SUPPLEMENTARY GROUND CONTAMINATION RISK ASSESSMENT



ST. WILFRID'S RC COLLEGE, TEMPLE PARK ROAD, SOUTH SHIELDS, NE34 0QA

PREPARED FOR FAITHFUL+GOULD

GEOL CONSULTANTS LTD

QUALITY CONTROL

Project No.	**GEOL20-9553**	**Client**	**Faithful+Gould**
Design Team	**Jasper Kerr Consulting Engineers Limited**		
Report Type	**Supplementary Ground Contamination Risk Assessment**		
Project Type	**Proposed School Classroom Extension**		
Site Address	**St Wilfrid's RC College, Temple Park Road, South Shields, South Tyneside, NE34 0QA**		
NGR	**461127, 454165**		
Date	**05/04/2021**		

Prepared by **Qualifications** **Position**	**Richard Stripp** **BSc (Hons) MSc FGS MIEnvSc** **Director**	[redacted]
Approved by **Qualifications** **Position**	**Terry M^{c}Menam** **BSc (Hons) CSci CEnv FGS MIEnvSc FCMI MIoD** **Director**	

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REPORT REVISION HISTORY				
Issue	**Description**	**Date**	**Author**	**Approval**
1	**Final Issue**	**05/04/2021**	**RS**	**TMc**

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TABLE OF CONTENTS

1.0 INTRODUCTION	PAGE 3
2.0 SITE DETAILS & DESCRIPTION	PAGE 4
3.0 SCOPE OF WORKS	PAGE 5
4.0 DETAILED QUANTITATIVE RISK ASSESSMENT	PAGE 6
5.0 CONCLUSIONS	PAGE 8

APPENDIX I	SITE LOCATION PLAN, AERIAL PHOTOGRAH, EXISTING SITE LAYOUT PLAN & PROPOSED DEVELOPMENT LAYOUT PLAN
APPENDIX II	SOUTH TYNESIDE COUNCIL RESPONSE
APPENDIX III	LABORATORY TESTING RESULTS

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1.0 Introduction

Geol Consultants Limited (GEOL) were instructed by Faithful+Gould to undertake a supplementary ground contamination risk assessment for a parcel of land located within the boundaries of St Wilfrid's RC College on Temple Park Road in South Shields, where proposals have been formulated to construct a new 2-storey building extension sometime soon. All relevant details relating to the site are given in the Table on the following page.

The ground conditions and potential contamination issues associated with this site were investigated through the completion of ground investigation works during October 2020, and reference should be made to GEOL's Geo-Environmental Investigation Report (GEIR), reference GEOL20-9553, dated November 2020, which should be read in conjunction with this supplementary report. Previously, the findings of the ground investigation works identified made ground deposits across the site area comprising a mixture of disturbed clay or sand deposits containing occasional anthropogenic debris ranging in depths between 0.14m up to 0.60m. The results of the contamination screening and the ground contamination risk assessment carried out identified some slightly elevated levels of Dibenz(ah)anthracene only (max. value 1.5mg/kg) which exceed the chosen critical concentration values adopted for the proposed end-use (Public Open Space$_{resi}$) within the shallow 'topsoil' deposits recorded at the locations of BH's 03 and 04, which are located in areas of soft landscaping.

Whilst in our opinion, it was felt that the slight exceedances recorded did not represent a significant risk to current or future end users of the site, a consultation response received from South Tyneside Council (STC) requested that further risk assessment or remedial measures would be required as part of the proposed development to further confirm the level of Dibenz(ah)anthracene does not represent an unacceptable risk to the site end users. GEOL contacted Amy Ridgeon (Environmental Protection Officer) during February 2021, a copy of the correspondence is contained in Appendix II, to discuss the option of carrying out bio-accessibility testing as a possible acceptable form of carrying out further detailed quantitative risk assessment, to further assess the risks posed to human health from the identified contaminants of concern. The proposed methodology was accepted as an appropriate proposal to address the issues which has been raised above.

The purpose of this report is to provide information relating to the following.

- Undertake further detailed quantitative risk assessment (DQRA) utilising bio-accessibility testing with a view to determining the overall risks they pose towards the future site end-users where exposure pathways will be available post completion of the proposed development works
- Determine the scope of any further investigation works or remediation measures required for the site prior to commencing with any future development works

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1.0 Introduction (Cont'd)

The information contained in this technical report is limited to the area of the site as shown on the existing site layout plan attached in Appendix I, and to those areas accessible at the time of the ground investigation works being undertaken. When considering the scope of works completed for the development proposals, any features or issues not specifically mentioned cannot be assumed to have been covered.

