211187/Delineation Report
16 July 2021

Nick Marlow

BY EMAIL ONLY

Dear Nick

LONGCROSS FILM STUDIOS – ASBESTOS DELINEATION EXCERCISE

INTRODUCTION

Paragon was instructed by Ark Data Centres Limited, to undertake a delineation exercise following the identification of asbestos during a supplementary ground investigation at Ark Site A, Longcross Film Studios, KT16 0EE. The scope of works included excavation of two areas of asbestos contamination. These areas are known as Area 1 and Area 2. Samples of the Made Ground were recovered from a grid around these locations for asbestos identification analysis and the results are presented in this report. These activities were completed to more accurately delineate the volumes of hazardous waste (as a result of asbestos contaminated soils) previously reported.

BACKGROUND

Paragon have completed the following reports which should be read in conjunction with this report:

- Paragon, 2019. Phase 1 Environmental Risk Assessment. Reference: 19.0415. Dated: 25 April 2019. (Wider site area). Completed for Due Diligence purposes.
- Paragon, 2019. Phase 2 Site Investigation. Reference: 19.0415/CB/LSG. Dated: 22 August 2019.
- Paragon, 2020. Foundation Inspection Pit Report. Reference: 20.0576/CB/KJH. Dated: 28 July 2020.
- Paragon, 2020. Phase 1 Environmental Risk Assessment. Reference: 20.0576/CB/KJH. Dated: 13 August 2020.
- Paragon, 2020. Phase 2 Ground Investigation. Reference: 20.0576/CB/NW. Dated: 21 August 2020, updated 14 December 2020.
- Paragon, 2020. Settlement Analysis Report. Reference: 20.0576. Dated: 21 October 2020.
- Paragon, 2021. Environmental Report Review. Reference: 20.1250/CB/ED. Dated: 1 March 2021.
- Paragon, 2021. Waste Management Report. Reference: 201250/CB/ED. Dated: 5 March 2021.
- Paragon, 2021. Ground Investigation Report for the Sales Agreement. Reference: 20.1250/CB/RM. Revision A. Dated: 12 April 2021, updated 26 April 2021.

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In summary, the Phase 1 and initial Phase 2 investigation reports document the findings of the initial due diligence investigations. The reports indicated that Made Ground was present onsite and asbestos was identified in samples collected from the slope and the canteen area (Building 100/101). Whilst the investigation did not find gross contamination, the investigation was restricted by a number of constraints and as such, it was recommended that an additional phase of work was undertaken to fill in the data gaps.

Based on the above, a discovery strategy was recommended which included the drilling of 90 boreholes in areas that were previously inaccessible such as in building footprints and roads. In 2020, the buildings were demolished and areas of asbestos contamination were remediated by the vendor and verified by their independent Environmental Consultant Wilson Bailey. The process involved source removal and disposal offsite.

Paragon returned to site to undertake the discovery strategy in 2021. The investigation identified two areas of asbestos contamination where asbestos was quantified at levels above the hazardous waste threshold. These areas were referred to as Area 1 and Area 2. The recommendations within the report were to undertake a delineation exercise with the aim of reducing the volumes of soil identified as potentially being contaminated with asbestos.

FIELDWORK

The intrusive investigation was completed during two phases of site work. Phase one was completed on 10 June 2021 and phase two was completed on 24 June 2021. The second phase was completed to further delineate areas where additional areas of asbestos were identified.

The scope of works included:

- Excavation of 38 locations (27 in Area 1 and 11 in Area 2);
- Soil sampling from each location; and
- Chemical analysis including asbestos screen, identification and quantification (if asbestos is encountered).

A site plan showing the locations of each exploratory hole is provided in Appendix 1. Photographs taken during the investigation are presented in Appendix 2.

The excavations were completed by machine and by hand under dampened conditions to ensure dust release was mitigated.

GOUND CONDITIONS

During the investigation, the ground conditions were recorded. Generally the ground conditions were described as Made Ground over natural deposits of Sand Gravel and Clay. This is similar to the findings of the ground investigation.

A summary of the ground conditions encountered in Area 1 is presented in Table 1.

Table 1. Summary of Ground Conditions in Area 1

Depth From (min/max) mbgl	Depth To (min/max) mbgl	Soil Type	Description
Ground Level	0.25 / 0.70	MADE GROUND / TOPSOIL	Turf over brown sandy gravelly, clayey TOPSOIL MADE GROUND with gravel of sub-angular, fine to coarse, concrete, brick, flint, metal, slate. Occasional roots.
0.25 / 0.70	Unproven (1m)	SAND / GRAVEL / CLAY	Orange brown sandy gravelly CLAY. Gravel comprised fine to coarse, sub-angular to angular flint. Sand is fine to coarse.

A summary of the ground conditions encountered in Area 2 is presented in Table 2.

Table 2. Summary of Ground Conditions in Area 2

Depth From (min/max) mbgl	Depth To (min/max) mbgl	Soil Type	Description
Ground Level	0.20	CONCRETE	Concrete
Ground Level / 0.20	0.45 / 0.50	MADE GROUND	Brown sandy gravelly MADE GROUND of sub-angular, fine to coarse, concrete, brick, and flint.
0.45 / 0.50	Unproven (1.8m)	SAND / GRAVEL / SILT	Orange brown sandy gravelly CLAY. Gravel comprised fine to coarse, sub-angular to angular flint. Sand is fine to coarse.

CHEMICAL TESTING AND ASSESSMENT

38 Samples were submitted for chemical testing from Areas 1 and 2. The asbestos identification results are presented in Table 3. Table 3 also includes the three original detections above the waste threshold of 0.1%. The location of each detection is presented on the Figures in Appendix 1.

The laboratory test certificates from this investigation, the test certificates from the previous investigation and Waste Acceptance Criteria test results from the previous investigation are presented in Appendix 3.

Table 3. Asbestos Volumes

Location	Asbestos Identification	Asbestos Quantification (%)
Sample Location 14	Chrysotile (asbestos cement)	0.178
Sample Location 15	Chrysotile (asbestos cement)	1.30
Sample Location 20	Chrysotile Amosite (board fragments)	0.097
WS71	Chrysotile	1.97
WS73a	Chrysotile and Amosite and Crocidolite	0.103
WS64	Chrysotile	4.02

Whilst three detections of asbestos were confirmed, only two of these were quantified to be above the threshold for hazardous waste. The remaining sample from location 20 is considered to be non-hazardous, in line with the Made Ground classified in this area as part of the previous investigation.

By completing the delineation exercise, Paragon have been able to refine the area of asbestos contaminated soil. The Figures in Appendix 1 show the area that will require management. The approximate volume for each area is presented in Table 4.

Table 4. Asbestos Volumes

Location	Volume of asbestos contaminated soil (m^3)
Area 1 (two isolated land parcels)	40
Area 2	5
Total	45

CONCLUSIONS AND RECOMMENDATIONS

Paragon have completed a delineation exercise for two areas where asbestos was identified at levels above the hazardous waste threshold. The aim was to reduce the volume of hazardous soil identified during the previous phase of investigation that would require management.

The results of the investigation and the results from the previous investigation have confirmed that there are two areas of asbestos contamination at the site, where levels are above the hazardous waste threshold.

It is recommended that the management of this material is incorporated into the Remediation Strategy that is currently being completed. The most cost effective approach would be to have this removed from site under a watching brief.

Yours Sincerely

For and on behalf of Paragon Building Consultancy.

