Memo

SUBJECT
South Bank Access Roads – Environmental Assessment Summary

DATE
16 August 2021

DEPARTMENT
Ground Conditions and Remediation

COPIES TO
Phil McCarthy (Lichfields)
Neil Westwick (Lichfields)

TO
John McNicholas (STDC)
Lauren Carr-Duffy (STDC)

OUR REF
10035117-AUK-XX-XX-CO-ZZ-0357-01-South_Bank_Roads GI

FROM
Neil Thurston
M 07870 572 824 E neil.thurston@arcadis.com

On 11th August 2021 Arcadis were requested by STDC to provide a summary of environmental assessment works to support the discharge of Planning for the remediation of future access road areas (the site) of the South Bank Teesworks as shown on BGP drawing *LMWIN-BGP-XX-XX-DR-C-001_P03* (Appendix A).

Recent ground investigation works (2020 and 2021) have been completed across much of the site as part of a wider assessment of the Teesworks South Bank landholding and, in addition, historic information exists for the entire site from works conducted by a third party in 2004. The investigation locations are shown on Figure 1 below.

The factual findings of the ground 2020 ground investigation, including the locations shown on Figure 1 beginning "SBA", are reported in *4296 South Bank A (Draft Report)* prepared by AEG Ltd. The interpretative report by Arcadis [*10035117-AUK-XX-XX-RP-ZZ-0192-01-SBA_ESA*] concluded that for locations within the area on Figure 1 beginning SBA there were no risks to Human Health based on a future commercial/industrial end use. Soils containing trace levels of asbestos fibres were identified on the wider South Bank A landholding. Additional trial pits including SBA_AUK_TP102 and SBA_AUK_TP103 were completed in 2021 (update to the above referenced reports in press) - trial pit logs and laboratory data are included as Appendix B - no exceedances of Human Health screening criteria were noted.

The factual findings of the 2021 ground investigation, including the locations shown on Figure 1 beginning "SBC", are reported in an interpretative report prepared by Arcadis based on draft factual data provided by AEG [*10035117-AUK-XX-XX-RP-ZZ-0318-02-SBC_ESA*]. The interpretative report concluded that for locations within the area on Figure 1 beginning "SBC" there were no risks to Human Health based on a future commercial/industrial end use with the exception of a single detection of dibenzo(a,h)anthracene in SBC_AUK_TP163 (1m below ground level (bgl)). Soils containing trace levels of asbestos fibres <0.001% were identified in SBC_AUK_TP155 and on the wider South Bank C landholding.

