



Ground Condition Consultants

SELWOOD HQ, CHANDLERS FORD

GROUND INVESTIGATION REPORT

SEPTEMBER 2024

Prepared for
Selwood Ltd
Bournemouth Road
Chandlers Ford
Eastleigh
Hampshire
SO53 3ZL

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VERSION CONTROL

Project Name Selwood HQ – GIR

Project No. J24-057

Report No. J24-057-R01

Ground Investigation Factual Report	
Prepared by: Antony Platt - Director	Reviewed by: Rasmus Palmgren - Director

Version	Date	Description
1.0	17.09.24	Final
2.0	07.10.24	Waste Classification Results Added

Contents

0.	EXECUTIVE SUMMARY	4
1.	INTRODUCTION	5
1.1	INSTRUCTION	5
1.2	PROPOSED USE	5
1.3	REPORT SCOPE AND LIMITATIONS	5
1.4	SITE LOCATION AND DESCRIPTION	6
1.5	PUBLISHED GEOLOGY	6
2.	FIELDWORK SUMMARY OF SCOPE AND RATIONALE	7
2.1	RATIONALE AND SUMMARY OF SCOPE	7
2.2	SAMPLING	7
2.3	SITE INVESTIGATION STANDARDS	7
3.	GROUND CONDITIONS ENCOUNTERED	8
3.1	SOIL CONDITIONS	8
3.2	OBSTRUCTIONS	11
3.3	GROUNDWATER CONDITIONS	11
3.4	VISUAL/OLFACTORY EVIDENCE OF CONTAMINATION	11
3.5	CHEMICAL TESTING	11

List of Tables

Table 3.1.	Summary of encountered ground conditions	8
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List of Figures and Appendices

FIGURE 1: SITE INVESTIGATION PLAN

APPENDIX 1: REPORT CONDITIONS

APPENDIX 2: SITE PHOTOGRAPHS

APPENDIX 3: WASTE CLASSIFICATION RESULTS

0. EXECUTIVE SUMMARY

Brief	The brief was to undertake a ground investigation to determine shallow ground conditions, undertake in-situ CBR testing and obtain soil samples for waste classification testing at the site.
Current Site Status	The site is located at the Selwood Ltd Headquarters site at Bournemouth Road, Chandlers Ford, Eastleigh, Hampshire, SO53 3ZL. The overall site comprised a series of office buildings, workshop buildings, warehouses, car parking areas and storage yards for vehicles and plant. The investigation areas were specified by Jubb and Selwood and were spread across the site to target areas where broken and uneven concrete are due to be replaced.
Geology	Available geological records for the area show the subject site to be underlain by the Wittering Formation (sand, silt and clay), with no recorded superficial deposits on the site.
Investigation Scope	The site investigation works were undertaken by GCC on the 13th September 2024. The scope and rationale of the site investigation were specified by Jubb Consulting Engineers and Selwood Ltd and are presented below. • 9no. concrete cores and follow on hand excavated trial pits (CBR01-09) to a maximum depth of 0.55mbgl to determine shallow ground conditions, undertake in-situ CBR testing and obtain samples for environmental laboratory testing.
<i>This sheet is intended to provide a summary only of the initial indicative assessment study of the site in relation to ground contamination. It does not provide a definitive engineering analysis for the purposes of costing or construction and is subject to the limitation of the agreed brief.</i>	

1. INTRODUCTION

1.1 INSTRUCTION

Ground Condition Consultants Ltd. (GCC) was commissioned by Selwood Ltd in September 2024 to undertake a Ground Investigation at the Selwood Headquarters site in Chandlers Ford, Hampshire, as specified by Jubb Consulting Engineers and Selwood Ltd.

The brief was to undertake a ground investigation to determine shallow ground conditions, undertake in-situ CBR testing and obtain soil samples for waste classification testing at the site.

This report is prepared in line with the agreed brief and is subject to the report conditions shown in Appendix 1.

1.2 PROPOSED USE

It is currently understood that areas of the site where broken concrete is present are to be broken out and replaced or covered with a layer of tarmacadam to address health and safety risks in the short term.

1.3 REPORT SCOPE AND LIMITATIONS

This report is based upon the recent site investigation data detailed herein. The report presents a factual account of the GCC ground investigation undertaken on the 13th September 2024. In addition, this report outlines the basic ground conditions encountered in the exploratory holes.

This report presents observations made on the strata observed in the exploratory holes. GCC takes no responsibility for conditions that have not been revealed by the exploratory holes, or which occur between them.

Conditions between investigation locations may be interpolated, such information is only indicative and liability cannot be accepted for its accuracy. Information provided from other sources is taken in good faith and GCC cannot guarantee its accuracy.

The information contained in this report is intended for the use of Selwood Ltd and GCC can take no responsibility for the use of this information by any other party or for uses other than that described in this report.

1.4 SITE LOCATION AND DESCRIPTION

The site is located at the Selwood Ltd Headquarters site at Bournemouth Road, Chandlers Ford, Eastleigh, Hampshire, SO53 3ZL. The overall site comprised a series of office buildings, workshop buildings, warehouses, car parking areas and storage yards for vehicles and plant. The investigation areas were specified by Jubb and Selwood and were spread across the site to target areas where broken and uneven concrete are due to be replaced.

1.5 PUBLISHED GEOLOGY

Available geological records for the area show the subject site to be underlain by the Wittering Formation (sand, silt and clay), with no recorded superficial deposits on the site.

2. FIELDWORK SUMMARY OF SCOPE AND RATIONALE

2.1 RATIONALE AND SUMMARY OF SCOPE

The site investigation works were undertaken by GCC on the 13th September 2024. The scope and rationale of the site investigation were specified by Jubb Consulting Engineers and Selwood Ltd and are presented below.

- 9no. concrete cores and follow on hand excavated trial pits (CBR01-09) to a maximum depth of 0.55mbgl to determine shallow ground conditions, undertake in-situ CBR testing and obtain samples for environmental laboratory testing.

The layout of the exploratory hole positions is presented in Figure 1.

Photographs taken during the ground investigation are presented in Appendix 2.

2.2 SAMPLING

Soil sampling was undertaken from sub-base and sub-grade soils for waste classification testing, focused on depths between 0.20m and 0.50m bgl.

The samples were recovered in clean sample containers provided by the laboratory and dispatched to the laboratory in cool boxes to preserve the integrity of the samples.

2.3 SITE INVESTIGATION STANDARDS

Methods employed during the site investigation were generally undertaken in accordance with BS10175, BS EN 1997-2 and BS5930.

3. GROUND CONDITIONS ENCOUNTERED

3.1 SOIL CONDITIONS

Ground conditions encountered during the site investigation were generally as anticipated, comprising concrete/tarmacadam over Made Ground, over Wittering Formation. Variations in strata thickness are summarised in Table 3.1 and the details of the ground conditions are presented below.

Table 3.1. Summary of encountered ground conditions

Location	Concrete/ Tarmacadam		Made Ground		Wittering Formation	
	From (mbgl)	Thickness (m)	From (mbgl)	Thickness (m)	From (mbgl)	Thickness (m)
CBR01	GL	0.29	0.29	>0.18	N/E	
CBR02	GL	0.18	0.18	0.08	0.26	>0.16
CBR03	GL	0.16	0.16	>0.28	N/E	
CBR04	GL	0.17	0.17	>0.38	N/E	
CBR05	GL	0.12	0.12	>0.40	N/E	
CBR06	GL	0.20	0.20	>0.20	N/E	
CBR07	GL	0.12	0.12	>0.24	N/E	
CBR08	GL	0.16	0.16	>0.25	N/E	
CBR09	GL	0.05	0.05	0.31	0.36	>0.08

CBR01

0.0-0.29 – REINFORCED CONCRETE – 7mm rebar at 90mm below surface at 120mm spacing.

0.29-0.47 – Firm to stiff grey brown slightly gravelly clay with occasional brick fragments (MADE GROUND/REWORKED WF)

CBR @ 0.33m: 4%

CBR @ 0.47m: 4%

Sample: ES – 0.35-0.45m

CBR02

0.0-0.18 – REINFORCED CONCRETE – 7mm rebar at 100mm below surface at 160mm spacing.

0.18-0.26 – Grey brown silty sandy fine to medium angular to rounded flint GRAVEL with occasional brick fragments (MADE GROUND)

0.26-0.40 – Grey clayey silty SAND with hydrocarbon odour (probably diesel) (WITTERING FORMATION)

CBR @ 0.20: 7%

CBR @ 0.40: 6%

Sample: ES – 0.3-0.4m

CBR03

0.0-0.16 – REINFORCED CONCRETE – 7mm rebar at 130mm below surface at 150mm spacing.

0.16-0.26 – Dark grey sandy fine to coarse angular to rounded flint GRAVEL with a strong hydrocarbon odour (probably diesel) (MADE GROUND/SUB-BASE)

0.26-0.44 – Grey and white silty sandy fine to coarse angular to sub-angular chalk GRAVEL (MADE GROUND)

CBR @ 0.16m: 12%

CBR @ 0.44m: 6%

Sample: ES – 0.16-0.26m

CBR04

0.0-0.17 – REINFORCED CONCRETE – 7mm rebar at 145mm below surface at 160mm spacing.

0.17-0.44 – Brown clayey sandy fine to coarse angular to rounded flint GRAVEL with occasional fine brick fragments and slight hydrocarbon odour (probably diesel) (MADE GROUND/SUB-BASE)

0.44-0.55 – Grey and white silty sandy fine to medium angular to sub-angular chalk GRAVEL with slight organic odour (MADE GROUND)

CBR @ 0.40m: 93%

CBR @ 0.55m: 67%

Sample: ES – 0.2-0.4m

CBR05

0.0-0.12 – REINFORCED CONCRETE – 7mm rebar at 110mm below surface at 190mm spacing.

0.12-0.50 – Grey brown very clayey gravelly SAND with occasion brick and char fragments and a hydrocarbon odour (probably diesel) (MADE GROUND)

0.50-0.52 – Grey and white silty sandy fine to coarse angular to sub-angular chalk GRAVEL (MADE GROUND)

CBR @ 0.12m: 17%

CBR @ 0.52m: 75%

Sample: ES – 0.2-0.5m

CBR06

0.0-0.20 – REINFORCED CONCRETE – 7mm rebar at 50mm below surface at 200mm spacing.

0.20-0.40 – Soft to firm dark grey sandy gravelly CLAY with occasional brick and concrete fragments and a hydrocarbon odour (probably diesel) (MADE GROUND)

CBR @ 0.2m: 10%

CBR @ 0.4m: 9%

Sample: ES – 0.2-0.4m

CBR07

0.0-0.12 – CONCRETE – no reinforcement

0.12-0.36 – Orange brown slightly sandy fine to coarse angular to rounded flint GRAVEL (MADE GROUND/SUB-BASE)

0.36 – CONCRETE obstruction

CBR @ 0.2m: 21%

Sample: ES – 0.2-0.3m

CBR08

0.0-0.16 – REINFORCED CONCRETE – 7mm rebar at 40mm below surface at 190mm spacing.

0.16-0.41 – Grey and white silty sandy fine to medium angular to sub-angular chalk GRAVEL with slight organic odour (MADE GROUND)

CBR @ 0.16m: 9%

CBR @ 0.41m: 39%

Sample: ES – 0.2-0.4m

CBR09

0.0-0.05 – Loose tarmacadam GRAVEL

0.05-0.36 – Reddish brown very gravelly fine to coarse SAND with occasional tarmacadam fragments (MADE GROUND/SUB-BASE)

0.36-0.44 – Soft to firm grey CLAY (WITTERING FORMATION)

CBR @ 0.15m: 21%

CBR @ 0.44m: 0.6%

Sample: ES – 0.1-0.3m

3.2 OBSTRUCTIONS

A concrete obstruction was encountered in CBR07 at 0.36m.

3.3 GROUNDWATER CONDITIONS

Groundwater seepages were possible encountered, although it was difficult to distinguish from water added for coring.

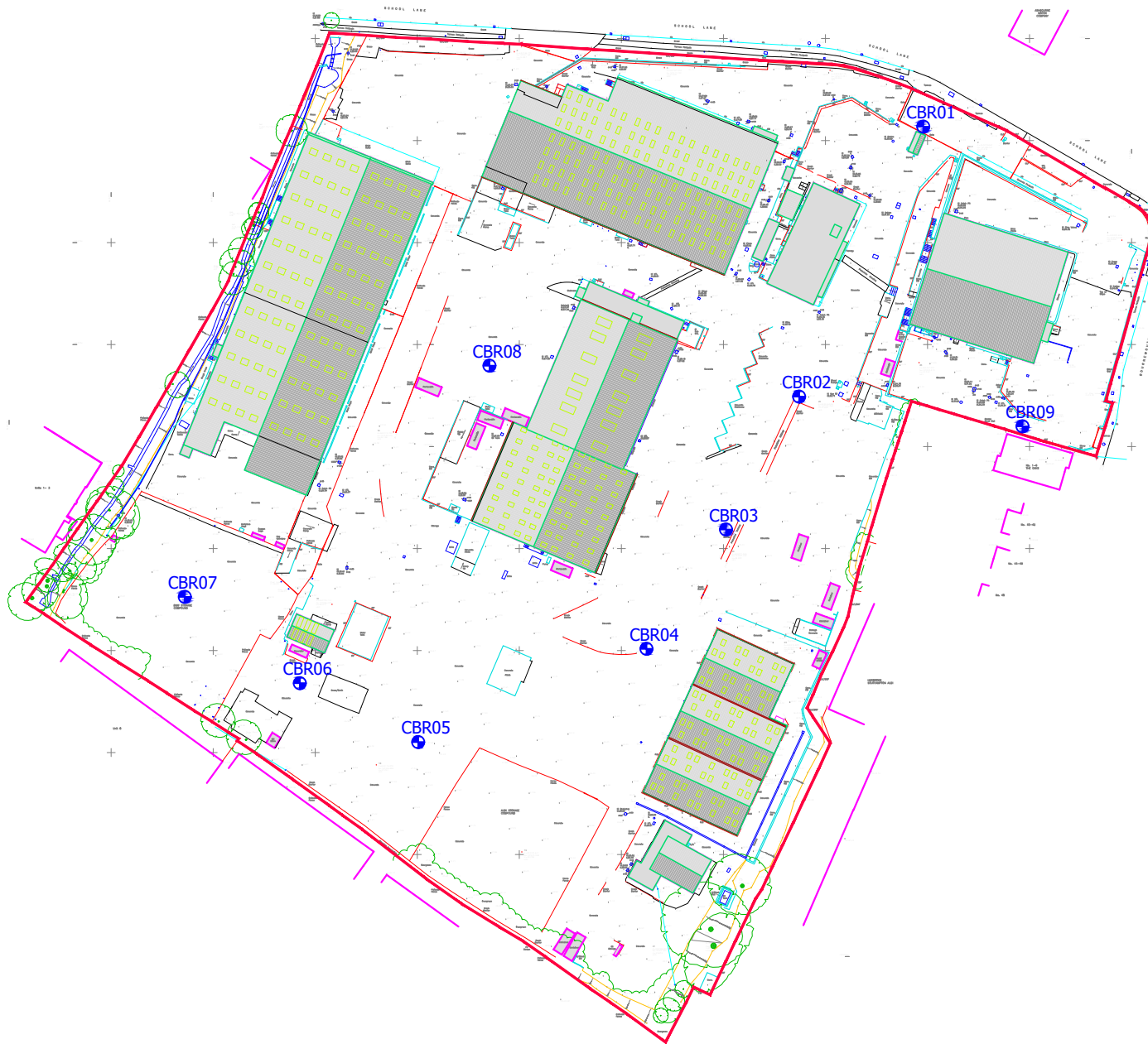
3.4 VISUAL/OLFACTORY EVIDENCE OF CONTAMINATION

Hydrocarbon odours and staining, probably diesel, were encountered in CBR02-06.

3.5 CHEMICAL TESTING

Samples were obtained to allow chemical testing of the soils for waste classification and sent to accredited testing facility. The results of the testing and laboratory waste classification are presented in Appendix 3.

FIGURE 1: SITE INVESTIGATION PLAN



Ground Condition Consultants Ltd
10 Waldegrave Close Southampton SO19 9RY
Telephone 07971 450113
ask@groundcc.co.uk www.groundcc.co.uk

client
SELWOOD LTD

project
SELWOOD, CHANDLERS FORD

title
CORE LOCATION PLAN

scale NTS | drawn by AP | checked by RP

date 17 SEP 2024 | cad file J24-057

drawing number
FIGURE 1

rev.
0

APPENDIX 1: REPORT CONDITIONS

This report is produced solely for the benefit of **Selwood Ltd** and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the Site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the Site.

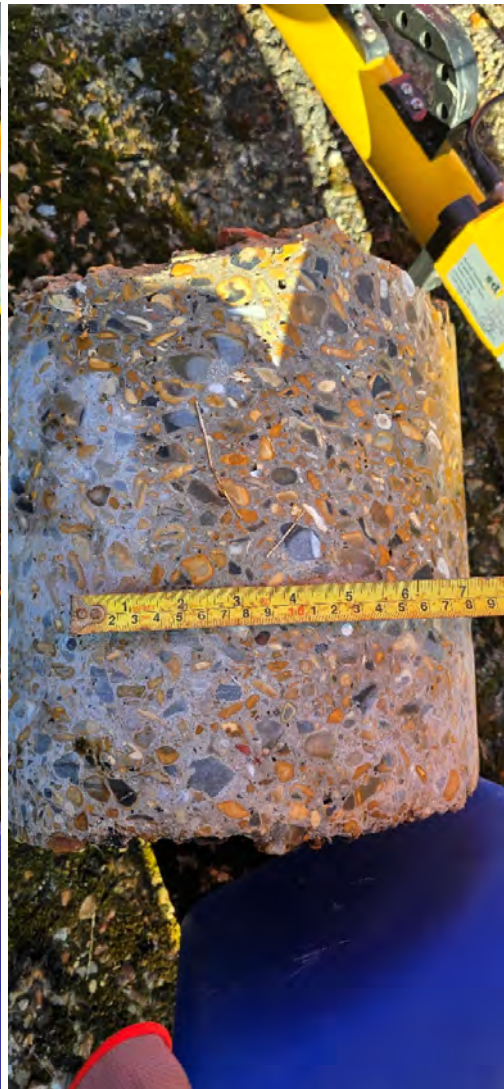
This report is based on a visual Site inspection, study of readily accessible referenced historical records, information supplied by those parties noted in the text and preliminary discussions with local and Statutory Authorities. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where test results undertaken by others have been made available these can only be regarded as a limited sample.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Ground Condition Consultants Ltd. In time improved practices or amended legislation may necessitate a re-assessment.