Charlie Bruinvels BSc MSc CEnv C.WEM
Senior Environmental Consultant
Paragon
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Encs: Appendix 1 – Figures
Appendix 2 – Photos
Appendix 3 – Chemical Laboratory Results
Appendix 4 – Extent of Survey and Limitations

CC: Tim Cawood – Director: Environment

APPENDIX 1: FIGURES

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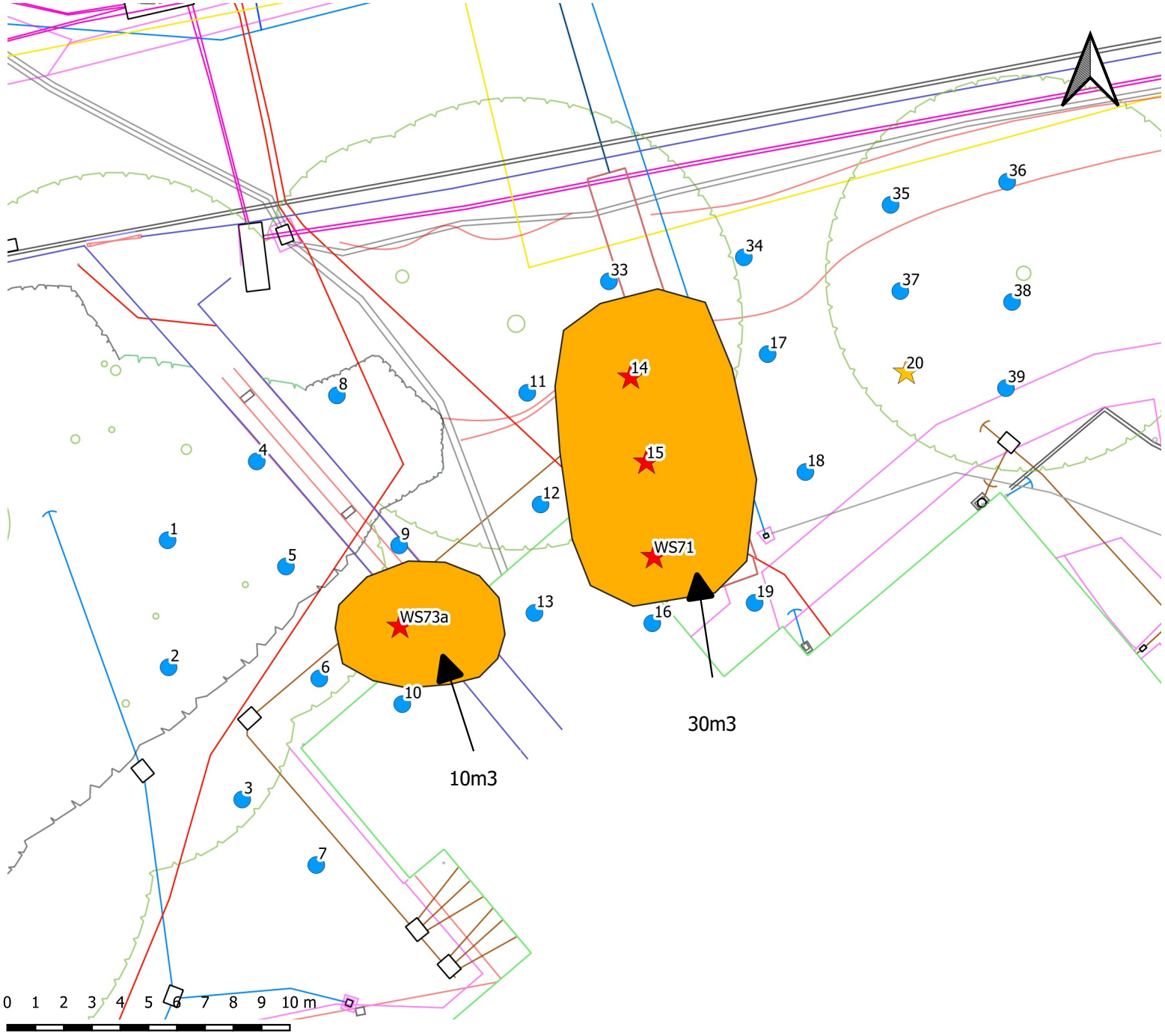

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Asbestos Sample Locatoin

Asbestos Locations

<0.001

>0.1

Hazardous Waste Areas

Notes

Volumes are approximate

Rev	Description	Date

Project
201250 Longcross Studios

Scale 1:200

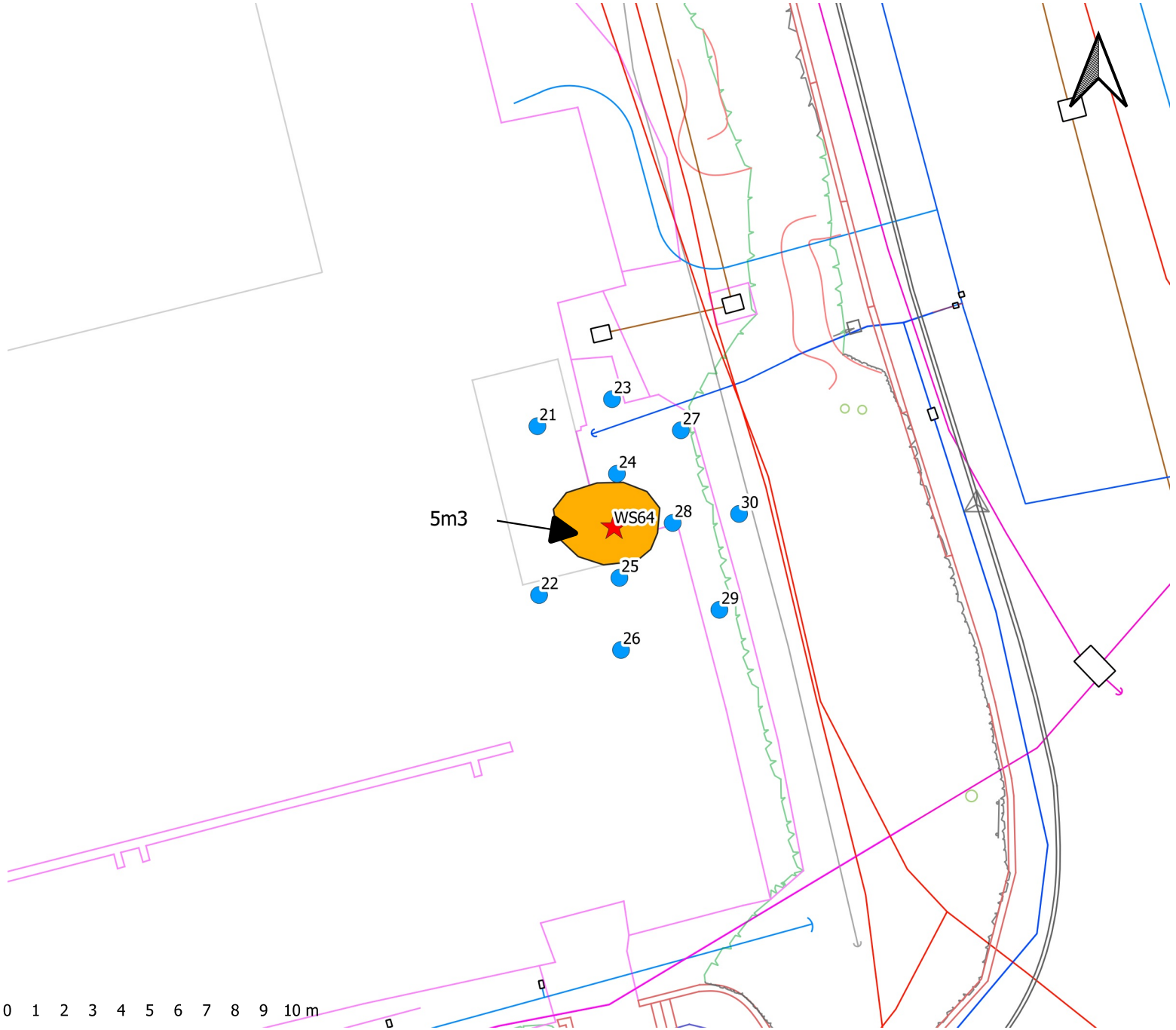
Drawn by CB

Approved By TC

Drawing Title
Asbestos Delineation Excercise

Drawing Number 1

Date 02/07/2021



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Asbestos Sample Locatoin

Asbestos Locations

>0.1%

Hazardous Waste Areas

Notes

Volumes are approximate

Rev	Description	Date

Project
201250 Longcross Studios

Scale 1:200

Drawn by CB

Approved By TC

Drawing Title
Asbestos Delineation Excercise

Drawing Number 2

Date 02/07/2021

APPENDIX 2: PHOTOGRAPHS

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01: Area 1 Overview

02: Area 1 Overview

03: Area 1 Overview

04: Area 1 Overview

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05: Area 2 Overview

06: Area 2 Overview

07: Area 2 Overview

08: Area 2 Overview

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APPENDIX 3: CHEMICAL LABORATORY RESULTS

