

RP Tyson Construction Ltd

1 Mitcham Road
Blackpool
FY4 4QN

AG3093B-22-AP20

19th December 2022

For the attention of Jordan Whelan

Dear Jordan,

Re: Barlow Moor Road, Chorlton – Verification of Topsoil Cover Layer

An area of land adjacent to Barlow Moor Road, Chorlton (the site) has been redeveloped by RP Tyson Construction Ltd (the Principal Contractor). The works comprised the demolition of former buildings and construction of two new 3 to 5 storey residential apartment blocks, containing 39 No apartments with associated car parking and communal amenity gardens. The proposals are shown on a proposed site plan (Drawing No: 1479_PL 0002), by DV Architects, dated 26th June 2019, a copy of which is enclosed with this letter report.

A Remediation Strategy and Verification Plan (Ref: AG3093A-20-AK99, dated September 2020) was produced for the development by Applied Geology on behalf of Tyson Construction Ltd. This Verification Report has been prepared to assist the discharge of Condition 11 of Planning Permission Ref. 124237/FO/2019, which states that *"when the development commences, the development shall be carried out in accordance with the previously agreed Remediation Strategy and a Completion/Verification Report shall be submitted to and approved in writing by the City Council as local planning authority, to ensure that the presence of or the potential for any contaminated land and/or groundwater is detected and appropriate remedial action is taken in the interests of public safety, pursuant to policies DM1 and EN18 of the Core Strategy."*

As detailed within the Remediation Strategy and Verification Plan, a clean cover layer was proposed across areas of soft landscaping due to elevated concentrations of benzo[a]pyrene, lead, arsenic, beryllium and aromatic TPH fractions, associated with ash and clinker in the Made Ground. A clean cover layer of 450mm thickness within all proposed areas of soft landscaping was proposed, with the verification once placed being via the excavation of hand dug pits. This letter report details the validation work undertaken and should be read in conjunction with the Remediation Strategy and Verification Plan.

Topsoil for the site was sourced by RP Tyson Construction Ltd and obtained from Frank O'Gara & Sons Ltd, Irlam, Manchester, M44 5BA, in June 2022. It is not known if this donor provided a Greenfield or recycled topsoil.



Applied Geology initially attended site on 8th July 2022 to inspect the cover layer thickness and sample the imported topsoil for laboratory testing. A topsoil cover layer had been placed to the rear amenity garden area, but had not been placed across other areas of landscaping. Two hand excavated pits (HDP1 and HDP2) were undertaken across the rear amenity garden area where a topsoil cover layer had been placed, alongside verification sampling at each location (2No samples in total). Topsoil was encountered in both of the hand pits from ground level to depths of between 0.60m and 0.62m below ground level (bgl) respectively. The topsoil generally comprised dark grey slightly gravelly sandy clay with occasional rootlets. The gravel comprised angular to rounded fine to medium quartzite, sandstone and mudstone, with rare brick/ceramic. Photographs of each pit are enclosed with this letter report.

Considering that the source of the material had not been confirmed (i.e., Greenfield or Brownfield/recycled), a minimum of 1No sample per 150m³ was considered warranted, as per the Remediation Strategy.

The two soil samples collected were tested for the following determinands at UKAS accredited laboratory (i2 Analytical Ltd) to determine if the soil was suitable for use in accordance with the imported topsoil acceptance criteria given in Appendix B of the Remediation Strategy and Verification Plan:

- Selected metals suite [arsenic, beryllium, boron, cadmium, chromium (total, trivalent and hexavalent), copper, mercury, nickel, lead, zinc, selenium, vanadium];
- Speciated (16 US EPA) Polycyclic Aromatic Hydrocarbons (PAH);
- Total Petroleum Hydrocarbon Criteria Working Group (TPH CWG);
- BTEX & MTBE;
- Asbestos;
- Volatile Organic Compounds (VOCs).

The results of the testing indicated that both samples passed the imported topsoil acceptance criteria.

Applied Geology attended site again on 20th September 2022 to inspect the cover layer thickness and attempt sampling of further imported topsoil for laboratory testing. Three hand excavated pits were undertaken across the remaining landscaped areas. However, at all three locations, the topsoil cover layer was found to be less than the specified 450mm thicknesses and as such was not sampled at the time.

The imported topsoil was again sourced by RP Tyson Construction Ltd, from Frank O'Gara & Sons Ltd, Irlam, Manchester, M44 5BA, in November 2022.

