



INVESTIGATE



REMEDIATE



REGENERATE



VERIFICATION REPORT

**FOR
PLOT 6,
LAUND ROAD,
SALENDINE NOOK,
HUDDERSFIELD,**

**PREPARED FOR
CREATIVE DEVELOPMENTS
(HUDDERSFIELD) LIMITED**

**REPORT NO. NE3941F/6
JULY 2022**

SUB SURFACE NORTH EAST LIMITED

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CONTENTS

1. INTRODUCTION

- 1.1 Site Location and Description**
- 1.2 Proposed Development
& Purpose of the Verification
Report**

2. COVER SYSTEM

- 2.1 Remediation Aims**
- 2.2 Remediation Methodology**
- 2.3 Verification Site Visit**
- 2.4 Conclusion**

4. GENERAL

APPENDICES

Generic Assessment Criteria
Calculations
Contamination Analyses
Transfer Notes for Topsoil
Cover System Photographs
Hand Dug Trial Pit Records
Figures

**VERIFICATION OF TOPSOIL COVER SYSTEM FOR PLOT 6, LAUND ROAD,
SALENDINE NOOK, HUDDERSFIELD**

CLIENT: CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED

ARCHITECT: NORTHERN DESIGN PARTNERSHIP

1. INTRODUCTION

This report has been prepared in accordance with emails dated 23rd June 2020 and 5th July 2022 from the Client.

The brief was set out in our estimates, E6654B and dated 22nd June 2020, and ref. E6654C and dated 22nd June 2020, and includes:

- Site visit to inspect and photograph the cover system
- 1 No. verification hand dug pits
- Contamination sampling and analyses
- Provision of a verification report on the above.

The following reports have previously been issued for this site and should be read in conjunction with this Remediation Statement:

- Phase I Desk Study Reference: A0697/17, November 2017 undertaken by Earth Environmental & Geotechnical Ltd (EEG)
- Phase II Ground Investigation Reference: A0697/17, October 2019 undertaken by Earth, Environmental & Geotechnical Ltd (EEG)
- Addendum Phase II Investigation Reference: A0697/20, January 2020 undertaken by Earth Environmental & Geotechnical Ltd (EEG)

1.1 Site Location and Description

The site is located off Laund Road to the northwest of Huddersfield town centre. The site is roughly L-shaped with maximum approximate dimensions of 70m by 30m. The National Grid Reference for the centre of the site is 410379E, 418266N.

The site is accessed off Laund Road and is bound by open land with some houses to the north and east, by residential properties and gardens to the north west and along the southern side, and by Laund Road to the south west.

The site rises up from Laund Road to the main flat part of the site in its rear northern half, with the land beyond rising up further. Some retaining features are present along parts of the southern boundary and part is a sloping garden area, bordered by mature and semi mature trees and bushes.

1.2 Proposed Development & Purpose of the Verification Report

The site is currently being developed as residential housing as depicted on Figure 3.

The purpose of this Verification Report is to confirm that the topsoil cover system has been implemented in accordance with best practice guidance and to sufficient depth to protect the end users of the site from risk of exposure to chemical contamination in the sub soil.

1.3 Development and Verification Timeline

The following paragraphs set out the anticipated timeline for completion of the development which is anticipated to be circa September 2022. It is proposed to produce a separate verification report on a plot by plot basis as each property is completed.

A final verification report will be produced on completion of the development. The report will incorporate the findings for all Plots 2 to 8. We understand that the ground gas protection aspects of Plots 5 to 8 will be undertaken by a third party.

Plots 2, 3 & 4

The gas membranes have been installed and inspected, and construction of the buildings has been completed. The topsoil cover systems have been applied to the rear gardens and a verification inspection has been undertaken. The driveways and hard standing to the front of the properties have also been completed.

Plots 7 and 8

The rear gardens of Plot 7 and Plot 8 have been completed and verified, and we understand the front driveways for Plots 7 and 8 have been surfaced with Tarmac (photographic verification of the underlying gravel sub-base was included in the Plot 7 and Plot 8 verification reports). There is no proposed soft landscaping at the front of Plots 7 and 8 to verify.