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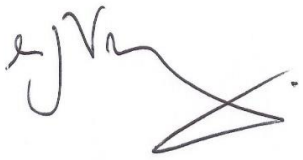
THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number:	21-34259
Issue:	1
Date of Issue:	18/06/2021
Contact:	Alex Horsford
Customer Details:	Leap Environmental Ltd Book House Glebelands Centre Dorking SurrevRH4 3HW
Quotation No:	Q14-00063
Order No:	LPO-3912
Customer Reference:	LP2610
Date Received:	11/06/2021
Date Approved:	18/06/2021
Details:	Longcross Film Studios
Approved by:	

Mike Varley, Technical Manager

Sample Summary

Report No.: 21-34259, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
240434	Sample Location 1 0.15	10/06/2021	11/06/2021		
240435	Sample Location 2 0.30	10/06/2021	11/06/2021		
240436	Sample Location 3 0.10	10/06/2021	11/06/2021		
240437	Sample Location 4 0.10	10/06/2021	11/06/2021		
240438	Sample Location 5 0.30	10/06/2021	11/06/2021		
240439	Sample Location 6 0.30	10/06/2021	11/06/2021		
240440	Sample Location 7 0.20	10/06/2021	11/06/2021		
240441	Sample Location 8 0.30	10/06/2021	11/06/2021		
240442	Sample Location 9 0.20	10/06/2021	11/06/2021		
240443	Sample Location 10 0.40	10/06/2021	11/06/2021		
240444	Sample Location 11 0.20	10/06/2021	11/06/2021		
240445	Sample Location 12 0.50	10/06/2021	11/06/2021		
240446	Sample Location 13 0.60	10/06/2021	11/06/2021		
240447	Sample Location 14 0.30	10/06/2021	11/06/2021		
240448	Sample Location 15 0.60	10/06/2021	11/06/2021		
240449	Sample Location 16 0.50	10/06/2021	11/06/2021		
240450	Sample Location 17 0.30	10/06/2021	11/06/2021		
240451	Sample Location 18 0.40	10/06/2021	11/06/2021		
240452	Sample Location 19 0.30	10/06/2021	11/06/2021		
240453	Sample Location 20 0.20	10/06/2021	11/06/2021		
240454	Sample Location 21 0.30	10/06/2021	11/06/2021		
240455	Sample Location 22 0.35	10/06/2021	11/06/2021		
240456	Sample Location 24 0.20	10/06/2021	11/06/2021		
240457	Sample Location 25 0.40	10/06/2021	11/06/2021		
240458	Sample Location 26 0.40	10/06/2021	11/06/2021		
240459	Sample Location 27 0.30	10/06/2021	11/06/2021		
240460	Sample Location 28 0.20	10/06/2021	11/06/2021		
240461	Sample Location 29 0.15	10/06/2021	11/06/2021		
240462	Sample Location 30 0.60	10/06/2021	11/06/2021		
240463	Sample Location 31 0.05	10/06/2021	11/06/2021		
240464	Sample Location 32 0.00	10/06/2021	11/06/2021		

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Results Summary

Report No.: 21-34259, issue number 1

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis	Total Asbestos
240434	0.15	Sample Location 1	Brown sandy soil, plant-material, stones	No asbestos detected	n/t	n/t	n/t	n/t
240435	0.30	Sample Location 2	Brown soil, stones, plant-material	No asbestos detected	n/t	n/t	n/t	n/t
240436	0.10	Sample Location 3	Brown soil, stones, brick, clinker	No asbestos detected	n/t	n/t	n/t	n/t
240437	0.10	Sample Location 4	Brown soil, stones, glass	No asbestos detected	n/t	n/t	n/t	n/t
240438	0.30	Sample Location 5	Brown soil, stones	No asbestos detected	n/t	n/t	n/t	n/t
240439	0.30	Sample Location 6	Brown sandy soil, stones, wood	No asbestos detected	n/t	n/t	n/t	n/t
240440	0.20	Sample Location 7	Brown sandy soil, stones, concrete, glass	No asbestos detected	n/t	n/t	n/t	n/t
240441	0.30	Sample Location 8	Grey sandy soil, stones, clinker, wood	No asbestos detected	n/t	n/t	n/t	n/t
240442	0.20	Sample Location 9	Brown sandy soil, stones, concrete, brick, tarmac	No asbestos detected	n/t	n/t	n/t	n/t
240443	0.40	Sample Location 10	Brown sandy soil, stones, concrete	No asbestos detected	n/t	n/t	n/t	n/t
240444	0.20	Sample Location 11	Brown sandy soil, stones, organics	No asbestos detected	n/t	n/t	n/t	n/t
240445	0.50	Sample Location 12	Brown sandy soil, stones, concrete, brick, tarmac	No asbestos detected	n/t	n/t	n/t	n/t
240446	0.60	Sample Location 13	Brown sandy soil, stones, concrete, brick, clinker	No asbestos detected	n/t	n/t	n/t	n/t
240447	0.30	Sample Location 14	Brown sandy soil, stones, clinker, wood	Chrysotile (asbestos cement)	0.178	Cement (0.178%)	< 0.001	0.178
240448	0.60	Sample Location 15	Brown sandy soil, stones, concrete, brick, clinker,	Chrysotile (asbestos cement)	1.30	Cement (1.299%)	< 0.001	1.30
240449	0.50	Sample Location 16	Brown sandy soil, stones, concrete, clinker	No asbestos detected	n/t	n/t	n/t	n/t
240450	0.30	Sample Location 17	Brown sandy soil, stones, brick, clinker, organics	No asbestos detected	n/t	n/t	n/t	n/t
240451	0.40	Sample Location 18	Brown sandy soil, stones, concrete, brick	No asbestos detected	n/t	n/t	n/t	n/t
240452	0.30	Sample Location 19	Brown sandy soil, stones, concrete, brick, clinker, wood	No asbestos detected	n/t	n/t	n/t	n/t
240453	0.20	Sample Location 20	Brown sandy soil, stones, concrete, clinker	Chrysotile Amosite (board	0.097	Cement (0.096%) Board Fragments	< 0.001	0.097
240454	0.30	Sample Location 21	Grey sand, stones, concrete, tar	No asbestos detected	n/t	n/t	n/t	n/t
240455	0.35	Sample Location 22	Brown sandy soil, stones, concrete, brick	No asbestos detected	n/t	n/t	n/t	n/t
240456	0.20	Sample Location 24	Brown sandy soil, stones, concrete, brick, clinker	No asbestos detected	n/t	n/t	n/t	n/t
240457	0.40	Sample Location 25	Brown sandy soil, stones, concrete, brick, wood	No asbestos detected	n/t	n/t	n/t	n/t
240458	0.40	Sample Location 26	Brown sandy soil, stones, concrete, clinker, organics	No asbestos detected	n/t	n/t	n/t	n/t
240459	0.30	Sample Location 27	Brown sandy Soil,Stones,Brick,Concrete	No asbestos detected	n/t	n/t	n/t	n/t
240460	0.20	Sample Location 28	Brown sandy Soil,Stones,Bitumen,Brick,Concrete	No asbestos detected	n/t	n/t	n/t	n/t
240461	0.15	Sample Location 29	Brown sandy Soil,Stones,Twigs,Concrete	No asbestos detected	n/t	n/t	n/t	n/t
240462	0.60	Sample Location 30	Brown Sandy Soil,Stones,Clinker	No asbestos detected	n/t	n/t	n/t	n/t
240463	0.05	Sample Location 31	Brown sandy Soil,Stones	No asbestos detected	n/t	n/t	n/t	n/t
240464	0.00	Sample Location 32	Rubber Fragment	No asbestos detected	n/t	n/t	n/t	n/t

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Method Summary

Report No.: 21-34259, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Asbestos identification	U	Air dried sample	15/06/2021	260	Microscopy

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Report Information

Report No.: 21-34259, issue number 1

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"
LOD	LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed.