Applied Geology attended site for a final time on 22nd November 2022 to inspect the cover layer thickness and to sample the imported topsoil for laboratory testing. Three hand excavated pits (HDP3 to HDP5) were undertaken across the remaining areas of landscaping, alongside verification sampling at each location (3No samples in total). Topsoil was encountered in all three of the hand pits from ground level to 0.45m bgl. The topsoil generally comprised a dark brown slightly gravelly clayey sand. Photographs of each pit are enclosed with this letter report.

Considering that the source of the material had not been confirmed (i.e., Greenfield or Brownfield/recycled), a minimum of 1No sample per 150m³ was considered warranted, as per the Remediation Strategy.

The soil samples collected were tested for the following determinands at i2 Analytical Ltd to determine if the soil was compliant with the imported topsoil acceptance criteria given in Appendix B of the Remediation Strategy and Verification Plan:

- Selected metals suite [arsenic, beryllium, boron, cadmium, chromium (total, trivalent and hexavalent), copper, mercury, nickel, lead, zinc, selenium, vanadium];
- Speciated (16 US EPA) Polycyclic Aromatic Hydrocarbons (PAH);
- Total Petroleum Hydrocarbon Criteria Working Group (TPH CWG);
- BTEX & MTBE;
- Asbestos;
- Volatile Organic Compounds (VOCs).

The results of the testing indicated that all samples passed the imported topsoil acceptance criteria.

The results of the chemical testing and a summary comparison table showing the results against the imported topsoil acceptance criteria are enclosed with this letter report.

The locations of the hand pits are shown on the Topsoil Validation Plan, drawing AG3093B-22-01.

This information forms the final part of the verification of remedial measures undertaken at the site and completes the information required to be provided to support the discharge of Planning Condition 11 of Planning Permission Ref. 124237/FO/2019.

Should you have any queries please do not hesitate to contact us.

Yours sincerely

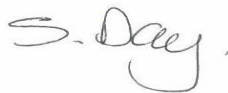
For and on behalf of Applied Geology Ltd

Prepared by:



H Spencer BSc (Hons) MSc FGS
Lead Project Geologist

Checked by:

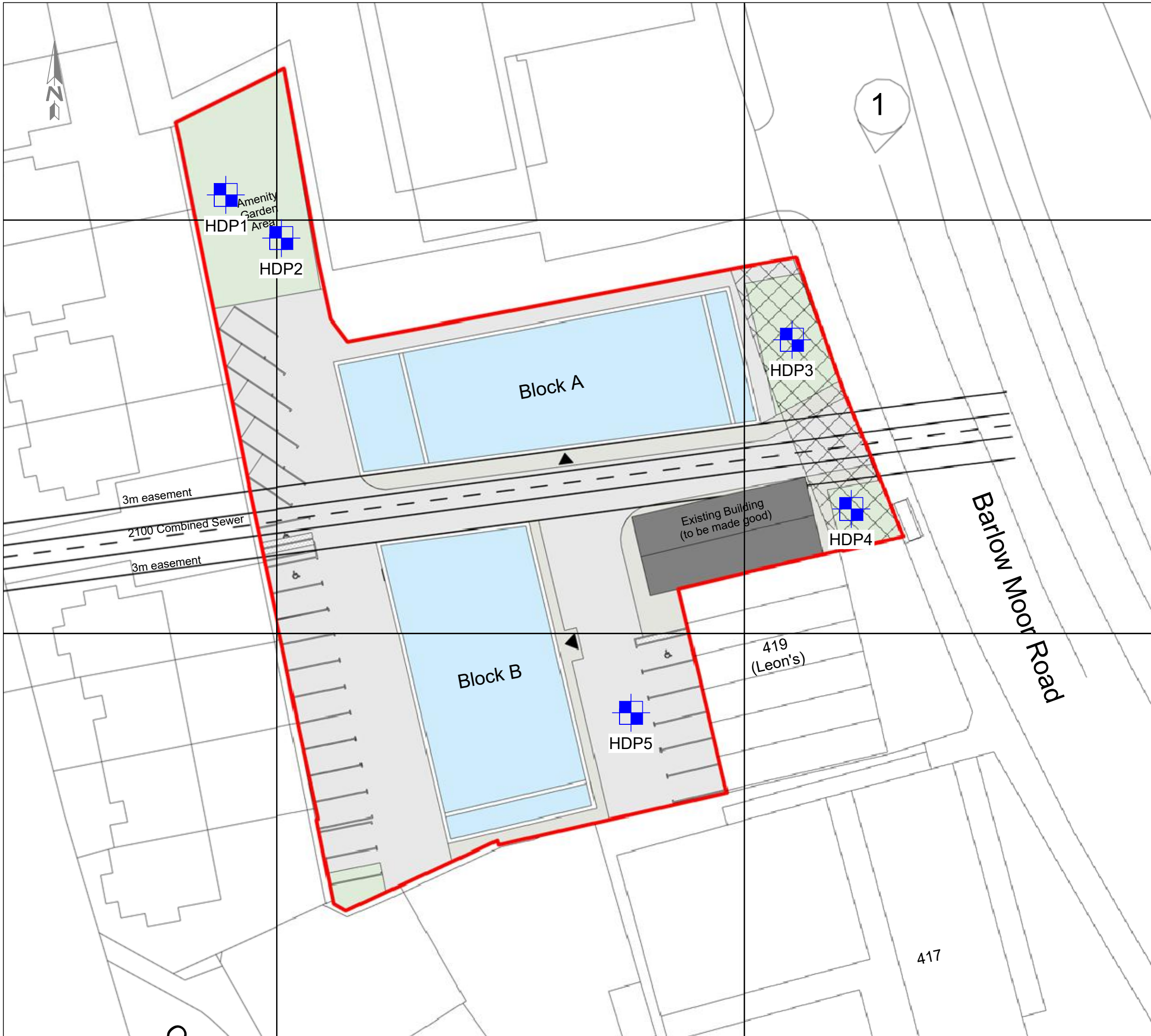


S Day BSc (Hons) MSc CGeol FGS SiLC
Director

Enc. General Notes
Exploratory Hole Location Plan Dwg No. AG3093B-22-01
Hand Pit Photographs
Soil Results Summary Comparison Table
Laboratory Test Results

GENERAL NOTES

- A) The assessment made in this report is based on the site terrain and ground conditions revealed by the various field investigations undertaken and also any other relevant data for the site including previous site investigation reports (if available) and desk study data. There may be special conditions appertaining to the site, however, which have not been revealed by the investigation and which have not, therefore, been taken into account in the report. The assessment may be subject to amendment in the light of additional information becoming available. It must be recognised that many of the Environmental Searches obtained during the course of the desk study are often lengthy. Applied Geology have, where appropriate and in the interests of simplicity, only reproduced the summary of the searches within the report. A full copy of all the search data is held at the Applied Geology office and is available for inspection if required.
- B) The services provided are defined within our proposal and are carried out in line with the terms of appointment between Applied Geology and the Client.
- C) Where any data supplied by the Client or other external source, including that from previous site investigations, has been used it has been assumed that the information is correct. No responsibility can be accepted by Applied Geology for inaccuracies within this data.
- D) Whilst the report may express an opinion on possible configurations of strata between or beyond the exploratory locations, or on the possible presence of features based on either visual, verbal or published evidence this is for guidance only and no liability can be accepted for the accuracy.
- E) Comments on groundwater (and landfill gas) conditions are based on observations made during the course of the present and past investigations or with reference to published data unless otherwise stated. It should be noted, however, that groundwater (and landfill gas) levels vary due to seasonal (or atmospheric conditions) or other effects.
- F) The copyright of this report and other plans (and documents prepared by Applied Geology) is owned by Applied Geology and no such report, plan or document may be reproduced, published or adapted without the written consent of Applied Geology. Complete copies of the report may, however, be made and distributed by the Client as an expedient in dealing with matters related to its submission.
- G) This report is prepared and written in the context of the proposals stated in the introduction to the report and should not be used in a differing context. Furthermore, new information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to Applied Geology for re-assessment and if necessary, re-appraisal.
- H) The survey was conducted and this report was prepared for the sole internal use and reliance of the Client. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Applied Geology. If an unauthorised third party comes into possession of this report they rely on it at their peril and Applied Geology owes them no duty of care and skill.
- I) Ground conditions should be monitored during the construction of the works and the recommendations of the report re-evaluated in the light of this data by the supervising geotechnical or geo-environmental engineers.
- J) Unless specifically stated, the investigation has not taken into account the possible effects of mineral extraction.
- K) The works performed are not a comprehensive site characterisation and should not be construed as being such.
- L) The findings of the geo-environmental risk assessment are based on information obtained from a variety of sources which Applied Geology believe to be correct. Applied Geology cannot and does not guarantee the authenticity or reliability of the information it has relied upon.
- M) The report represents the findings and opinions of experienced geo-environmental consultants. Applied Geology does not provide legal advice and the advice of lawyers may be required.
- N) Conditions at the site are subject to change from the time of the site inspection.
- O) It is possible that researches carried out by Applied Geology, whilst fully appropriate for a phase 1 desk study, failed to indicate the existence of important information sources. Assuming such indicators actually exist, their information could not have been considered in the formulation of Applied Geology findings and opinions.
- P) The economic viability of the proposals referred to in the report, or of the solutions put forward to any problems encountered, depends on very many factors in addition to geotechnical considerations and hence its evaluation is outside the scope of this report.
- Q) Applied Geology operates as a Consultancy and does not operate its own laboratory for soil testing, this work being sub contracted to known and respected, generally UKAS accredited, laboratories. Applied Geology can therefore not be held responsible for the testing carried out.



