

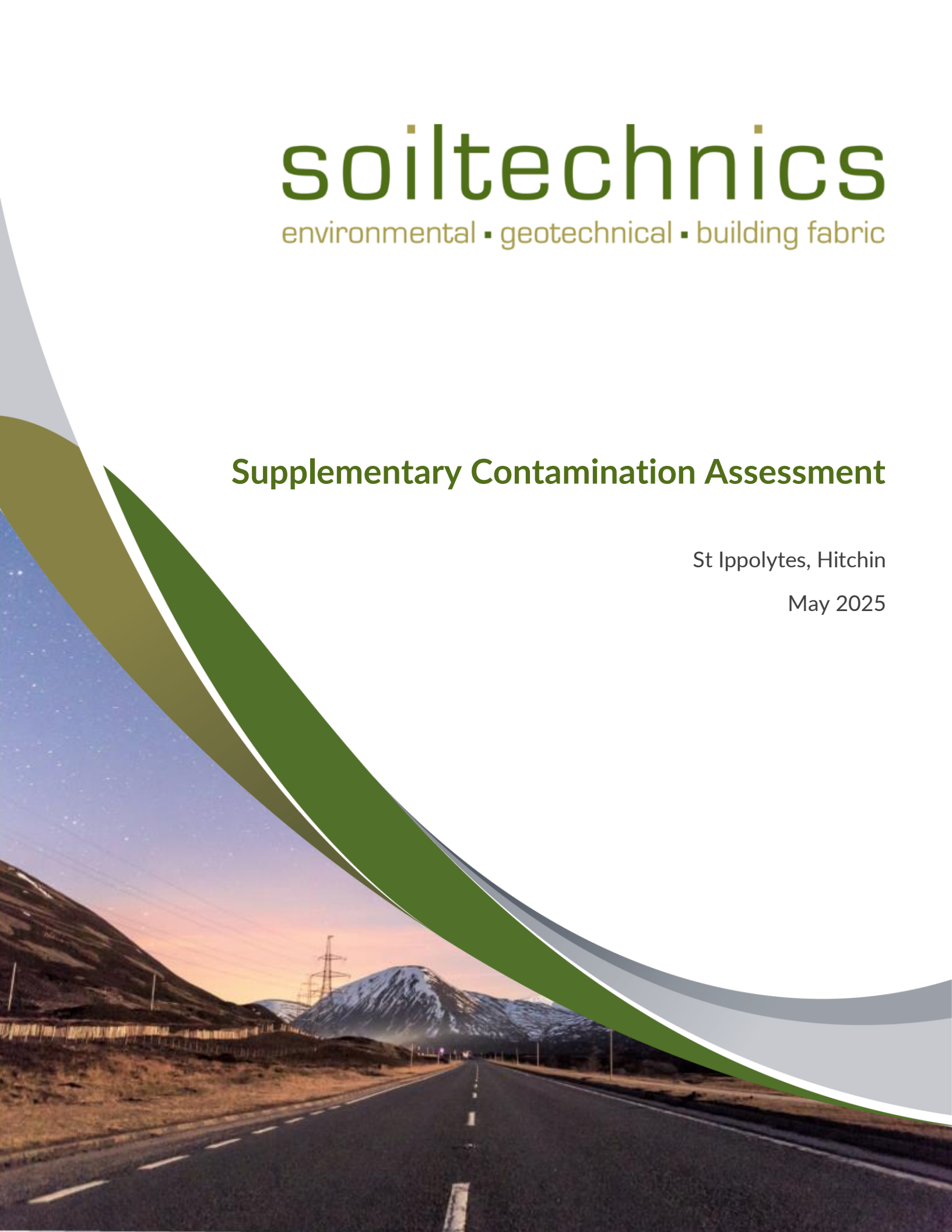
soiltechnics

environmental • geotechnical • building fabric

Supplementary Contamination Assessment

St Ippolytes, Hitchin

May 2025



Project Details

Site: St Ippolytes, Hitchin
Document Title: Supplementary Contamination Assessment
Document no.: STX7104-R01-Rev_A
Date: May 2025
Client: Unyte
Issuing office: Soiltechnics Ltd
Cedar Barn, White Lodge, Walgrave, Northampton. NN6 9PY
Tel: 01604 781 877 E-mail: mail@soiltechnics.net