ELAB are unable to provide an interpretation or opinion on the content of this report.

The results relate only to the sample received.

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

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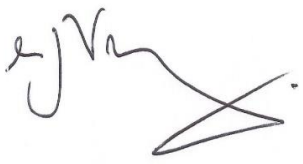
THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number:	21-34517
Issue:	1
Date of Issue:	01/07/2021
Contact:	Alex Horsford
Customer Details:	Leap Environmental Ltd Book House Glebelands Centre Dorking SurrevRH4 3HW
Quotation No:	Q14-00063
Order No:	LPO-3975
Customer Reference:	LP2610
Date Received:	25/06/2021
Date Approved:	01/07/2021
Details:	Longcross Film Studios
Approved by:	

Mike Varley, Technical Manager

Sample Summary

Report No.: 21-34517, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
242154	Sample Location 33 0.30 - 0.50	24/06/2021	25/06/2021		
242155	Sample Location 34 0.20 - 0.40	24/06/2021	25/06/2021		
242156	Sample Location 35 0.20 - 0.50	24/06/2021	25/06/2021		
242157	Sample Location 36 0.10 - 0.30	24/06/2021	25/06/2021		
242158	Sample Location 37 0.10 - 0.30	24/06/2021	25/06/2021		
242159	Sample Location 38 0.40 - 0.60	24/06/2021	25/06/2021		
242160	Sample Location 39 0.30 - 0.50	24/06/2021	25/06/2021		
242161	Sample Location 40 0.10 - 0.30	24/06/2021	25/06/2021		
242162	Sample Location 41 0.20 - 0.40	24/06/2021	25/06/2021		
242163	Sample Location 42 0.20 - 0.40	24/06/2021	25/06/2021		

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Results Summary

Report No.: 21-34517, issue number 1

Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)
242154	0.30 - 0.50	Sample Location 33	Brown sandy soil with stones	No asbestos detected	n/t	n/t	n/t	n/t
242155	0.20 - 0.40	Sample Location 34	Brown sandy soil with stones,brick,clinker	No asbestos detected	n/t	n/t	n/t	n/t
242156	0.20 - 0.50	Sample Location 35	Brown sandy soil with stones	No asbestos detected	n/t	n/t	n/t	n/t
242157	0.10 - 0.30	Sample Location 36	Brown sandy soil with stones	No asbestos detected	n/t	n/t	n/t	n/t
242158	0.10 - 0.30	Sample Location 37	Brown sandy soil with stones,brick,clinker	No asbestos detected	n/t	n/t	n/t	n/t
242159	0.40 - 0.60	Sample Location 38	Brown sandy soil with stones,brick,clinker	No asbestos detected	n/t	n/t	n/t	n/t
242160	0.30 - 0.50	Sample Location 39	Brown sandy soil with stones	No asbestos detected	n/t	n/t	n/t	n/t
242161	0.10 - 0.30	Sample Location 40	Brown sandy soil with stones,clinker	No asbestos detected	n/t	n/t	n/t	n/t
242162	0.20 - 0.40	Sample Location 41	Brown sandy soil with stones,clinker	No asbestos detected	n/t	n/t	n/t	n/t
242163	0.20 - 0.40	Sample Location 42	Brown sandy soil with stones	No asbestos detected	n/t	n/t	n/t	n/t

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Method Summary

Report No.: 21-34517, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Asbestos identification	U	Air dried sample	30/06/2021	280	Microscopy

2683

Report Information

Report No.: 21-34517, issue number 1

Key

U	hold UKAS accreditation
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PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

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Analytical Report Number : 21-50506

Replaces Analytical Report Number: 21-50506, issue no. 1
Additional analysis undertaken.

Project / Site name:	Longcross	**Samples received on:**	12/01/2021
Your job number:	201250	**Samples instructed on/ Analysis started on:**	12/01/2021
Your order number:	201250-CB	**Analysis completed by:**	28/01/2021
Report Issue Number:	2	**Report issued on:**	28/01/2021
Samples Analysed:	35 soil samples		

Signed:

Joanna Wawrzeczko
Technical Reviewer (Reporting Team)
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: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734620	1734621	1734622	1734623	1734624
Sample Reference				WS04	WS09	WS09	WS19	WS19
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.20	1.50	0.20	1.20
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	6.9	9.5	15	14
Total mass of sample received	kg	0.001	NONE	2	1.7	2	2	1.7
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	5	8.6	7.6	8	4.5
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.024	0.024	0.055	0.066	0.047
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	100	63	36	170	130
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.05	0.032	0.018	0.084	0.065
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	49.8	31.5	17.9	83.7	65.3
Total Organic Carbon (TOC)	%	0.1	MCERTS	< 0.1	0.3	< 0.1	1.4	< 0.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.2	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.2	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.63	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.54	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.73	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.41	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.6	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.28	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.35	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	6	< 0.80

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734620	1734621	1734622	1734623	1734624
Sample Reference				WS04	WS09	WS09	WS19	WS19
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.20	1.50	0.20	1.20
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	11	22	8.1	8	3.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	14	35	6.7	18	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	16	11	30	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	5.7	12	4.7	84	5.6
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	3.4	12	1.6	13	3.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	15	30	13	63	18
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	13	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	37	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	52	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	19	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	24	< 10

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734625	1734626	1734627	1734628	1734629
Sample Reference				WS35	WS35	WS45	WS45	WS47
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	0.40	0.90	0.10
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.5	13	10	12	4.2
Total mass of sample received	kg	0.001	NONE	1.7	2	1.7	1.7	1.7
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.8	5.2	5.5	6.5	11.3
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.014	0.02	0.016	0.023	0.378
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	100	120	47	92	250
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.051	0.06	0.023	0.046	0.12
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	51.2	60	23.3	46.1	124
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.2	0.1	< 0.1	0.4	0.6
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.76
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	5
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	4.1
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	45
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	12
Fluoranthene	mg/kg	0.05	MCERTS	0.45	< 0.05	< 0.05	< 0.05	68
Pyrene	mg/kg	0.05	MCERTS	0.53	< 0.05	< 0.05	< 0.05	45
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.32	< 0.05	< 0.05	< 0.05	30
Chrysene	mg/kg	0.05	MCERTS	0.21	< 0.05	< 0.05	< 0.05	21
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.37	< 0.05	< 0.05	< 0.05	32
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.16	< 0.05	< 0.05	< 0.05	8.8
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.39	< 0.05	< 0.05	< 0.05	21
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	9.9
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	3.3
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	11
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	2.43	< 0.80	< 0.80	< 0.80	316

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734625	1734626	1734627	1734628	1734629
Sample Reference				WS35	WS35	WS45	WS45	WS47
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	0.40	0.90	0.10
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	7.2	3.7	5.8	6.9	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	23	29	28	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	12	9.5	11	34
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	6.2	4.8	6.4	9.2
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	5.3	4.2	6.9	11	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	22	15	23	29	50
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	2
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	40
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	180
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	14	< 8.0	< 8.0	< 8.0	180
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	14	< 10	< 10	< 10	400
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	3.9
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	25
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	240
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	28	< 10	< 10	< 10	420
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	34	< 10	< 10	< 10	690

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734630	1734631	1734632	1734633	1734634
Sample Reference				WS47	WS54	WS54	WS58	WS58
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	1.50	0.30	0.75
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	10	11	7.1	9.9
Total mass of sample received	kg	0.001	NONE	2	2	2	2	2
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	5.6	9.5	6.3	8	7.1
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.014	0.192	0.011	0.018	0.022
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	42	700	35	59	32
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.021	0.35	0.018	0.03	0.016
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	20.9	350	17.5	29.6	16
Total Organic Carbon (TOC)	%	0.1	MCERTS	1	1.1	0.4	1.4	1.7
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.5	< 0.05	< 0.05	0.52
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.43	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.8	< 0.05	< 0.05	1.2
Pyrene	mg/kg	0.05	MCERTS	< 0.05	2.9	< 0.05	< 0.05	1.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.6	< 0.05	< 0.05	0.74
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.3	< 0.05	< 0.05	0.5
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.7	< 0.05	< 0.05	0.8
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.52	< 0.05	< 0.05	0.33
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.91	< 0.05	< 0.05	0.66
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.65	< 0.05	< 0.05	0.28
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.91	< 0.05	< 0.05	0.4
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	15.2	< 0.80	< 0.80	6.74