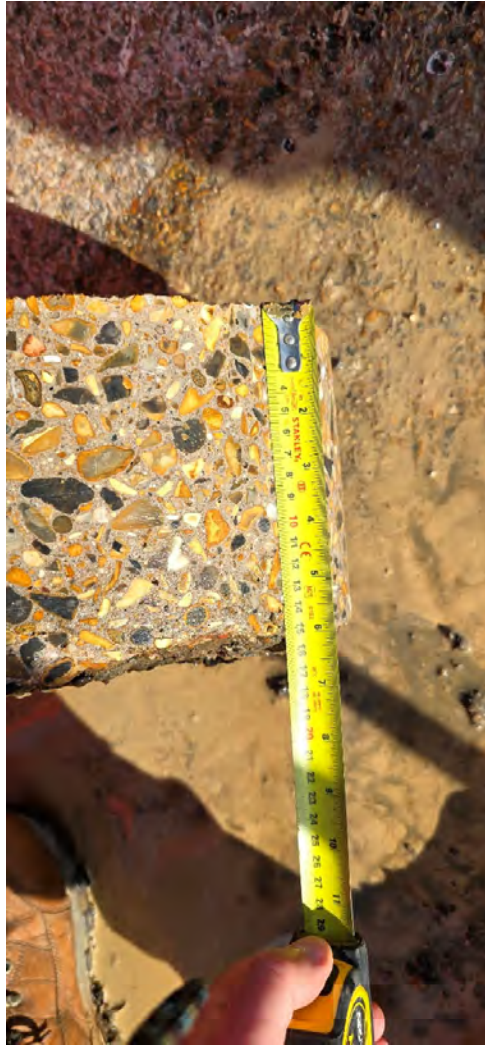
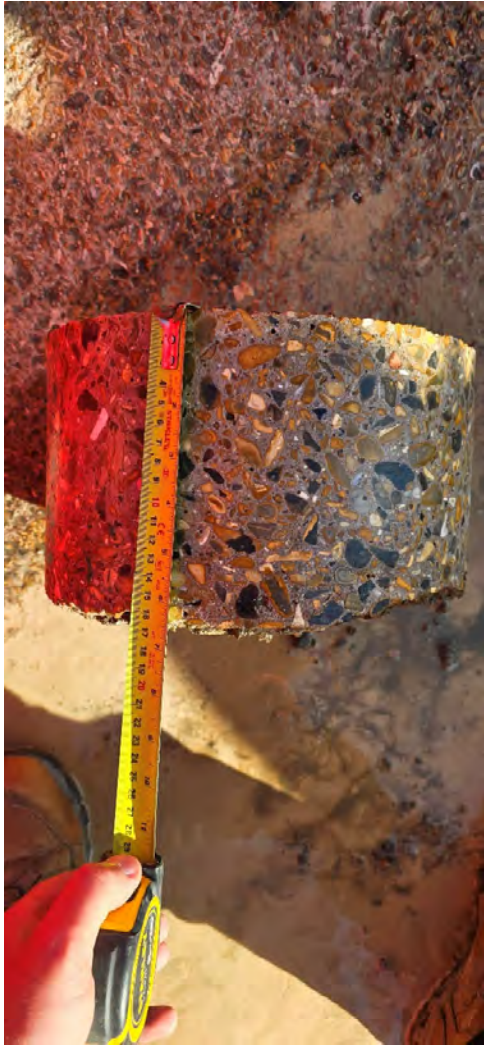
The report is necessarily limited to those aspects of geotechnical assessment reported on and no liability is accepted for any other aspect. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the Site and adjacent Sites. The report concentrates on the Site as defined in the report and provides an opinion on surrounding Sites

.

APPENDIX 2: SITE PHOTOGRAPHS



CBR01



CBR02



CBR03



CBR04



CBR05



CBR06



CBR07



CBR08



CBR09

APPENDIX 3: WASTE CLASSIFICATION RESULTS

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/09068
Issue Number: 1

Date: 07 October, 2024

Client: Ground Condition Consultants Ltd
10 Waldegrave Close
Southampton
SO19 9RY

Project Manager: Antony Platt
Project Name: Selwood
Project Ref: J24-057
Order No: J24-057
Date Samples Received: 19/09/24
Date Instructions Received: 19/09/24
Date Analysis Completed: 07/10/24

Approved by:



Gemma Berrisford
Deputy Client Services Supervisor

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/1	24/09068/2	24/09068/3	24/09068/4	24/09068/5	24/09068/6	24/09068/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR01	CBR02	CBR03	CBR04	CBR05	CBR06	CBR07			
Depth to Top	0.35	0.30	0.16	0.20	0.20	0.20	0.20			
Depth To Bottom	0.45	0.40	0.26	0.40	0.50	0.40	0.30			
Date Sampled	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24			
Sample Type	SOIL	SOIL	SOLID	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6A	5A	7	5A	5AB	6AB	5AB			
Hazardous Waste Assessment	Appended	Appended	Appended	Appended	Appended	Appended	Appended			Assessment
% Moisture at <40C _A	18.7	18.5	14.2	14.3	11.9	15.9	10.0	% w/w	0.1	A-T-044
% Stones >10mm _A	7.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	8.51	8.22	9.89 ^U	8.68	10.66	8.53	8.92	pH	0.01	A-T-031s
Ammonium NH4 (exchangeable/water soluble) _D	8.82	4.38	57.3	<0.26	3.41	23	<0.26	mg/kg	0.26	A-T-033s
Sulphate (water sol 2:1) _D ^{M#}	0.03	0.03	0.23 ^U	0.04	0.03	0.03	<0.01	g/l	0.01	A-T-026s
Cyanide (free) _A ^{M#}	<1	<1	<1 ^U	<1	<1	<1	<1	mg/kg	1	A-T-042sFCN
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	0.2	A-T-050s
Organic Matter _D ^{M#}	0.4	0.2	1.3 ^U	1.0	6.8	2.5	0.7	% w/w	0.1	A-T-032s
Total Organic Carbon _D ^{M#}	0.20	0.14	0.73 ^U	0.58	3.96	1.43	0.39	% w/w	0.03	A-T-032s
Antimony _D	<5	<5	<5	<5	<5	<5	<5	mg/kg	5	A-T-024s
Arsenic _D ^{M#}	5	6	5 ^U	6	5	7	4	mg/kg	1	A-T-024s
Beryllium _D	0.6	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	mg/kg	0.5	A-T-024s
Boron (water soluble) _D ^{M#}	1.0	<1.0	1.9 ^U	<1.0	<1.0	1.2	<1.0	mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5 ^U	<0.5	<0.5	1.2	<0.5	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	32	7	20 ^U	22	20	88	22	mg/kg	1	A-T-024s
Chromium _D ^{M#}	26	17	11 ^U	14	16	34	14	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead _D ^{M#}	44	7	15 ^U	60	50	108	39	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	0.30	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	9	3	8 ^U	10	13	18	8	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1 ^U	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	51	16	36 ^U	90	124	214	72	mg/kg	5	A-T-024s

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/1	24/09068/2	24/09068/3	24/09068/4	24/09068/5	24/09068/6	24/09068/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR01	CBR02	CBR03	CBR04	CBR05	CBR06	CBR07			
Depth to Top	0.35	0.30	0.16	0.20	0.20	0.20	0.20			
Depth To Bottom	0.45	0.40	0.26	0.40	0.50	0.40	0.30			
Date Sampled	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24			
Sample Type	SOIL	SOIL	SOLID	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6A	5A	7	5A	5AB	6AB	5AB			
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD	Chrysotile	NAD ^U	Chrysotile & Amosite	Chrysotile	Amosite	Chrysotile			A-T-045
Asbestos Matrix (visual) _D	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope) _D	-	Loose Fibres	-	Loose Fibres	Loose Fibres	Loose Fibres	Loose Fibres			A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A	N/A	N/A	N/A	N/A			A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing) _D	-	Trace	-	<0.001	0.002	Trace	Trace	% w/w	0.001	A-T-054

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/1	24/09068/2	24/09068/3	24/09068/4	24/09068/5	24/09068/6	24/09068/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR01	CBR02	CBR03	CBR04	CBR05	CBR06	CBR07			
Depth to Top	0.35	0.30	0.16	0.20	0.20	0.20	0.20			
Depth To Bottom	0.45	0.40	0.26	0.40	0.50	0.40	0.30			
Date Sampled	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24			
Sample Type	SOIL	SOIL	SOLID	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6A	5A	7	5A	5AB	6AB	5AB			
PAH-16MS (MSD order)										
Naphthalene ^{M#}	<0.03	<0.03	<0.07 ^U	<0.03	0.05	<0.30	<0.03	mg/kg	0.03	A-T-019s
Acenaphthylene ^{M#}	<0.01	<0.01	<0.06 ^U	0.22	<0.05	<0.10	<0.01	mg/kg	0.01	A-T-019s
Acenaphthene ^{M#}	<0.01	<0.01	0.06 ^U	0.15	0.12	0.20	0.02	mg/kg	0.01	A-T-019s
Fluorene ^{M#}	<0.01	<0.01	0.33 ^U	0.33	0.09	0.24	0.04	mg/kg	0.01	A-T-019s
Phenanthrene ^{M#}	<0.03	<0.03	0.31 ^U	3.59	0.34	1.14	0.36	mg/kg	0.03	A-T-019s
Anthracene ^{M#}	<0.02	<0.02	<0.07 ^U	1.31	0.17	0.25	0.09	mg/kg	0.02	A-T-019s
Fluoranthene ^{M#}	<0.08	<0.08	0.22 ^U	6.27	1.09	<0.80	0.50	mg/kg	0.08	A-T-019s
Pyrene ^{M#}	<0.07	<0.07	0.30 ^U	5.04	1.03	<0.70	0.34	mg/kg	0.07	A-T-019s
Benzo(a)anthracene ^{M#}	<0.04	<0.04	0.08 ^U	2.58	0.62	0.49	0.36	mg/kg	0.04	A-T-019s
Chrysene ^{M#}	<0.06	<0.06	0.13 ^U	2.38	0.54	<0.60	0.33	mg/kg	0.06	A-T-019s
Benzo(b)fluoranthene ^{M#}	<0.05	<0.05	0.12 ^U	1.82	0.78	0.67	0.32	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene ^{M#}	<0.07	<0.07	<0.07 ^U	0.74	0.27	<0.70	0.10	mg/kg	0.07	A-T-019s
Benzo(a)pyrene ^{M#}	<0.04	<0.04	0.08 ^U	1.80	0.70	0.52	0.21	mg/kg	0.04	A-T-019s
Indeno(123-cd)pyrene ^{M#}	<0.03	<0.03	0.08 ^U	0.91	0.61	0.44	0.16	mg/kg	0.03	A-T-019s
Dibenzo(ah)anthracene ^A	<0.04	<0.04	<0.04	0.18	0.09	<0.40	<0.04	mg/kg	0.04	A-T-019s
Benzo(ghi)perylene ^{M#}	<0.05	<0.05	0.07 ^U	0.77	0.57	<0.50	0.12	mg/kg	0.05	A-T-019s
Total PAH-16MS (MSD order) ^A	<0.08	<0.08	1.78 ^U	28.1	7.07	3.95	2.95	mg/kg	0.03	A-T-019s
TPH Total with ID + GC Trace										
TPH total (>C6-C40) ^{M#}	228	52	5180 ^U	1540	2510	1820	264	mg/kg	10	A-T-007s
TPH FID Chromatogram ^A	Appended	Appended	Appended	Appended	Appended	Appended	Appended			A-T-007s
TPH ID Interpretation ^A	C12-C40 hydrocarbon s with profile indicative of light lube oil	C10-C44 with profile indicative of PAHs, heavily weathered & degraded diesel and other unknown HCs	C8-C40 with profile indicative of weathered and heavily degraded diesel & other unknown hydrocarbon s	C10-C44 with profile indicative of heavily weathered & degraded diesel, and other unknown HCs	C8-C44 w/ profile indicative of weathered & degraded diesel & other unknown HCs	C8-C44 w/ profile indicative of PAHs, weathered & degraded diesel & other unknown HCs	C12-C44 with PAHs and other unknown hydrocarbon s			A-T-007s

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/1	24/09068/2	24/09068/3	24/09068/4	24/09068/5	24/09068/6	24/09068/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR01	CBR02	CBR03	CBR04	CBR05	CBR06	CBR07			
Depth to Top	0.35	0.30	0.16	0.20	0.20	0.20	0.20			
Depth To Bottom	0.45	0.40	0.26	0.40	0.50	0.40	0.30			
Date Sampled	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24			
Sample Type	SOIL	SOIL	SOLID	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6A	5A	7	5A	5AB	6AB	5AB			
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	28	<5	<5	<5	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	96 ^U	<5	<5	8	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	2	367 ^U	43	86	69	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	4	368 ^U	140	202	174	6	mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1	6	276 ^U	452	294	428	51	mg/kg	1	A-T-055s
Total Aliphatics _A	<1	12	1140	635	582	679	57	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	19	<5	<5	<5	<1	mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	54	<5	<5	7	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	1	221	39	62	34	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	2	192 ^U	75	136	70	6	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	1	47 ^U	46	51	44	14	mg/kg	1	A-T-055s
Total Aromatics _A	<1	5	533	159	250	156	20	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1	17	1670	793	832	835	77	mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01 ^U	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/8	24/09068/9						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR08	CBR09								
Depth to Top	0.20	0.10								
Depth To Bottom	0.45	0.30								
Date Sampled	13-Sep-24	13-Sep-24								
Sample Type	SOLID	SOIL								
Sample Matrix Code	7	4A								
Hazardous Waste Assessment	Appended	Appended								Assessment
% Moisture at <40C _A	14.4	10.7						% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	25.7						% w/w	0.1	A-T-044
pH _D ^{M#}	8.89 ^U	9.29						pH	0.01	A-T-031s
Ammonium NH4 (exchangeable/water soluble) _D	7.07	1.67						mg/kg	0.26	A-T-033s
Sulphate (water sol 2:1) _D ^{M#}	0.03 ^U	0.04						g/l	0.01	A-T-026s
Cyanide (free) _A ^{M#}	<1 ^U	<1						mg/kg	1	A-T-042sFCN
Phenols - Total by HPLC _A	<0.2	<0.2						mg/kg	0.2	A-T-050s
Organic Matter _D ^{M#}	1.4 ^U	3.2						% w/w	0.1	A-T-032s
Total Organic Carbon _D ^{M#}	0.81 ^U	1.84						% w/w	0.03	A-T-032s
Antimony _D	<5	<5						mg/kg	5	A-T-024s
Arsenic _D ^{M#}	<1 ^U	15						mg/kg	1	A-T-024s
Beryllium _D	<0.5	1.3						mg/kg	0.5	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0 ^U	<1.0						mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5 ^U	0.5						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	6 ^U	46						mg/kg	1	A-T-024s
Chromium _D ^{M#}	7 ^U	14						mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1						mg/kg	1	A-T-040s
Lead _D ^{M#}	6 ^U	43						mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	6 ^U	27						mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1 ^U	<1						mg/kg	1	A-T-024s
Zinc _D ^{M#}	19 ^U	62						mg/kg	5	A-T-024s

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/8	24/09068/9						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR08	CBR09								
Depth to Top	0.20	0.10								
Depth To Bottom	0.45	0.30								
Date Sampled	13-Sep-24	13-Sep-24								
Sample Type	SOLID	SOIL								
Sample Matrix Code	7	4A								
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	NAD ^U	NAD								A-T-045
Asbestos Matrix (visual) _D	-	-								A-T-045
Asbestos Matrix (microscope) _D	-	-								A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A								A-T-045

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/8	24/09068/9								
Client Sample No										
Client Sample ID	CBR08	CBR09								
Depth to Top	0.20	0.10								
Depth To Bottom	0.45	0.30								
Date Sampled	13-Sep-24	13-Sep-24								
Sample Type	SOLID	SOIL								
Sample Matrix Code	7	4A								
PAH-16MS (MSD order)										
Naphthalene _A ^{M#}	<0.03 ^U	<0.30						mg/kg	0.03	A-T-019s
Acenaphthylene _A ^{M#}	<0.01 ^U	0.49						mg/kg	0.01	A-T-019s
Acenaphthene _A ^{M#}	0.02 ^U	<0.10						mg/kg	0.01	A-T-019s
Fluorene _A ^{M#}	0.05 ^U	<0.10						mg/kg	0.01	A-T-019s
Phenanthrene _A ^{M#}	0.20 ^U	0.57						mg/kg	0.03	A-T-019s
Anthracene _A ^{M#}	0.08 ^U	0.30						mg/kg	0.02	A-T-019s
Fluoranthene _A ^{M#}	0.13 ^U	2.50						mg/kg	0.08	A-T-019s
Pyrene _A ^{M#}	0.09 ^U	2.30						mg/kg	0.07	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04 ^U	1.71						mg/kg	0.04	A-T-019s
Chrysene _A ^{M#}	<0.06 ^U	1.84						mg/kg	0.06	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05 ^U	1.88						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07 ^U	0.77						mg/kg	0.07	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04 ^U	1.82						mg/kg	0.04	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03 ^U	1.15						mg/kg	0.03	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	<0.40						mg/kg	0.04	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05 ^U	1.26						mg/kg	0.05	A-T-019s
Total PAH-16MS (MSD order) _A	0.57 ^U	16.6						mg/kg	0.03	A-T-019s
TPH Total with ID + GC Trace										
TPH total (>C6-C40) _A ^{M#}	96 ^U	720						mg/kg	10	A-T-007s
TPH FID Chromatogram _A	Appended	Appended								A-T-007s
TPH ID Interpretation _A	C8-C44 w/ profile indicative of PAHs, lightly weathered diesel & other unknown HCs	C8-C44 with PAHs and other unknown hydrocarbon s								A-T-007s

Envirolab Job Number: 24/09068

Client Project Name: Selwood

Client Project Ref: J24-057

Lab Sample ID	24/09068/8	24/09068/9						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	CBR08	CBR09								
Depth to Top	0.20	0.10								
Depth To Bottom	0.45	0.30								
Date Sampled	13-Sep-24	13-Sep-24								
Sample Type	SOLID	SOIL								
Sample Matrix Code	7	4A								
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<100						mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	2 ^U	<100						mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	13 ^U	<100						mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	15 ^U	<100						mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	14 ^U	152						mg/kg	1	A-T-055s
Total Aliphatics _A	44	152						mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<100						mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<100						mg/kg	1	A-T-055s
Aro >C12-C16 _A	6	<100						mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	9 ^U	<100						mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	5 ^U	106						mg/kg	1	A-T-055s
Total Aromatics _A	20	106						mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	64	259						mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01 ^U	<0.01						mg/kg	0.01	A-T-022s

Report Notes

General

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

Key

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

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis

“Trace Asbestos Identified” will be reported if there is not enough present to verify the type.

Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. Where ACMs are found a percentage asbestos is assigned to each with reference to ‘HSG264, Asbestos: The survey guide’ and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres). “TRACE” will be reported as a quantification result.

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

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as ‘% stones >10mm’.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any “D” subscripts.

TPH by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only. Results “with Clean up” indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

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

Envirolab Deviating Samples Report

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

Client: Ground Condition Consultants Ltd, 10 Waldegrave Close, Southampton, SO19 9RY

Project: Selwood
Clients Project No: J24-057

Project No: 24/09068

Date Received: 19/09/2024 (am)

Cool Box Temperatures (°C): 15.1

NO DEVIATIONS IDENTIFIED

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

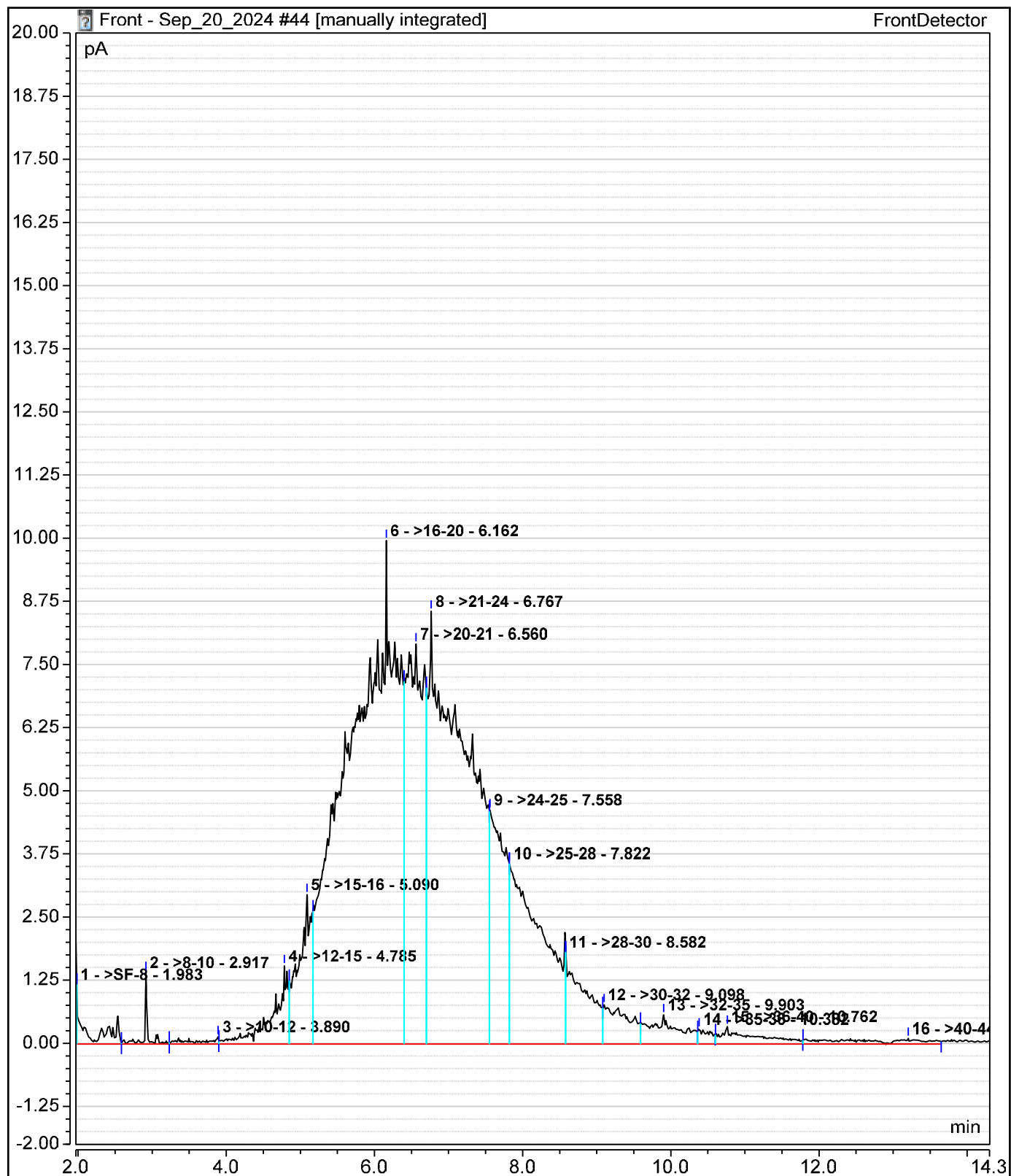
Envirolab Analysis Dates

Lab Sample ID	24/09068/1	24/09068/2	24/09068/3	24/09068/4	24/09068/5	24/09068/6	24/09068/7	24/09068/8	24/09068/9
Client Sample No									
Client Sample ID/Depth	CBR01 0.35-0.45m	CBR02 0.30-0.40m	CBR03 0.16-0.26m	CBR04 0.20-0.40m	CBR05 0.20-0.50m	CBR06 0.20-0.40m	CBR07 0.20-0.30m	CBR08 0.20-0.45m	CBR09 0.10-0.30m
Date Sampled	13/09/24	13/09/24	13/09/24	13/09/24	13/09/24	13/09/24	13/09/24	13/09/24	13/09/24
A-T-004s	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-007s	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024
A-T-019s	26/09/2024	26/09/2024	26/09/2024	26/09/2024	26/09/2024	27/09/2024	26/09/2024	26/09/2024	27/09/2024
A-T-022s	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024
A-T-024s	26/09/2024	26/09/2024	26/09/2024	26/09/2024	26/09/2024	26/09/2024	26/09/2024	26/09/2024	26/09/2024
A-T-025w	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-026s	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
A-T-026w	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-026w (F)	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-027s	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
A-T-030s	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
A-T-031s	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
A-T-031w	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-032s	26/09/2024	25/09/2024	26/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	26/09/2024	26/09/2024
A-T-032w	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-033s	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
A-T-037w	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-040s	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
A-T-042sFCN	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024
A-T-044	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024
A-T-045	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024	24/09/2024
A-T-050s	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024
A-T-050w	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
A-T-054		27/09/2024		27/09/2024	27/09/2024	27/09/2024	27/09/2024		
A-T-055s	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024
A-T-ANCs	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024	25/09/2024
Assessment	07/10/2024	07/10/2024	07/10/2024	07/10/2024	07/10/2024	07/10/2024	07/10/2024	07/10/2024	07/10/2024
Calc-As Recd	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024	23/09/2024
Calc-no stones	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024
Probe (w)	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024	27/09/2024

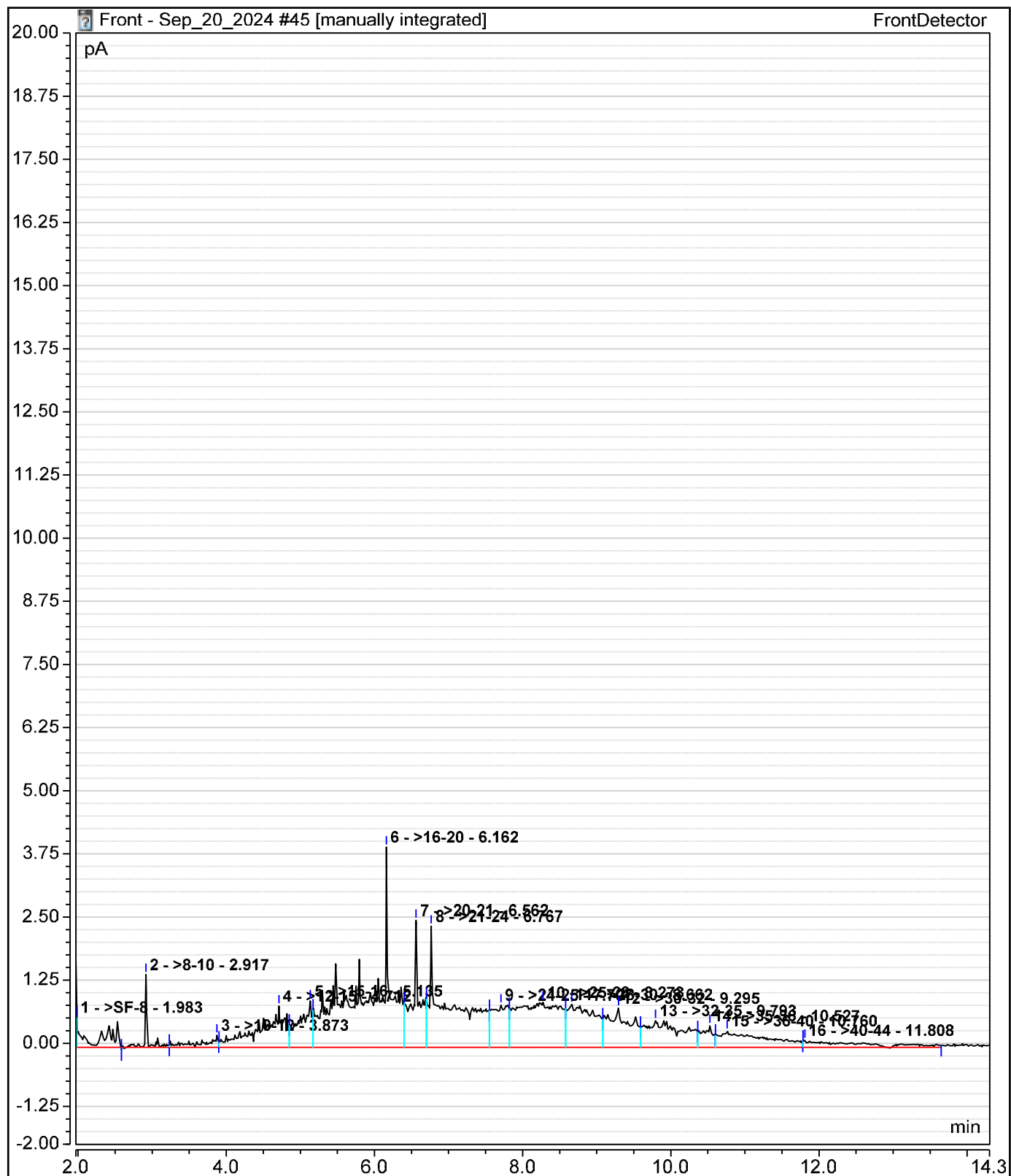
The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

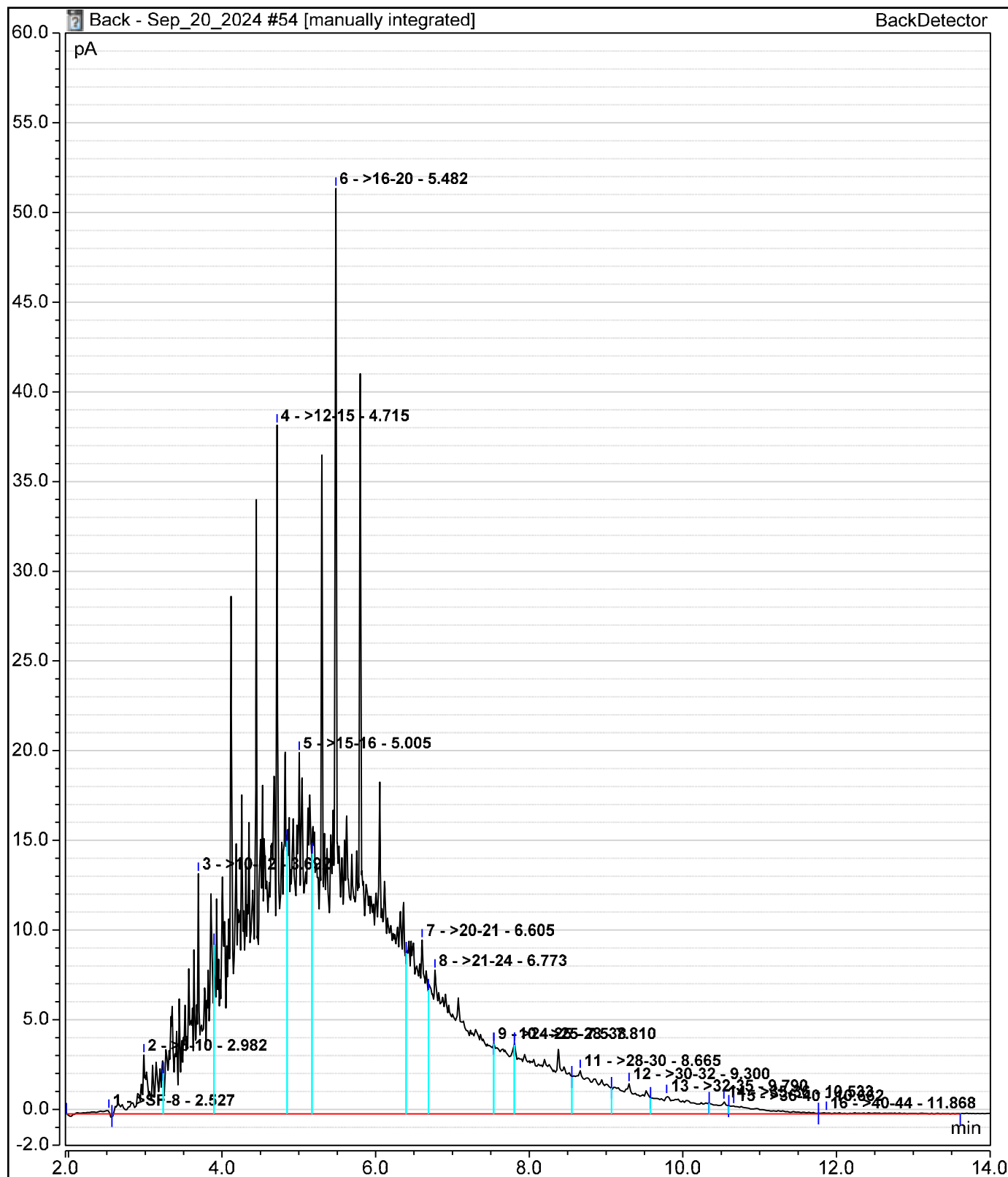
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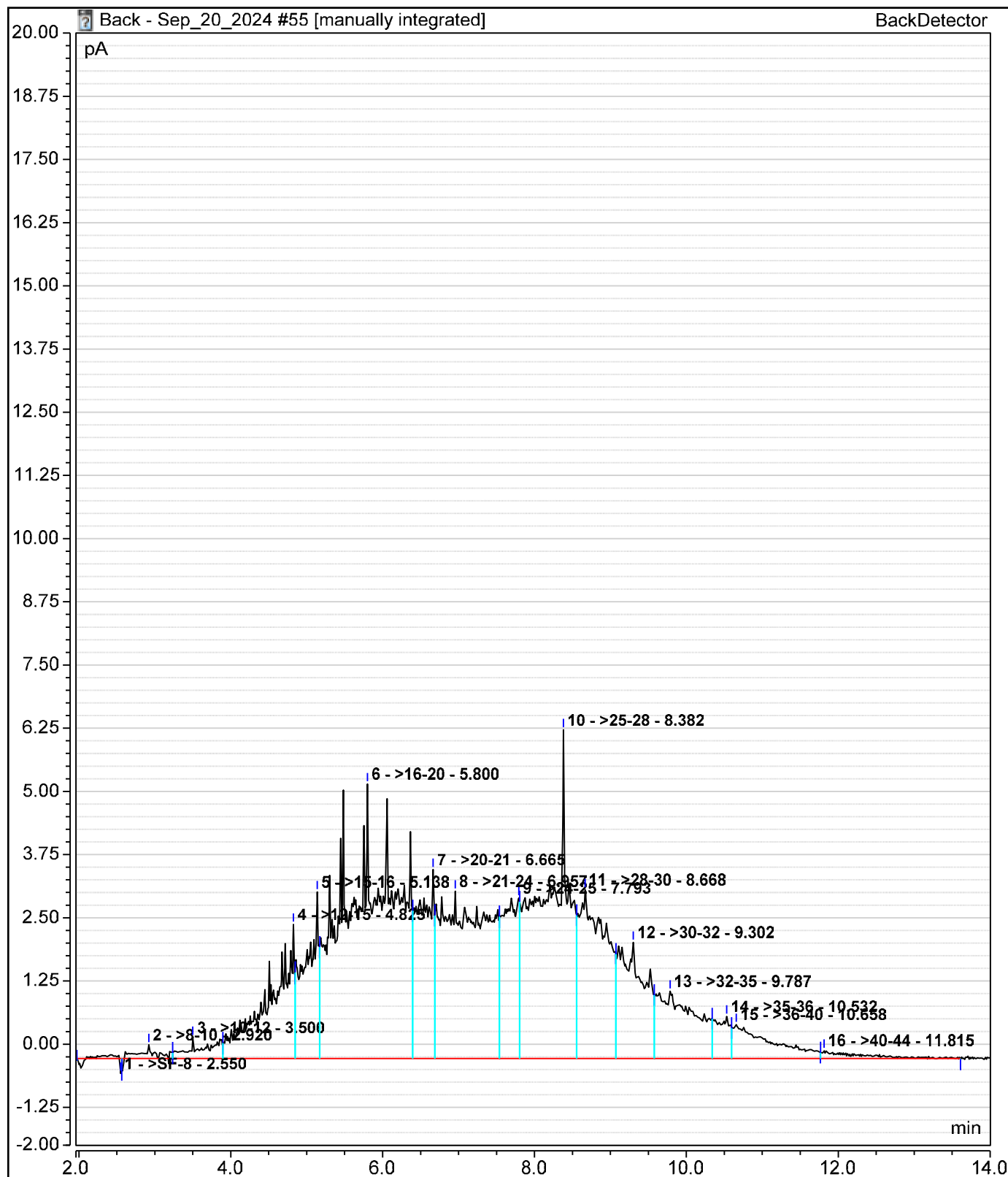
Chromatogram