KEY:



Hand Dug Pit

HDP1

Drawing based on DV Architects, drawing No:PL0002 dated 26/06/2019.

APPLIED GEOLOGY

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Client:

RP TYSON CONSTRUCTION LTD

Project:

BARLOW MOOR ROAD, CHORLTON

Title:

EXPLORATORY HOLE LOCATION PLAN

Drawn By:	FD	Checked By:	AB	Paper Size:	A3
Scale:	NTS			Date:	20.09.2022
Drawing No:	AG3093B-22-01			Revision:	0

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP1, Topsoil thickness: 600mm



HDP1 overview

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP1 down-hole view



HDP2, Topsoil thickness: 620mm

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



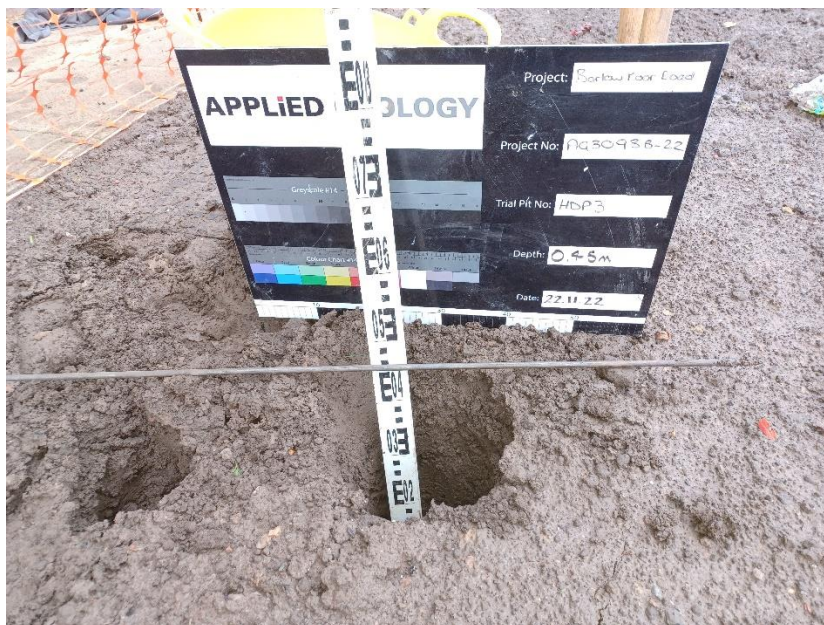
HDP2 overview



HDP2 down-hole view

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP3, Topsoil thickness: 450mm



HDP3 overview

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP3 down-hole view



HDP4, Topsoil thickness: 450mm

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP4 overview



HDP4 down-hole view

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP5, clean cover thickness: 450mm



HDP5 overview

Validation Photos

Client	RP Tyson Construction Ltd	Job Number	AG3093B-22
Site	Barlow Moor Road, Chorlton	Date	18 th July, 20 th September and 22 nd November 2022
Engineer	Carl Sellers, Hannah Spencer	Pit Numbers	HDP1 - 5



