

20th December 2024

Morgan Sindall
Kent House,
14-17 Market Place,
London
W1W 8AJ

RSK Raw Limited
Units 1-3, Block 6, Newlands Avenue
Brackla Industrial Estate
Bridgend CF31 2DA

T: 0345 166 8491
E: enquiries@raw-group.com
W: www.rskraw.com

RSK Raw Ref. 2642020

Dear Sir or Madam,

Re : Supplemental Letter Report detailing additional information supporting Verification Report for Douay Martyrs School Cardinal Hume Campus Development

1.1 Site Name and Address

Douay Martyrs School, Cardinal Hume Campus, Long Lane, Ickenham, London Borough of Hillingdon UB10 8SX.

1.2 Background information

RSK Raw Limited (RSK Raw) was commissioned by Morgan Sindall Limited (Morgan Sindall) to prepare a contamination remediation verification report for the redevelopment at Douay Martyrs School, Cardinal Hume Campus, in order to discharge Application 2, Planning Condition 9.

In November 2020, Create Consulting Engineers Limited (Create Consulting) completed a Phase 1 Contaminated Land Assessment. The Create Consulting report comprised a desk study and qualitative risk assessment.

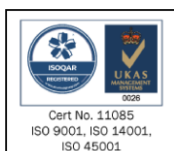
In December 2020 Ground Engineering Limited (Ground Engineering) completed a Phase II Ground Investigation report. The Ground Engineering report comprised a desk study and detailed results of an intrusive investigation which included cable percussion boreholes, window sample boreholes and trial pits. The aim of the intrusive investigation was to provide outline foundation guidance and contamination remedial recommendations for the school redevelopment.

In February 2021, Ground Engineering subsequently prepared a Remediation Plan following the intrusive ground investigation. The Remediation Plan was produced in order to address the planning condition which required a method statement detailing the necessary remediation requirements in relation to the development.

1.3 Current Scope

Following approval of the Remediation Plan, written by Ground Engineering, and construction of the development, RSK Raw was appointed to prepare a verification report summarising the remedial works completed by Morgan Sindall and their subcontractors.

Correspondence, evidence and confirmation of the development being in accordance with the Remediation Plan have been provided by Morgan Sindall and are provided in the Appendices.



Pollution response and remediation

RSK Raw is a trading name of RSK Raw Limited.
Registered in England No. 12071477. Registered Office: Spring Lodge,
172 Chester Road, Helsby, Cheshire, UK, WA6 0AR.
RSK Raw Limited is a member of the RSK group.

The verification report was submitted to Hillingdon London Council and following review the council requested additional information to ‘furnish the LPA with appropriate photographic and written details showing open excavations which identify the type, description, and measured depth of soil cover materials placed within open landscaped areas of the site’

1.4 Summary of Site Visit

On 30th October 2024 RSK Raw re-visited the site to collect soil samples for laboratory analysis from the vicinity of the trial pits VP-01, VP-02 and VP-03, previously excavated by RSK Raw Ltd on the 8th December 2023. The laboratory analysis was requested by the Local Authority

The positions are shown on drawing 2642020-01 and photo log appended.

Whilst on-site RSK Raw completed additional trial pitting (VS-04, VS-05 and VS-06) in support of a secondary planning application. The laboratory results for this sampling are presented in the laboratory analytical reports but are not discussed herein.

1.5 Details of Soft Landscaping Encountered

As detailed within previous Ground Investigations the existing Made Ground was not suitable for reuse and as such a new cover system of 600mm thickness was required at the site. Morgan Sindall imported topsoil and the delivery notes and pre delivery certificates are supplied within the verification report.

The ground conditions encountered during the verification site visits commenced within a topsoil surface layer. The topsoil layer typically extended to between 200 mm and 300 mm below ground level (bgl) and comprised brown clayey slightly gravelly silt with fine fibrous rootlets and organic matter. Below this depth soft light brown silty gravelly clay was encountered to a maximum of 600 mm bgl, the base of this material was not proven within the 600 mm deep verification trial pits.