2.0 Site Details & Description

Detail	Description
Site address	St Wilfrid's RC College, Temple Park Road, South Shield, Tyne & Wear, NE34 0QA
NGR	461127, 454165
Current site use	The site is occupied by St Wilfrid's RC College, a secondary school and 6th form, comprising several buildings with areas of hardstanding and soft landscaping
Proposed site use	Proposals have been formulated to construct a new 2-storey extension on the southwestern portion of the site, to house new classrooms

3.0 Scope of Works

The supplementary investigation works undertaken by GEOL comprised the sinking of 2 no. manually excavated trial pits positioned at the locations of BH's 03 & 04 to obtain new and representative samples of the made ground / soil deposits, so that these samples could be subjected to further laboratory screening for bio-accessibility testing.

The representative samples of the made ground soil deposits were subjected to the PBETS BARGE method for bioaccessibility testing, to allow an assessment of any risks the existing soil deposits may pose to future end-users if these soils were ingested. The methodology of bio-accessibility testing is to mimic the human digestive processes in the stomach and intestinal tract to determine the actual bio-accessible fraction of the contaminant of concern which can be absorbed by the human body. The bio-accessible fraction is then compared to the critical concentration value to assess if the contaminant of concern represents a risk to human health. The testing was completed by Eurofins Chemtest Ltd (UKAS & MCERTS accredited), and the suites of contamination analysis completed are summarised below.

- 2 no. soil samples screened for Speciated PAH's and Bio-accessible PAH's

The results are contained within the Eurofins Chemtest Final Report (reference: 21-09223-1), a copy of which can be seen attached in Appendix III.

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4.0 Detailed Quantitative Risk Assessment

A summary of the previous soil testing results identified during the first phase of ground investigation works can be seen in the Table below.

Polycyclic Aromatic Hydrocarbons	Critical concentration (mg/kg)	No. of samples screened	Max. concentration recorded (mg/kg)
Acenaphthene	15,000[(1)]	5	1.7
Acenaphthylene	15,000[(1)]	5	0.2
Anthracene	74,000[(1)]	5	3.2
Benzo(a)anthracene	29[(1)]	5	4.2
Benzo(a)pyrene	5.7[(1)]	5	3.9
Benzo(b)fluoranthene	7.2[(1)]	5	3.1
Benzo(ghi)perylene	640[(1)]	5	1.7
Benzo(k)fluoranthene	190[(1)]	5	1.6
Chrysene	57[(1)]	5	4.8
Dibenz(ah)anthracene	**0.58[(1)]**	5	**1.5 (BH03 & BH04)**
Fluoranthene	3,100[(1)]	5	11
Fluorene	9,900[(1)]	5	2.2
Indeno(123cd)pyrene	82[(1)]	5	1.1
Naphthalene	4,900[(1)]	5	2.2
Phenanthrene	3,100[(1)]	5	12
Pyrene	7,400[(1)]	5	9.4

[(1)] = The LQM / CIEH Suitable 4 Use Levels – Geol reference no. S4UL3816 - (Public Open Space$_{resi}$, based on 6% SOM for organic analytes)

The results of the supplementary soil screening and bio-accessibility testing are summarised in the Table below and on the following page.

Polycyclic Aromatic Hydrocarbons	Critical Conc. (mg/kg)	Concentration in soil (mg/kg)	Bio-accessibility Conc. (mg/kg)	Bio-accessible Fraction (% *w/w*)
Acenaphthene	15,000[(1)]	0.60	<0.1	<0.1
Acenaphthylene	15,000[(1)]	0.84	<0.1	<0.1
Anthracene	74,000[(1)]	1.8	<0.1	<0.1
Benzo(a)anthracene	29[(1)]	7.3	<0.1	<0.1
Benzo(a)pyrene	5.7[(1)]	**7.4**	<0.1	<1.0

[(1)] = The LQM / CIEH Suitable 4 Use Levels – Geol reference no. S4UL3816 - (Public Open Space$_{resi}$, based on 6% SOM for organic analytes)

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4.0 Detailed Quantitative Risk Assessment (Cont'd)