Plots 5 and 6

The rear gardens for Plots 5 and 6 have been recently completed at the time of writing this report. The front driveways for Plots 5 and 6 are to be surfaced with Tarmac when both plots are completed. There is no soft landscaping at the front of Plots 5 and 6 to verify.

This verification report relates to the remedial works implemented for Plot 6.

Highway

The bottom section of the site has already been base coated with tarmac up to the sleeping policemen (past Plots 5/6). The top section past the sleeping policeman is to be base coated once services are live in Plots 5 to 8. This section will then be base coated immediately after and left like this until the full site is complete and no more deliveries expected. Top and Final coat for tarmac for highway is to be completed when all building work is finished, which is expected to be September 2022.

2. COVER SYSTEM

2.1 Remediation Aims

EEG Report ref. A0697/17, dated October 2019 found that the near surface soil contains concentrations of contaminants in exceedance of assessment criteria values relevant to a residential end use with plant uptake. Contaminants in exceedance included a selection of heavy metals and polycyclic aromatic hydrocarbons (PAHs). Chrysotile and amosite asbestos was also identified in the near surface soil samples with relatively low quantification results of <0.001% to 0.007%. The EEG report concluded that the overall potential risk to residential end users is moderate, and that remediation is required to mitigate this risk.

2.2 Remediation Methodology

The remediation methodology adopted was as follows:

- A 600mm blanket of clean topsoil was placed in the back garden of Plot 6.
- Hard paving was installed on a minimum 150mm bed of aggregate adjacent to the side, front and rear patio of the building.

Calculations undertaken in accordance with BRE Report BR465 "Cover systems for land regeneration" using the maximum contaminant concentrations recorded by EEG indicate that a minimum 368mm of clean cover would be required to protect the end users of the development. It should be noted that this is a conservative calculation which assumes complete soil mixing. A copy of the calculation sheet is appended.

In our professional opinion the adopted minimum 600mm cover will therefore provide adequate protection, will allow for some variation in placement depth and will also reduce the potential for the upward migration of solid contaminants such as asbestos fibres due to bioturbation, which normally occurs in the upper 300mm.

2.3 Verification Site Visit

Sub Surface North East Limited visited the site on the 22nd June 2022 to inspect the topsoil cover system.

A hand dug pit (HD1) was taken out at the position determined and set out by Sub Surface North East Limited, as shown on Figure 3. The hand dug trial pit was excavated to the base of the cover system at a depth of 0.68m. Samples were taken for logging, in accordance with BS EN ISO 14688-1: 2018 and BS EN ISO 14689-1: 2018, and the resulting Hand Dug Trial Pit Records are appended. The findings are summarised in the following table:

TABLE 1 Hand Dug Pit Summary

Pit No.	Location	Depth of Clean Topsoil (mm)	Description
HD1	Plot 6 Rear	680	Brown slightly gravelly sandy topsoil.

Photographs were taken on completion of the hand dug pits and photographs detailing the prepared aggregate to the front of Plot 6 are appended.

2.4 Source Verification Analyses

The topsoil used in the cover system appeared to be from a natural source and was provided by Darrington Quarries via Green Tech Limited. Delivery notes for the imported material are appended.

The contact details of the supplier are as follows:

Green Tech Limited
Rabbit Hill Business Park
Great North Road
Arkendale
HG5 0FF

Two samples of the imported topsoil were subjected to the following suite of verification analyses by an MCERTS and UKAS accredited laboratory (Chemtest Limited):

Arsenic	Nickel
Asbestos	pH
Boron	Phenols
Cadmium	Polynuclear Aromatic Hydrocarbons (16 EPA PAH)
Chromium	Selenium
Copper	Sulphide
Cyanide	Sulphate
Lead	Total Petroleum Hydrocarbons (3-BAND SPECIATION)
Mercury	Zinc

Sample 091 was taken from the verification pit taken out in Plot 5 and sample 092 was taken from the verification pit taken out in Plot 6. We understand that some 55 tonnes of soil was imported for use across Plots 5 and 6 giving a sampling frequency of approximately one sample per 18 m³ of material, which exceeds the recommended minimum density of one sample every 100m³ for a recycled source and one sample every 250m³ for a greenfield source as recommended in YAHPAC 'Verification Requirements for Cover Systems' (2013).