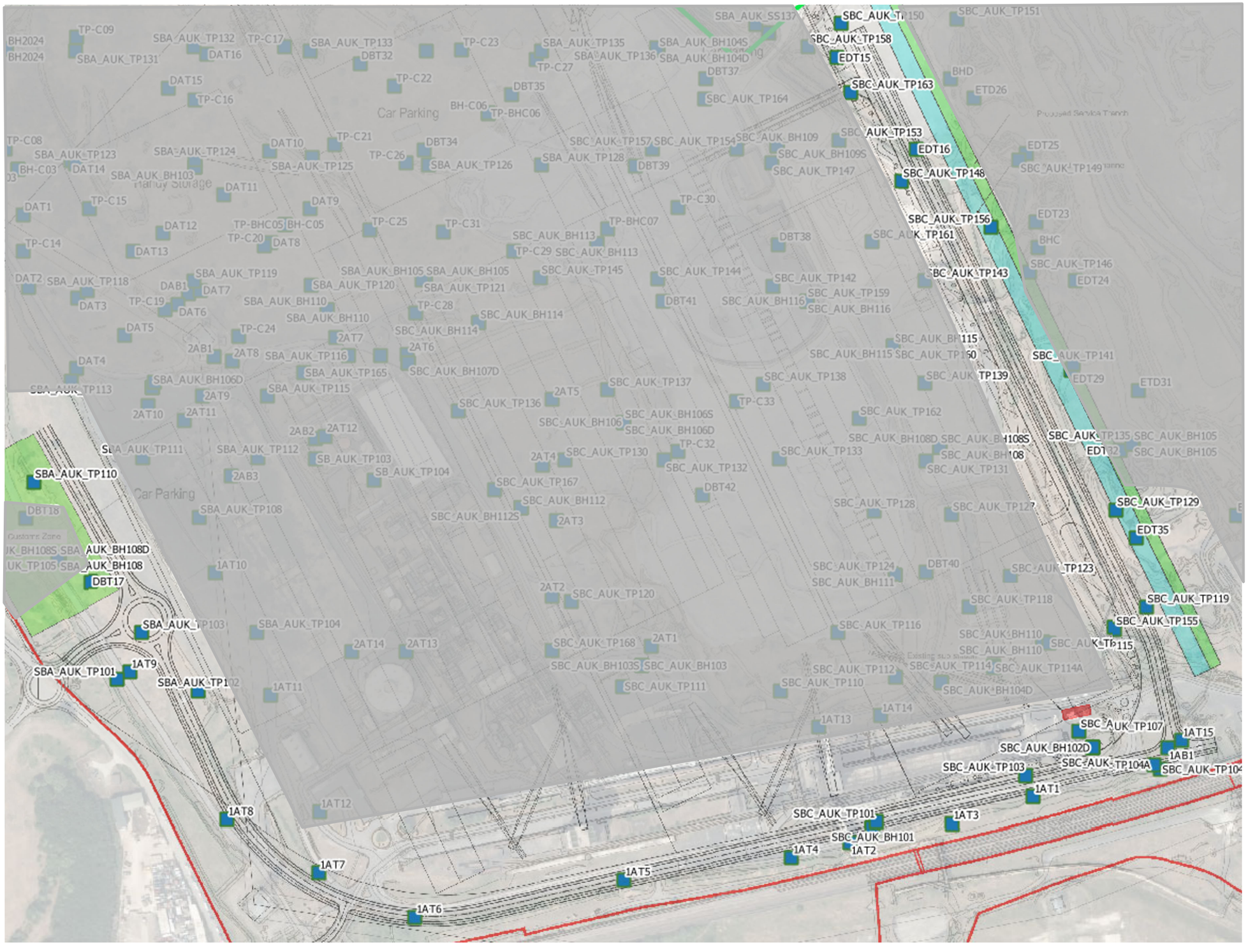
A review of the 2004 data (locations beginning 1AT, 1BT, DBT, or EDT) and comparison to the same screening criteria used in the above referenced reports did not identify any contaminants above the Human Health screening criteria.

Soil identified to contain contaminants above the Human Health screening criteria and / or trace levels of asbestos would be suitable for use based on a future commercial/industrial end use below a clean cover system to break the inhalation exposure pathway. Arcadis consider that the construction of a road comprising hardstanding will comprise an appropriate cover system to break the exposure pathway.

Risks to groundwater across the wider South Bank landholding including the area of the site were assessed in the Arcadis Detailed Quantitative Risk Assessment (DQRA) [*10035117-AUK-XX-XX-RP-ZZ-0331-01-SB_DQRA*]. The DQRA concluded that the sources areas identified in soil and groundwater did not present a significant risk to Controlled Waters.

Arcadis trust the above information is clear and can provide qualifications on the provided information as required.

Figure 1


SBC_AUK_TP150
SBC_AUK_TP151
SBC_AUK_TP158
EDT15
SBC_AUK_TP163
SBC_AUK_TP153
EDT16
SBC_AUK_TP148
SBC_AUK_TP156
SBC_AUK_TP161
SBC_AUK_TP143
SBC_AUK_TP141
SBC_AUK_TP139
SBC_AUK_TP135
SBC_AUK_TP129
EDT35
SBC_AUK_TP123
SBC_AUK_TP119
SBC_AUK_TP155
SBC_AUK_TP107
SBC_AUK_TP104A
SBA_AUK_TP110
SBA_AUK_TP103
SBA_AUK_TP101
SBA_AUK_TP102
SBC_AUK_TP101
SBC_AUK_BH101
1AT1
1AT2
1AT3
1AT4
1AT5
1AT6
1AT7
1AT8
1AT9
1AT10
1AT11
1AT12
1AT13
1AT14
1AT15
1AB1
2AT1
2AT2
2AT3
2AT4
2AT5
2AT6
2AT7
2AT8
2AT9
2AT10
2AT11
2AT12
2AT13
2AT14
2AB1
2AB2
2AB3
DBT17
DBT18
DBT32
DBT34
DBT35
DBT37
DBT38
DBT39
DBT40
DBT41
DBT42
EDT23
EDT24
EDT25
EDT29
EDT31
ETD26
BHD
BHC
Car Parking
Proposed Service Trench

APPENDIX A

Typical Proposed Road Cross Section
Scale 1:50

- DO NOT SCALE -

Notes:

Road and footpath surfaces are to meet architects specification.