Polycyclic Aromatic Hydrocarbons	Critical Conc. (mg/kg)	Concentration in soil (mg/kg)	Bio-accessibility Conc. (mg/kg)	Bio-accessible Fraction (% *w/w*)
Benzo(b)fluoranthene	7.2[(1)]	**10**	<0.1	<0.1
Benzo(ghi)perylene	640[(1)]	4.8	<0.1	<0.1
Benzo(k)fluoranthene	190[(1)]	4.3	<0.1	<0.1
Chrysene	57[(1)]	6.1	<0.1	<0.1
Dibenz(ah)anthracene	0.58[(1)]	**2.1**	<0.1	<0.1
Fluoranthene	3,100[(1)]	15	<0.1	<0.1
Fluorene	9,900[(1)]	0.84	<0.1	<0.1
Indeno(123cd)pyrene	82[(1)]	5.0	<0.1	<0.1
Naphthalene	4,900[(1)]	0.96	<0.1	<0.1
Phenanthrene	3,100[(1)]	8.2	<0.1	<0.1
Pyrene	7,400[(1)]	14	<0.1	<0.1

[(1)] = The LQM / CIEH Suitable 4 Use Levels – Geol reference no. S4UL3816 - (Public Open Space$_{resi}$, based on 6% SOM for organic analytes)

The results have confirmed that the bio-accessible fractions of all the speciated PAH's do not exceed the critical concentration values for these analytes, and therefore the total concentrations recorded within the samples tested are not felt to represent an unacceptable level of risk to Human Health.

Whilst this round of testing has identified higher total concentrations of Benzo(a)pyrene, Benzo(b)fluoranthene and Dibenz(ah)anthracene compared to those previously recorded, the results of the bio-accessibility testing has proven the concentrations of all the PAH's do not exceed the laboratory's limit of detection and as such do not exceed the critical concentrations adopted for this site.

5.0 Conclusions

When considering the supplementary works carried out and the above results, it can be seen that the presence of elevated PAH's within the made ground soil deposits present on this site will not represent an unacceptable level of risk to future end users. Therefore, there is no requirement for remediation on this site prior or post-development of the proposed school building extension.