HDP5 down-hole view

Imported Topsoil/Subsoil Acceptance Criteria									
Site:		Barlow Moor Road, Chorlton							
Job No:		AG3093B-22							
Land Use:		Residential with plant uptake							
Exploratory Hole Reference Depth (m) Strata	HDP1 0.3 TS	HDP2 0.3 TS	HDP3 0.3 TS	HDP4 0.3 TS	HDP5 0.3 TS	Units	Soil Screening Value (6% SOM)	Source/Justification	
Arsenic	8.7	10	11	12	2	mg/ka	37	LQM/CIEH S4UL (2015)	
Boron	7.1	7.5	5.5	4.8	1.1	ma/ka	290	LQM/CIEH S4UL (2015)	
Cadmium	0.2	0.2	0.2	0.2	0.2	ma/ka	11	LQM/CIEH S4UL (2015)	
Chromium	18	19	22	22	2.8	ma/ka	910	LQM/CIEH S4UL (2015)	
Chromium (Hexavalent)	1.8	1.8	1.8	1.8	1.8	mg/kg	6	LQM/CIEH S4UL (2015)	
Copper	13	17	30	41	7.9	mg/kg	2400	LQM/CIEH S4UL (2015) + BS3882: 2015	
Lead	32	37	48	51	6.4	mg/kg	200	C4SL (2014)	
Mercury	0.3	0.3	0.3	0.3	0.3	mg/kg	40	LQM/CIEH S4UL (2015)	
Nickel	12	14	16	17	2.6	mg/kg	130	LQM/CIEH S4UL (2015)	
Selenium	1.0	1.0	1.0	1.0	1.0	ma/ka	250	LQM/CIEH S4UL (2015)	
Vanadium	24	26	27	26	3.8	ma/ka	410	LQM/CIEH S4UL (2015)	
Zinc	49	56	65	65	9.2	ma/ka	3700	LQM/CIEH S4UL (2015) + BS3882: 2015	
Naphthalene	0.05	0.05	0.19	0.08	0.08	ma/ka	13	LQM/CIEH S4UL (2015)	
Acenaphthylene	0.05	0.05	0.05	0.05	0.05	ma/ka	*	LQM/CIEH S4UL (2015)	
Acenaphthene	0.05	0.05	0.25	0.05	0.05	mg/kg	920	LQM/CIEH S4UL (2015)	
Fluorene	0.05	0.05	0.16	0.05	0.05	mg/kg	860	LQM/CIEH S4UL (2015)	
Phenanthrene	0.59	0.37	1.6	0.25	0.09	mg/kg	440	LQM/CIEH S4UL (2015)	
Anthracene	0.15	0.05	0.36	0.06	0.05	mg/kg	*	-	
Fluoranthene	1.2	0.78	2.6	0.52	0.12	mg/kg	890	LQM/CIEH S4UL (2015)	
Pyrene	1.1	0.65	2.5	0.5	0.11	mg/kg	*	LQM/CIEH S4UL (2015)	
Benzo[a]anthracene	0.86	0.54	1.4	0.31	0.05	ma/ka	13	LQM/CIEH S4UL (2015)	
Chrysene	0.69	0.48	1.1	0.26	0.06	ma/ka	27	LQM/CIEH S4UL (2015)	
Benzo[b]fluoranthene	0.83	0.53	1.5	0.37	0.05	ma/ka	3.7	LQM/CIEH S4UL (2015)	
Benzo[k]fluoranthene	0.56	0.42	0.58	0.16	0.05	ma/ka	100	LQM/CIEH S4UL (2015)	
Benzo[a]pyrene	0.96	0.61	1.3	0.28	0.05	ma/ka	3.0	LQM/CIEH S4UL (2015)	
Dibenz[ah]anthracene	0.05	0.05	0.14	0.05	0.05	ma/ka	0.30	LQM/CIEH S4UL (2015)	
Indeno[1,2,3-cd]pyrene	0.42	0.25	0.63	0.16	0.05	mg/kg	41	LQM/CIEH S4UL (2015)	
Benzo[ghi]perylene	0.52	0.34	0.74	0.19	0.05	mg/kg	350	LQM/CIEH S4UL (2015)	
Total PAH	7.92	4.97	14.9	3.14	0.8	mg/kg	1000	-	
Phenols	1.0	1.0	1.0	1.0	1.0	mg/kg	380	LQM/CIEH S4UL (2015)	
Benzene	1.0	1.0	1.0	1.0	1.0	ma/ka	0.37	LQM/CIEH S4UL (2015)	
Toluene	1.0	1.0	1.0	1.0	1.0	ma/ka	660	LQM/CIEH S4UL (2015)	
Ethylbenzene	1.0	1.0	1.0	1.0	1.0	ma/ka	260	LQM/CIEH S4UL (2015)	
m&p Xylene	1.0	1.0	1.0	1.0	1.0	ma/ka	310	LQM/CIEH S4UL (2015)	
o-Xylene	1.0	1.0	1.0	1.0	1.0	ma/ka	330	LQM/CIEH S4UL (2015)	
Aliphatic TPH >C5-C6	0.001	0.001	0.001	0.001	0.001	mg/kg	160	LQM/CIEH S4UL (2015)	
Aliphatic TPH >C6-C8	0.001	0.001	0.001	0.001	0.001	mg/kg	530	LQM/CIEH S4UL (2015)	
Aliphatic TPH >C8-C10	0.001	0.001	0.001	0.001	0.001	mg/kg	150	LQM/CIEH S4UL (2015)	
Aliphatic TPH >C10-C12	1.0	1.0	1.0	1.0	1.0	mg/kg	760	LQM/CIEH S4UL (2015)	
Aliphatic TPH >C12-C16	2.0	2.0	2.0	2.0	2.0	mg/kg	*	-	
Aliphatic TPH >C16-C21	8.0	8.0	8.0	8.0	8.0	mg/kg	*	-	
Aliphatic TPH >C21-C35	8.0	8.0	8.0	8.0	8.0	mg/kg	*	-	
Aliphatic TPH >C35-C44	8.4	8.4	8.4	8.4	8.4	mg/kg	*	-	
Aromatic TPH >C5-C7	0.001	0.001	0.001	0.001	0.001	ma/ka	300	LQM/CIEH S4UL (2015)	
Aromatic TPH >C7-C8	0.001	0.001	0.001	0.001	0.001	ma/ka	660	LQM/CIEH S4UL (2015)	
Aromatic TPH >C8-C10	0.001	0.001	0.001	0.001	0.001	ma/ka	190	LQM/CIEH S4UL (2015)	
Aromatic TPH >C10-C12	1.0	1.0	1.0	1.0	1.0	mg/kg	380	LQM/CIEH S4UL (2015)	
Aromatic TPH >C12-C16	2.0	2.0	3.6	2.0	2.0	mg/kg	660	LQM/CIEH S4UL (2015)	
Aromatic TPH >C16-C21	10	10	10	10	10	mg/kg	930	LQM/CIEH S4UL (2015)	
Aromatic TPH >C21-C35	11	26	18	11	10	mg/kg	*	-	
Aromatic TPH >C35-C44	10	8.4	8.4	8.4	8.4	mg/kg	*	-	
Total Petroleum Hydrocarbons	27	36	30	17	10	ma/ka	1000	-	
Asbestos	ND	ND	ND	ND	ND		Below Detection Limit of Test	Any values above detection to be assessed in more detail to determine suitability for end use. Ideally VOCs to be below detection.	
VOCs (other than BTEX)	1.0	1.0	1.0	1.0	1.0	µg/kg	Below Detection Limit of Test		
Testing should be based on the donor site and its historical use.									
* Individual PAH compounds and TPH fractions have S4UL's in excess of 1000mg/kg, therefore no specific limits are proposed as overall limits of 1000mg/kg TPH and 1000mg/kg PAH are to be adhered to.									
LQM/CIEH S4UL Reference No. S4UL3159 (2015)									