Document history and status

Revision	Date	Description	Author	Reviewer
A	May 2025	First Issue	JB	MOH

Appendix A	Drawings
Appendix B	Site Diary
Appendix C	Laboratory Test Results
Appendix D	CLEA Model
Appendix E	Site Specific Chemical Screening



1 Introduction

1.1 Brief

- 1.1.1 This report has been prepared following instructions received from Unyte.
- 1.1.2 We confirm our brief was to undertake sampling and analysis of a topsoil and subsoil at the St Ippolytes development to assess the bioaccessibility of elevated arsenic to refine the current land contamination assessment for the site and reassess the suitability for reuse of topsoil and subsoil in soft landscaped areas.
- 1.1.3 The material is site won and placed in two separate stockpiles, herein referred to as Stockpile 01 (STP01) comprising topsoil, and Stockpile 02 (STP02) comprising subsoil.

1.2 Previous Reports

- 1.2.1 A previous Ground Investigation Report has been completed by Paddock Geo Engineering in March 2019 (referenced P18-184gi), and a subsequent Remediation Scheme was completed by RDM Environmental and Geotechnical Engineering Ltd in October 2024 (referenced RDM1210).
- 1.2.2 The Ground Investigation Report identified elevated levels of arsenic on site and highlighted these pose a potential risk to human health and end users of the site following development.
- 1.2.3 Both the Ground Investigation and Remediation Strategy report identified that the arsenic may be naturally occurring and of low bioaccessibility and there is a potential to refine the assessment by determining the bioaccessible fraction of arsenic on site and develop site specific assessment criteria (SSAC). Without such works, a remedial clean cover system would be required as a precaution.
- 1.2.4 This 2025 report presents the findings of bioaccessibility testing and a revised land contamination risk assessment.

1.3 Development Proposals

- 1.3.1 The planning application details are summarised below, as stated on the local planning portal. A proposed layout is provided within Appendix A.

Topic	Detail
Local Authority	North Hertfordshire District Council
Planning application reference	19/01669/FP
Address	Land On The South West Side Of Stevenage Road, St Ippolyts, Hertfordshire
Proposal	Erection of 14 dwellings including new vehicular access off Sperberry Hill (serving 10 dwellings) and new vehicular accesses off Stevenage Road (serving 4 dwellings) (as amended by plans received 13/11/23, 03/06/24 and 17/06/24)

Table 1-A: Planning Application Summary

- 1.3.2 The report is based on the project proposals and information outlined above; should the scheme change then it will be necessary to review the report.

1.4 Material Origin and Movements

- 1.4.1 The material under investigation has been generated as part of the site strip and enabling works.

1.5 Limitations

- 1.5.1 Soiltechnics disclaims any responsibility to our Client and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence in accordance with the terms of our contract, taking account of the resources, investigations and testing devoted to it by agreement with our Client. This report is confidential to our Client and Soiltechnics accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk

2 Desk Study Information And Site Observations

2.1 Site Location and Description

- 2.1.1 The subject site is within a rural area on the southern outskirts of St Ippolytes, approximately 4km northwest of the centre of the town of Stevenage.
- 2.1.2 The site is an irregularly shaped parcel of land and is accessed off Stevenage Road at the northeast corner. Prior to the site strip the site comprised scrub vegetation and brambles, along with a small mound of previously cleared vegetation.

2.2 Site History

- 2.2.1 The site was open land from before the earliest map edition dated 1881 and up until the 1960s when a small structure was noted along the northern boundary. A series of five glass structures were noted on the 1972 map and the site was identified as a Nursery. The structures appear to have been removed during the 1990s and no subsequent development was observed on site.
- 2.2.2 The immediately surrounding area has been rural and inferred as agricultural in nature since 1881 until 1924 when allotments were located to the north, and in the 1970s detached residential properties were developed to the west and then to the east in the early 1980s.