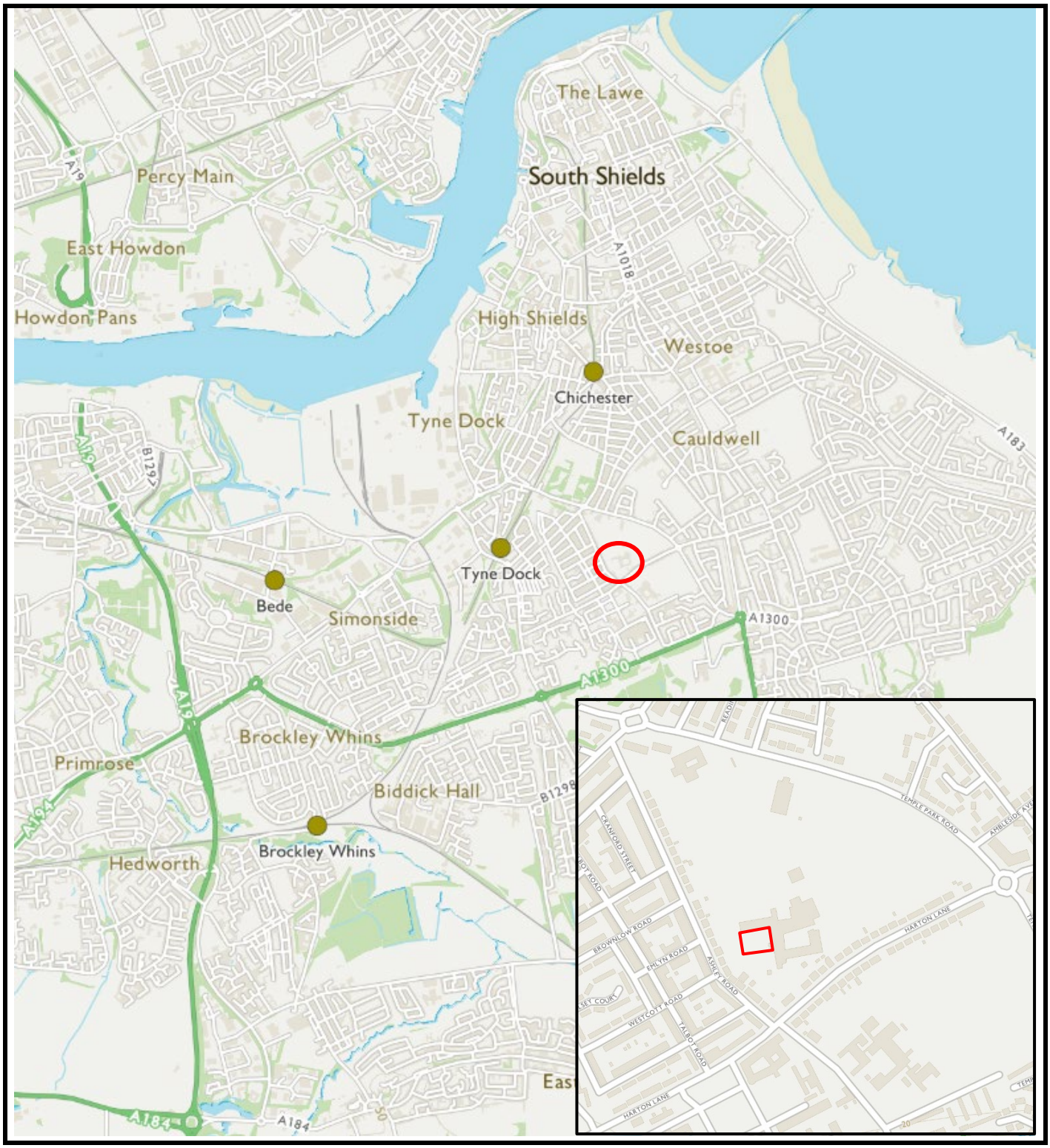
End of Report

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APPENDIX I

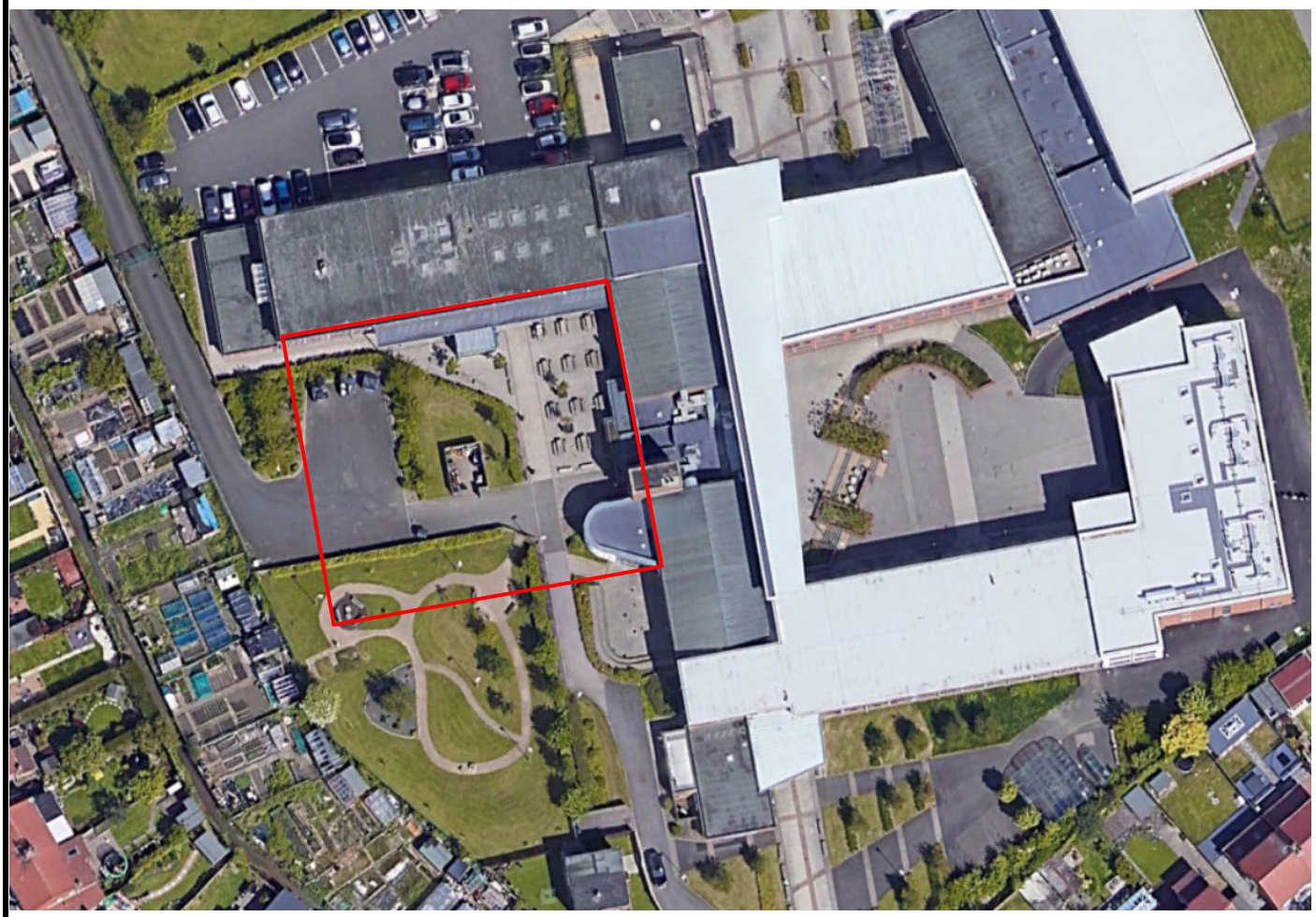
Site Location Plan
Aerial Photograph
Existing Site Layout Plan &
Proposed Development Layout Plan