A total of three soil samples were collected from trial pits VS-01, VS-02 and VS-03 and submitted for laboratory analysis for the contaminants of concern. Samples were collected from within the imported topsoil/subsoils.

RSK Raw has derived generic assessment criteria (GAC) in accordance with the Environment Agency’s (EA) CLEA methodology (v 1.071) for various soil types, soil organic matter (SOM) content and land use scenarios.

A generic quantitative risk assessment (GQRA) has been completed on the available data from laboratory analysis conducted on soil samples collected from the site. RSK Raw GAC for a Residential without Homegrown produce land use scenario, a sandy loam soil type and a soil organic matter (SOM) content of [1 %] have been referred to in this assessment.

The outcome of the GQRA is summarised in Table 1 below.

Table 1: Generic Quantitative Risk Assessment – Shallow Soils			
Determinand	Maximum Concentration (mg/kg) (Sample position / depth in m bgl)	GAC Pass/Fail	Number of Exceedances
Asbestos	Not detected (All sample locations)	Pass	0
Arsenic	7 (VP-02 / 0.4m bgl)	Pass	0
Cadmium	<0.5 (All sample locations)	Pass	0
Copper	20 (VP-02 / 0.4m bgl)	Pass	0
Chromium	20 (VP-03 / 0.4m bgl)	Pass	0
Lead	33 (VP-02 / 0.4m bgl)	Pass	0
Mercury	<0.17 (All sample locations)	Pass	0
Nickel	16 (VP-03 / 0.4m bgl)	Pass	0
Selenium	<1 (All sample locations)	Pass	0
Zinc	62 (VP-03 / 0.4m bgl)	Pass	0



Table 1: Generic Quantitative Risk Assessment – Shallow Soils			
Determinand	Maximum Concentration (mg/kg) (Sample position / depth in m bgl)	GAC Pass/Fail	Number of Exceedances
Napthalene	<0.03 (All sample locations)	Pass	0
Benzene	<0.01 (All sample locations)	Pass	0
Toluene	<0.01 (All sample locations)	Pass	0
Ethylbenzene	<0.01 (All sample locations)	Pass	0
M/P Xylene	<0.01 (All sample locations)	Pass	0
O Xylene	<0.01 (All sample locations)	Pass	0
TPH (>C6-C8)	<5 (All sample locations)	Pass	0
TPH (>C8-C10)	<1 (All sample locations)	Pass	0
TPH (>C10-C12)	<1 (All sample locations)	Pass	0
TPH (>C12-C16)	<2 (All sample locations)	Pass	0
TPH (>C16-C21)	10 (VP-02 / 0.4m bgl)	Pass	0
TPH (>C21-C35)	116 (VP-02 / 0.4m bgl)	Pass	0
TPH (>C35-C44)	74 (VP-01 / 0.4m bgl)	Pass	0
Notes Concentrations in bold exceed the GAC < denotes below limit of detection (LOD)			

As shown in Table 1 above, the RSK Raw GAC have not been exceeded by any of the concentrations recorded in the soil samples and therefore, there is not a significant risk to human health, in the residential without homegrown produce. A copy of the GQRA data is available on request.

The GQRA has been carried out in the context of the existing site use and layout at the time of the assessment. Should the site layout, use or ownership change, further risk assessment will be required.