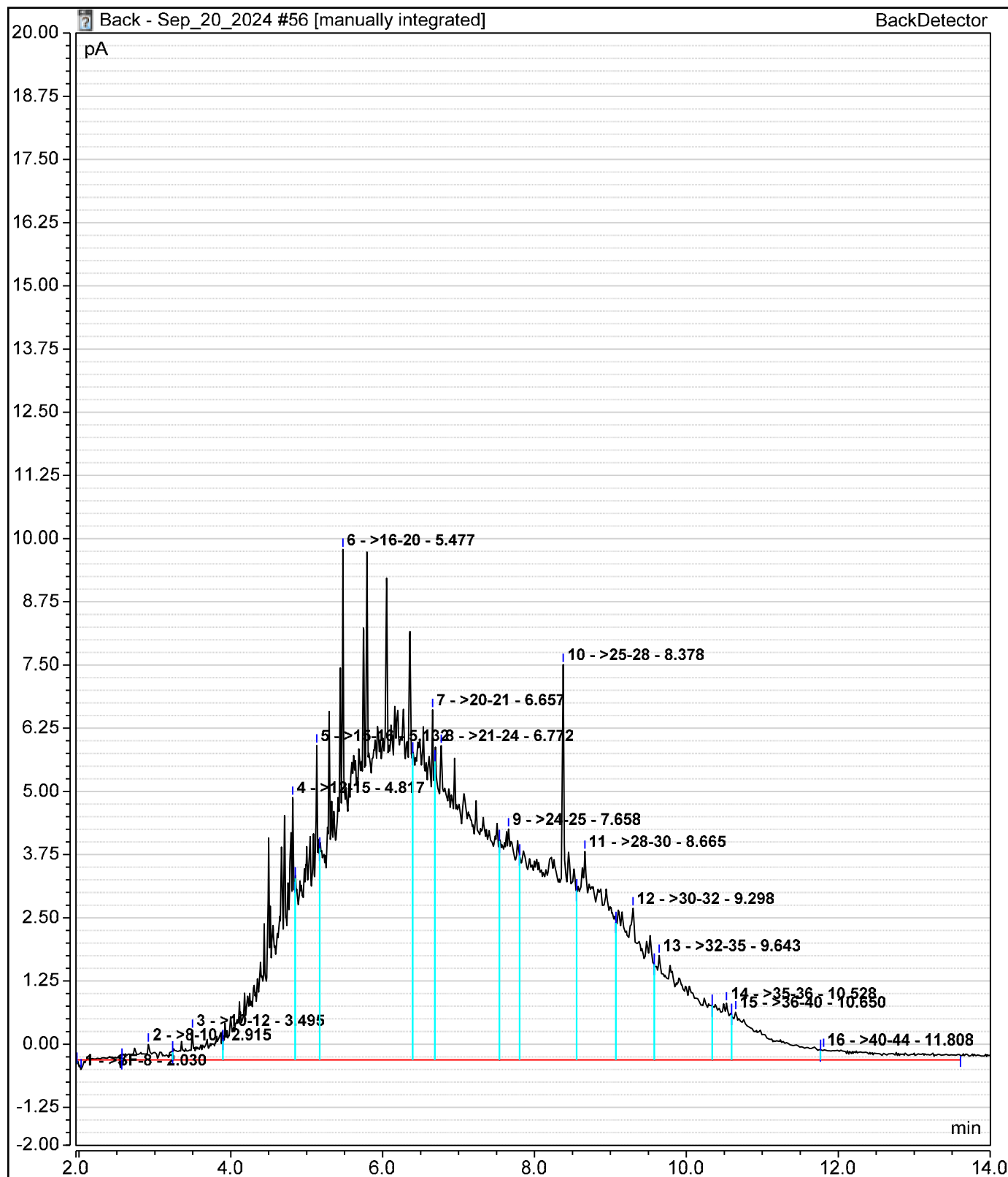
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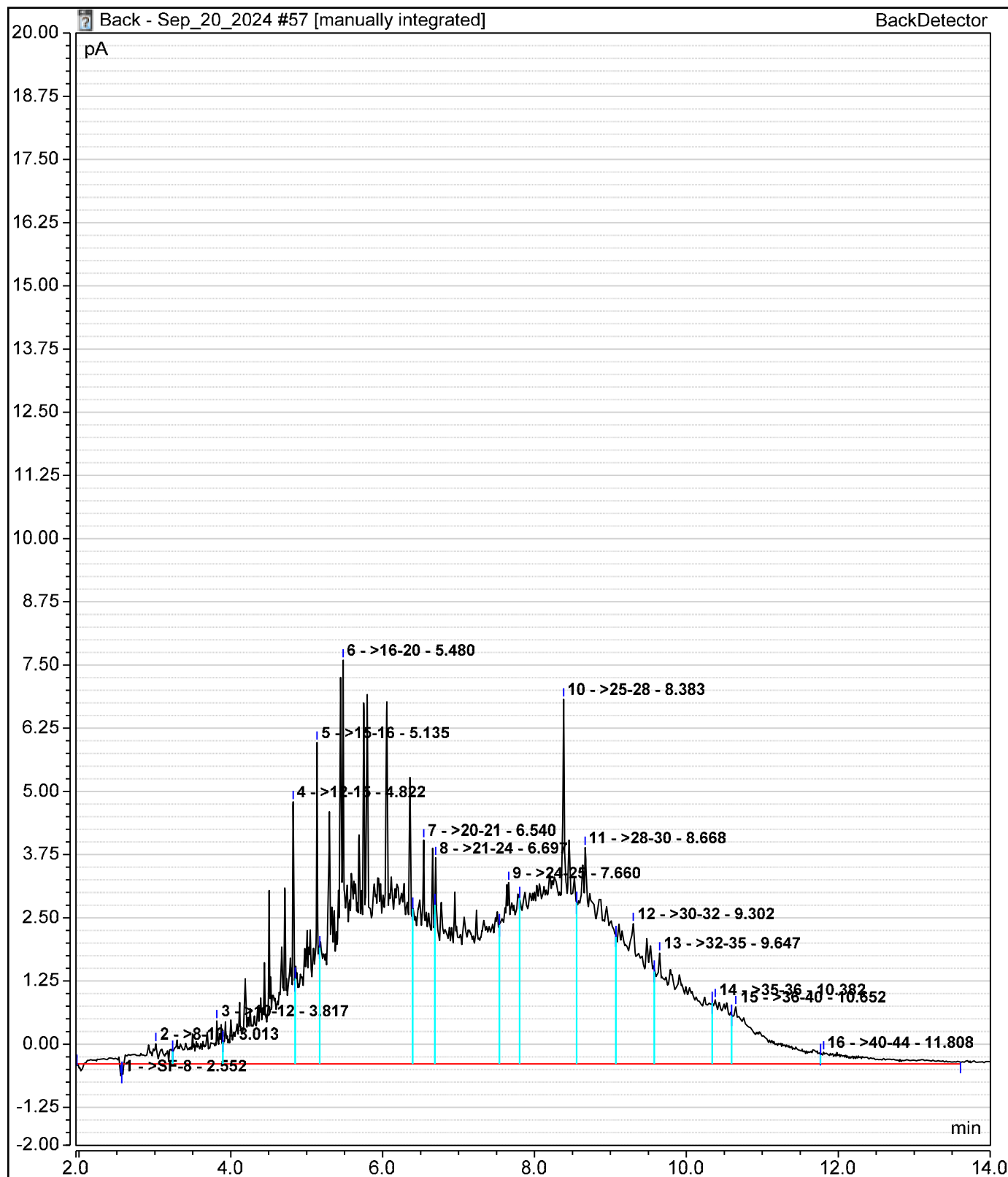
Chromatogram



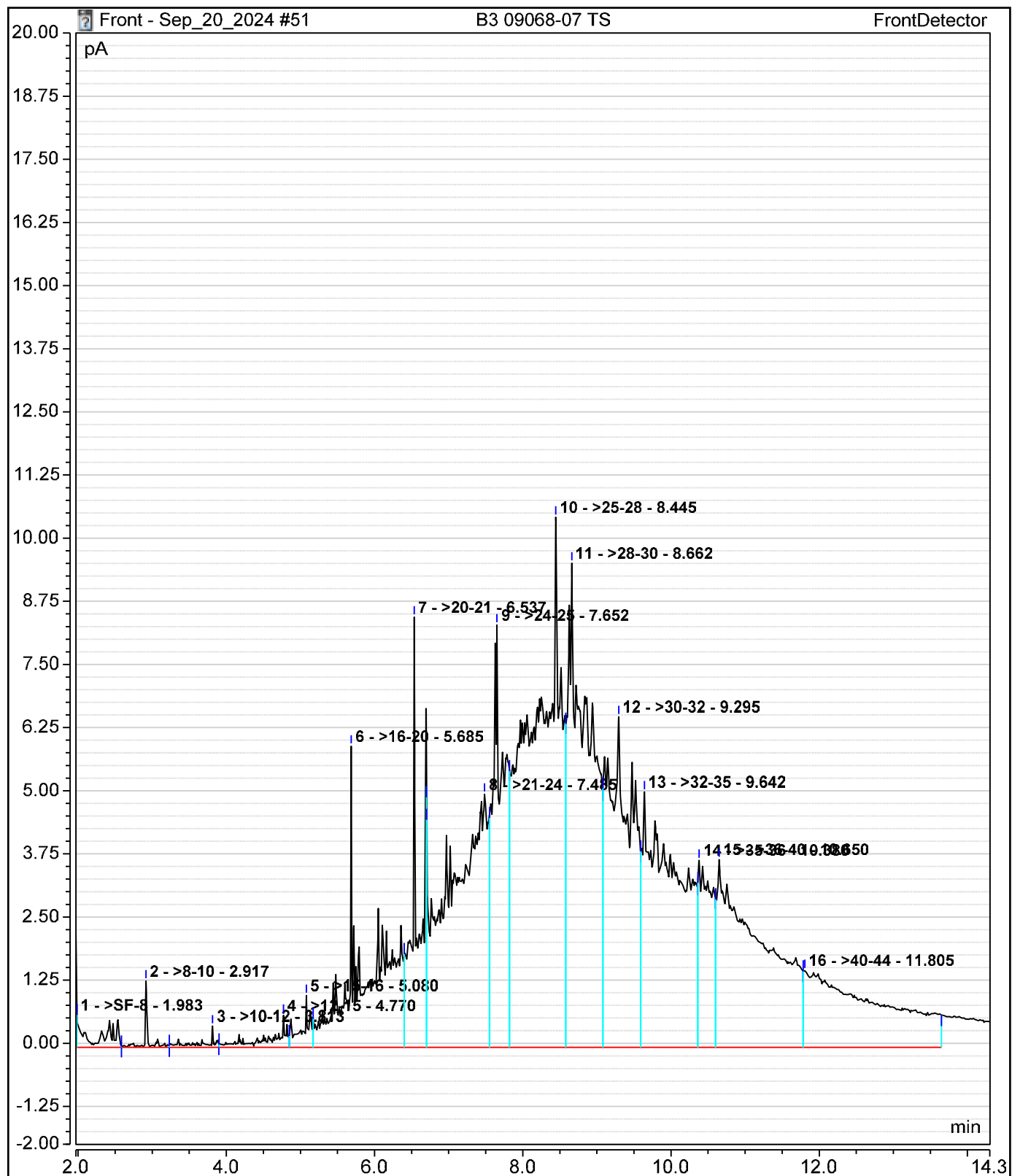
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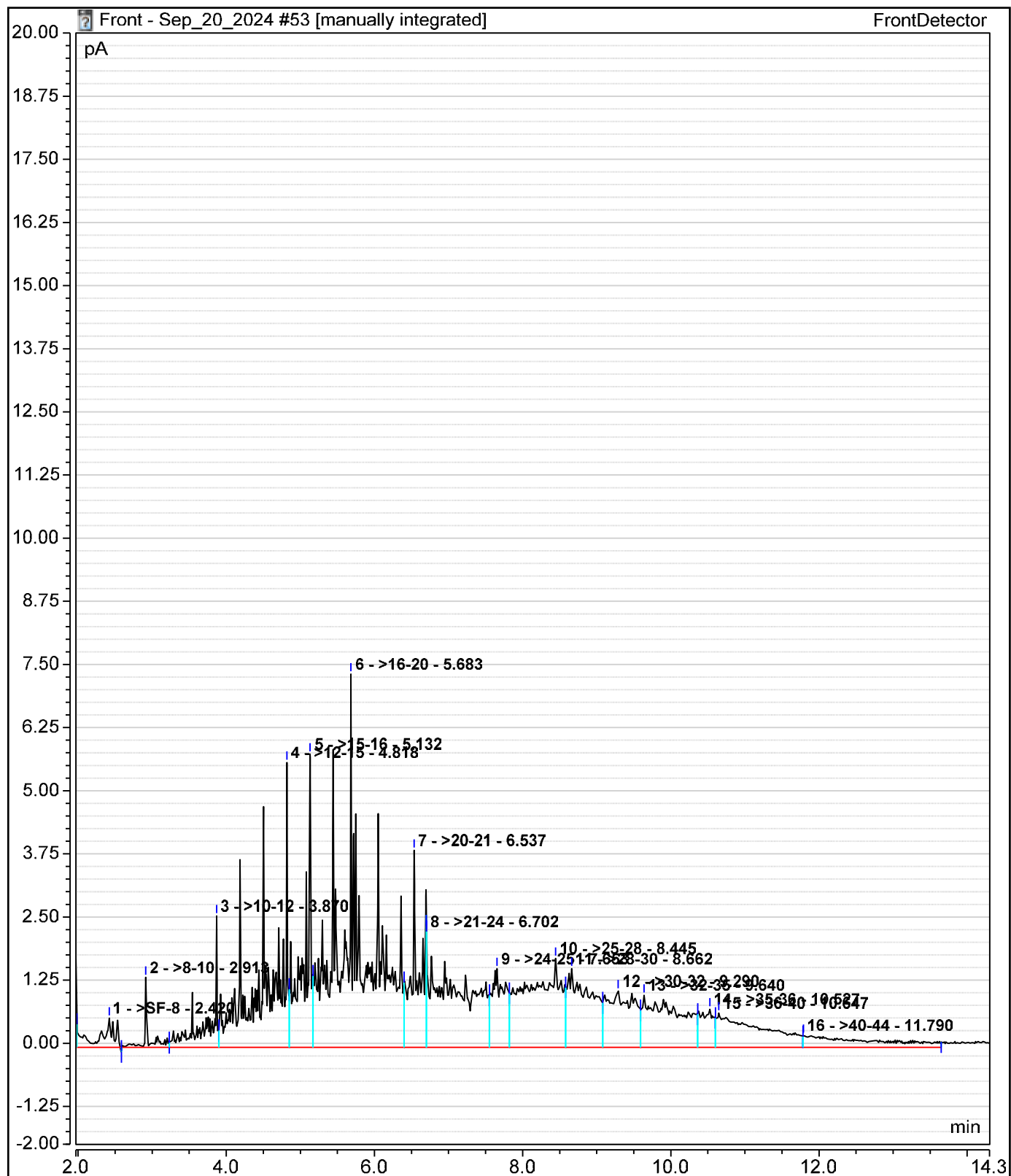
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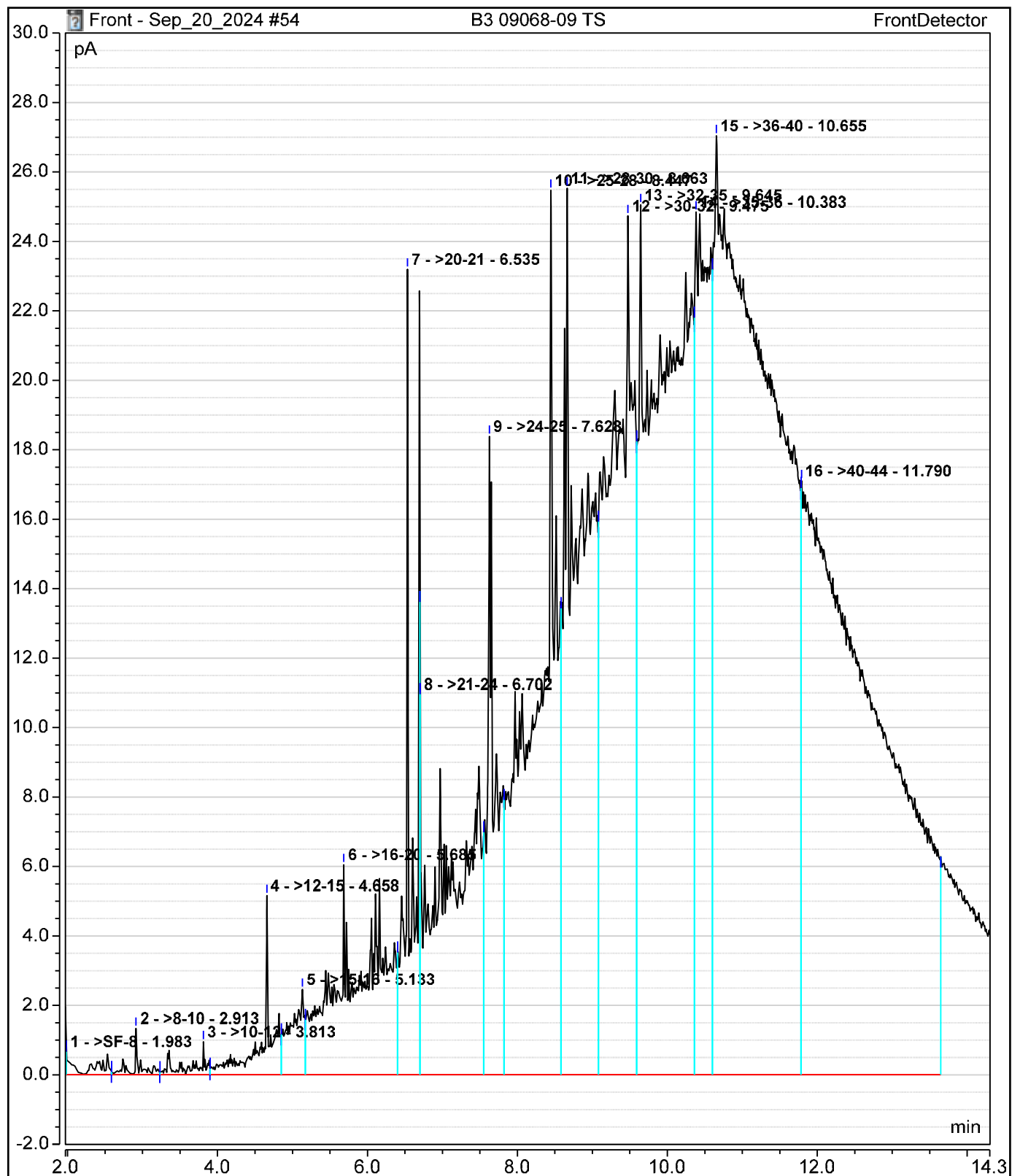
Chromatogram