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SITE LOCATION PLAN

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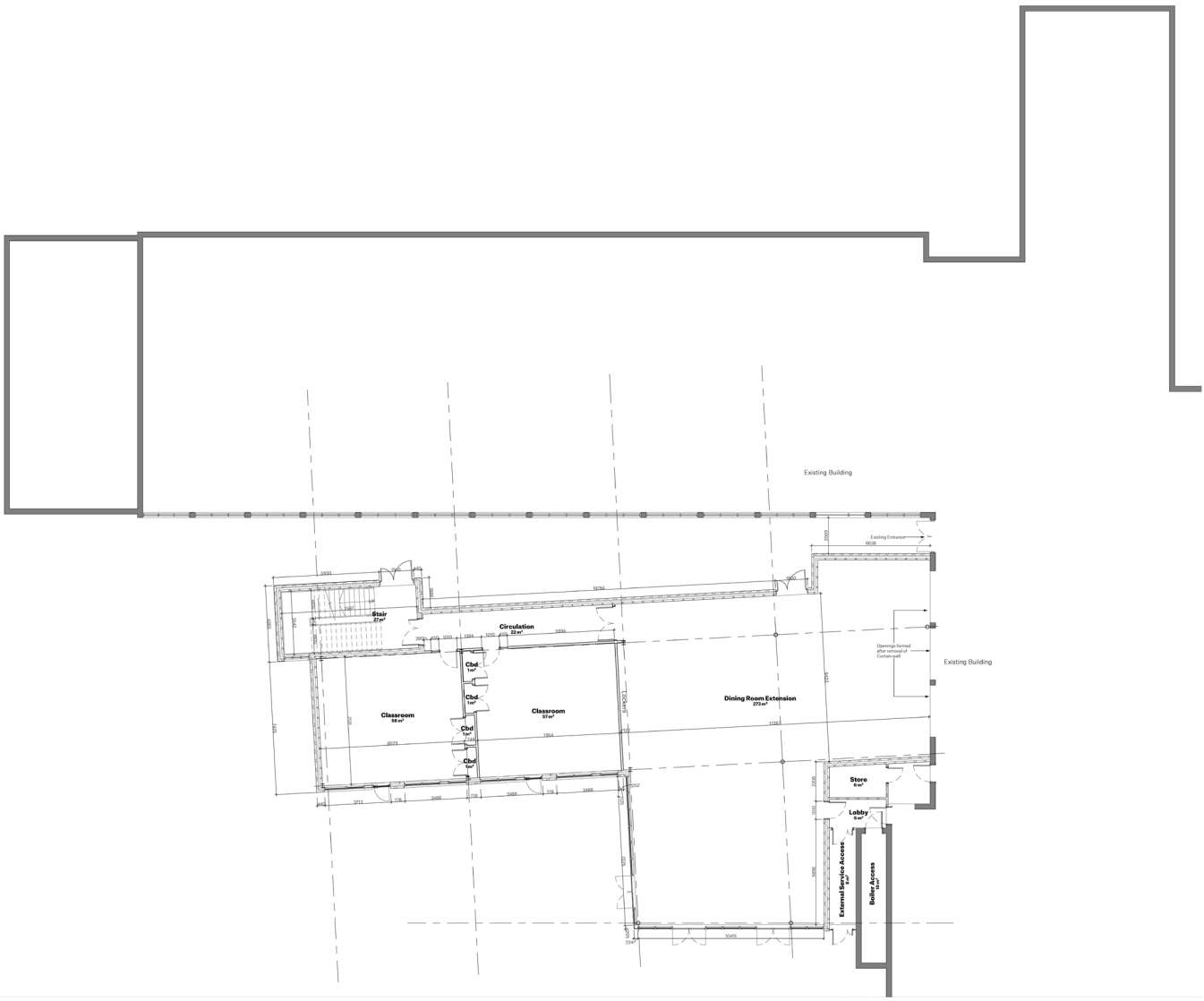
AERIAL PHOTOGRAPH