Yours sincerely
For RSK Raw



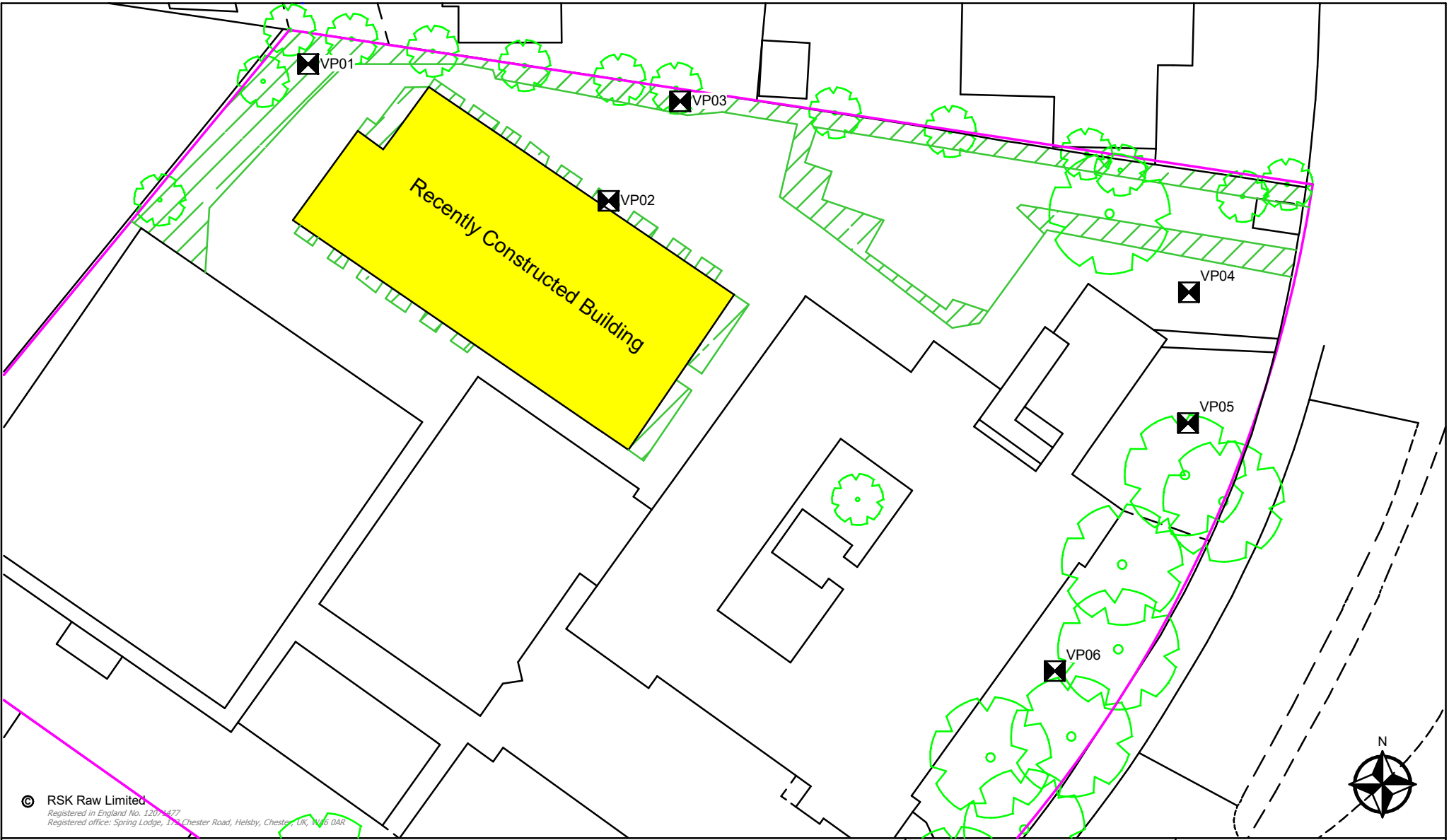
Phil Cresswell
Senior Geo-Environmental Consultant

PC/ RM

* Att.
Drawing of Verification Pit Locations
Verification Trial Pit Photos
Laboratory Analysis

Please note that the standard RSK Raw limitations to the above works as reported herein apply.