**Carl Sellers**

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e: reception@i2analytical.com

e: carl.sellers@appliedgeology.co.uk

Analytical Report Number : 22-70566

Project / Site name:	Barlow Moor Road, Chorlton	Samples received on:	11/07/2022
Your job number:	AG3093B-22	Samples instructed on/ Analysis started on:	11/07/2022
Your order number:	18518	Analysis completed by:	20/07/2022
Report Issue Number:	1	Report issued on:	20/07/2022
Samples Analysed:	2 soil samples		

Signed:

Izabela Wójcik

Izabela Wójcik
Reporting Specialist
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

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

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: 22-70566

Project / Site name: Barlow Moor Road, Chorlton

Your Order No: 18518

Lab Sample Number				2345219	2345220
Sample Reference				HDP1	HDP2
Sample Number				None Supplied	None Supplied
Depth (m)				0.30	0.30
Date Sampled				08/07/2022	08/07/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	18
Total mass of sample received	kg	0.001	NONE	0.9	0.9

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	JSW	JSW

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.6	7.9
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	150	160
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.074	0.078
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	73.7	78.3
Organic Matter (automated)	%	0.1	MCERTS	4	4.1

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.59	0.37
Anthracene	mg/kg	0.05	MCERTS	0.15	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.2	0.78
Pyrene	mg/kg	0.05	MCERTS	1.1	0.65
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.86	0.54
Chrysene	mg/kg	0.05	MCERTS	0.69	0.48
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.83	0.53
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.56	0.42
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.96	0.61
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.42	0.25
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.52	0.34

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	7.92	4.97
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Analytical Report Number: 22-70566

Project / Site name: Barlow Moor Road, Chorlton

Your Order No: 18518

Lab Sample Number	2345219			2345220
Sample Reference	HDP1			HDP2
Sample Number	None Supplied			None Supplied
Depth (m)	0.30			0.30
Date Sampled	08/07/2022			08/07/2022
Time Taken	None Supplied			None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	10
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.48	0.51
Boron (total)	mg/kg	1	MCERTS	7.1	7.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	18	19
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	17
Lead (aqua regia extractable)	mg/kg	1	MCERTS	32	37
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24	26
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	49	56

Magnesium (water soluble)	mg/kg	5	NONE	16	16
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Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44) EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	10
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	11	26
TPH-CWG - Aromatic > EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	10	< 8.4
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	MCERTS	17	36
TPH-CWG - Aromatic (EC5 - EC44) EH_CU+HS_1D_AR	mg/kg	10	NONE	27	36