2.3 Geology

- 2.3.1 The Ground Investigation report summarised the ground conditions as reworked topsoil over glaciofluvial deposits (clayey/silty very gravelly SAND) to a depth of 1.2 to 2.70 m bgl underlain by the Lowestoft Formation (silty CLAY).

2.4 Summary of Previous Chemical Testing

- 2.4.1 The 2019 Ground Investigation Report identified elevated arsenic in topsoil and subsoil exceeding the residential with plant uptake GAC.
- 2.4.2 No other contaminants of concern were identified.

3 Fieldwork

3.1 Objective

- 3.1.1 The supplementary works carried out by Soiltechnics were undertaken to complete bioaccessibility testing for arsenic within the topsoil and subsoil on site to determine if the material is chemically suitable for reuse.
- 3.1.2 This report details the soil sampling and testing undertaken and provides an updated risk assessment in relation to the proposed development.

3.2 Scope

- 3.2.1 Fieldwork was carried out by Soiltechnics on 1st May 2025 and comprised the sampling of two stockpiles of site-won soils from a strip of the site.
- 3.2.2 Plans showing sampling locations are presented in Appendix A. Drawings and a site diary including photos of sampling locations are presented in Appendix B. The details of samples collected are presented in the table below.

Location	Volume Estimate	No. of samples	Material type
STP01	300 m ³	4	Topsoil
STP02	400 m ³	4	Subsoil

Table 3-A: Summary of collected samples

- 3.2.3 All soils exposed in excavations were described in accordance with BS EN ISO 14688 'Identification and Classification of soil'.

3.3 Material Description

- 3.3.1 Topsoil was encountered as brown slightly gravelly clayey fine to medium sand.
- 3.3.2 Subsoil was encountered as greyish brown gravelly sandy clay.

4 Contamination Assessment

4.1 Conceptual Site Model (CSM)

4.1.1 A CSM was developed as part of the 2019 Ground Investigation Report. The only relevant pollutant linkage established related to the potential risk of harm from elevated levels of arsenic in near surface soils.

4.1.2 The 2019 Ground Investigation Report recommended an assessment of bioaccessibility to further inform the risk assessment.

4.2 Bioaccessibility Analysis

4.2.1 A review of the site history indicates that the nurseery could have given risen to elevated arsenic concentrations, such as through the use of ash based fertilisers and application of old pesticides (such as lead arsenate). However, concentrations of likely co-contaminants such as lead are low and arsenic was present in both topsoil and subsoil strata indicating it may be naturally occurring.

4.2.2 The site is within an area where the natural background levels of arsenic are in the 90th to 95th percentile for the UK, for which you would expect arsenic levels of approx. 30 mg/kg as shown in the figure below. Laboratory testing to date has indicated an average concentration of 45 mg/kg. While this is higher than expected background concentrations, given it has been encountered in both topsoil and subsoil with the highest arsenic concentration (61 mg/kg) occurring within natural subsoil at 1 bgl, the elevated arsenic is potentially naturally occurring.