1. All works and materials to be in accordance with;
   (i) Tees Valley current design standards
   (ii) New Road and Streetworks Act. 1991
   (iii) BGP Specifications
   (iv) All applicable Building regulations
2. All levels are in metres to Ordnance Datum (m AOD).
3. The contractor is to check all dimensions and levels and report any discrepancies or omissions to the Engineer.
4. This drawing is to be read only in conjunction with BGP specification and drawings.
5. All concrete for foundation to kerb channels and edgings shall be Class Gen3 (BS 5328) unless shown otherwise.
6. All kerbs and channels shall be hydraulically pressed and comply in all respects with BS 7263 Part 1.
7. Kerbs and channels shall be laid true to line and level and shall not be backed until inspected and approved by the Engineer.
8. For softscape areas refer to Architects specification & details.

AMENDMENT	BY	REV	CHK	DATE
Updated following comment	TC	P03	JC	29.07.2021
Updated following comment	TC	P02	JC	06.07.2021
Issued for Information	TC	P01	JC	24.06.2021

Rev P = Preliminary T = Tender C = Construction LCI = Last Construction Issue

In instances where this drawing completes or partly completes a contract, Billinghurst George & Partners will consider that it's product has been validated, unless in a period not exceeding 90 working days, the client advises to the contrary.

Billinghurst George & Partners
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Client

Project	**Project No.**
Blade Factory	21T2082

Drawing Title
Highway proposals

Drawn	Date	Checked	Date	Size	Scale	Class.	Rev.
TC	June 21	JC	June 21	A1	1:2000		P03

Location	Originator	Volume	Level	Type	Role	Unique No.
LMWIN	BGP	XX	XX	DR	C	001

File Reference
LMWIN-BGP-XX-XX-DR-C-001

APPENDIX B

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG **Tel:** 0191 387 4700 **Fax:** 0191 387 4710
Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL **Tel:** 01772 735 300 **Fax:** 01772 735 999

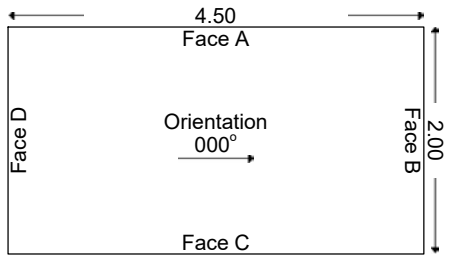
TRIAL PIT RECORD

Status:- **PRELIM1**

Project: Ground Investigation South Bank Area C			**Exploratory Hole No.**
Client: Tees Valley Combined Authority	**Location:** Former Redcar Steelworks, Redcar E:453288.085 N:521569.275		**SBA_AUK_TP102**
Method (Equipment): Machine Excavated (36T komatsu)	**Ground Level (m):** 7.623	**Start Date:** 19/05/2021	**Sheet:** 1 of 1

SAMPLES & TESTS			Water	STRATA			
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	B1 J2			7.32		0.30	MADE GROUND (Brown sandy gravelly silty topsoil with low cobble content. Sand is fine to coarse. Gravel is fine to coarse angular and includes slag. Cobbles are angular and include slag. Slag content is 100%).
1.00 1.20 1.20	PID B3 J4	<0.1ppm				(2.10)	MADE GROUND (Grey slightly sandy slightly gravelly cobbles with low boulder content. Sand is fine to coarse and includes slag. Gravel is fine to coarse angular and include slag. Cobbles and boulders are angular and include slag. Slag content is 100%. Slag is vesicular).
2.00 2.20 2.20 2.30	PID B5 J6 ES7	<0.1ppm		5.22 5.12		2.40 2.50	between c.2.10-2.40m BGL ... high boulder content. MADE GROUND (Grey slightly gravelly sand with medium cobble and low boulder content. Gravel is fine to coarse angular and includes brick and slag. Cobbles and boulders are angular and include brick and slag. Slag content is 75-100%. Slag is vesicular and non-vesicular). *Complete at 2.50m BGL.*

PLAN



GROUNDWATER
No groundwater inflow observed.

STABILITY
Collapsing on the Western Face.