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Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734630	1734631	1734632	1734633	1734634
Sample Reference				WS47	WS54	WS54	WS58	WS58
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	1.50	0.30	0.75
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	7.1	16	3	2.8	7.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.6	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	32	12	12	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	53	13	16	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	4.9	240	4.2	7.8	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	5.8	25	4.3	11	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	25	160	17	19	58
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.5	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	3.1	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	17	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	160	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	180	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	2.3	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	4.8	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	25	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	180	< 10	< 10	16
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	210	< 10	< 10	22

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734635	1734636	1734637	1734638	1734639
Sample Reference				WS58	WS69	WS70	WS70	WS71
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.50	0.30	0.40	2.60	0.20
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	26	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	2	4	12	11
Total mass of sample received	kg	0.001	NONE	2	2	2	2	1.5
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	1.966
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	1.97
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	5.5	10.2	11.6	8.7	10.8
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.014	0.141	0.19	0.011	0.108
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	49	540	38	35	140
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.025	0.27	0.019	0.017	0.072
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	24.7	273	19.2	17.3	72.4
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.1	2.7	1.5	1	1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	1.2
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	1.5
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	3.5
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.21	0.5	0.3	33
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	6.9
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.57	1.6	0.35	33
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.74	1.6	0.32	26
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.2	0.9	< 0.05	14
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.3	1	< 0.05	11
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.93	1.4	< 0.05	11
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.26	0.77	< 0.05	5.7
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.71	1.3	< 0.05	11
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.58	0.73	< 0.05	3.9
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.99
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.87	1	< 0.05	4.5
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	5.37	10.8	0.97	166

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734635	1734636	1734637	1734638	1734639
Sample Reference				WS58	WS69	WS70	WS70	WS71
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.50	0.30	0.40	2.60	0.20
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	5.1	5.5	8.6	22	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	18	21	15	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	14	42	46	18	63
Lead (aqua regia extractable)	mg/kg	1	MCERTS	4.5	5.9	34	6.2	40
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	4.5	20	20	5.4	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	23	47	81	22	120
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	1.6	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	22	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	9.6	130	< 8.0	8.5
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	200	670	< 8.0	47
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	210	820	< 10	56
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.5	< 1.0	< 1.0	17
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	2.7	< 2.0	< 2.0	31
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	37	< 10	130
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	210	330	< 10	83
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	230	370	< 10	260

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734640	1734641	1734642	1734643	1734644
Sample Reference				WS71	WS73a	WS73a	WS74	WS74
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.40	0.50	1.20	0.30	1.20
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	12	20	11	7.9
Total mass of sample received	kg	0.001	NONE	2	1.5	1.7	1.7	2
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile & Amosite & Crocidolite	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.103	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.103	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.4	8.9	7.2	7.5	6
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.01	0.14	0.024	0.112	0.053
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	33	260	150	540	320
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.017	0.13	0.077	0.27	0.16
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	16.7	131	77.2	272	162
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.9	0.8	0.5	1.1	0.3
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1	< 0.05	0.42	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.23	< 0.05	0.17	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.8	< 0.05	1.4	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	1.6	< 0.05	1.5	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.1	< 0.05	0.85	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.84	< 0.05	0.56	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.2	< 0.05	0.74	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.42	< 0.05	0.44	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.86	< 0.05	0.74	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.56	< 0.05	0.36	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.59	< 0.05	0.44	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	10.2	< 0.80	7.61	< 0.80

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734640	1734641	1734642	1734643	1734644
Sample Reference				WS71	WS73a	WS73a	WS74	WS74
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.40	0.50	1.20	0.30	1.20
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	3.6	16	2.2	7.4	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	7	30	9.1	17	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	28	13	25	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	3.7	67	5.2	17	7.8
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	3.3	18	3.2	20	8.5
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	14	96	17	44	22
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	12	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	24	< 10	19	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	36	< 10	28	< 10

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734645	1734646	1734647	1734648	1734649
Sample Reference				WS75	WS75	WS75	WS76a	WS77
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.35	2.50	0.20	0.40
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	7.5	8.6	6.8	12
Total mass of sample received	kg	0.001	NONE	1.7	1	1.7	1.7	2
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	6.8	10	5.9	9.6	7.6
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.048	0.24	0.029	0.048	0.011
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	120	1600	160	140	63
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.062	0.82	0.078	0.07	0.032
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	62.2	818	78.2	69.8	31.7
Total Organic Carbon (TOC)	%	0.1	MCERTS	2	0.4	< 0.1	1.3	0.4
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.26	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.18	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.18	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	0.95	< 0.80

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734645	1734646	1734647	1734648	1734649
Sample Reference				WS75	WS75	WS75	WS76a	WS77
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.35	2.50	0.20	0.40
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	6.1	9.9	7	8.9	1.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	23	30	17	4.2
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	24	18	34	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	21	6	22	2.7
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	3.8	20	8	16	1.3
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	24	34	25	84	10
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	16
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	16
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734650	1734651	1734652	1734653	1734654
Sample Reference				WS77	WS78	WS78	WS79	WS79
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.50	0.50	1.50	0.50	1.50
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.2	18	18	16	12
Total mass of sample received	kg	0.001	NONE	1.7	1.7	2	2	2
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	4.5	4.3	4.8	6.5	6.1
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.031	0.094	0.024	0.037	0.012
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	120	460	110	200	19
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.059	0.23	0.056	0.098	0.0094
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	58.7	231	56	98	9.4
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.9	2.6	0.2	1.5	0.2
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.32	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.51	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.19	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.18	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	1.2	< 0.80

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1734650	1734651	1734652	1734653	1734654
Sample Reference				WS77	WS78	WS78	WS79	WS79
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.50	0.50	1.50	0.50	1.50
Date Sampled				11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	13	7.8	8.2	4.2	9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	20	48	12	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	12	12	11	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	6.9	16	7.7	11	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.8	4.9	14	3.7	7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	33	23	37	22	29
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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

Analytical Report Number: 21-50506
Project / Site name: Longcross
Your Order No: 201250-CB

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1734639	WS71	0.20	137	Hard/Cement Type Material	**Chrysotile**	1.966	**1.97**
1734641	WS73a	0.50	134	Hard/Cement Type Material & Loose Fibrous Debris & Loose Fibres	**Chrysotile & Amosite & Crocidolite**	0.103	**0.103**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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* 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 *
1734620	WS04	None Supplied	0.3	Brown clay.
1734621	WS09	None Supplied	0.2	Brown clay and loam with gravel.
1734622	WS09	None Supplied	1.5	Brown sandy clay.
1734623	WS19	None Supplied	0.2	Brown clay and loam with gravel.
1734624	WS19	None Supplied	1.2	Brown clay and sand.
1734625	WS35	None Supplied	0.1	Brown clay and sand with gravel.
1734626	WS35	None Supplied	0.5	Brown clay and sand with gravel.
1734627	WS45	None Supplied	0.4	Brown clay and sand with gravel.
1734628	WS45	None Supplied	0.9	Brown clay and sand with gravel.
1734629	WS47	None Supplied	0.1	Brown loam and sand with gravel.
1734630	WS47	None Supplied	0.5	Brown sand.
1734631	WS54	None Supplied	0.2	Brown gravelly loam.
1734632	WS54	None Supplied	1.5	Brown sand.
1734633	WS58	None Supplied	0.3	Brown loam.
1734634	WS58	None Supplied	0.75	Brown loam and clay with gravel and fibres.
1734635	WS58	None Supplied	1.5	Brown sand.
1734636	WS69	None Supplied	0.3	Brown sand with gravel.
1734637	WS70	None Supplied	0.4	Brown gravelly loam with stones.
1734638	WS70	None Supplied	2.6	Brown sand.
1734639	WS71	None Supplied	0.2	Brown loam and clay with gravel.
1734640	WS71	None Supplied	1.4	Brown sand.
1734641	WS73a	None Supplied	0.5	Brown loam and sand with gravel and glass.
1734642	WS73a	None Supplied	1.2	Brown clay and sand.
1734643	WS74	None Supplied	0.3	Brown loam and sand with gravel.
1734644	WS74	None Supplied	1.2	Brown loam and sand with gravel.
1734645	WS75	None Supplied	0.5	Brown sand with gravel.
1734646	WS75	None Supplied	0.35	Brown loam and sand with gravel.
1734647	WS75	None Supplied	2.5	Brown sand with gravel.
1734648	WS76a	None Supplied	0.2	Brown gravelly loam.
1734649	WS77	None Supplied	0.4	Brown sand.
1734650	WS77	None Supplied	1.5	Brown loam and sand with gravel.
1734651	WS78	None Supplied	0.5	Brown loam and sand with gravel.
1734652	WS78	None Supplied	1.5	Brown clay and sand.
1734653	WS79	None Supplied	0.5	Brown clay and loam with gravel.
1734654	WS79	None Supplied	1.5	Brown clay and loam with gravel.