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EXISTING SITE LAYOUT PLAN

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PROPOSED DEVELOPMENT LAYOUT PLAN

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APPENDIX II

South Tyneside Council Response

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Email: enquiries@geolconsultants.co.uk

From: Amy Ridgeon
To: Richard Stripp
Subject: RE: St Wilfrids
Date: 03 February 2021 15:06:30

Afternoon Richard,

Thank you for sending on the additional report – it is encouraging to see that the levels are not elevated elsewhere on the site.

Considering the contaminant and the receptor, I would be happy to accept the Bio-accessibility testing method to determine the risks of these soils to the end user.

Kind regards
Amy

From: Richard Stripp <richardstripp@geolconsultants.co.uk>
Sent: 03 February 2021 11:15
To: Amy Ridgeon <Amy.Ridgeon@southtyneside.gov.uk>
Subject: RE: St Wilfrids

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Hi Amy,

Many thanks for getting touch.

Yes, there were some localised elevated concentrations of Dibenz(ah)anthracene recorded in two samples taken from areas of current soft landscaping. We have just recently carried out further investigation works within the soft landscaping area to the south of the proposed development (report attached), which included sampling and screening of the initial soil deposits. No elevated levels of any contaminants, including Dibenz(ah)anthracene, were recorded, perhaps suggesting that this is not site wide / pervasive.

Carrying out further sampling and screening of the soils within proximity to the two locations is one option.

Within the LQM S4UL's for Human Health Risk Assessment document, the greatest exposure pathway risk is via ingestion of soil and indoor dust (91.8%). Would you therefore consider Bio-accessibility Testing as an alternative option to determining the risks these soils pose to students

and teachers?

If the above option is not considered suitable, then we would propose to carry out a DQRA to determine a more appropriate and site specific assessment criteria (SSAC) value for a school setting rather than using GAC's.

If you could let me know your thoughts, that would be greatly appreciated.

Regards

Richard Stripp **BSc. (Hons) MSc. FGS MIEnvSc.**
Director
Geol Consultants Limited

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From: Amy Ridgeon <Amy.Ridgeon@southtyneside.gov.uk>
Sent: 03 February 2021 10:18
To: Richard Stripp <richardstripp@geolconsultants.co.uk>
Subject: St Wilfrids

Good morning Richard
I have been asked by David Rogerson to get in touch regarding St Wilfrid's School extension. There was found to be an area within the soft landscaping where elevated Dibenz(ah)anthracene were found in two of the samples taken within the topsoil of 1.5mg/kg compared to the critical

concentration of 0.58mg/kg.

It could be that some additional sampling is undertaken within this area to determine if this is a 'hotspot' or if the concentrations are elevated across a wider area.
If you wish to discuss this further please do let me know
Kind regards

Amy

Amy Ridgeon
Environmental Protection Officer
Environmental Protection

(Part time Tuesday – Thursday)
Development Services
South Tyneside Council
Town Hall and Civic Offices
Westoe Road
South Shields
Tyne and Wear
NE33 2RL

