26/03692/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-1	VS-TS-2	VS-TS-3	VS-TS-4	VS-TS-5	VS-TS-6				
Depth to Top										
Depth To Bottom										
Date Sampled	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5AE	5AE	5AE	5AE	5AE	5AE				
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.05	0.01	0.28	0.04	0.09	0.14		mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.02	<0.01	0.01	<0.01	0.01	<0.01		mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.08	0.04	0.39	0.05	0.16	0.21		mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.36	0.16	0.94	0.21	0.73	0.52		mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.42	0.18	0.81	0.23	0.96	0.60		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.58^U	0.27^U	1.13^U	0.32^U	1.22^U	0.78^U		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.20	0.10	0.34	0.12	0.48	0.30		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.19	0.09	0.41	0.10	0.41	0.29		mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.42	0.20	0.96	0.25	0.81	0.58		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	0.06	<0.04	0.08	<0.04	0.11	0.07		mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.79	0.35	2.62	0.44	1.54	1.37		mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.03	0.01	0.19	0.03	0.07	0.10		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.24	0.11	0.42	0.14	0.53	0.35		mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.40	0.18	2.44	0.26	0.82	0.98		mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.67	0.29	2.02	0.37	1.35	1.08		mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	4.51	1.99	13	2.56	9.29	7.37		mg/kg	0.01	A-T-019s

Envirolab Job Number: 26/03692

Client Project Name: Ambrose Street, Manchester

Client Project Ref: N/A

Lab Sample ID	26/03692/1	26/03692/2	26/03692/3	26/03692/4	26/03692/5	26/03692/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS-TS-1	VS-TS-2	VS-TS-3	VS-TS-4	VS-TS-5	VS-TS-6				
Depth to Top										
Depth To Bottom										
Date Sampled	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26	24-Mar-26				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	5AE	5AE	5AE	5AE	5AE	5AE				
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	8	6	11	12	14	10		mg/kg	1	A-T-055s
Total Aliphatics$_A$	8	6	11	12	14	10		mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	0.03	<0.01	0.03	<0.01	0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16$_A$	2	1	1	1	2	2		mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	5	3	5	4	6	5		mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	14	5	16	6	19	10		mg/kg	1	A-T-055s
Total Aromatics$_A$	20	9	24	12	27	17		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	28	15	35	23	41	28		mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	0.03	<0.01	0.03	<0.01	0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s

Report Notes

General

•This report shall not be reproduced, except in full, without written approval from Envirolab.
•The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
•The results reported herein relate only to the material supplied to the laboratory.
•The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
•Analytical results reflect the quality of the sample at the time of analysis only.
•Opinions and Interpretations expressed are outside our scope of accreditation.
•A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
•If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
•Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "D" on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park, Altham, Lancashire , BB5 5GY

Project: Ambrose Street, Manchester

Clients Project No: N/A

Project No: 26/03692

Date Received: 26/03/2026 (am)

Cool Box Temperatures (°C): 8.8

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	26/03692/1	26/03692/2	26/03692/3	26/03692/4	26/03692/5	26/03692/6
Client Sample No						
Client Sample ID/Depth	VS-TS-1	VS-TS-2	VS-TS-3	VS-TS-4	VS-TS-5	VS-TS-6
Date Sampled	24/03/26	24/03/26	24/03/26	24/03/26	24/03/26	24/03/26
A-T-019s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
A-T-022s	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026	31/03/2026
A-T-024s	09/04/2026	09/04/2026	09/04/2026	09/04/2026	09/04/2026	09/04/2026
A-T-026s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
A-T-027s	08/04/2026	08/04/2026	08/04/2026	08/04/2026	08/04/2026	08/04/2026
A-T-028s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
A-T-031s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
A-T-032s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
A-T-040s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
A-T-042sTCN	30/03/2026	30/03/2026	30/03/2026	30/03/2026	30/03/2026	30/03/2026
A-T-044	02/04/2026	02/04/2026	02/04/2026	02/04/2026	02/04/2026	02/04/2026
A-T-045	30/03/2026	30/03/2026	30/03/2026	30/03/2026	30/03/2026	30/03/2026
A-T-050s	03/04/2026	03/04/2026	03/04/2026	03/04/2026	03/04/2026	03/04/2026
A-T-055s	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026
Calc-As Recd	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026	07/04/2026

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

APPENDIX C

Validation Photographs



P1: HP1* Capping Location



P2: HP1* Capping Location



P3: HP1* Capping Location



P4: HP2* Capping Location



P5: HP2* Capping Location



P6: HP2* Capping Location

Comments:

GEO-ENVIRONMENTAL CONSULTING

Photographs 1 to 6

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project	**Site:** Land off Ambrose Street, Manchester	**Project No:** 24060	**Created By:** MLM	**Date:** May 2026
	Title: Appendix C – Capping Validation Photographs	**Client:** GK Construction & Project Management Ltd		



P7: HP3* Capping Location



P8: HP3* Capping Location



P9: HP3* Capping Location



P10: HP4* Capping Location (Concrete below capping system)



P11: HP4* Capping Location (Concrete below capping system)



P12: HP4* Capping Location (Concrete below capping system)

Comments:

GEO-ENVIRONMENTAL CONSULTING

Photographs 7 to 12

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project	**Site:** Land off Ambrose Street, Manchester	**Project No:** 24060	**Created By:** MLM	**Date:** May 2026
	Title: Appendix C – Capping Validation Photographs	**Client:** GK Construction & Project Management Ltd		



P13: HP5* Capping Location (Concrete below capping system)



P14: HP5* Capping Location (Concrete below capping system)



P15: HP5* Capping Location (Concrete below capping system)



P16: HP6* Capping Location (Concrete below capping system)



P17: HP6* Capping Location (Concrete below capping system)



P18: HP6* Capping Location (Concrete below capping system)

Comments:

GEO-ENVIRONMENTAL CONSULTING

Photographs 13 to 18

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project	**Site:** Land off Ambrose Street, Manchester	**Project No:** 24060	**Created By:** MLM	**Date:** May 2026
	Title: Appendix C – Capping Validation Photographs	**Client:** GK Construction & Project Management Ltd		



P19: HP7* Capping Location



P20: HP7* Capping Location



P21: HP7* Capping Location



P22: HP8* Capping Location



P23: HP8* Capping Location



P24: HP8* Capping Location

Comments:

GEO-ENVIRONMENTAL CONSULTING

Photographs 19 to 24

This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project	**Site:** Land off Ambrose Street, Manchester	**Project No:** 24060	**Created By:** MLM	**Date:** May 2026
	Title: Appendix C – Capping Validation Photographs	**Client:** GK Construction & Project Management Ltd		

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