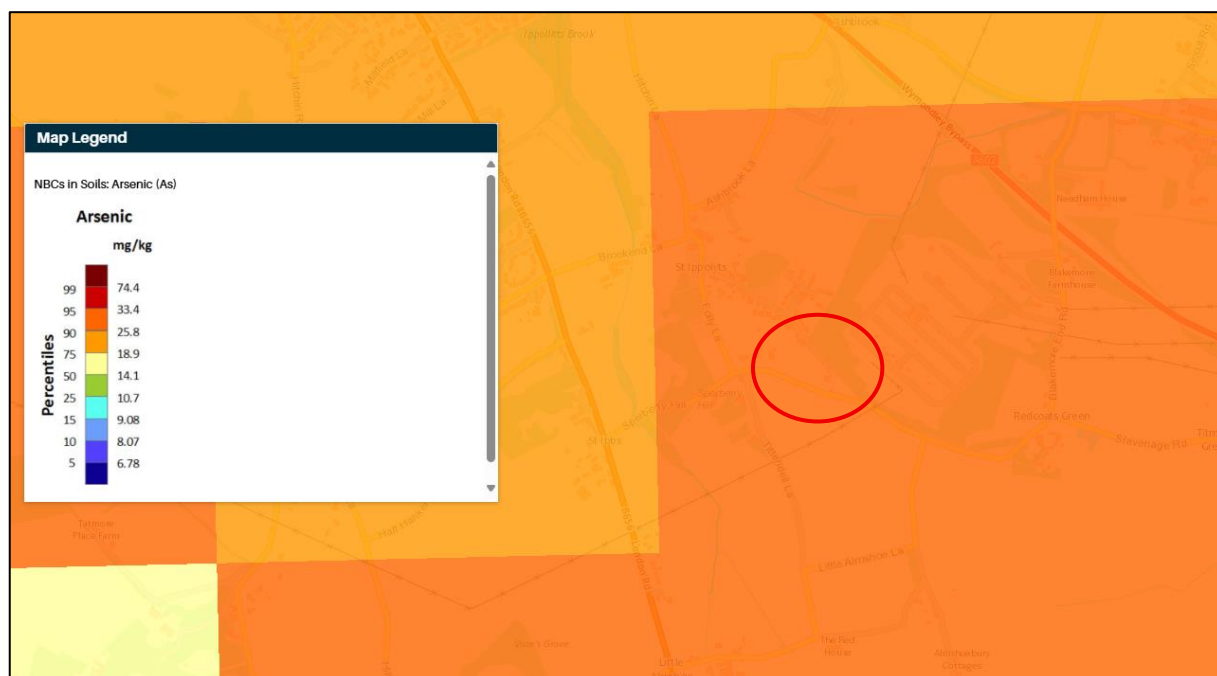


Figure 4-A: BGS Arsenic Natural Background Concentrations Map Extract

4.2.3 Typically, a significant proportion of arsenic and lead containing compounds are not toxic to humans. It is possible, through oral bioaccessibility testing and the use of the CLEA model to derive a higher site-specific guideline value based on the amount of contaminant accessible to the body when soil from the site is ingested.

4.2.4 All samples taken were submitted for testing for a heavy metal suite. A representative sample from each stockpile was also submitted for arsenic BARGE testing (STP01-01 and STP02-01).

4.2.5 Results show a maximum bioaccessible fraction of arsenic of 0.57% in topsoil and 0.39% in subsoil.

4.3 Criteria for Assessment of Test Data – Human receptors

4.3.1 The maximum bioaccessible fraction of arsenic was inputted into the CLEA software to derive SSAC. The CLEA model sheets are presented in Appendix D and the updated chemical screening using the SSAC is presented in Appendix E. Note that the value entered into the CLEA model is as a fraction not a percentage. The derived SSAC for arsenic under a residential with plant uptake scenario is 460 mg/kg.

4.3.2 Assessment of all other metal compounds has been carried out using published generic assessment criteria (GACs). The GACs act as screening values to provide a 'trigger' to an assessor that soil concentrations above these limits might present an unacceptable risk.

4.4 Assessment of laboratory testing results

4.4.1 Laboratory testing results are presented in Appendix C and the screening of the results is presented within the screening sheet in Appendix E.

4.4.2 Arsenic was measured at concentrations range from 34 mg/kg to 74 mg/kg in topsoil and 39 mg/kg to 84 mg/kg in subsoil. Overall the mean value is 56 mg/kg, compared to the generic guideline value of 37 mg/kg for residential without plant update. All results bar one exceeded the published GAC; however, none of the test results exceed the site specific SSAC of 460 mg/kg, which is based on bioaccessibility of the soils on site testing.

4.4.3 In keeping with the findings of the previous ground investigation works, no other heavy metals were identified above generic residential with plant uptake GACs.

4.4.4 Based on this assessment, the concentrations of arsenic is not considered to pose an unacceptable risk to end users of the proposed development.