Analytical Report Number : 21-50506
Project / Site name: Longcross

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

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 disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
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
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (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
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
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
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
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

Analytical Report Number : 21-50506
Project / Site name: Longcross

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

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.

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Analytical Report Number : 21-50812

Replaces Analytical Report Number: 21-50812, issue no. 1
Additional analysis undertaken.

Project / Site name:	Longcross	**Samples received on:**	13/01/2021
Your job number:	201250	**Samples instructed on/ Analysis started on:**	13/01/2021
Your order number:	201250-CB	**Analysis completed by:**	29/01/2021
Report Issue Number:	2	**Report issued on:**	29/01/2021
Samples Analysed:	34 soil samples		

Signed:

Joanna Wawrzeczko
Technical Reviewer (Reporting Team)
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: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736161	1736162	1736163	1736164	1736165
Sample Reference				WS72	WS72	WS72	WS66	WS66
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	1.60	0.20	0.60
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	32	13	13	15
Total mass of sample received	kg	0.001	NONE	2	1.5	2	2	1.5
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8	6.1	5.9	9.8	8.9
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.096	0.149	0.027	0.114	0.05
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	550	650	82	170	40
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.27	0.32	0.041	0.085	0.02
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	274	325	41	84.9	19.8
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.1	4.1	0.2	0.9	0.2
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.33	< 0.05	< 0.05	0.62	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.61	< 0.05	< 0.05	6.7	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.52	< 0.05	< 0.05	5.8	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	6.5	1.2	0.67	45	0.2
Anthracene	mg/kg	0.05	MCERTS	2.1	0.27	< 0.05	16	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	12	1.9	1.3	69	0.36
Pyrene	mg/kg	0.05	MCERTS	10	1.6	1.1	63	0.33
Benzo(a)anthracene	mg/kg	0.05	MCERTS	7.5	0.97	0.89	42	0.2
Chrysene	mg/kg	0.05	MCERTS	4.6	0.86	0.49	27	0.15
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	6.6	1.2	0.8	39	0.2
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.7	0.22	0.23	13	0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.9	0.91	0.65	36	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.2	0.54	0.39	18	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.8	< 0.05	< 0.05	4.2	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.9	0.6	0.47	20	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	67	10.3	6.97	406	1.49

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736161	1736162	1736163	1736164	1736165
Sample Reference				WS72	WS72	WS72	WS66	WS66
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	1.60	0.20	0.60
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	9.6	14	6.2	6.3	5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.4	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	13	27	17	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	12	4.5	10	3.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	100	40	6.6	100	5.9
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	12	6.4	8.2	3.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	49	78	17	74	12
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	1.8	< 1.0	< 1.0	2.9	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	12	< 2.0	< 2.0	26	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	24	< 8.0	< 8.0	40	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	70	< 8.0	< 8.0	99	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	110	< 10	< 10	170	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.5	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	14	< 2.0	< 2.0	79	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	79	21	18	470	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	120	44	25	540	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	210	65	44	1100	< 10

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736166	1736167	1736168	1736169	1736170
Sample Reference				WS67	WS67	WS65	WS65	WS56
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	0.50	1.60	0.30
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	7.9	13	9.5	16	15
Total mass of sample received	kg	0.001	NONE	1.5	2	1.5	1.7	1.7
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.7	6.2	8.7	8.5	9.3
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.09	0.089	0.367	0.025	0.322
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	200	98	820	69	1100
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.098	0.049	0.41	0.035	0.54
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	97.6	49.2	408	34.7	540
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.4	0.1	0.5	0.2	1.3
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	1.1	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.37	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	5	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	3.7	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	31	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	10	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	48	< 0.05	0.31	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	40	< 0.05	0.26	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	27	< 0.05	0.33	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	15	< 0.05	0.19	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	21	< 0.05	0.41	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	8.7	< 0.05	0.12	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	20	< 0.05	0.29	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	9.6	< 0.05	0.24	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	2.5	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	11	< 0.05	0.36	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	254	< 0.80	2.51	< 0.80	< 0.80

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736166	1736167	1736168	1736169	1736170
Sample Reference				WS67	WS67	WS65	WS65	WS56
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.50	0.50	1.60	0.30
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	5.3	6.4	15	9.6	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	0.4
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	14	15	19	26	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	5.6	6.9	51	4.3	39
Lead (aqua regia extractable)	mg/kg	1	MCERTS	6.5	7.4	50	6.5	32
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.9	3.7	31	6.3	40
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	18	12	58	16	55
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	2	3.1	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	15	16	< 2.0	< 2.0	2.6
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	27	29	< 8.0	< 8.0	18
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	62	54	< 8.0	< 8.0	72
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	110	100	< 10	< 10	93
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	55	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	260	< 10	< 10	< 10	13
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	200	< 10	< 10	< 10	87
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	510	< 10	< 10	< 10	99

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736171	1736172	1736173	1736174	1736175
Sample Reference				WS56	WS46	WS46	WS36	WS36
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	0.10	0.60	0.20	0.75
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	14	13	6.4	11
Total mass of sample received	kg	0.001	NONE	2	1.5	1.7	1.7	1.7
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.4	10	6	10.6	6.5
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.032	0.431	0.02	0.262	0.044
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	150	1300	42	630	62
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.073	0.67	0.021	0.32	0.031
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	73.2	671	21.1	317	31.2
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.1	0.9	0.2	1.5	0.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.29	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.33	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.31	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.24	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.36	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.17	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.22	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.22	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.33	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	2.47	< 0.80	< 0.80	< 0.80

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736171	1736172	1736173	1736174	1736175
Sample Reference				WS56	WS46	WS46	WS36	WS36
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	0.10	0.60	0.20	0.75
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	5.3	10	5.5	12	4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	23	19	17	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.3	29	6.9	22	5.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	5	76	5.7	25	6.7
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	3.4	19	3.3	18	2.5
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	9.5	63	8.4	29	5.9
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	3	< 2.0	2.2	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	21	< 8.0	17	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	100	< 8.0	160	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	130	< 10	180	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	7.3	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	21	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	170	< 10	230	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	200	< 10	240	< 10

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736176	1736177	1736178	1736179	1736180
Sample Reference				WS30	WS30	WS08	WS08	WS68
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.80	0.10	0.50	0.15
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.3	9.9	12	14	5.9
Total mass of sample received	kg	0.001	NONE	2	2	2	1.2	1.5
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	9.1	8.3	9	6.3	10.1
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.026	0.03	0.084	0.031	0.109
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	89	50	290	86	160
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.045	0.025	0.15	0.043	0.079
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	44.7	24.9	146	42.9	78.8
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.7	0.2	0.3	0.1	1.2
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.29
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.98
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	9.8
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	7.2
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.55	65
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	19
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.79	78
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.64	60
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.47	37
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.28	25
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.39	34
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.13	6.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	24
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	11
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	3.1
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	12
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	3.54	394