ADDITIONAL INFORMATION

Sketch Diagram:	No Sketch Taken	
Photographs:	No	See additional sheets.

GENERAL REMARKS

All dimensions in metres Scale 1:50.00	For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: I. Rhodes	Contract No. **4338**

Print Date and Time: 05/08/2021 16:27:56

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL **Tel:** 01772 735 300 **Fax:** 01772 735 999

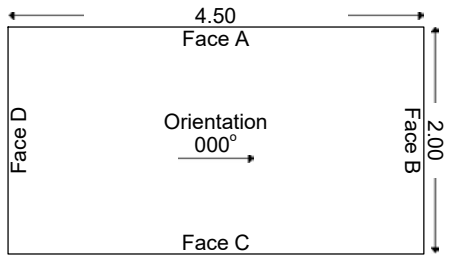
TRIAL PIT RECORD

Status:- **PRELIM1**

Project: Ground Investigation South Bank Area C			**Exploratory Hole No.**
Client: Tees Valley Combined Authority	**Location:** Former Redcar Steelworks, Redcar E:453239.026 N:521619.808		**SBA_AUK_TP103**
Method (Equipment): Machine Excavated (36T komatsu)	**Ground Level (m):** 8.331	**Start Date:** 19/05/2021	**Sheet:** 1 of 2

SAMPLES & TESTS			Water	STRATA			
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20	ES1			8.03		0.30	MADE GROUND (Brown sandy gravelly topsoil with low cobble content. Sand is fine to coarse. Gravel is fine to coarse angular and includes slag. Slag content is 100%. Cobbles are angular and include brick and slag. Slag content is 75-100%).
0.80	J2					(1.00)	MADE GROUND (Grey slightly sandy gravel and cobbles with low boulder content. Sand is fine to coarse and include slag. Gravel is fine to coarse angular and includes slag. Cobbles and boulders are angular and include slag, Slag content is 100%. Slag is vesicular and non-vesicular).
0.80	B3						
1.00	PID	<0.1ppm		7.03		1.30	
1.80	J4						MADE GROUND (Grey slightly sandy slightly gravelly boulders with high cobble content. Sand is fine to coarse and include slag. Gravel is fine to coarse angular and includes brick and slag. Cobbles and boulders are angular and include brick and slag, Slag content is 75-100%. Slag is vesicular and non-vesicular).
1.80	B5						
2.00	PID	<0.1ppm					
2.80	J6					(3.40)	
2.80	B7						
3.00	PID	<0.1ppm					
3.80	J8						
3.80	B9						
4.00	PID	<0.1ppm		3.63		4.70	
							Complete at 4.70m BGL.

PLAN



GROUNDWATER
No groundwater inflow observed.

STABILITY
Pit sides and base stable throughout excavation.

ADDITIONAL INFORMATION

Sketch Diagram:	No Sketch Taken	
Photographs:	Yes	See additional sheets.

GENERAL REMARKS

All dimensions in metres Scale 1:50.00	For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: I. Rhodes	Contract No. **4338**

Print Date and Time: 05/08/2021 16:27:57

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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TRIAL PIT RECORD

Status:- **PRELIM1**

Project: Ground Investigation South Bank Area C			**Exploratory Hole No.** SBA_AUK_TP103
Client: Tees Valley Combined Authority	**Location:** Former Redcar Steelworks, Redcar E:453239.026 N:521619.808		
Method (Equipment): Machine Excavated (36T komatsu)	**Ground Level (m):** 8.331	**Start Date:** 19/05/2021	**Sheet:** 2 of 2

Figure SBA_AUK_TP103.1
SBA_AUK_TP103

Figure SBA_AUK_TP103.2
SBA_AUK_TP103

Certificate of Analysis

Certificate Number	21-10896	*Issued:*	01-Jun-21

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference	21-10896
Client Reference	4338
Order No	(not supplied)
Contract Title	Ground Investigation South Bank Area C
Description	2 Soil samples, 1 Leachate sample.
Date Received	24-May-21
Date Started	24-May-21
Date Completed	01-Jun-21
Test Procedures	Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Adam Fenwick
Contracts Manager

mCERTS
THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

UKAS TESTING
2139

Summary of Chemical Analysis
Matrix Descriptions

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
SBA_AUK_TP102	7	2.3	1851445	01/06/2021	Dark brown gravelly, very sandy CLAY
SBA_AUK_TP103	1	0.2	1851446	01/06/2021	Dark brown gravelly, very sandy CLAY