TPH-CWG - Total C5 - C44 Aliphatic & Aromatic EH_CU+HS_1D	mg/kg	10	NONE	27	36
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Analytical Report Number: 22-70566

Project / Site name: Barlow Moor Road, Chorlton

Your Order No: 18518

Lab Sample Number				2345219	2345220
Sample Reference				HDP1	HDP2
Sample Number				None Supplied	None Supplied
Depth (m)				0.30	0.30
Date Sampled				08/07/2022	08/07/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0

Analytical Report Number: 22-70566

Project / Site name: Barlow Moor Road, Chorlton

Your Order No: 18518

Lab Sample Number				2345219	2345220
Sample Reference				HDP1	HDP2
Sample Number				None Supplied	None Supplied
Depth (m)				0.30	0.30
Date Sampled				08/07/2022	08/07/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-70566

Project / Site name: Barlow Moor Road, Chorlton

* 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 *
2345219	HDP1	None Supplied	0.3	Brown loam and clay with vegetation and gravel
2345220	HDP2	None Supplied	0.3	Brown loam and clay with vegetation and gravel

Analytical Report Number : 22-70566

Project / Site name: Barlow Moor Road, Chorlton

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
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	A001-PL	D	ISO 17025
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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 (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	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
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.	L019-UK/PL	D	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
TPHCWG Ali Aro Sum	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

Analytical Report Number : 22-70566

Project / Site name: Barlow Moor Road, Chorlton

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 22-98631

Project / Site name:	Barlow Moor Road, Chorlton	Samples received on:	23/11/2022
Your job number:	AG3093B-22	Samples instructed on/ Analysis started on:	23/11/2022
Your order number:	18962	Analysis completed by:	09/12/2022
Report Issue Number:	1	Report issued on:	09/12/2022
Samples Analysed:	3 soil samples		



Signed:

Adam Fenwick
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

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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: 22-98631
Project / Site name: Barlow Moor Road, Chorlton
Your Order No: 18962

Lab Sample Number				2510078	2510079	2510080
Sample Reference				HDP3	HDP4	HDP5
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.30	0.30
Date Sampled				22/11/2022	22/11/2022	22/11/2022
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	22	19	8.9
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MJN	MJN	MJN

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8	7.7	8.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	130	330	30
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.063	0.17	0.015
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	62.6	168	14.8
Organic Matter (automated)	%	0.1	MCERTS	3.8	3.2	1

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	NONE	0.19	0.08	0.08
Acenaphthylene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	NONE	0.25	< 0.05	< 0.05
Fluorene	mg/kg	0.05	NONE	0.16	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	NONE	1.6	0.25	0.09
Anthracene	mg/kg	0.05	NONE	0.36	0.06	< 0.05
Fluoranthene	mg/kg	0.05	NONE	2.6	0.52	0.12
Pyrene	mg/kg	0.05	NONE	2.5	0.5	0.11
Benzo(a)anthracene	mg/kg	0.05	NONE	1.4	0.31	0.05
Chrysene	mg/kg	0.05	NONE	1.1	0.26	0.06
Benzo(b)fluoranthene	mg/kg	0.05	NONE	1.5	0.37	0.05
Benzo(k)fluoranthene	mg/kg	0.05	NONE	0.58	0.16	< 0.05
Benzo(a)pyrene	mg/kg	0.05	NONE	1.3	0.28	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	0.63	0.16	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	0.14	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	NONE	0.74	0.19	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	14.9	3.14	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	12	2
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.62	0.69	0.13
Boron (total)	mg/kg	1	MCERTS	5.5	4.8	1.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	22	22	2.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	23	3.6
Copper (aqua regia extractable)	mg/kg	1	MCERTS	30	41	7.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	48	51	6.4
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	17	2.6

Analytical Report Number: 22-98631
Project / Site name: Barlow Moor Road, Chorlton
Your Order No: 18962

Lab Sample Number				2510078	2510079	2510080
Sample Reference				HDP3	HDP4	HDP5
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.30	0.30
Date Sampled				22/11/2022	22/11/2022	22/11/2022
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	27	26	3.8
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	65	65	9.2
Magnesium (water soluble)	mg/kg	5	NONE	8	15	< 5.0

Monoaromatics & Oxygenates

Benzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	NONE	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	NONE	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35) _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44) _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35) _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44) _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10

TPHCWG - Total C5 - C44 Aliphatic & Aromatic _{EH_CU+HS_1D_TC}	mg/kg	10	NONE	30	17	< 10
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VOCs

Chloromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Bromomethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Trichloromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0

Analytical Report Number: 22-98631
 Project / Site name: Barlow Moor Road, Chorlton
 Your Order No: 18962