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Registered in England No. 12071477
Registered office: Spring Lodge, 172 Chester Road, Helsby, Chester, UK, V16 0AR

LEGEND

- Verification Pit Location
- Trees/shrubs
- Recently Constructed Building
- Property boundary
- Soft landscaping areas

CLIENT & PROJECT NAME: Morgan Sindall Group - Douay Martyrs School						 Raw House, Portland Road, Malvern, Worcestershire WR14 2TA Tel: 0345 166 8491 UK Tel: 1850 616 616 ROI email: enquiries@raw-group.com www.rskraw.com Offices throughout the UK and Ireland		
TITLE: Verification Trial Pits								
SITE ADDRESS: 80A Long Ln, Ickenham, Uxbridge UB10 8SX								
PROJECT NO: 2642020	DRAWING No. 2642020-02	REV: 02	DRAWN BY: PC	CHECKED BY: SOR	APPROVED BY: SOR	DATE APPROVED: 14/11/24	SCALE: 1:46	SCALE BAR: 

Photo Log



Template V3 200130

RSK Raw Limited
Portland Road,
Malvern
WR14 2TA



Photo 1: View of VP01



Photo 2: View of VP01



Photo 3: View of VP02



Photo 4: View of VP02

Client:

Morgan Sindall

Site Address:

Douay Martyrs School,
 Cardinal Hume Campus
 Long Lane, Ickenham,
 London Borough of
 Hillingdon UB10 8SX

Project Ref:

2642020

Photo Log



Template V3 200130

RSK Raw Limited
Portland Road,
Malvern
WR14 2TA



Photo 5: View of VP03



Photo 6: View of VP03 (water encountered at base of excavation, base of excavation observed prior to groundwater)



Photo 7: View of location of VP03 and raised planter where VP02 was located.



Photo 8: View of location of VP01

Client:

Morgan Sindall

Site Address:

Douay Martyrs School,
 Cardinal Hume Campus
 Long Lane, Ickenham,
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 Hillingdon UB10 8SX

Project Ref:

2642020

Photo Log

				 Template V3 200130 RSK Raw Limited Portland Road, Malvern WR14 2TA	
Photo 9:	View of VP05	Photo 10:	View of VP05	Client:	Morgan Sindall
				Site Address:	Douay Martyrs School, Cardinal Hume Campus Long Lane, Ickenham, London Borough of Hillingdon UB10 8SX
Photo 11:	View of VP06	Photo 12:	View of VP06	Project Ref:	2642020

Photo Log

		 Template V3 200130 RSK Raw Limited Portland Road, Malvern WR14 2TA	
Photo 13: View of VP06	Photo 14: View of VP06	Client:	Morgan Sindall
		Site Address:	Douay Martyrs School, Cardinal Hume Campus Long Lane, Ickenham, London Borough of Hillingdon UB10 8SX
		Project Ref:	2642020

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/10716
Issue Number: 1

Date: 08 November, 2024

Client: RSK RAW Boxworth
Battle Gate Road,
Boxworth
CB23 4NN

Project Manager: Phil Cresswell
Project Name: Douay Martyrs School
Project Ref: 2642020
Order No: PAH29036
Date Samples Received: 01/11/24
Date Instructions Received: 05/11/24
Date Analysis Completed: 08/11/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/10716

Client Project Name: Douay Martyrs School

Client Project Ref: 2642020

Lab Sample ID	24/10716/1	24/10716/2	24/10716/3	24/10716/4	24/10716/5	24/10716/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VP - 01	VP - 02	VP - 03	VP - 04	VP - 05	VP - 06				
Depth to Top	0.40	0.40	0.40	0.25	0.40	0.40				
Depth To Bottom										
Date Sampled	30-Oct-24	30-Oct-24	30-Oct-24	30-Oct-24	30-Oct-24	30-Oct-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4AE	4AE	6AE	4AE	6ABE	6AE				
% Stones >10mm _A	15.5	0.9	7.9	2.4	9.4	4.2		% w/w	0.1	A-T-044
pH _D ^{M#}	7.88	7.80	8.43	8.30	8.31	7.39		pH	0.01	A-T-031s
Organic Matter _D ^{M#}	3.4	4.2	2.0	4.0	2.5	1.9		% w/w	0.1	A-T-032s
Fraction of organic carbon _D [#]	0.0198	0.0241	0.0116	0.0230	0.0148	0.0111		N/A	0.0003	A-T-032s
Arsenic _D ^{M#}	6	7	6	11	5	6		mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	15	20	14	22	17	15		mg/kg	1	A-T-024s
Chromium _D ^{M#}	14	12	20	42	22	22		mg/kg	1	A-T-024s
Lead _D ^{M#}	22	33	29	42	192	54		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#}	13	10	16	22	21	20		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	59	61	62	75	101	57		mg/kg	5	A-T-024s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s