Chromatogram



Chromatogram



Final Test Report

Envirolab Job Number: 24/09068
Issue Number: 1

Date: 7-Oct-24

Client: Ground Condition Consultants Ltd
10 Waldegrave Close
Southampton
SO19 9RY

Project Manager: Antony Platt
Project Name: Selwood
Project Ref: J24-057
Order No: J24-057

Date Samples Received: 19-Sep-24
Date Instructions Received: 19-Sep-24
Date Analysis Completed: 7-Oct-24

Notes - Soil analysis

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones >10mm are removed or excluded from the sample prior to analysis and reported results corrected to a whole sample basis.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis.

Notes - General

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

Subscript "A" indicates analysis performed on the sample as received. "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve, unless asbestos is found to be present in which case all analysis is performed on the sample as received.

All analysis is performed on the dried and crushed sample for samples with Matrix Code 7 and this supercedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples from outside the European Union and this supercedes any "D" subscripts.

For complex, multi-compound analysis, quality control results do not always fall within chart limits for every compound and we have criteria for reporting in these situations.

If results are in italic font they are associated with such quality control failures and may be unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Predominant Matrix Codes: 1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample

Secondary Matrix Codes: A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible and NAD indicates No Asbestos Detected.

Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

Please contact us if you need any further information.

HWOL TPH Code: EH_CU_1D_AL: Extractable hydrocarbons - i.e. everything extracted by the solvent(s), Clean-up - e.g. by florisil, silica gel, GC - Single coil gas chromatography, Aliphatics only

Approved by:



Gemma Berrisford
Deputy Client Services Supervisor

Sample Details								
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/1	Landfill Waste Acceptance Criteria Limits			
Client Sample Number					Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample ID				CBR01				
Depth to Top				0.35				
Depth to Bottom				0.45				
Date Sampled				13/09/2024				
Sample Type				Soil				
Sample Matrix Code				6A				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	8.51		-	>6	-
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	0.15		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.06		-	to be evaluated	to be evaluated
Loss on Ignition (%) _D	A-T-030	N	N	1.4		-	-	10
Total Organic Carbon (%) _D	A-T-032	N	N	0.2		3	5	6
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	<0.08		100	-	-
Mineral Oil (mg/kg) _A EH_CU_1D_AL	A-T-007	N	N	<10		500	-	-
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007		1	-	-
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01		6	-	-
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.002	0.020	0.5	2	25
Barium	A-T-025	N	N	0.007	0.070	20	100	300
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	1	5
Chromium	A-T-025	N	N	<0.001	<0.01	0.5	10	70
Copper	A-T-025	N	N	<0.004	<0.04	2	50	100
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.003	0.030	0.5	10	30
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	10	40
Lead	A-T-025	N	N	0.004	0.040	0.5	10	50
Antimony	A-T-025	N	N	<0.001	<0.01	0.06	0.7	5
Selenium	A-T-025	N	N	0.002	0.020	0.1	0.5	7
Zinc	A-T-025	N	N	0.012	0.120	4	50	200
Chloride	A-T-026	N	N	2	19	800	15000	25000
Fluoride	A-T-026	N	N	0.3	3.0	10	150	500
Sulphate as SO ₄	A-T-026	N	N	11	107	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	59	590	4000	60000	100000
Phenol Index	A-T-050	N	N	0.02	0.20	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	8.0				
Conductivity (µS/cm)	A-T-037	N	N	117				
Mass Sample (kg)				0.208				
Dry Matter (%)	A-T-044	N	N	84.2				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details					Landfill Waste Acceptance Criteria Limits			
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/2	Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample Number								
Client Sample ID				CBR02				
Depth to Top				0.3				
Depth to Bottom				0.40				
Date Sampled				13/09/2024				
Sample Type				Soil				
Sample Matrix Code				5A				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	8.22	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	0.07	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.05	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	NDP	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	0.14	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	<0.08	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	32	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	<0.001	<0.01	0.5	25	
Barium	A-T-025	N	N	0.017	0.170	20	300	
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	5	
Chromium	A-T-025	N	N	<0.001	<0.01	0.5	70	
Copper	A-T-025	N	N	<0.004	<0.04	2	100	
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	2	
Molybdenum	A-T-025	N	N	0.002	0.020	0.5	30	
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	40	
Lead	A-T-025	N	N	<0.001	<0.01	0.5	50	
Antimony	A-T-025	N	N	<0.001	<0.01	0.06	5	
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	7	
Zinc	A-T-025	N	N	0.012	0.120	4	200	
Chloride	A-T-026	N	N	<1.00	<10	800	15000	
Fluoride	A-T-026	N	N	0.5	5.0	10	150	
Sulphate as SO ₄	A-T-026	N	N	22	221	1000	20000	
Total Dissolved Solids	A-T-035	N	N	77	770	4000	60000	
Phenol Index	A-T-050	N	N	0.03	0.30	1	-	
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	
Leach Test Information								
pH (pH Units)	A-T-031	N	N	7.4				
Conductivity (µS/cm)	A-T-037	N	N	154				
Mass Sample (kg)				0.21				
Dry Matter (%)	A-T-044	N	N	83.4				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details								
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/3	Landfill Waste Acceptance Criteria Limits			
Client Sample Number					Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample ID				CBR03				
Depth to Top				0.16				
Depth to Bottom				0.26				
Date Sampled				13/09/2024				
Sample Type				Solid				
Sample Matrix Code				7				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	9.89	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	5.45	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.22	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	2.3	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	0.73	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	2.04	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	8520	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.004	0.040	0.5	2	25
Barium	A-T-025	N	N	0.022	0.220	20	100	300
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	1	5
Chromium	A-T-025	N	N	<0.001	<0.01	0.5	10	70
Copper	A-T-025	N	N	<0.004	<0.04	2	50	100
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.014	0.140	0.5	10	30
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	10	40
Lead	A-T-025	N	N	<0.001	<0.01	0.5	10	50
Antimony	A-T-025	N	N	0.007	0.070	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	0.5	7
Zinc	A-T-025	N	N	0.017	0.170	4	50	200
Chloride	A-T-026	N	N	3	31	800	15000	25000
Fluoride	A-T-026	N	N	0.1	1.0	10	150	500
Sulphate as SO ₄	A-T-026	N	N	53	531	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	112	1120	4000	60000	100000
Phenol Index	A-T-050	N	N	<0.01	<0.1	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	7.4				
Conductivity (µS/cm)	A-T-037	N	N	225				
Mass Sample (kg)				0.214				
Dry Matter (%)	A-T-044	N	N	81.7				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details								
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/4	Landfill Waste Acceptance Criteria Limits			
Client Sample Number					Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample ID				CBR04				
Depth to Top				0.2				
Depth to Bottom				0.40				
Date Sampled				13/09/2024				
Sample Type				Soil				
Sample Matrix Code				5A				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	8.68	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	0.99	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.14	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	NDP	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	0.58	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	28.4	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	946	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.010	0.100	0.5	25	
Barium	A-T-025	N	N	0.019	0.190	20	300	
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	5	
Chromium	A-T-025	N	N	<0.001	<0.01	0.5	70	
Copper	A-T-025	N	N	<0.004	<0.04	2	100	
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	2	
Molybdenum	A-T-025	N	N	0.008	0.080	0.5	30	
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	40	
Lead	A-T-025	N	N	0.002	0.020	0.5	50	
Antimony	A-T-025	N	N	0.012	0.120	0.06	5	
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	7	
Zinc	A-T-025	N	N	0.017	0.170	4	200	
Chloride	A-T-026	N	N	<1.00	<10	800	15000	
Fluoride	A-T-026	N	N	0.3	3.0	10	150	
Sulphate as SO ₄	A-T-026	N	N	19	194	1000	20000	
Total Dissolved Solids	A-T-035	N	N	67	670	4000	60000	
Phenol Index	A-T-050	N	N	0.01	0.10	1	-	
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	
Leach Test Information								
pH (pH Units)	A-T-031	N	N	7.5				
Conductivity (µS/cm)	A-T-037	N	N	135				
Mass Sample (kg)				0.205				
Dry Matter (%)	A-T-044	N	N	85.2				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details					Landfill Waste Acceptance Criteria Limits			
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/5	Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample Number								
Client Sample ID				CBR05				
Depth to Top				0.2				
Depth to Bottom				0.50				
Date Sampled				13/09/2024				
Sample Type				Soil				
Sample Matrix Code				5AB				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	10.66	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	2.28	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.13	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	NDP	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	3.96	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	7.39	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	1730	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	0.016	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.014	0.140	0.5	25	
Barium	A-T-025	N	N	0.011	0.110	20	300	
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	5	
Chromium	A-T-025	N	N	0.003	0.030	0.5	70	
Copper	A-T-025	N	N	0.023	0.230	2	100	
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	2	
Molybdenum	A-T-025	N	N	0.010	0.100	0.5	30	
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	40	
Lead	A-T-025	N	N	<0.001	<0.01	0.5	50	
Antimony	A-T-025	N	N	0.014	0.140	0.06	5	
Selenium	A-T-025	N	N	0.003	0.030	0.1	7	
Zinc	A-T-025	N	N	0.005	0.050	4	200	
Chloride	A-T-026	N	N	5	52	800	15000	
Fluoride	A-T-026	N	N	0.3	3.0	10	150	
Sulphate as SO ₄	A-T-026	N	N	17	166	1000	20000	
Total Dissolved Solids	A-T-035	N	N	94	940	4000	60000	
Phenol Index	A-T-050	N	N	0.11	1.10	1	-	
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	
Leach Test Information								
pH (pH Units)	A-T-031	N	N	10.3				
Conductivity (µS/cm)	A-T-037	N	N	189				
Mass Sample (kg)				0.201				
Dry Matter (%)	A-T-044	N	N	87.2				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details								
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/6	Landfill Waste Acceptance Criteria Limits			
Client Sample Number					Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample ID				CBR06				
Depth to Top				0.2				
Depth to Bottom				0.40				
Date Sampled				13/09/2024				
Sample Type				Soil				
Sample Matrix Code				6AB				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	8.53	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	1.27	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.13	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	NDP	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	1.43	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	4.16	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	1000	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	0.029	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.003	0.030	0.5	2	25
Barium	A-T-025	N	N	0.059	0.590	20	100	300
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	1	5
Chromium	A-T-025	N	N	<0.001	<0.01	0.5	10	70
Copper	A-T-025	N	N	<0.004	<0.04	2	50	100
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	0.2	2
Molybdenum	A-T-025	N	N	0.033	0.330	0.5	10	30
Nickel	A-T-025	N	N	0.003	0.030	0.4	10	40
Lead	A-T-025	N	N	<0.001	<0.01	0.5	10	50
Antimony	A-T-025	N	N	0.010	0.100	0.06	0.7	5
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	0.5	7
Zinc	A-T-025	N	N	0.025	0.250	4	50	200
Chloride	A-T-026	N	N	<1.00	<10	800	15000	25000
Fluoride	A-T-026	N	N	0.4	4.0	10	150	500
Sulphate as SO ₄	A-T-026	N	N	48	475	1000	20000	50000
Total Dissolved Solids	A-T-035	N	N	143	1430	4000	60000	100000
Phenol Index	A-T-050	N	N	0.03	0.30	1	-	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	1000
Leach Test Information								
pH (pH Units)	A-T-031	N	N	8.0				
Conductivity (µS/cm)	A-T-037	N	N	286				
Mass Sample (kg)				0.205				
Dry Matter (%)	A-T-044	N	N	85.4				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details					Landfill Waste Acceptance Criteria Limits		
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/7			
Client Sample Number					Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
Client Sample ID				CBR07			
Depth to Top				0.2			
Depth to Bottom				0.30			
Date Sampled				13/09/2024			
Sample Type				Soil			
Sample Matrix Code				5AB			
Solid Waste Analysis							
pH (pH Units) _D	A-T-031	N	N	8.92	-	>6	-
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	0.4	-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.13	-	to be evaluated	to be evaluated
Loss on Ignition (%) _D	A-T-030	N	N	NDP	-	-	10
Total Organic Carbon (%) _D	A-T-032	N	N	0.39	3	5	6
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	3.02	100	-	-
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	149	500	-	-
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007	1	-	-
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)	
Arsenic	A-T-025	N	N	0.006	0.060	0.5	25
Barium	A-T-025	N	N	0.018	0.180	20	300
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	5
Chromium	A-T-025	N	N	0.001	0.010	0.5	70
Copper	A-T-025	N	N	0.005	0.050	2	100
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	2
Molybdenum	A-T-025	N	N	0.003	0.030	0.5	30
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	40
Lead	A-T-025	N	N	0.008	0.080	0.5	50
Antimony	A-T-025	N	N	<0.001	<0.01	0.06	5
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	7
Zinc	A-T-025	N	N	0.024	0.240	4	200
Chloride	A-T-026	N	N	<1.00	<10	800	15000
Fluoride	A-T-026	N	N	0.1	1.0	10	150
Sulphate as SO ₄	A-T-026	N	N	5	46	1000	20000
Total Dissolved Solids	A-T-035	N	N	33	330	4000	60000
Phenol Index	A-T-050	N	N	0.03	0.30	1	-
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800
Leach Test Information							
pH (pH Units)	A-T-031	N	N	7.7			
Conductivity (µS/cm)	A-T-037	N	N	66			
Mass Sample (kg)				0.202			
Dry Matter (%)	A-T-044	N	N	86.5			
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation							

Sample Details					Landfill Waste Acceptance Criteria Limits			
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/8				
Client Sample Number					Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample ID				CBR08				
Depth to Top				0.2				
Depth to Bottom				0.45				
Date Sampled				13/09/2024				
Sample Type				Solid				
Sample Matrix Code				7				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	8.89	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	12.9	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.26	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	1.8	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	0.81	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	0.57	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	54	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.001	0.010	0.5	25	
Barium	A-T-025	N	N	0.006	0.060	20	300	
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	5	
Chromium	A-T-025	N	N	<0.001	<0.01	0.5	70	
Copper	A-T-025	N	N	<0.004	<0.04	2	100	
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	2	
Molybdenum	A-T-025	N	N	0.002	0.020	0.5	30	
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	40	
Lead	A-T-025	N	N	<0.001	<0.01	0.5	50	
Antimony	A-T-025	N	N	0.001	0.010	0.06	5	
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	7	
Zinc	A-T-025	N	N	0.009	0.090	4	200	
Chloride	A-T-026	N	N	<1.00	<10	800	25000	
Fluoride	A-T-026	N	N	<0.10	<1	10	500	
Sulphate as SO ₄	A-T-026	N	N	8	81	1000	50000	
Total Dissolved Solids	A-T-035	N	N	46	460	4000	100000	
Phenol Index	A-T-050	N	N	<0.01	<0.1	1	-	
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	1000	
Leach Test Information								
pH (pH Units)	A-T-031	N	N	7.3				
Conductivity (µS/cm)	A-T-037	N	N	92				
Mass Sample (kg)				0.218				
Dry Matter (%)	A-T-044	N	N	80.2				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

Sample Details					Landfill Waste Acceptance Criteria Limits			
Lab Sample ID	Method	ISO17025	MCERTS	24/09068/9	Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill	
Client Sample Number								
Client Sample ID				CBR09				
Depth to Top				0.1				
Depth to Bottom				0.30				
Date Sampled				13/09/2024				
Sample Type				Soil				
Sample Matrix Code				4A				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	N	9.29	-	>6	-	
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	N	4.38	-	to be evaluated	to be evaluated	
ANC to pH 6 (mol/kg) _D	A-T-ANC	N	N	0.26	-	to be evaluated	to be evaluated	
Loss on Ignition (%) _D	A-T-030	N	N	3.3	-	-	10	
Total Organic Carbon (%) _D	A-T-032	N	N	1.84	3	5	6	
PAH Sum of 17 (mg/kg) _A	A-T-019	N	N	17.1	100	-	-	
Mineral Oil (mg/kg) _{A EH_CU_1D_AL}	A-T-007	N	N	155	500	-	-	
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	<0.007	1	-	-	
Sum of BTEX (mg/kg) _A	A-T-022	N	N	<0.01	6	-	-	
Eluate Analysis				10:1 mg/l	10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic	A-T-025	N	N	0.018	0.180	0.5	25	
Barium	A-T-025	N	N	0.011	0.110	20	300	
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	5	
Chromium	A-T-025	N	N	0.001	0.010	0.5	70	
Copper	A-T-025	N	N	<0.004	<0.04	2	100	
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	2	
Molybdenum	A-T-025	N	N	0.007	0.070	0.5	30	
Nickel	A-T-025	N	N	<0.002	<0.02	0.4	40	
Lead	A-T-025	N	N	0.002	0.020	0.5	50	
Antimony	A-T-025	N	N	0.002	0.020	0.06	5	
Selenium	A-T-025	N	N	<0.001	<0.01	0.1	7	
Zinc	A-T-025	N	N	0.012	0.120	4	200	
Chloride	A-T-026	N	N	5	50	800	15000	
Fluoride	A-T-026	N	N	1.1	11.0	10	150	
Sulphate as SO ₄	A-T-026	N	N	6	59	1000	20000	
Total Dissolved Solids	A-T-035	N	N	62	620	4000	60000	
Phenol Index	A-T-050	N	N	0.03	0.30	1	-	
Dissolved Organic Carbon	A-T-032	N	N	<2.0	<200	500	800	
Leach Test Information								
pH (pH Units)	A-T-031	N	N	7.4				
Conductivity (µS/cm)	A-T-037	N	N	125				
Mass Sample (kg)				0.207				
Dry Matter (%)	A-T-044	N	N	84.7				
Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation								

HAZARDOUS WASTE CLASSIFICATION REPORT

Envirolab Job Number: 24/09068
Issue Number:1

Date:07/10/2024

Client: Ground Condition Consultants Ltd

Project Manager: Antony Platt
Project Name: Selwood
Project Ref: J24-057
Order No: J24-057
Date Samples Received: 19/09/2024
Date Instructions Received: 19/09/2024

Appended hazardous waste assessment, RSK ref 3020010-R223, pages.1
of 22

Approved by:

A handwritten signature in black ink, appearing to read "Gemma Berrisford". The signature is stylized with a large, sweeping initial 'G' and a long horizontal stroke.