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736176	1736177	1736178	1736179	1736180
Sample Reference				WS30	WS30	WS08	WS08	WS68
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.80	0.10	0.50	0.15
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	11	5.3	5.4	3.5	6.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	27	12	17	13	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	4.8	8.3	4.7	6.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	9.8	6	13	5	86
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	2.7	7.5	3.1	6.9
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	25	8.7	49	9.7	37
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	5.4
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	30
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	61	< 8.0	110
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	61	< 10	140
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	110
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	630
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	620
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	1400

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736181	1736182	1736183	1736184	1736185
Sample Reference				WS68	WS64	WS63	WS63	WS62
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.30	0.60	0.20
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	18	8	11	14
Total mass of sample received	kg	0.001	NONE	2	2	2	2	1.7
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	4.024	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	4.02	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.8	10.1	11.8	6	11
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.085	0.369	0.472	0.086	0.306
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	110	610	100	130	310
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.057	0.3	0.052	0.063	0.16
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	56.5	305	51.7	63.1	157
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.2	1.2	3.5	0.7	1.6
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.6	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.19	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	2.7	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	1.8	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	15	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	2.8	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	13	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	11	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	6.7	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	5	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	6	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.1	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	5.1	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.5	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.63	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	2.9	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	78.3	< 0.80	< 0.80	< 0.80

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736181	1736182	1736183	1736184	1736185
Sample Reference				WS68	WS64	WS63	WS63	WS62
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.30	0.60	0.20
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	5.7	8.8	7	6.4	6.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	10	31	14	12	16
Copper (aqua regia extractable)	mg/kg	1	MCERTS	4.1	27	6.7	4.6	6.3
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	11	3.8	7	6.1
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	2	11	13	2.3	7.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	9.1	83	16	6.9	15
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	19	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	140	45	< 8.0	47
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	160	45	< 10	47
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	9	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	31	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	98	< 10	< 10	12
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	240	< 10	< 10	84
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	370	< 10	< 10	97

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736186	1736187	1736188	1736189	1736190
Sample Reference				WS62	WS49	WS49	WS48	WS48
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.15	0.50	0.20	0.50
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	9.8	2.4	14	2.5	14
Total mass of sample received	kg	0.001	NONE	2	2	2	1.7	2
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	6	11.6	5.1	12.2	6.4
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.072	0.367	0.04	0.625	0.024
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	110	120	180	14	79
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.054	0.06	0.088	0.0068	0.04
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	53.8	60.2	87.9	6.8	39.5
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.3	0.6	0.2	0.4	0.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736186	1736187	1736188	1736189	1736190
Sample Reference				WS62	WS49	WS49	WS48	WS48
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.15	0.50	0.20	0.50
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	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	6.7	6.9	15	5.1	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11	16	66	20	62
Copper (aqua regia extractable)	mg/kg	1	MCERTS	4.7	7.8	3.6	16	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	9.1	23	8.2	2.7	7
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	2.2	11	22	16	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	7.2	26	51	20	54
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736191	1736192	1736193	1736194
Sample Reference				WS55	WS55	WS57	WS57
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	0.50	0.15	0.50
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	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	< 0.1
Moisture Content	%	0.01	NONE	6.6	18	4.9	14
Total mass of sample received	kg	0.001	NONE	1.7	2	2	2
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	11.9	5	11.7	5.2
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1
Total Sulphate as SO4	%	0.005	MCERTS	0.651	0.039	0.464	0.018
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	36	170	15	73
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.018	0.084	0.0077	0.036
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	mg/l	1.25	MCERTS	17.8	83.9	7.7	36.3
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.9	0.2	0.4	0.2
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Lab Sample Number				1736191	1736192	1736193	1736194
Sample Reference				WS55	WS55	WS57	WS57
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	0.50	0.15	0.50
Date Sampled				12/01/2021	12/01/2021	12/01/2021	12/01/2021
Time Taken				None Supplied	None Supplied	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	10	17	5.7	9.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	65	20	54
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.4	4.5	8.9	3.3
Lead (aqua regia extractable)	mg/kg	1	MCERTS	5.1	7.3	5.9	6.8
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	16	17	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	60	46	34	42
Monoaromatics & Oxygenates							
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	43	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	50	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10

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

Analytical Report Number: 21-50812
Project / Site name: Longcross
Your Order No: 201250-CB

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1736161	WS72	0.50	160	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
1736182	WS64	0.20	130	Hard/Cement Type Material	**Chrysotile**	4.024	**4.02**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 21-50812
Project / Site name: Longcross

* 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 *
1736161	WS72	None Supplied	0.5	Brown clay and loam with gravel.
1736162	WS72	None Supplied	1.2	Brown loam and clay with vegetation.
1736163	WS72	None Supplied	1.6	Brown clay and sand.
1736164	WS66	None Supplied	0.2	Brown loam and clay with gravel.
1736165	WS66	None Supplied	0.6	Brown clay and sand with vegetation.
1736166	WS67	None Supplied	0.1	Brown clay and sand with gravel.
1736167	WS67	None Supplied	0.5	Brown clay and sand.
1736168	WS65	None Supplied	0.5	Brown loam and sand with gravel.
1736169	WS65	None Supplied	1.6	Brown clay and sand.
1736170	WS56	None Supplied	0.3	Brown loam and sand with gravel and rubble.
1736171	WS56	None Supplied	1.2	Brown clay and sand.
1736172	WS46	None Supplied	0.1	Brown loam and clay with gravel.
1736173	WS46	None Supplied	0.6	Brown clay and sand.
1736174	WS36	None Supplied	0.2	Brown loam and sand with gravel and rubble.
1736175	WS36	None Supplied	0.75	Brown clay and sand.
1736176	WS30	None Supplied	0.1	Brown loam and sand with gravel.
1736177	WS30	None Supplied	0.8	Brown clay and sand.
1736178	WS08	None Supplied	0.1	Brown clay and sand with clinker and gravel
1736179	WS08	None Supplied	0.5	Brown clay and sand.
1736180	WS68	None Supplied	0.15	Brown clay and sand with clinker and gravel
1736181	WS68	None Supplied	0.5	Brown clay and sand.
1736182	WS64	None Supplied	0.2	Brown loam with gravel and vegetation.
1736183	WS63	None Supplied	0.3	Brown sand with gravel.
1736184	WS63	None Supplied	0.6	Brown clay and sand.
1736185	WS62	None Supplied	0.2	Brown clay and sand with gravel.
1736186	WS62	None Supplied	0.5	Brown sandy clay.
1736187	WS49	None Supplied	0.15	Brown sand with gravel.
1736188	WS49	None Supplied	0.5	Brown clay and loam.
1736189	WS48	None Supplied	0.2	Non Soil**
1736190	WS48	None Supplied	0.5	Brown clay and loam.
1736191	WS55	None Supplied	0.15	Brown clay and loam with gravel.
1736192	WS55	None Supplied	0.5	Brown clay and loam.
1736193	WS57	None Supplied	0.15	Grey gravelly sand.
1736194	WS57	None Supplied	0.5	Brown clay and loam.

**Non MCERTS Matrix

Analytical Report Number : 21-50812
Project / Site name: Longcross

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

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 disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
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
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (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
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
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
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
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

Analytical Report Number : 21-50812
Project / Site name: Longcross

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

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.