Summary of Chemical Analysis
Soil Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

			Lab No	1851445	1851446
			.Sample ID	SBA_AUK_TP102	SBA_AUK_TP103
			Depth	2.30	0.20
			Other ID	7	1
			Sample Type	ES	ES
			Sampling Date	19/05/2021	19/05/2021
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Metals					
Aluminium	DETSC 2301*	1	mg/kg	29000	19000
Antimony	DETSC 2301*	1	mg/kg	< 1.0	2.7
Arsenic	DETSC 2301#	0.2	mg/kg	39	19
Barium	DETSC 2301#	1.5	mg/kg	250	220
Beryllium	DETSC 2301#	0.2	mg/kg	4.6	2.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.0	1.7
Cadmium	DETSC 2301#	0.1	mg/kg	13	0.7
Chromium	DETSC 2301#	0.15	mg/kg	27	48
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23	36
Iron	DETSC 2301	25	mg/kg	28000	62000
Lead	DETSC 2301#	0.3	mg/kg	450	85
Magnesium	DETSC 2301*	1	mg/kg	16000	8900
Manganese	DETSC 2301#	20	mg/kg	1100	2600
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0	1.2
Nickel	DETSC 2301#	1	mg/kg	18	16
Vanadium	DETSC 2301#	0.8	mg/kg	99	150
Zinc	DETSC 2301#	1	mg/kg	6200	420
Inorganics					
pH	DETSC 2008#		pH	8.6	9.2
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.0	1.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	380	430
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	< 0.75

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

			Lab No	1851445	1851446
			.Sample ID	SBA_AUK_TP102	SBA_AUK_TP103
			Depth	2.30	0.20
			Other ID	7	1
			Sample Type	ES	ES
			Sampling Date	19/05/2021	19/05/2021
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	17
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	110
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	130
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	130
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.07
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	0.06
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.36	1.0
Anthracene	DETSC 3303	0.03	mg/kg	0.07	0.21
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.44	1.6
Pyrene	DETSC 3303#	0.03	mg/kg	0.35	1.3
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.15	0.65
Chrysene	DETSC 3303	0.03	mg/kg	0.12	0.55
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.14	0.80
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17	0.27
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.08	0.45
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	0.23
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04	0.25
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.9	7.6

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

			Lab No	1851445	1851446
			.Sample ID	SBA_AUK_TP102	SBA_AUK_TP103
			Depth	2.30	0.20
			Other ID	7	1
			Sample Type	ES	ES
			Sampling Date	19/05/2021	19/05/2021
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3
Phenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
4-Chloro-3-methylphenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
2,4-Dichlorophenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
2,4-Dimethylphenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
p-cresol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
2,6-Dimethylphenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
2,6-Dichlorophenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01
2,4,6-Trichlorophenol	DETSC 3451*	0.01	mg/kg	< 0.01	< 0.01

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	1851445
.Sample ID	SBA_AUK_TP102
Depth	2.30
Other ID	7
Sample Type	ES
Sampling Date	19/05/2021
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

			Lab No	1851445
			.Sample ID	SBA_AUK_TP102
			Depth	2.30
			Other ID	7
			Sample Type	ES
			Sampling Date	19/05/2021
			Sampling Time	n/s
Test	**Method**	**LOD**	**Units**	
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	1851445
.Sample ID	SBA_AUK_TP102
Depth	2.30
Other ID	7
Sample Type	ES
Sampling Date	19/05/2021
Sampling Time	n/s

Test	Method	LOD	Units	
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Leachate Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	1851447
.Sample ID	SBA_AUK_TP102
Depth	2.30
Other ID	7
Sample Type	ES
Sampling Date	19/05/2021
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	< 0.17
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.8
Barium, Dissolved	DETSC 2306	0.26	ug/l	21
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	22
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.06
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.30
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	18
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.5
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.8
Manganese, Dissolved	DETSC 2306	0.22	ug/l	1.5
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	< 1.1
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	3.2
Zinc, Dissolved	DETSC 2306	1.3	ug/l	19
Inorganics				
pH	DETSC 2008		pH	7.8
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.087
Chloride	DETSC 2055	0.1	mg/l	1.0
Sulphate as SO4	DETSC 2055	0.1	mg/l	31