Envirolab Job Number: 24/10716

Client Project Name: Douay Martyrs School

Client Project Ref: 2642020

Lab Sample ID	24/10716/1	24/10716/2	24/10716/3	24/10716/4	24/10716/5	24/10716/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VP - 01	VP - 02	VP - 03	VP - 04	VP - 05	VP - 06				
Depth to Top	0.40	0.40	0.40	0.25	0.40	0.40				
Depth To Bottom										
Date Sampled	30-Oct-24	30-Oct-24	30-Oct-24	30-Oct-24	30-Oct-24	30-Oct-24				
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL				
Sample Matrix Code	4AE	4AE	6AE	4AE	6ABE	6AE				
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
BTEX										
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	<0.01	<0.01	<0.01	<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
TPH Banded 13 (upto C44) with GC Trace										
>C6-C8 _A ^{M#}	<5	<5	<5	<5	<5	<5		mg/kg	5	A-T-007s
>C8-C10 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-007s
>C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-007s
>C12-C16 _A ^{M#}	<2	<2	<2	<2	4	<2		mg/kg	2	A-T-007s
>C16-C21 _A ^{M#}	9	10	<2	6	15	4		mg/kg	2	A-T-007s
>C21-C35 _A ^{M#}	96	116	6	69	60	16		mg/kg	1	A-T-007s
>C35-C44 _A	74	45	3	24	14	3		mg/kg	1	A-T-007s
TPH FID Chromatogram _A	Appended	Appended	Appended	Appended	Appended	Appended				A-T-007s
Total TPH Banded 13 (upto C44) with GC Trace _A	179	171	9	99	93	23		mg/kg	5	A-T-007s

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 “A”	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.

Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. 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. 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). “TRACE” will be reported as a quantification result.

PLEASE INFORM THE LABORATORY IF YOU WOULD LIKE THE STAGE 3 SEDIMENTATION PROCESS CARRIED OUT. Note this will be subcontracted.

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°C / 11550µS/cm @ 20°C 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: RSK RAW Boxworth, Battle Gate Road, Boxworth, CB23 4NN

Project No: 24/10716

Project: Douay Martyrs School

Date Received: 05/11/2024 (am)

Clients Project No: 2642020

Cool Box Temperatures (°C): 12.4

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	24/10716/1	24/10716/2	24/10716/3	24/10716/4	24/10716/5	24/10716/6
Client Sample No						
Client Sample ID/Depth	VP - 01 0.40m	VP - 02 0.40m	VP - 03 0.40m	VP - 04 0.25m	VP - 05 0.40m	VP - 06 0.40m
Date Sampled	30/10/24	30/10/24	30/10/24	30/10/24	30/10/24	30/10/24
A-T-007s	07/11/2024	07/11/2024	07/11/2024	07/11/2024	07/11/2024	07/11/2024
A-T-019s	08/11/2024	08/11/2024	08/11/2024	08/11/2024	08/11/2024	08/11/2024
A-T-022s	07/11/2024	07/11/2024	07/11/2024	07/11/2024	07/11/2024	07/11/2024
A-T-024s	08/11/2024	08/11/2024	08/11/2024	08/11/2024	08/11/2024	08/11/2024
A-T-031s	07/11/2024	07/11/2024	07/11/2024	07/11/2024	07/11/2024	07/11/2024
A-T-032s	08/11/2024	08/11/2024	08/11/2024	08/11/2024	08/11/2024	08/11/2024
A-T-044	06/11/2024	06/11/2024	06/11/2024	06/11/2024	06/11/2024	06/11/2024
A-T-045	06/11/2024	06/11/2024	06/11/2024	06/11/2024	06/11/2024	06/11/2024

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