4.5 Risk Assessment Conclusions and Recommendations

4.5.1 Elevated arsenic concentrations at the site are likely to be naturally occurring, albeit higher than typical background levels in the area.

4.5.2 BARGE testing was conducted on topsoil and subsoil samples to determine the bioaccessible fraction and develop site specific assessment criteria (SSAC).

4.5.3 When compared to the derived SSAC no exceedances have been encountered, and no other metal compounds exceed generic criteria. Therefore, the near surface soils are not considered to pose an unacceptable risk to the proposed end users and the provision of a remedial capping layer is not required.

4.5.4 In addition, any further stipulation of remediation such as removal, disposal and replacement of near surface topsoil or subsoil is considered environmentally unsustainable.

4.5.5 In respect to the risks from land contamination, we are of the opinion that the soils are chemically suitable for use within the proposed residential development without the need for any remedial action.

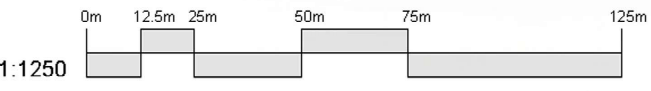
Appendix A Drawings



- Notes
1. Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies must be reported to the Architect or Engineer before proceeding. © This drawing is copyright
 2. Reproduced from OS Sitemap © by permission of Ordnance Survey® on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright 2008. All rights reserved. Licence number 100007126.

- Key -
- Existing Tree / Bushes
 - Existing Development
 - Proposed Development
 - Proposed Adoptable Road
 - Proposed Tree
 - Public Right of way #17
 - Public Bridleway #16
 - Continuation of building frontage
 - 2.4m x 50m Visibility Splays

B	Additional dwelling added	KJ	TF	17-07-18
A	Proposed green frontage and Visibility Splays to Sperberry Hill incorporated	RR	TF	26-06-18
Revision	Description	Drawn	Checked	Date
Preliminary				
Information				
Tender				
Construction				
As Built				





Woods Hardwick
Architects, Engineers and Development Consultants

15-17 Goldington Road
Bedford
MK40 3NH
United Kingdom
T. +44 (0)1234 268862
F. +44 (0)1234 353034
mail@woodshardwick.com
www.woodshardwick.com

Title **Stevenage Rd / Sperberry Hill, St Ippolyts**

Details **Illustrative Layout**

Scale **1:1250@A2** Date **April 2018** Drawn **RR** Chk **TF**

Please consider the environment before printing this drawing

18142-1003B



- Key:
- Exploratory Holes
 - Site Boundary
 - Stockpile

Notes

- 1) Base image provided by Google.
- 2) All drawn features are approximate.

Contains OS data © Crown copyright [and database right] [2024]
Map data © 2024 Google

A	April 2025	First issue
REV	DATE	COMMENT ON VARIATION

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PROJECT
St Ipolyttes, Hitchin
TITLE
Location Plan
DRAWING No.
STX7014-D01-A

Appendix B Site Diary

Site Daily Record

Project: St Ippolytes	Job No: STX7014	Engineer: Dominic Rees
Day: Friday	Date: 02/05/2025	Weather: Dry

Plant, crew and visitors on site

Fenway Civils – Principal Contractor onsite with machine excavators.

Details of work carried out

Visit to sample stockpiled topsoil and subsoil.

Stockpile 01:

Approx 300m³

Located within the northeastern corner of the site. Comprises brown slightly gravelly clayey fine to medium sand.

Stockpile 02:

Approx 400m³

Located within the north of the site. Greyish brown gravelly sandy clay.

Delays and incidents:

No incidents or delays.

Client instructions, variations, extra work:

Four samples taken per material submitted for metal and Barge testing.

Projected programme:

Reuse of soil dependent on chemical testing results.