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Leachate Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	1851447
.Sample ID	SBA_AUK_TP102
Depth	2.30
Other ID	7
Sample Type	ES
Sampling Date	19/05/2021
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l	< 10
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.02
Fluorene	DETSC 3304	0.01	ug/l	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.01
Anthracene	DETSC 3304	0.01	ug/l	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.02
Pyrene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Leachate Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	1851447
.Sample ID	SBA_AUK_TP102
Depth	2.30
Other ID	7
Sample Type	ES
Sampling Date	19/05/2021
Sampling Time	n/s

Test	Method	LOD	Units	
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100
Phenol	DETSC 3451*	0.1	ug/l	< 0.10
4-Chloro-3-methylphenol	DETSC 3451*	0.1	ug/l	< 0.10
2,4-Dichlorophenol	DETSC 3451*	0.1	ug/l	< 0.10
2,4-Dimethylphenol	DETSC 3451*	0.1	ug/l	< 0.10
p-cresol	DETSC 3451*	0.1	ug/l	< 0.10
2,6-Dimethylphenol	DETSC 3451*	0.1	ug/l	< 0.10
2,6-Dichlorophenol	DETSC 3451*	0.1	ug/l	< 0.10
2,4,6-Trichlorophenol	DETSC 3451*	0.1	ug/l	< 0.10
VOCs				
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4
Chloroform	DETSC 3432	1	ug/l	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1
Benzene	DETSC 3432	1	ug/l	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1
Toluene	DETSC 3432	1	ug/l	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Leachate Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

			Lab No	1851447
			.Sample ID	SBA_AUK_TP102
			Depth	2.30
			Other ID	7
			Sample Type	ES
			Sampling Date	19/05/2021
			Sampling Time	n/s
Test	**Method**	**LOD**	**Units**	
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1
Styrene	DETSC 3432	1	ug/l	< 1
Bromoform	DETSC 3432	1	ug/l	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1
MTBE	DETSC 3432*	1	ug/l	< 1
SVOCs				
Aniline	DETSC 3434*	1	ug/l	< 1.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 1.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 1.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 1.0
Bis(2-chloroisopropyl)ether	DETSC 3434*	1	ug/l	< 1.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 1.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 1.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 1.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 1.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Leachate Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	1851447
.Sample ID	SBA_AUK_TP102
Depth	2.30
Other ID	7
Sample Type	ES
Sampling Date	19/05/2021
Sampling Time	n/s

Test	Method	LOD	Units	
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 1.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0
3-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 1.0
Dibenzofuran	DETSC 3434*	1	ug/l	< 1.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0
Diethylphthalate	DETSC 3434*	1	ug/l	< 1.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l	< 1.0
4-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0
Diphenylamine	DETSC 3434*	1	ug/l	< 1.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l	< 1.0
Hexachlorobenzene	DETSC 3434*	1	ug/l	< 1.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l	< 1.0
Pentachlorophenol	DETSC 3434*	1	ug/l	< 1.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l	< 1.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l	< 1.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l	< 1.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l	< 1.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0
Dimethylphthalate	DETSC 3434*	1	ug/l	< 1.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0
Azobenzene	DETSC 3434*	1	ug/l	< 1.0
Carbazole	DETSC 3434*	1	ug/l	< 1.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0

Key: * -not accredited. n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 21-10896
Client Ref 4338
Contract Title Ground Investigation South Bank Area C

Lab No	Sample ID	Sample Location	Material Type	Result	Comment*	Analyst
1851445	SBA_AUK_TP102 7 2.30	SBA_AUK_TP102_SO_0230	SOIL	NAD	none	Emma Stacey
1851446	SBA_AUK_TP103 1 0.20	SBA_AUK_TP103_SO_0020	SOIL	NAD	none	Emma Stacey

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 21-10896
Client Ref 4338
Contract Ground Investigation South Bank Area C

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1851445	SBA_AUK_TP102 2.30 SOIL	19/05/21	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1851446	SBA_AUK_TP103 0.20 SOIL	19/05/21	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1851447	SBA_AUK_TP102 2.30 LEACHATE	19/05/21	GJ 250ml x2, GJ 60ml x2, PT 1L x2		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2024	Sulphide	mg/kg	10	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	Air Dried	No	Yes	Yes
DETSC2123	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 062	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

End of Report