Lab Sample Number				2510078	2510079	2510080
Sample Reference				HDP3	HDP4	HDP5
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.30	0.30
Date Sampled				22/11/2022	22/11/2022	22/11/2022
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
1,1,1-Trichloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Benzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Dibromomethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Styrene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
o-Xylene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Bromobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-98631

Project / Site name: Barlow Moor Road, Chorlton

* 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 *
2510078	HDP3	None Supplied	0.3	Brown clay and loam with vegetation.
2510079	HDP4	None Supplied	0.3	Brown clay and loam.
2510080	HDP5	None Supplied	0.3	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 22-98631

Project / Site name: Barlow Moor Road, Chorlton

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
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.	L038-PL	D	MCERTS
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	A001-PL	D	ISO 17025
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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 (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
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
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.	L019-UK/PL	D	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
TPHCWG Ali Aro Sum	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS

Analytical Report Number : 22-98631

Project / Site name: Barlow Moor Road, Chorlton

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

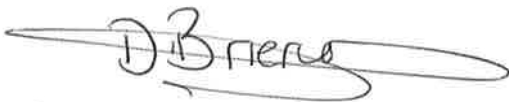
FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/09321
Issue Number: 1-S1
Date: 05 October, 2022

Client: Pearl Environmental (UK) Ltd
58 Marford Crescent
Sale
Cheshire
UK
M33 4DH

Project Manager: Keith Lewis
Project Name: O'Gara Yard, Sorby Road
Project Ref: Not specified
Order No: KL1609
Date Samples Received: 23/09/22
Date Instructions Received: 23/09/22
Date Analysis Completed: 05/10/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 22/09321

Client Project Name: O'Gara Yard, Sorby Road

Client Project Ref: Not specified

Lab Sample ID	22/09321/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	21-Sep-22									
Sample Type	Soil									
Sample Matrix Code	4AE									
% Stones >10mm _A	6.5							% w/w	0.1	A-T-044
pH _D ^{M#}	7.49							pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.19							g/l	0.01	A-T-026s
Arsenic _D ^{M#}	11							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.7							mg/kg	0.5	A-T-024s
Copper _D ^{M#}	35							mg/kg	1	A-T-024s
Chromium _D ^{M#}	21							mg/kg	1	A-T-024s
Lead _D ^{M#}	81							mg/kg	1	A-T-024s
Mercury _D	<0.17							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	16							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	100							mg/kg	5	A-T-024s

Envirolab Job Number: 22/09321

Client Project Name: O'Gara Yard, Sorby Road

Client Project Ref: Not specified

Lab Sample ID	22/09321/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	21-Sep-22									
Sample Type	Soil									
Sample Matrix Code	4AE									
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	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									A-T-045

Envirolab Job Number: 22/09321

Client Project Name: O'Gara Yard, Sorby Road

Client Project Ref: Not specified

Lab Sample ID	22/09321/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Screened Soil									
Depth to Top										
Depth To Bottom										
Date Sampled	21-Sep-22									
Sample Type	Soil									
Sample Matrix Code	4AE									
PAH-16MS										
Acenaphthene _A ^{M#}	0.10							mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	0.04							mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.21							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.95							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	1.02							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	1.04							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.50							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.39							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	1.16							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	0.11							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	1.72							mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.06							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.50							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.81							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	1.97							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	10.6							mg/kg	0.01	A-T-019s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

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 with the same delivery, will be disposed of six weeks after 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 the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples 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.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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 analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

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.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Pearl Environmental (UK) Ltd, 58 Marford Crescent , Sale, Cheshire, UK, M33 4DH

Project: O'Gara Yard, Sorby Road

Clients Project No:

Project No: 22/09321

Date Received: 23/09/2022 (am)

Cool Box Temperatures (°C): 6.0

Lab Sample ID	22/09321/1
Client Sample No	
Client Sample ID/Depth	Screened Soil
Date Sampled	21/09/22
Deviation Code	
D (no glass)	✓

Key

D (no glass) Glass container not provided for extractable organics analysis

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/09321/1	22/09321/2	22/09321/3
Client Sample No			
Client Sample ID/Depth	Screened Soil	Subsoil	6F2
Date Sampled	21/09/22	21/09/22	21/09/22
A-T-007s		28/09/2022	
A-T-019s	29/09/2022	29/09/2022	
A-T-024s	04/10/2022	04/10/2022	
A-T-026s	03/10/2022	03/10/2022	03/10/2022
A-T-028s			05/10/2022
A-T-031s	03/10/2022	03/10/2022	03/10/2022
A-T-044	05/10/2022	05/10/2022	05/10/2022
A-T-045	27/09/2022	27/09/2022	27/09/2022

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