Photographic Evidence



Figure 1: STP01 (Spatial)



Figure 2: STP01 (Detail)



Figure 3: STP02 (Spatial)



Figure 4: STP02 (Detail)

Appendix C Laboratory Test Results



Final Report

Report No.: 25-15093-1

Initial Date of Issue: 13-May-2025

Re-Issue Details:

Client *Soiltechnics Limited*

Client Address: *1st Floor Unit 9 Westpoint Enterprise
Park
Clarence Avenue
Trafford Park
Manchester
M17 1QS*

Contact(s): *Admin*

Project *STX7014 St Ippolyttes*

Quotation No.: **Date Received:** 07-May-2025

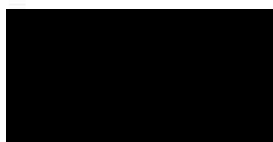
Order No.: POR022223 **Date Instructed:** 07-May-2025

No. of Samples: 8

Turnaround (Wkdays): 5 **Results Due:** 13-May-2025

Date Approved: 13-May-2025

Approved By:



Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: STX7014 St Ippolyttes

Client: Soiltechnics Limited		Chemtest Job No.:				25-15093	25-15093	25-15093	25-15093	25-15093	25-15093	25-15093
Quotation No.:		Chemtest Sample ID.:				1969586	1969587	1969588	1969589	1969590	1969591	1969592
Order No.: POR022223		Client Sample Ref.:				1	2	3	4	1	2	3
		Client Sample ID.:				STP01-0-1	STP01-0-2	STP01-0-3	STP01-0-4	STP02-0-1	STP02-0-2	STP02-0-3
		Client Reference:				STP01	STP01	STP01	STP01	STP02	STP02	STP02
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Date Sampled:				02-May-2025	02-May-2025	02-May-2025	02-May-2025	02-May-2025	02-May-2025	02-May-2025
		Time Sampled:				9:11	9:26	9:27	9:27	9:13	10:02	10:05
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Moisture		N	2030	%	0.020	13	16	14	12	12	10	10
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones, Roots and	Stones, Roots and	Stones, Roots, Wood and	Stones, Roots and	Stones, Roots and	Stones and	Stones, Roots and
Soil Texture		N	2040		N/A	Loam	Clay	Loam	Loam	Clay	Clay	Loam
Arsenic		M	2455	mg/kg	0.5	34	57	48	74	39	66	84
Cadmium		M	2455	mg/kg	0.10	0.40	0.98	0.76	0.85	0.35	0.61	0.87
Chromium		M	2455	mg/kg	0.5	32	70	49	66	29	52	71
Copper		M	2455	mg/kg	0.50	29	65	49	56	25	54	64
Mercury		M	2455	mg/kg	0.05	0.21	0.46	0.34	0.49	0.13	0.21	0.46
Nickel		M	2455	mg/kg	0.50	28	53	39	62	40	63	75
Lead		M	2455	mg/kg	0.50	44	110	78	90	34	54	100
Selenium		M	2455	mg/kg	0.25	0.48	1.2	0.94	1.2	0.63	1.1	1.4
Zinc		M	2455	mg/kg	0.50	140	330	240	290	150	230	330
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
As Barge Stomach Phase		N	2630	mg/kg	N/A	0.19				0.14		
As Barge Stomach + Intestinal Phase		N	2630	mg/kg	N/A	0.19				0.15		
As Barge Bioaccessible Fraction		N	2630	%	N/A	0.57				0.39		

Results - Soil

Project: STX7014 St Ippolyttes

Client: Soiltechnics Limited		Chemtest Job No.:		25-15093		
Quotation No.:		Chemtest Sample ID.:		1969593		
Order No.: POR022223		Client Sample Ref.:		4		
		Client Sample ID.:		STP02-0-4		
		Client Reference:		STP02		
		Sample Type:		SOIL		
		Top Depth (m):		0.00		
		Date Sampled:		02-May-2025		
		Time Sampled:		10:06		
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Moisture		N	2030	%	0.020	11
Soil Colour		N	2040		N/A	Brown
Other Material		N	2040		N/A	Stones, Roots and
Soil Texture		N	2040		N/A	Clay
Arsenic		M	2455	mg/kg	0.5	43
Cadmium		M	2455	mg/kg	0.10	0.45
Chromium		M	2455	mg/kg	0.5	36
Copper		M	2455	mg/kg	0.50	32
Mercury		M	2455	mg/kg	0.05	0.18
Nickel		M	2455	mg/kg	0.50	46
Lead		M	2455	mg/kg	0.50	41
Selenium		M	2455	mg/kg	0.25	0.74
Zinc		M	2455	mg/kg	0.50	200
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50
As Barge Stomach Phase		N	2630	mg/kg	N/A	
As Barge Stomach + Intestinal Phase		N	2630	mg/kg	N/A	
As Barge Bioaccessible Fraction		N	2630	%	N/A	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
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 <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2630	PBET	PBET	Extraction at 37C / ICP-MS	