Gemma Berrisford
Deputy Client Services Supervisor

WM3 PRELIMINARY WASTE ASSESSMENT AND CLASSIFICATION REPORT

RSK REPORT REFERENCE: 3020010-R223

INTRODUCTION

On behalf of Envirolab, RSK was requested to undertake waste assessment and classification on nine (9) soil samples collected by a third party from an unknown site on 13 September 2024.

Information relating to historical operations at the site was not reviewed as part of RSK's assessment. In addition, RSK was not present during the collection of the samples nor had any input on the chemical testing suite. Therefore, the waste assessment and classification detailed in this report are based solely on the laboratory chemical data that were provided to RSK by Envirolab and were completed without prejudice for our client, Envirolab.

CHEMICAL TESTING

Nine (9) samples were analysed for a **chemical testing suite** comprising: TPH C6-C40 (total) with oil source ID, TPH CWG with clean-up, speciated PAH, heavy metals including hexavalent chromium, pH, phenols, ammonium, water soluble sulphate, free cyanide asbestos screen and moisture content.

The following samples were scheduled for follow-on asbestos quantification analysis following the positive identification of microscopic asbestos fibres as part of the asbestos screening analysis, as detailed below:

- Samples CBR02 (0.30-0.40m) and CBR07 (0.20-0.30m) reported a positive detection of trace chrysotile fibres. The laboratory reported that it was not possible to undertake follow-on quantification analysis on the samples due to the fibres being either too small or too few to separate and weigh. However, the laboratory confirmed it is likely that the asbestos concentration in the samples would be reported <0.001% (i.e., below its method lower reporting limit). Thus, this concentration was adopted for the assessment which is below the hazardous waste threshold of 0.1%.
- Sample CBR04 (0.20-0.40m) reported the positive identification of loose chrysotile and amosite asbestos fibres. Subsequent quantification analysis determined an asbestos concentration of <0.001% (i.e., below the laboratory lower reporting limit) which is below the hazardous waste threshold of 0.1%.
- Sample CBR05 (0.20-0.50m) reported the positive identification of loose amosite asbestos fibres. Subsequent quantification analysis determined an asbestos concentration of 0.002% which is below the hazardous waste threshold of 0.1%.
- Sample CBR06 (0.20-0.40m) reported a positive detection of trace amosite fibres. The laboratory reported that it was not possible to undertake follow-on quantification analysis on this sample due to the fibres being either too small or too few to separate and weigh. However, the laboratory confirmed it is likely that the asbestos concentration in this sample would be reported <0.001% (i.e., below its method lower reporting limit). Thus, this concentration was adopted for the assessment which is below the hazardous waste threshold of 0.1%.

A copy of the certificate of chemical analysis is provided in **Appendix B**.

WASTE ASSESSMENT AND CLASSIFICATION

The following assessments assume the material tested is classified subsequently as waste. Envirolab, an RSK company, has developed a waste soils characterisation assessment tool (HASWASTE), which follows the guidance within Technical Guidance WM3. The analytical results have been assessed using this tool to determine if the samples contain hazardous properties.

The results of the assessment are summarised below. A copy of the HASWASTE assessment spreadsheet is provided in **Appendix C**.

Sample Reference	Waste classification of sample	Hazardous property code(s)	Hazardous chemical component(s) and concentration(s) <i>(presented concentrations have been corrected to wet weight)</i>
CBR01 0.35-0.45m	Non-hazardous	N/A	N/A
CBR02 0.30-0.40m	Non-hazardous	N/A	N/A
CBR03 0.16-0.26m	Hazardous	HP 7 – Carcinogenic HP 11 - Mutagenic	TPH (mixture of weathered diesel and unknown oil sources) - 4,444 mg/kg
CBR04 0.20-0.40m	Hazardous	HP 7 – Carcinogenic HP 11 - Mutagenic	TPH (mixture of weathered diesel and unknown oil sources) - 1,320 mg/kg
CBR05 0.20-0.50m	Hazardous	HP 7 – Carcinogenic HP 11 - Mutagenic	TPH (mixture of weathered diesel and unknown oil sources) - 2,211 mg/kg
CBR06 0.20-0.40m	Hazardous	HP 7 – Carcinogenic HP 11 - Mutagenic	TPH (mixture of weathered diesel, PAHs and unknown oil sources) - 1,531 mg/kg
CBR07 0.20-0.30m	Non-hazardous	N/A	N/A
CBR08 0.20-0.45m	Non-hazardous	N/A	N/A
CBR09 0.10-0.30m	Non-hazardous	N/A	N/A

RSK REPORT REFERENCE: 3020010-R200

CONCLUSIONS

Waste assessment and classification were completed by RSK solely on the basis of chemical data provided by Envirolab. Using the data available for assessment the assessed samples may be classified as follows:

- Sample references 'CBR03 (0.16-0.26m)', 'CBR04 (0.20-0.40m)', 'CBR05 (0.20-0.50m)' and CBR06 (0.20-0.40m)' were assessed as exhibiting HP7 carcinogenic and HP11 mutagenic **HAZARDOUS WASTE** properties due to elevated TPH concentrations exceeding the hazardous waste threshold of 0.1% (1,000 mg/kg) for TPH arising from an unknown oil which was adopted for assessment due to the testing laboratory being unable to determine the relative contribution of the different TPH sources identified within the oil source ID which included weathered diesel and other unknown hydrocarbons.
- All other samples were assessed as **non-hazardous**.

We are not aware of the source of the material that the samples were taken from therefore we cannot definitively assign the appropriate List of Waste (LoW) code (formerly the European Waste Catalogue (EWC)). However, if the samples were taken from material that is CONSTRUCTION AND DEMOLITION WASTE (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES) it may be possible for the waste producer to assign the following LoW codes to the following samples:

- The **HAZARDOUS** LoW code '**17 05 03* soil and stones containing hazardous substances**' to sample references 'CBR03 (0.16-0.26m)', 'CBR04 (0.20-0.40m)', 'CBR05 (0.20-0.50m)' and CBR06 (0.20-0.40m)'
- **Non-hazardous** waste LoW code '**17 05 04 soil and stones**' to all other samples

In the absence of specific information on the potential waste volume(s) and the waste stream(s) the tested samples are representative of, it is noted that the chemical testing and assessment undertaken on nine (9) samples may not necessarily be representative of the waste stream(s) requiring disposal. Therefore, further testing and assessment may be required to robustly characterise the waste and satisfy the requirements of the waste receiving facility. Furthermore, specific waste receiving sites that are identified as potential disposal routes may have additional analytical requirements (e.g., WAC testing) before they are either able or willing to accept the waste; therefore, it is advised that potential disposal sites are contacted at the earliest possible convenience so any further specific requirements to support disposal can be established.

Report author: **Abigail Edwards**

Technical reviewer: **Karl Hall**

APPENDIX A

RSK SERVICE CONSTRAINTS

APPENDIX A

SERVICE CONSTRAINTS

1. Service Constraints for all Reports

1.1. This Report (the "Report") and any study, inspection, investigation, sampling, testing and or interpretation carried out in connection with the Report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) trading as Carbon Zero Consulting, Leap Environmental or RSK Geosciences, for the Client named in the first paragraph of the Report (the "Client") in accordance with the terms of an RSK Fee Proposal including RSK Environment Standard Terms and Conditions (the "Appointment") between RSK and the Client, unless otherwise stated in the first paragraph of the Report. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by a geo-environmental consultant at the time the Services were performed. Nothing in this Report shall be construed as imposing any fitness for purpose obligation. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.

1.2 Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services. RSK shall not be liable in respect of any action or proceedings arising out of or in connection with this Report whether in contract, in tort, for breach of statutory duty or otherwise after the expiry of six (6) years from either (i) the date of the Report or (ii) such earlier date as prescribed by law, unless varied in the terms of the Appointment.

1.3 Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent, or condone any party, other than the Client relying upon the Services. Should this Report or any part of this Report, or details of the Services or any part of the Services, be made known to any such party, and such party relies thereon, that party does so wholly at its own and sole risk, and RSK disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent geo-environmental consultant and/or lawyer.

1.4 The Client shall not, without the prior written consent of RSK, assign, transfer, charge, mortgage, subcontract, or deal in any other manner with all or any of the benefits provided in this Report. Unless specified in the Appointment, RSK shall not be obliged to assign the benefit of the Report whether by collateral warranty, third party rights pursuant to the Contracts (Rights of Third Parties) Act 1999, letter of reliance or otherwise. If RSK agrees to any assignment of the benefit of this Report, in whatever form, benefits to third parties through collateral warranties, third party rights or letters of reliance shall not be provided unless a fee for each right, warranty or letter is agreed. The form of wording used in the warranty or letter shall be provided by RSK for agreement by the Client. Any reasonable changes to the form of wording will be implemented by mutual agreement, however the terms in the warranty or letter cannot offer the third party any greater benefit than the Appointment offered to the Client.

1.5 It is the understanding of RSK that this Report is to be used for the purpose described in the introduction to the Report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the Report is used, or the proposed use of the site change, this Report may no longer be valid and any further use of or reliance upon the Report in those circumstances by the Client without the review and advice of RSK shall be at the Client's sole and own risk. RSK shall not be liable for any use of this Report for any purpose other than that for which it was provided.

1.6 The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the Report inaccurate or unreliable. The information and conclusions contained in this Report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the Report in the future shall be at the Client's own and sole risk.

1.7 The observations and conclusions described in this Report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out, or required by the Appointment between the Client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this Report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, fuel storage, persistent bio-accumulative or toxic chemicals (including PFAS and related compounds) or other radioactive or hazardous materials, unless specifically identified in the Services.

1.8 The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of desk based publicly available information, including documentation, obtained from third parties and from the Client on the history and usage of the site, unless specifically identified in the Services and the limitations below:

- a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.
- b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.
- c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the Client or third parties, including laboratories and information services, during the performance of the Services.
- d. The Client has identified in writing to RSK, the information, reports, findings, surveys and preliminary works RSK may not rely upon when providing the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK, and including the doing of any independent investigation of the information provided to RSK, save as otherwise provided in the terms of the Appointment between the Client and RSK.

1.9 Any site drawing(s) provided in this Report is (are) not meant to be an accurate base plan for scale measurement but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for accurate setting out and should be considered indicative only.

1.10 Should RSK be requested to review the Report after the date of issue of this Report, RSK shall be entitled to additional payment at the existing rates, or such other terms as agreed between RSK and the Client.

2. Service Constraints where the Report provides an intrusive assessment of ground conditions:

2.1 The intrusive environmental ground investigation aspects of the Services are a limited sampling of soil from the site, at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this Report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together

with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope agreed between the Client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species (not tested) are not present.

2.2 The comments given in this Report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. The extent of the exploratory holes, laboratory testing and monitoring undertaken may have been restricted due to a number of factors including accessibility, the presence of buried or overhead services, current development, site usage, timescales or the Client's specification. The exploratory holes only assess a small proportion of the site area with respect to the site as a whole, and as such may only provide an indicative assessment of ground conditions on site. There may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised. The presence of hotspots of undisclosed contamination or exceptional and unforeseen ground conditions cannot be discounted.

2.3 Where the Services include Investigation of an exploratory nature or relating to physical ground works, any costings and prices provided in the Report are estimated and provided for guidance purposes only. The actual cost and time quantities shall be remeasured and shall be dependent upon the ground or other conditions, constraints present, and number and depth of the investigation locations, which shall influence the number of samples and tests required, and the quantities of soil being classified.

2.4 Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works. However, this Report does not constitute an asbestos survey. On this basis, the presence of asbestos on site cannot be discounted and a full asbestos survey should be undertaken.

2.5 Unless stated otherwise, only preliminary geotechnical recommendations are presented in this Report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed. Eurocode 7 gives guidance on the type of sampling, sample quality, number and spacing of intrusive investigations, and number of laboratory tests required. It is intended that the Geotechnical Information section of this Report will fulfil the general requirements of the Ground Investigation Report as set out in section 6 of Eurocode7, although this is subject to the restrictions imposed on the investigation, as listed above. For geotechnical design, Eurocode 7 requires the Geotechnical Design Report to address both the geotechnical and structural aspects of the geotechnical design for both the limit and serviceability states. The Geotechnical Appraisal section of this Report will not meet the requirements of a Geotechnical Design Report (GDR) and should therefore be used for preliminary guidance only.

3. Service Constraints where the Report relates to Surface Water Management:

3.1 The Surface Water Management Inspection (SWMI) Report, documents provided, observations, actions, and recommendations, with respect to the management of potential pollution issues to surface waters, made during the site Inspection visit, are those present at the time of the visit, and may not represent those recorded by others on the same day.

3.2 The comments given in this Report and the opinions expressed are based on the weather, ground and ground water conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not

been disclosed by the inspection and therefore could not be taken into account. In addition, groundwater levels and flows, may vary from those Reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.

3.3 RSK places a degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this Report was prepared.

3.4 This Report is a live document, to be continually reviewed and updated as the development progresses or other changes occur on site. RSK can only maintain the currency of this Report through the Client requesting support with supplementary site visits or attendance at meetings ahead of key stages of the development in relation to surface water management. Our risk rating assesses a number of risk factors in line with the source-pathway- receptor model and is therefore subject to constant change.

3.5 Standard design drawings are indicative. Material types, dimensions and construction details will need to be adjusted by the Client to suit the specific conditions / flows on Site.

3.6 The full responsibility for implementing the site-specific protection and maintenance measures to protect the surface water system as stated in this Report, remains with the Client and their site management team. Additional control measures may be required to achieve the objectives set out in the Surface Water Management Plan to be implemented and financed by the Client.

4. Service Constraints where the Report relates to Waste Management:

4.1 In accordance with the definition provided in the Waste Framework Directive (WFD), materials are only considered waste if 'they are discarded, intended to be discarded or required to be discarded, by the holder'. Naturally occurring soils are not considered waste if re-used on the site of origin for the purposes of development. Soils such as made ground that are not of clean and natural origin (irrespective of whether they are contaminated or not) and other materials such as recycled aggregate, do not necessarily become waste until the criteria above are met. Excavation arisings from the development may therefore be classified as waste if surplus to requirements and/or unsuitable for re-use.

4.2 It is the duty of the waste producer, to ensure that all waste is accurately classified prior to waste disposal. Technical Guidance WM3 (EA, 2018) sets out in its Appendix D requirements for waste sampling. It is a legal requirement to correctly assess and classify waste. The level of sampling should be proportionate to the volume of waste and its heterogeneity. Unless otherwise stated, the waste assessment presented in this Report should be considered as preliminary and further testing and assessment of the waste under the provisions of a Waste Sampling Plan may be required to obtain the necessary level of data required for basic characterisation of the waste in support of disposal.

4.3 Unless stated otherwise in the Report, information relating to historical operations at the site was not reviewed as part of the assessment by RSK. In addition, unless otherwise stated in the Services, RSK was not present during the collection of the samples nor had any input on the chemical testing suite. Therefore, the waste assessment and classification detailed in this Report are based solely on any information that were provided to RSK (e.g., laboratory chemical data, exploratory hole records) and were completed without prejudice for our Client.

4.4 RSK's assumes that any ground investigation data, chemical testing results etc., that were provided by the Client to inform the waste assessment and supporting review were carried out in accordance with current best practice and relevant guidance/ standards, where applicable. Thus, the comments given in this Report and the opinions expressed are based solely on the information provided by the Client. However, it is noted that there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account as part of the RSK assessment.

5. Service Constraints for Construction Environmental Management Plan Reports:

5.1 This Report should be considered in the light of any changes in legislation, statutory requirement or industry practices that may have occurred subsequent to the date of issue.

5.2 The measures and comments outlined in this Report and any opinions expressed are based on the plans provided at the time and discussions with relevant parties. However, there may be conditions pertaining to the site that have not been disclosed by investigations and therefore could not be taken into account.