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Waste Acceptance Criteria Analytical Results

Report No:	**21-55330**						
					Client:	**PARAGONBC**	
Location	**Longcross**						
Lab Reference (Sample Number)	1761880 / 1761881				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	12/01/2021				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS64						
Depth (m)	0.20						
Solid Waste Analysis							
TOC (%)**	1.0				3%	5%	6%
Loss on Ignition (%) **	3.3				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	10.0				--	>6	--
Acid Neutralisation Capacity (mol / kg)	35				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0010			< 0.0100	0.5	2	25
Barium *	0.0223			0.163	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0025			0.019	0.5	10	70
Copper *	0.017			0.13	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0024			0.0172	0.5	10	30
Nickel *	0.0025			0.018	0.4	10	40
Lead *	0.0021			0.015	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.014			0.11	4	50	200
Chloride *	1.6			12	800	15000	25000
Fluoride	0.14			1.0	10	150	500
Sulphate *	12			89	1000	20000	50000
TDS*	63			460	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	7.24			52.9	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	2.0						
Dry Matter (%)	82						
Moisture (%)	18						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	**21-55330**						
					Client:	**PARAGONBC**	
Location	**Longcross**						
Lab Reference (Sample Number)	1761888 / 1761889				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	11/01/2021				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS71						
Depth (m)	0.20						
Solid Waste Analysis							
TOC (%)**	1.2				3%	5%	6%
Loss on Ignition (%) **	2.9				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	7.7				--	>6	--
Acid Neutralisation Capacity (mol / kg)	3.6				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0019			0.0163	0.5	2	25
Barium *	0.0190			0.161	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0036			0.030	0.5	10	70
Copper *	0.0091			0.077	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0027			0.0228	0.5	10	30
Nickel *	0.0047			0.040	0.4	10	40
Lead *	0.0048			0.041	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.015			0.13	4	50	200
Chloride *	2.5			21	800	15000	25000
Fluoride	0.32			2.7	10	150	500
Sulphate *	6.1			51	1000	20000	50000
TDS*	56			470	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	10.3			87.4	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.5						
Dry Matter (%)	89						
Moisture (%)	11						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	**21-55330**						
					Client:	**PARAGONBC**	
Location	**Longcross**						
Lab Reference (Sample Number)	1761890 / 1761891				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	11/01/2021				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS73a						
Depth (m)	0.50						
Solid Waste Analysis							
TOC (%)**	3.2				3%	5%	6%
Loss on Ignition (%) **	5.5				--	--	10%
BTEX (µg/kg) **	-				6000	--	--
Sum of PCBs (mg/kg) **	-				1	--	--
Mineral Oil (mg/kg)	-				500	--	--
Total PAH (WAC-17) (mg/kg)	-				100	--	--
pH (units)**	8.6				--	>6	--
Acid Neutralisation Capacity (mol / kg)	3.5				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0055			0.0487	0.5	2	25
Barium *	0.0121			0.107	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0012			0.011	0.5	10	70
Copper *	0.0068			0.060	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0030			0.0267	0.5	10	30
Nickel *	0.0026			0.023	0.4	10	40
Lead *	0.0019			0.017	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0055			0.049	4	50	200
Chloride *	16			140	800	15000	25000
Fluoride	0.79			7.0	10	150	500
Sulphate *	18			160	1000	20000	50000
TDS*	94			830	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	9.01			79.7	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.5						
Dry Matter (%)	88						
Moisture (%)	12						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

APPENDIX 4: EXTENT OF SURVEY AND LIMITATIONS

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EXTENT OF SURVEY AND LIMITATIONS

This report is for your sole use, and consequently no responsibility whatsoever is undertaken or accepted to any third party for the whole or any part of its contents. Paragon accept no responsibility or liability for the consequences of this document being used for any purpose or project other than for which it was commissioned or a third party with whom an agreement has not been executed. Should any third party which to use or rely upon the contents of the report, written approval must be sought from Paragon, a charge may be levied against such approval.

The report has been designed to address potential source, pathway and receptor pollutant linkages associated with the proposed development, by means of intrusive investigation. The content and findings of the report are based on data obtained by employing site assessment methods and techniques, considered appropriate to the site as far as can be interpreted from desk-based materials and a visual walkover of the site. Such techniques and methods are subject to limitations and constraints set out in the report. The findings and opinions are relevant at the time of writing, and should not be relied upon at a substantially later date as site conditions can changes. For example, seasonal groundwater levels, natural degradation of contaminants etc.

No liability can be accepted for the conditions that have not been revealed by the exploratory hole locations, or those which occur between each location. Whilst every effort will be made to interpolate the conditions between exploratory locations, such information is only indicative and liability cannot be accepted for its accuracy. By their nature, exploratory holes provide a relatively small and localised snapshot of the ground conditions relative to the size of the site.

Specific comment is made regarding the site's status under Part 2A of the Environmental Protection Act (EPA) 1990, which provides a statutory definition of Contaminated Land and as revised under The Contaminated Land (England) (Amendment) Regulations 2012. Unless specifically stated as relating to this definition, references to 'contamination' and 'contaminants' relate in general terms to the presence of potentially hazardous substances in, on or under the site.

The opinions given within this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. If additional information or data becomes available which may affect the opinions expressed in this report, Paragon reserves the right to review such information and, if warranted, to modify the opinions accordingly. Paragon reserves the right to charge additional fees for; un-anticipated second opinion reviewing of previous reports.

Paragon has prepared this report with reasonable skill, care and diligence. The recommendations contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry practices at this time. The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources. We cannot provide guarantees or warranties for the accuracy of third-party data, which is reviewed in good faith and assumed to be representative and accurate.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed. No liability can be accepted for the effects of any future changes to such guidelines and legislation. In the event that guidance / legislation changes it may be necessary for Paragon to update or modify reports. The risk assessment is completed in line with the relevant land use agreed for the site and the time of completing the works. Changes to site conditions or land use may require a reassessment.

DEFINITIONS

For the avoidance of doubt, Paragon Building Consultancy Limited (Paragon) has prepared the following alphabetical list of definitions and reservations to aid the client in understanding the content of our advice and or written reports(s):

Accuracy	Level of agreement between true value and observed value.
ACM's	Asbestos Containing Materials
Conceptual Site Model	Textual and or schematic hypothesis of the nature and sources of contamination, potential migration pathways (including description of the ground and groundwater) and potential receptors, developed on the base of the information from the preliminary investigation and refined during subsequent phases of investigation and which is an essential part of the risk assessment process. **Note 1:** The conceptual exposure model is initially derived from the information obtained by the preliminary investigation. This conceptual model is used to focus subsequent investigations, where these are considered to be necessary, in order to meet the objectives of the investigations and the risk assessment. The results of the field investigation can provide additional data that can be used to further refine the conceptual model.
Contamination	Presence of a substance which is in, on or under land, and which has the potential to cause significant harm or to cause significant pollution of controlled water. **Note 1:** There is no assumption in this definition that harm results from the presence of the contamination. **Note 2:** Naturally enhanced concentrations of harmful substances can fall within this definition of contamination. **Note 3:** Contamination may relate to soils, groundwater or ground gas.
Controlled Water	Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three-mile limit of territorial waters. **Note 1:** See Section 104 of The Water Resources Act 1991.
Enquiries	Any enquiries undertaken by Paragon of local authorities and statutory undertakers are made verbally in respect of environmental issues. Local searches are not undertaken and no responsibility is accepted for any inaccurate information provided. It is further assumed unless otherwise stated that all necessary licences, permits etc. either run with the property or are transferable to a new occupier as appropriate.
Harm	Adverse effect on the health of living organisms, or other interference with ecological systems of which they form part, and, in the case humans, including property.
Hazard	Inherently dangerous quality of a substance, procedure or event.
Pathway	Mechanism or route by which a contaminant comes into contact with, or otherwise affects, a receptor.
Precision	Level of agreement within a series of measurements of a parameter.
Receptor	Persons, living organisms, ecological systems, controlled water, atmosphere, structures and utilities that could be adversely affected by the contaminant(s).

Risk	Probability of the occurrence, magnitude and consequences of an unwanted adverse effect on a receptor.
Risk Assessment	Process of establishing, to the extent possible, the existence, nature and significance of risk.
Sampling	Methods and techniques used to obtain a representative sample of the material under investigation.
Soil	Upper layer of the earth's crust composed of mineral parts, organic substance, water, air and living matter. **Note 1:** In general accordance with BS 10175:2001 the term soil has the meaning ascribed to it through general use in civil engineering and includes topsoil and subsoil; deposits such as clays, silt, sand, gravel, cobbles, boulders and organic deposits such as peat; and material of natural or human origin (e.g. fills and deposited wastes). The term embraces all components of soil, including mineral matter, organic matter, soil gas and moisture, and living organisms.
Source	Location from which contamination is, or was, derived. **Note 1:** This could be the location of the highest soil or groundwater concentration of the contaminant(s).
Uncertainty	Parameter, associated with the result of a measurement that characterises the dispersion of the values that could reasonably be attributed to the measurement.

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