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

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

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 EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ 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.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- 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 - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 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.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

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

Appendix D CLEA Model

STEP 2: BASIC SETTINGS

Apply Settings to Model

Back to Guide

SELECT LAND USE

Residential with produce (C4SL)

RATIO MODE

LAND USE OPTIONS

RECEPTOR

Female (res C4SL)

BUILDING

Small terraced house

SOIL TYPE

Sandy loam

START AC

1

END AC

6

pH

7

SOM (%)

6

EXPOSURE PATHWAYS

ORAL ROUTES

- direct soil and dust ingestion
- consumption of homegrown produce
- soil attached to homegrown produce

DERMAL ROUTES

- indoor
- outdoor

INHALATION ROUTES

- indoor dust
- outdoor dust
- indoor vapour
- outdoor vapour

[illegible]

[illegible]

STEP 5: RESULTS

Find AC

[Print Reports](#)

[Back to Guide](#)

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Appendix E Site Specific Chemical Screening

GQRA Screening

Assessments	Status	Date	Created by	Reviewed By
Acute human health risk - Soils	Not undertaken			
Chronic human health risk - Soils	Site Specific Assessment	13.05.25	JB	MOH
Chronic human health risk - Groundwater vapour	Not undertaken			
Controlled waters risk - Surface water	Not undertaken			
Controlled waters risk - Drinking water	Not undertaken			
Controlled waters - Free phase indicator	Not undertaken			
Phytotoxicity	Not undertaken			STP01-01
Ecotoxicity	Not undertaken			

Key

Assessment	Abbr.	GQRA Source (in order of preference)	Last Update
All	NGA	No guideline value available	-
Chronic human health risk - Soils	C4SL	Category 4 Screening Levels (DEFRA)	May 2021
	S4UL	Suitable 4 Use Levels (LQM)	August 2015
	ATK	Atrisk Soil Screening Values (Atkins)	June 2017
	CL:AIRE	Generic Assessment Criteria (CL:AIRE)	Jan 2010

Chronic human health risk (soils)

Scenario	
End user	Proposed site user
Receptor	Residential with homegrown produce
SOM	2.50%
GAC Preference	C4SLs over S4ULs

Contaminant	Guideline source	Guideline value (mg/kg)	Max value (mg/kg)	Location	STP01-01	STP01-02	STP01-03	STP01-04	STP02-01	STP02-02	STP02-03	STP02-04
				Depth (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Date	02/05/25	02/05/25	02/05/25	02/05/25	02/05/25	02/05/25	02/05/25	02/05/25
Inorganics - Metals												
Arsenic	SS Value	460	84		34	57	48	74	39	66	84	43
Cadmium	C4SL	22	0.98		0.4	0.98	0.76	0.85	0.35	0.61	0.87	0.45
Chromium (III)	S4UL	910	71		32	70	49	66	29	52	71	36
Chromium (VI)	C4SL	21	<LoD		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Copper	S4UL	2400	65		29	65	49	56	25	54	64	32
Lead	C4SL	200	110		44	110	78	90	34	54	100	41
Mercury	S4UL	40	0.49		0.21	0.46	0.34	0.49	0.13	0.21	0.46	0.18
Nickel	S4UL	130	75		28	53	39	62	40	63	75	46
Selenium	S4UL	250	1.4		0.48	1.2	0.94	1.2	0.63	1.1	1.4	0.74
Zinc	S4UL	3700	330		140	330	240	290	150	230	330	200