5.3 This CEMP is a live document and is subject to change throughout the project, as and when necessary, to ensure management of environmental aspects remains relevant, and to ensure continued compliance with legislation and commitments as they may change. RSK understands that this CEMP will be reviewed by the Client every six months and updated as and when necessary.

5.4 It is the full responsibility of the Principal Contractor/ Client to ensure that their works do not contravene legal requirements, and adherence to this CEMP alone cannot be a full defence regarding legal action against the Principal Contractor.

6. Service Constraints where the Report relates to Ground Gas Membrane Verification:

6.1 This Report is limited to the verification of the gas resistant membrane/vapour membrane/radon barrier after installation and no inspections were undertaken of the substrate (i.e. prepared ground). The Report therefore does not constitute as a full verification of ground gas protection system.

6.2 The comments given in this Report and the opinions expressed, are based on the condition of the ground gas membrane as encountered at the time of inspection by suitably qualified personnel. RSK cannot accept liability for any subsequent change to the status of the gas membrane by follow-on trades or other construction activity.

6.3 Where not designed by RSK, the verification of protection measures is carried out with reference to the gas protection design provided by the Client. RSK assume the scope of gas protection measures as determined by third parties to be correct and to have achieved any required approval from authorities.

6.4 The Ground Gas Design Report/Remediation Strategy and Verification Plan contains details of the procedures to be adopted for inspection and validation of the works. However, it should be noted that responsibility for the correct implementation of the strategy lies with the appointed contractor. RSK cannot be held responsible for any remedial works that are carried out without the agreed procedures involving either direct supervision by RSK, or inspection and validation of the works by a representative from RSK.

7. Service Constraints for Environmental Due Diligence (EDD) Reports:

7.1 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the site, therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information.

7.2 This Report describes the results of the EDD exercise. The scope of this EDD Report, where appropriate, covers legal or regulatory compliance with respect to UK or international regulations associated with environmental matters.

7.3 As with any EDD exercise, there is a certain degree of dependence upon information provided by the target company. The EDD does not include a site walkover / visit or liaison with site representatives unless identified in the Services. Therefore, the assessment is based on the available desk study information. Also, there is a certain degree of dependence upon oral information provided

by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this EDD exercise was performed.

7.4 This Report, including all supporting data and notes (collectively referred to hereinafter as "information"), was prepared or collected by RSK for the benefit of its Client.

7.5 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment and the site inspection visit. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the Site therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information and observations collected during the site inspection visit.

8. Service Constraints for Ground source heat energy Reports:

8.1 It is understood that this is a desktop survey only and that there are no requirements for a site walkover, service utility survey, or provision of service plans. These services can be provided upon request if required.

8.2 At a later stage, it is possible that a thermal response test (TRT) will need to be completed, for which a test borehole will have to be drilled, and these would be costed at the time. RSK can provide all aspects of subsequent site work for a GSHP system if required.

9. Service Constraints for Water Abstraction Borehole Reports:

9.1 The Report aims principally to only identify and assess the suitability of the site for a water abstraction borehole. This Report should be considered in the light of any changes in legislation, statutory requirements, and industry practices, that have occurred subsequent to the date of the Report.

9.2 Unless stated in the Report, the opinions expressed in this Report including all comments and recommendations provided are on the basis of the information obtained from a desk-based assessment.

APPENDIX B

CERTIFICATES OF CHEMICAL ANALYSIS

Envirolab Job Number: 24/09068

Client:

Client Project Name:

Client Project Ref:

Lab Sample ID				24/09068/1	24/09068/2	24/09068/3
Client Sample No						
Client Sample ID				CBR01	CBR02	CBR03
Depth to Top				0.35	0.30	0.16
Depth to Bottom				0.45	0.40	0.26
Date Sampled				13-Sep-24	13-Sep-24	13-Sep-24
Sample Type				Soil	Soil	Solid
Sample Matrix Code	Units	Limit of Detection	Method	6A	5A	7
% Moisture at <40C	% w/w	0.1	A-T-044	18.7	18.5	14.2
% Stones >10mm	% w/w	0.1	A-T-044	7	<0.1	<0.1
pH	pH	0.01	A-T-031s	8.51	8.22	9.89
Ammonium NH4						
(exchangeable/water soluble)	mg/kg	0.26	A-T-033s	8.82	4.38	57.3
Sulphate (water sol 2:1)	g/l	0.01	A-T-026s	0.03	0.03	0.23
Cyanide (free)	mg/kg	1	A-T-042sFCN	<1	<1	<1
Phenols - Total by HPLC	mg/kg	0.2	A-T-050s	<0.2	<0.2	<0.2
Organic Matter	% w/w	0.1	A-T-032s	0.4	0.2	1.3
Total Organic Carbon	% w/w	0.03	A-T-032s	0.2	0.14	0.73
Antimony	mg/kg	5	A-T-024s	<5	<5	<5
Arsenic	mg/kg	1	A-T-024s	5	6	5
Beryllium	mg/kg	0.5	A-T-024s	0.6	<0.5	<0.5
Boron (water soluble)	mg/kg	1	A-T-027s	1	<1.0	1.9
Cadmium	mg/kg	0.5	A-T-024s	<0.5	<0.5	<0.5
Copper	mg/kg	1	A-T-024s	32	7	20
Chromium	mg/kg	1	A-T-024s	26	17	11
Chromium (hexavalent)	mg/kg	1	A-T-040s	<1	<1	<1
Lead	mg/kg	1	A-T-024s	44	7	15
Mercury	mg/kg	0.17	A-T-024s	<0.17	<0.17	<0.17
Nickel	mg/kg	1	A-T-024s	9	3	8
Selenium	mg/kg	1	A-T-024s	<1	<1	<1
Zinc	mg/kg	5	A-T-024s	51	16	36

Asbestos in Soil (inc. matrix)

Asbestos in soil			A-T-045	NAD	Chrysotile	NAD
Asbestos Matrix (microscope)			A-T-045	-	Loose Fibres	-
Asbestos ACM - Suitable for						
Water Absorption Test?			A-T-045	N/A	N/A	N/A

Asbestos in Soil Quantification % (Hand Picking & Weighing)

Asbestos in soil % composition (hand picking and weighing)	% w/w	0.001	A-T-054		Trace	
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PAH-16MS (MSD order)

Naphthalene	mg/kg	0.03	A-T-019s	<0.03	<0.03	<0.07
Acenaphthylene	mg/kg	0.01	A-T-019s	<0.01	<0.01	<0.06
Acenaphthene	mg/kg	0.01	A-T-019s	<0.01	<0.01	0.06
Fluorene	mg/kg	0.01	A-T-019s	<0.01	<0.01	0.33
Phenanthrene	mg/kg	0.03	A-T-019s	<0.03	<0.03	0.31
Anthracene	mg/kg	0.02	A-T-019s	<0.02	<0.02	<0.07
Fluoranthene	mg/kg	0.08	A-T-019s	<0.08	<0.08	0.22
Pyrene	mg/kg	0.07	A-T-019s	<0.07	<0.07	0.3
Benzo(a)anthracene	mg/kg	0.04	A-T-019s	<0.04	<0.04	0.08
Chrysene	mg/kg	0.06	A-T-019s	<0.06	<0.06	0.13
Benzo(b)fluoranthene	mg/kg	0.05	A-T-019s	<0.05	<0.05	0.12

Envirolab Job Number: 24/09068

Client:

Client Project Name:

Client Project Ref:

Lab Sample ID				24/09068/1	24/09068/2	24/09068/3
Client Sample No						
Client Sample ID				CBR01	CBR02	CBR03
Depth to Top				0.35	0.30	0.16
Depth to Bottom				0.45	0.40	0.26
Date Sampled				13-Sep-24	13-Sep-24	13-Sep-24
Sample Type				Soil	Soil	Solid
Sample Matrix Code	Units	Limit of Detection	Method	6A	5A	7
Benzo(k)fluoranthene	mg/kg	0.07	A-T-019s	<0.07	<0.07	<0.07
Benzo(a)pyrene	mg/kg	0.04	A-T-019s	<0.04	<0.04	0.08
Indeno(123-cd)pyrene	mg/kg	0.03	A-T-019s	<0.03	<0.03	0.08
Dibenzo(ah)anthracene	mg/kg	0.04	A-T-019s	<0.04	<0.04	<0.04
Benzo(ghi)perylene	mg/kg	0.05	A-T-019s	<0.05	<0.05	0.07
Total PAH-16MS (MSD order)	mg/kg	0.03	A-T-019s	<0.08	<0.08	1.78
TPH Total with ID + GC Trace						
TPH total (>C6-C40)	mg/kg	10	A-T-007s	228	52	5180
TPH FID Chromatogram			A-T-007s	Appended	Appended	Appended
					C10-C44 with profile indicative of PAHs, heavily weathered & degraded diesel and other unknown HCs	C8-C40 with profile indicative of weathered and heavily degraded diesel & other unknown hydrocarbons
TPH ID Interpretation			A-T-007s	C12-C40 hydrocarbons with profile indicative of light lube oil		
TPH CWG with Clean Up						
Ali >C5-C6	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
Ali >C6-C8	mg/kg	0.01	A-T-022s	<0.01	<0.01	0.02
Ali >C8-C10	mg/kg	1	A-T-055s	<1	<1	28
Ali >C10-C12	mg/kg	1	A-T-055s	<1	<1	96
Ali >C12-C16	mg/kg	1	A-T-055s	<1	2	367
Ali >C16-C21	mg/kg	1	A-T-055s	<1	4	368
Ali >C21-C35	mg/kg	1	A-T-055s	<1	6	276
Total Aliphatics	mg/kg	1	Calc-As Recd	<1	12	1140
Aro >C5-C7	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
Aro >C7-C8	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
Aro >C8-C10	mg/kg	1	A-T-055s	<1	<1	19
Aro >C10-C12	mg/kg	1	A-T-055s	<1	<1	54
Aro >C12-C16	mg/kg	1	A-T-055s	<1	1	221
Aro >C16-C21	mg/kg	1	A-T-055s	<1	2	192
Aro >C21-C35	mg/kg	1	A-T-055s	<1	1	47
Total Aromatics	mg/kg	1	Calc-As Recd	<1	5	533
TPH (Ali & Aro >C5-C35)	mg/kg	1	Calc-As Recd	<1	17	1670
BTEX - Benzene	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
BTEX - Toluene	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
BTEX - Ethyl Benzene	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
BTEX - m & p Xylene	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
BTEX - o Xylene	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01
MTBE	mg/kg	0.01	A-T-022s	<0.01	<0.01	<0.01

Envirolab Job Number: 24/09068

Client:

Client Project Name:

Client Project Ref:

Lab Sample ID			24/09068/4	24/09068/5	24/09068/6	24/09068/7
Client Sample No						
Client Sample ID			CBR04	CBR05	CBR06	CBR07
Depth to Top			0.20	0.20	0.20	0.20
Depth to Bottom			0.40	0.50	0.40	0.30
Date Sampled			13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24
Sample Type			Soil	Soil	Soil	Soil
Sample Matrix Code	Units	Limit of Detection	5A	5AB	6AB	5AB
% Moisture at <40C	% w/w	0.1	14.3	11.9	15.9	10
% Stones >10mm	% w/w	0.1	<0.1	<0.1	<0.1	<0.1
pH	pH	0.01	8.68	10.66	8.53	8.92
Ammonium NH4 (exchangeable/water soluble)	mg/kg	0.26	<0.26	3.41	23	<0.26
Sulphate (water sol 2:1)	g/l	0.01	0.04	0.03	0.03	<0.01
Cyanide (free)	mg/kg	1	<1	<1	<1	<1
Phenols - Total by HPLC	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Organic Matter	% w/w	0.1	1	6.8	2.5	0.7
Total Organic Carbon	% w/w	0.03	0.58	3.96	1.43	0.39
Antimony	mg/kg	5	<5	<5	<5	<5
Arsenic	mg/kg	1	6	5	7	4
Beryllium	mg/kg	0.5	<0.5	<0.5	0.7	<0.5
Boron (water soluble)	mg/kg	1	<1.0	<1.0	1.2	<1.0
Cadmium	mg/kg	0.5	<0.5	<0.5	1.2	<0.5
Copper	mg/kg	1	22	20	88	22
Chromium	mg/kg	1	14	16	34	14
Chromium (hexavalent)	mg/kg	1	<1	<1	<1	<1
Lead	mg/kg	1	60	50	108	39
Mercury	mg/kg	0.17	<0.17	<0.17	0.3	<0.17
Nickel	mg/kg	1	10	13	18	8
Selenium	mg/kg	1	<1	<1	<1	<1
Zinc	mg/kg	5	90	124	214	72

Asbestos in Soil (inc. matrix)

Asbestos in soil			Chrysotile & Amosite Loose Fibres	Chrysotile Loose Fibres	Amosite Loose Fibres	Chrysotile Loose Fibres
Asbestos Matrix (microscope)						
Asbestos ACM - Suitable for Water Absorption Test?			N/A	N/A	N/A	N/A

Asbestos in Soil Quantification % (Hand Picking & Weighing)

Asbestos in soil % composition (hand picking and weighing)	% w/w	0.001	<0.001	0.002	Trace	Trace
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PAH-16MS (MSD order)

Naphthalene	mg/kg	0.03	<0.03	0.05	<0.30	<0.03
Acenaphthylene	mg/kg	0.01	0.22	<0.05	<0.10	<0.01
Acenaphthene	mg/kg	0.01	0.15	0.12	0.2	0.02
Fluorene	mg/kg	0.01	0.33	0.09	0.24	0.04
Phenanthrene	mg/kg	0.03	3.59	0.34	1.14	0.36
Anthracene	mg/kg	0.02	1.31	0.17	0.25	0.09
Fluoranthene	mg/kg	0.08	6.27	1.09	<0.80	0.5
Pyrene	mg/kg	0.07	5.04	1.03	<0.70	0.34
Benzo(a)anthracene	mg/kg	0.04	2.58	0.62	0.49	0.36
Chrysene	mg/kg	0.06	2.38	0.54	<0.60	0.33
Benzo(b)fluoranthene	mg/kg	0.05	1.82	0.78	0.67	0.32

Envirolab Job Number: 24/09068

Client:

Client Project Name:

Client Project Ref:

Lab Sample ID			24/09068/4	24/09068/5	24/09068/6	24/09068/7
Client Sample No						
Client Sample ID			CBR04	CBR05	CBR06	CBR07
Depth to Top			0.20	0.20	0.20	0.20
Depth to Bottom			0.40	0.50	0.40	0.30
Date Sampled			13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24
Sample Type			Soil	Soil	Soil	Soil
Sample Matrix Code	Units	Limit of Detection	5A	5AB	6AB	5AB
Benzo(k)fluoranthene	mg/kg	0.07	0.74	0.27	<0.70	0.1
Benzo(a)pyrene	mg/kg	0.04	1.8	0.7	0.52	0.21
Indeno(123-cd)pyrene	mg/kg	0.03	0.91	0.61	0.44	0.16
Dibenzo(ah)anthracene	mg/kg	0.04	0.18	0.09	<0.40	<0.04
Benzo(ghi)perylene	mg/kg	0.05	0.77	0.57	<0.50	0.12
Total PAH-16MS (MSD order)	mg/kg	0.03	28.1	7.07	3.95	2.95
TPH Total with ID + GC Trace						
TPH total (>C6-C40)	mg/kg	10	1540	2510	1820	264
TPH FID Chromatogram			Appended	Appended	Appended	Appended
			C10-C44 with profile indicative of heavily weathered & degraded diesel, and other unknown HCs	C8-C44 w/ profile indicative of weathered & degraded diesel & other unknown HCs	C8-C44 w/ profile indicative of PAHs, weathered & degraded diesel & other unknown HCs	C12-C44 with PAHs and other unknown hydrocarbons
TPH ID Interpretation						
TPH CWG with Clean Up						
Ali >C5-C6	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Ali >C6-C8	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Ali >C8-C10	mg/kg	1	<5	<5	<5	<1
Ali >C10-C12	mg/kg	1	<5	<5	8	<1
Ali >C12-C16	mg/kg	1	43	86	69	<1
Ali >C16-C21	mg/kg	1	140	202	174	6
Ali >C21-C35	mg/kg	1	452	294	428	51
Total Aliphatics	mg/kg	1	635	582	679	57
Aro >C5-C7	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Aro >C7-C8	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Aro >C8-C10	mg/kg	1	<5	<5	<5	<1
Aro >C10-C12	mg/kg	1	<5	<5	7	<1
Aro >C12-C16	mg/kg	1	39	62	34	<1
Aro >C16-C21	mg/kg	1	75	136	70	6
Aro >C21-C35	mg/kg	1	46	51	44	14
Total Aromatics	mg/kg	1	159	250	156	20
TPH (Ali & Aro >C5-C35)	mg/kg	1	793	832	835	77
BTEX - Benzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
BTEX - Toluene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
BTEX - Ethyl Benzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
BTEX - m & p Xylene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
BTEX - o Xylene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
MTBE	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01

Envirolab Job Number: 24/09068

Client:

Client Project Name:

Client Project Ref:

Lab Sample ID			24/09068/8	24/09068/9
Client Sample No				
Client Sample ID			CBR08	CBR09
Depth to Top			0.20	0.10
Depth to Bottom			0.45	0.30
Date Sampled			13-Sep-24	13-Sep-24
Sample Type			Solid	Soil
Sample Matrix Code	Units	Limit of Detection	7	4A
% Moisture at <40C	% w/w	0.1	14.4	10.7
% Stones >10mm	% w/w	0.1	<0.1	25.7
pH	pH	0.01	8.89	9.29
Ammonium NH4 (exchangeable/water soluble)	mg/kg	0.26	7.07	1.67
Sulphate (water sol 2:1)	g/l	0.01	0.03	0.04
Cyanide (free)	mg/kg	1	<1	<1
Phenols - Total by HPLC	mg/kg	0.2	<0.2	<0.2
Organic Matter	% w/w	0.1	1.4	3.2
Total Organic Carbon	% w/w	0.03	0.81	1.84
Antimony	mg/kg	5	<5	<5
Arsenic	mg/kg	1	<1	15
Beryllium	mg/kg	0.5	<0.5	1.3
Boron (water soluble)	mg/kg	1	<1.0	<1.0
Cadmium	mg/kg	0.5	<0.5	0.5
Copper	mg/kg	1	6	46
Chromium	mg/kg	1	7	14
Chromium (hexavalent)	mg/kg	1	<1	<1
Lead	mg/kg	1	6	43
Mercury	mg/kg	0.17	<0.17	<0.17
Nickel	mg/kg	1	6	27
Selenium	mg/kg	1	<1	<1
Zinc	mg/kg	5	19	62