Tel no: 0191 424 7928
Email: amy.ridgeon@southtyneside.gov.uk

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APPENDIX III

Laboratory Testing Results

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Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	21-09223-1		
Initial Date of Issue:	29-Mar-2021		
Client	GEOL Consultants Limited		
Client Address:	3 Gladstone Terrace Gateshead Tyne and Wear NE8 4DY		
Contact(s):	Richard Stripp		
Project	GEOL20-9553 St Wilfrid's RC College, Temple Park Road,		
Quotation No.:		**Date Received:**	22-Mar-2021
Order No.:	GEOL20-9553	**Date Instructed:**	23-Mar-2021
No. of Samples:	2		
Turnaround (Wkdays):	5	**Results Due:**	29-Mar-2021
Date Approved:	29-Mar-2021		
Approved By:	[redacted]		
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: GEOL20-9553 St Wilfrid's RC College, Temple Park Road,

Client: GEOL Consultants Limited			**Chemtest Job No.:**		21-09223	21-09223
Quotation No.:			**Chemtest Sample ID.:**		1165284	1165285
			Client Sample ID.:		BH03	BH04
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.00	0.00
			Bottom Depth (m):		0.17	0.25
			Date Sampled:		17-Mar-2021	17-Mar-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Moisture	N	2030	%	0.020	21	23
Ace Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ace Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ace Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ace Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Acl Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Acl Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Acl Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Acl Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Ant Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ant Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ant Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ant Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
B[a]A Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[a]A Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[a]A Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[a]A Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
B[a]P Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[a]P Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[a]P Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[a]P Bioaccessible Fraction	N	2640	%	1.0	< 1.0	< 1.0
B[b]F Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[b]F Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[b]F Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[b]F Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
B[k]F Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[k]F Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[k]F Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[k]F Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Cry Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Cry Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Cry Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Cry Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Dba Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Dba Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Dba Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Dba Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Fla Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10

Results - Soil

Project: GEOL20-9553 St Wilfrid's RC College, Temple Park Road,

Client: GEOL Consultants Limited			**Chemtest Job No.:**		21-09223	21-09223
Quotation No.:			**Chemtest Sample ID.:**		1165284	1165285
			Client Sample ID.:		BH03	BH04
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.00	0.00
			Bottom Depth (m):		0.17	0.25
			Date Sampled:		17-Mar-2021	17-Mar-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Fla Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Fla Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Fla Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Flu Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Flu Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Flu Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Flu Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
B[ghi]P Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[ghi]P Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[ghi]P Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
B[ghi]P Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Ind Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ind Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ind Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Ind Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Nap Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Nap Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Nap Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Nap Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Phe Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Phe Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Phe Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Phe Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Pyr Stomach Bioaccessibility	N	2640	mg/kg	0.10	< 0.10	< 0.10
Pyr Intestinal Bioaccessibility 1	N	2640	mg/kg	0.10	< 0.10	< 0.10
Pyr Intestinal Bioaccessibility 2	N	2640	mg/kg	0.10	< 0.10	< 0.10
Pyr Bioaccessible Fraction	N	2640	%	0.10	< 0.10	< 0.10
Naphthalene	U	2700	mg/kg	0.10	0.96	0.28
Acenaphthylene	U	2700	mg/kg	0.10	0.84	0.17
Acenaphthene	U	2700	mg/kg	0.10	0.60	0.11
Fluorene	U	2700	mg/kg	0.10	0.84	0.13
Phenanthrene	U	2700	mg/kg	0.10	8.2	0.97
Anthracene	U	2700	mg/kg	0.10	1.8	0.35
Fluoranthene	U	2700	mg/kg	0.10	15	2.0
Pyrene	U	2700	mg/kg	0.10	14	2.1
Benzo[a]anthracene	U	2700	mg/kg	0.10	7.3	1.3
Chrysene	U	2700	mg/kg	0.10	6.1	1.2
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	10	1.8

Results - Soil

Project: GEOL20-9553 St Wilfrid's RC College, Temple Park Road,

Client: GEOL Consultants Limited			**Chemtest Job No.:**		21-09223	21-09223
Quotation No.:			**Chemtest Sample ID.:**		1165284	1165285
			Client Sample ID.:		BH03	BH04
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.00	0.00
			Bottom Depth (m):		0.17	0.25
			Date Sampled:		17-Mar-2021	17-Mar-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	4.3	0.88
Benzo[a]pyrene	U	2700	mg/kg	0.10	7.4	1.2
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	5.0	0.74
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	2.1	0.62
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	4.8	0.87
Total Of 16 PAH's	U	2700	mg/kg	2.0	89	15

Test Methods

SOP	Title	Parameters included	Method summary
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2640	Cyclohexane Extractable Materials	Cyclohexane Extractable Materials	Solvent extraction / Gravimetry
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com