Asbestos in Soil (inc. matrix)

Asbestos in soil			NAD	NAD
Asbestos Matrix (microscope)			-	-
Asbestos ACM - Suitable for Water Absorption Test?			N/A	N/A

Asbestos in Soil Quantification % (Hand Picking & Weighing)

Asbestos in soil % composition (hand picking and weighing)	% w/w	0.001		
---	-------	-------	--	--

PAH-16MS (MSD order)

Naphthalene	mg/kg	0.03	<0.03	<0.30
Acenaphthylene	mg/kg	0.01	<0.01	0.49
Acenaphthene	mg/kg	0.01	0.02	<0.10
Fluorene	mg/kg	0.01	0.05	<0.10
Phenanthrene	mg/kg	0.03	0.2	0.57
Anthracene	mg/kg	0.02	0.08	0.3
Fluoranthene	mg/kg	0.08	0.13	2.5
Pyrene	mg/kg	0.07	0.09	2.3
Benzo(a)anthracene	mg/kg	0.04	<0.04	1.71
Chrysene	mg/kg	0.06	<0.06	1.84
Benzo(b)fluoranthene	mg/kg	0.05	<0.05	1.88

Envirolab Job Number: 24/09068

Client:

Client Project Name:

Client Project Ref:

Lab Sample ID			24/09068/8	24/09068/9
Client Sample No				
Client Sample ID			CBR08	CBR09
Depth to Top			0.20	0.10
Depth to Bottom			0.45	0.30
Date Sampled			13-Sep-24	13-Sep-24
Sample Type			Solid	Soil
Sample Matrix Code			7	4A
	Units	Limit of Detection		
Benzo(k)fluoranthene	mg/kg	0.07	<0.07	0.77
Benzo(a)pyrene	mg/kg	0.04	<0.04	1.82
Indeno(123-cd)pyrene	mg/kg	0.03	<0.03	1.15
Dibenzo(ah)anthracene	mg/kg	0.04	<0.04	<0.40
Benzo(ghi)perylene	mg/kg	0.05	<0.05	1.26
Total PAH-16MS (MSD order)	mg/kg	0.03	0.57	16.6
TPH Total with ID + GC Trace				
TPH total (>C6-C40)	mg/kg	10	96	720
TPH FID Chromatogram			Appended	Appended
TPH ID Interpretation			C8-C44 w/ profile indicative of PAHs, lightly weathered diesel & other unknown HCs	C8-C44 with PAHs and other unknown hydrocarbons
TPH CWG with Clean Up				
Ali >C5-C6	mg/kg	0.01	<0.01	<0.01
Ali >C6-C8	mg/kg	0.01	<0.01	<0.01
Ali >C8-C10	mg/kg	1	<1	<100
Ali >C10-C12	mg/kg	1	2	<100
Ali >C12-C16	mg/kg	1	13	<100
Ali >C16-C21	mg/kg	1	15	<100
Ali >C21-C35	mg/kg	1	14	152
Total Aliphatics	mg/kg	1	44	152
Aro >C5-C7	mg/kg	0.01	<0.01	<0.01
Aro >C7-C8	mg/kg	0.01	<0.01	<0.01
Aro >C8-C10	mg/kg	1	<1	<100
Aro >C10-C12	mg/kg	1	<1	<100
Aro >C12-C16	mg/kg	1	6	<100
Aro >C16-C21	mg/kg	1	9	<100
Aro >C21-C35	mg/kg	1	5	106
Total Aromatics	mg/kg	1	20	106
TPH (Ali & Aro >C5-C35)	mg/kg	1	64	259
BTEX - Benzene	mg/kg	0.01	<0.01	<0.01
BTEX - Toluene	mg/kg	0.01	<0.01	<0.01
BTEX - Ethyl Benzene	mg/kg	0.01	<0.01	<0.01
BTEX - m & p Xylene	mg/kg	0.01	<0.01	<0.01
BTEX - o Xylene	mg/kg	0.01	<0.01	<0.01
MTBE	mg/kg	0.01	<0.01	<0.01

APPENDIX C

'HASWASTE' SPREADSHEET



Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!".
If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. Iain Haslock.

3020010-R223

Ref. 1

Ref. 2

Date

% Moisture

pH (soil)

pH (leachate)

Arsenic

Cadmium

Copper

CrVI or Chromium

Lead

Mercury

Nickel

Selenium

Zinc

Barium

Beryllium

Vanadium

Cobalt

Manganese

Molybdenum

Antimony

Aluminium

Bismuth

CrIII

Iron

Strontium

Tellurium

Thallium

Titanium

Tungsten

Ammoniacal N

ws Boron

PAH (Input Total PAH OR individual PAH results)

Acenaphthene

Acenaphthylene

Anthracene

Benzo(a)anthracene

Benzo(a)pyrene

Benzo(b)fluoranthene

Benzo(ghi)perylene

Benzo(k)fluoranthene

Chrysene

Dibenzo(ah)anthracene

Fluoranthene

Fluorene

Indeno(123cd)pyrene

Naphthalene

Phenanthrene

Pyrene

Coronene

Total PAHs (16 or 17)

TPH

Petrol

Diesel

Lube Oil

Crude Oil

White Spirit / Kerosene

Creosote

Unknown TPH with ID

Unknown TPH **without** ID /

Unknown TPH mixtures

containing petrol or diesel

Total Sulphide

Complex Cyanide

Free (or Total) Cyanide

Thiocyanate

Elemental/Free Sulphur

Phenols Input Total Phenols HPLC OR individual Phenol results.

Phenol

Cresols

Xylenols

Resorcinol

Phenols Total by HPLC

BTEX Input Total BTEX OR individual BTEX results.

Benzene

Toluene

Ethylbenzene

Xylenes

Total BTEX

PCBs (POPs)

PCBs Total (eg EC7/WHO12)

PBBs (POPs)

Hexabromobiphenyl (Total or

PBB153; 2,2',4,4',5,5'- if only

available)

%

mg/kg

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Haswaste, developed by Dr. Iain Haslock.

3020010-R223

Ref. 1

Ref. 2

Date _____

[illegible]

OR individual Dioxin and Furan results.

2,3,7,8-TeCDD	mg/kg								
1,2,3,7,8-PeCDD	mg/kg								
1,2,3,4,7,8-HxCDD	mg/kg								
1,2,3,6,7,8-HxCDD	mg/kg								
1,2,3,7,8,9-HxCDD	mg/kg								
1,2,3,4,6,7,8-HpCDD	mg/kg								
OCDD	mg/kg								
2,3,7,8-TeCDF	mg/kg								
1,2,3,7,8-PeCDF	mg/kg								
2,3,4,7,8-PeCDF	mg/kg								
1,2,3,4,7,8-HxCDF	mg/kg								
1,2,3,6,7,8-HxCDF	mg/kg								
2,3,4,6,7,8-HxCDF	mg/kg								
1,2,3,7,8,9-HxCDF	mg/kg								
1,2,3,4,6,7,8-HpCDF	mg/kg								
1,2,3,4,7,8,9-HpCDF	mg/kg								
OCDF	mg/kg								
Total Dioxins and Furans	mg/kg								

Aldrin
α Hexachlorocyclohexane (alpha-HCH) (leave empty if total HCH results used)
β Hexachlorocyclohexane (beta-HCH) (leave empty if total HCH results used)
α Cis-Chlordane (alpha) OR Total Chlordane
δ Hexachlorocyclohexane (delta-HCH) (leave empty if total HCH results used)
Dieldrin
Endrin
γ Hexachlorocyclohexane (gamma-HCH) (lindane) OR Total HCH
Heptachlor
Hexachlorobenzene
o,p' -DDT (leave empty if total DDT results used)
p,p' -DDT OR Total DDT
γ Trans-Chlordane (gamma) (leave empty if total Chlordane results used)
Chlordecone (kepone)
Pentachlorobenzene
Mirex
Toxaphene (camphchlor)

[illegible]

Tin

Tin (leave empty if Organotin and Tin excl Organotin results used)

Organotin

[illegible]



Haswaste, developed by Dr. Iain Haslock.

3020010-R223

Ref. 1

Ref. 2

Date

Asbestos in Soil

Asbestos detected in Soil (enter Y or N)

Thresholds

Y

Asbestos % Composition in Soil (Matrix Loose Fibres or Microscopic Identifiable Pieces only)

see "Carc HP7 % Asbestos in Soil (Fibres)" below

%

Carcinogenic HP7 % Asbestos in Soil (fibres or micro pieces)

Please be advised, if the calculation cell is "0.00000" DOES NOT MEAN asbestos testing has been undertaken and the result is zero.

≥0.1%

Asbestos Identifiable Pieces visible with the naked eye detected in the Soil (enter Y or N)

Y

Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!". If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

CBR01	CBR02	CBR03	CBR04	CBR05	CBR06	CBR07	CBR08	CBR09
0.35-0.45m	0.30-0.40m	0.16-0.26m	0.20-0.40m	0.20-0.50m	0.20-0.40m	0.20-0.30m	0.20-0.45m	0.10-0.30m
13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24

N	Y	N	Y	Y	Y	Y	N	N
---	---	---	---	---	---	---	---	---

If Asbestos in Soil above is "Y", the soil is Hazardous Waste HP5 and HP7

	0.00100		0.00100	0.00200	0.00100	0.00100		
0.00000	0.00082	0.00000	0.00086	0.00176	0.00084	0.00090	0.00000	0.00000

If Asbestos in Soil above is "Y", but Asbestos % above is "<0.1%", the soil is Non Hazardous Waste. You can only use Asbestos % results where loose fibres or micro pieces are only present. You cannot use Asbestos % results when visual identifiable pieces are present.

N	N	N	N	N	N	N	N	N
---	---	---	---	---	---	---	---	---

If visual identifiable pieces of asbestos are present, you cannot use Asbestos % results and the whole soil sample is Hazardous Waste HP5 and HP7 Construction material containing Asbestos 17 06 05. Therefore, if Asbestos in Soil above is "Y", the Asbestos % above is "<0.1%", but the Asbestos Identifiable Pieces visible with the naked eye is "Y", the soil is Hazardous Waste.

Identifiable Pieces are Cement, Fragments, Board, Rope etc. ie anything ACM that is not Loose Fibres.

All visual asbestos pieces need to be removed leaving only fibres (or micro pieces) with an Asbestos % Composition in Soil result of <0.1% for the soil to become non-hazardous waste.

Hazardous Property	Thresholds	Cut Off Value
Corrosive HP8	≥5%	<1%
Irritant HP4	≥10%	<1%
Irritant HP4	≥20%	<1%
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥20%	
Specific Target Organ Toxicity HP5	≥1%	
Specific Target Organ Toxicity HP5	≥10%	
Aspiration Toxicity HP5	≥10%	
Acute Toxicity HP6	≥0.1%	<0.1%
Acute Toxicity HP6	≥0.25%	<0.1%
Acute Toxicity HP6	≥5%	<0.1%
Acute Toxicity HP6	≥25%	<1%
Acute Toxicity HP6	≥0.25%	<0.1%
Acute Toxicity HP6	≥2.5%	<0.1%
Acute Toxicity HP6	≥15%	<0.1%
Acute Toxicity HP6	≥55%	<1%
Acute Toxicity HP6	≥0.1%	<0.1%
Acute Toxicity HP6	≥0.5%	<0.1%
Acute Toxicity HP6	≥3.5%	<0.1%
Acute Toxicity HP6	≥22.5%	<1%
Carcinogenic HP7	≥0.1%	
Carcinogenic HP7	≥0.1%	
Carcinogenic HP7	≥1%	
Carcinogenic HP7 Unknown TPH with ID	≥1,000mg/kg	
Carcinogenic HP7 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
pH Corrosive HP8 pH (soil or leachate)	H8 ≥11.5	
pH Corrosive HP8 pH (soil or leachate)	H8 ≤2	
Toxic for Reproduction HP10	≥0.3%	
Toxic for Reproduction HP10	≥3%	
Mutagenic HP11	≥0.1%	
Mutagenic HP11 Unknown TPH with ID	≥1,000mg/kg	
Mutagenic HP11 b(a)p marker test (Unknown TPH with ID only) Cell only applicable if TPH >1,000mg/kg	≥0.01%	
Mutagenic HP11	≥1%	
Produces Toxic Gases HP12 Sulphide	≥1,400mg/kg	
Produces Toxic Gases HP12 Cyanide	≥1,200mg/kg	
Produces Toxic Gases HP12 Thiocyanate	≥2,600mg/kg	
HP13 Sensitising	≥10%	

If cells below turn yellow and the text turns red, the samples should be classified as Hazardous Waste.

0.00071	0.00082	0.00075	0.00086	0.00077	0.00096	0.00067	0.00029	0.00196
0.00349	0.00131	0.00252	0.00283	0.00259	0.00916	0.00273	0.00071	0.00643
0.00467	0.00135	0.00361	0.00496	0.00467	0.01191	0.00399	0.00186	0.01040
0.00015	0.00015	0.00016	0.00016	0.00017	0.00016	0.00017	0.00016	0.00017
0.00022	0.00019	0.00020	0.00031	0.00020	0.00027	0.00021	0.00020	0.00053
0.00148	0.00082	0.00139	0.00173	0.00231	0.00306	0.00145	0.00104	0.00487
0.01854	0.00424	0.44444	0.13198	0.22113	0.15306	0.02376	0.00822	0.06430
0.01854	0.00424	0.44444	0.13198	0.22113	0.15306	0.02376	0.00822	0.06430
0.00015	0.00015	0.00016	0.00016	0.00017	0.00016	0.00017	0.00016	0.00017
0.00055	0.00066	0.00058	0.00069	0.00060	0.00080	0.00049	0.00013	0.00178
0.00051	0.00047	0.00050	0.00050	0.00051	0.00057	0.00052	0.00050	0.00084
0.00855	0.00227	0.00524	0.01044	0.00943	0.02132	0.00789	0.00274	0.01430
0.00017	0.00017	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018
0.00016	0.00016	0.00016	0.00016	0.00017	0.00016	0.00017	0.00016	0.00017
0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
0.00053	0.00053	0.00056	0.00056	0.00057	0.00061	0.00059	0.00056	0.00058
0.00015	0.00015	0.00016	0.00016	0.00017	0.00016	0.00017	0.00016	0.00017
0.00043	0.00040	0.00042	0.00042	0.00043	0.00056	0.00044	0.00042	0.00076
0.00013	0.00013	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014
0.00800	0.00171	0.00461	0.00900	0.00871	0.02050	0.00720	0.00213	0.01335
0.01854	0.00424	0.44444	0.13198	0.22113	0.15306	0.02376	0.00822	0.06430
0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
0.00049	0.00049	0.00051	0.00051	0.00053	0.00050	0.00054	0.00051	0.00054
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8.51	8.22	9.89	8.68	10.66	8.53	8.92	8.89	9.29
8.51	8.22	9.89	8.68	10.66	8.53	8.92	8.89	9.29
0.00358	0.00057	0.00139	0.00514	0.00441	0.00908	0.00351	0.00104	0.00487
0.01854	0.00424	0.44444	0.13198	0.22113	0.15306	0.02376	0.00822	0.06430
0.01854	0.00424	0.44444	0.13198	0.22113	0.15306	0.02376	0.00822	0.06430
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
0.00148	0.00049	0.00139	0.00173	0.00231	0.00306	0.00145	0.00104	0.00487
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.8	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.00148	0.00049	0.00139	0.00173	0.00231	0.00306	0.00145	0.00104	0.00487

Ecotoxic HP14

amended v6

≥25%

<0.1%

0.01426	0.00453	0.00973	0.02216	0.02405	0.04499	0.01658	0.00488	0.02400
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Please enter available data in the rows associated with the test (grey) cells. Calculation cells initially display either "0.0000" or "#DIV/0!".
If any calculation cells below state "0.00000", testing has NOT been undertaken that contributes to that Hazardous Property.

Haswaste, developed by Dr. Iain Haslock.

3020010-R223

Ref. 1

Ref. 2

Date

CBR01	CBR02	CBR03	CBR04	CBR05	CBR06	CBR07	CBR08	CBR09
0.35-0.45m	0.30-0.40m	0.16-0.26m	0.20-0.40m	0.20-0.50m	0.20-0.40m	0.20-0.30m	0.20-0.45m	0.10-0.30m
13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24	13-Sep-24

Ecotoxic HP14 amended v6	≥25%	<0.1% (except Be, V, Te, Tl, Petrol, Diesel, Crude Oil, Kerosene, White Spirit, Cresote, TPH, TPHCWG, Phenol, Cresols, Xylenols, T- Phenols, CompCN, Thiocyanate, Toluene, Ethylbenzene , Xylene + BTEX 1%).	0.03302	0.00895	0.45437	0.15433	0.24538	0.19832	0.04055	0.01329	0.08882
Ecotoxic HP14 amended v6	≥25%	<0.1% (except Be, V, Te, Tl, Petrol, Diesel, Crude Oil, Kerosene, White Spirit, Cresote, TPH, TPHCWG, Phenol, Cresols, Xylenols, T- Phenols, CompCN, Thiocyanate, Toluene, Ethylbenzene , Xylene + BTEX 1%).	1.61188	0.49567	5.41774	3.53596	4.61686	6.03080	1.89619	0.57051	3.04658
Persistent Organic Pollutant (PCB, PBB or POP Pesticides)	>0.005%		0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
Persistent Organic Pollutant (Total Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000
Persistent Organic Pollutant (Individual Dioxins+Furans)	>0.0000015%		0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000	0.0000000000