The results of the analyses were compared with generic assessment criteria (GACs) for a residential end use with homegrown produce and no elevated contaminants were found. The GACs used for the assessment are appended.

2.5 Conclusion

In our opinion, the implementation of the cover system has been successful with a depth of clean cover of 680mm being achieved in the rear garden of Plot 6. This depth of cover exceeds the recommendations given in BRE BR465 and should provide adequate protection to the end users of the site.

3. GENERAL

We recommend that this Verification Report should be submitted to the Local Authority Environmental Health Officer for their consideration and written approval obtained prior to finalising the development.

We trust that this report fulfils your present requirements but if you have any queries or we can be of further assistance please contact the undersigned or Mr David Simpson at our Ossett office.

SUB SURFACE CONSULTANTS LIMITED
REPORT No. NE3941F/6.
JULY 2022

D. Ravenscroft-Jones Cert Nat Sci (Open), BSc.(Hons.), MSc., CEnv, MEnvSc, AMRSC
Principal Geoenvironmental Engineer
For and on behalf of
Sub Surface Consultants Limited

D. C. Marsden M.Eng.(Hons.), C.Eng., M.I.C.E.
Senior Geotechnical Engineer
For and on behalf of
Sub Surface Consultants Limited

GENERIC ASSESSMENT CRITERIA



SUB SURFACE

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Contamination Assessment

Site: PLOT 6, LAUND ROAD, SALENDINE NOOK, HUDDERSFIELD

Client: CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED

Engineer:

Job Number:

NE3941F/6

Sheet:

1/1

GENERIC ASSESSMENT CRITERIA - RESIDENTIAL WITH HOMEGROWN PRODUCE

	LQM & CIEH (S4ULs)*
	DEFRA (C4SLs)
	CLAIRE

Dutch Intervention Value

Determinant	GAC	Units
Boron (water soluble)	290	mg/kg
Arsenic	37	mg/kg
Cadmium	11	mg/kg
Chromium III	910	mg/kg
Copper	2,400	mg/kg
Cyanide	20	mg/kg
Mercury	40	mg/kg
Molybdenum	670	mg/kg
Nickel	180	mg/kg
Lead	200	mg/kg
Selenium	250	mg/kg
Zinc	3,700	mg/kg
Chromium VI	6.0	mg/kg
Phenols (total)	120	mg/kg
PAHs		
Naphthalene	2.3	mg/kg
Acenaphthylene	170	mg/kg
Acenaphthene	210	mg/kg
Fluorene	170	mg/kg
Phenanthrene	95	mg/kg
Anthracene	2,400	mg/kg
Fluoranthene	280	mg/kg
Pyrene	620	mg/kg
Eight Genotoxic PAHs**	5.0	mg/kg
BTEX		
Benzene	0.09	mg/kg
Toluene	130	mg/kg
Ethylbenzene	47	mg/kg
m-Xylene	59	mg/kg
p-Xylene	56	mg/kg
o-Xylenes	60	mg/kg
MTBE	160	mg/kg

Determinant	GAC	Units
CWG SUITE		
Aliphatic C5-C6	42	mg/kg
Aliphatic >C6-C8	100	mg/kg
Aliphatic >C8-C10	27	mg/kg
Aliphatic >C10-C12	130	mg/kg
Aliphatic >C12-C16	1,100	mg/kg
Aliphatic >C16-C35	65,000	mg/kg
Aliphatic >C35-C44	65,000	mg/kg
Aromatic C5-C7 (benzene)	70	mg/kg
Aromatic >C7-C8 (toluene)	130	mg/kg
Aromatic >C8-C10	34	mg/kg
Aromatic >C10-C12	74	mg/kg
Aromatic >C12-C16	140	mg/kg
Aromatic >C16-C21	260	mg/kg
Aromatic >C21-C35	1,100	mg/kg
Aromatic >C35-C44	1,100	mg/kg
Aliphatic & Aromatic C44-C70	1,600	mg/kg

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**Benzo(a)pyrene as surrogate marker for Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-c,d)Pyrene, Dibenz(a,h)Anthracene, Benzo(g,h,i)perylene

CALCULATIONS



SUB SURFACE LIMITED

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS

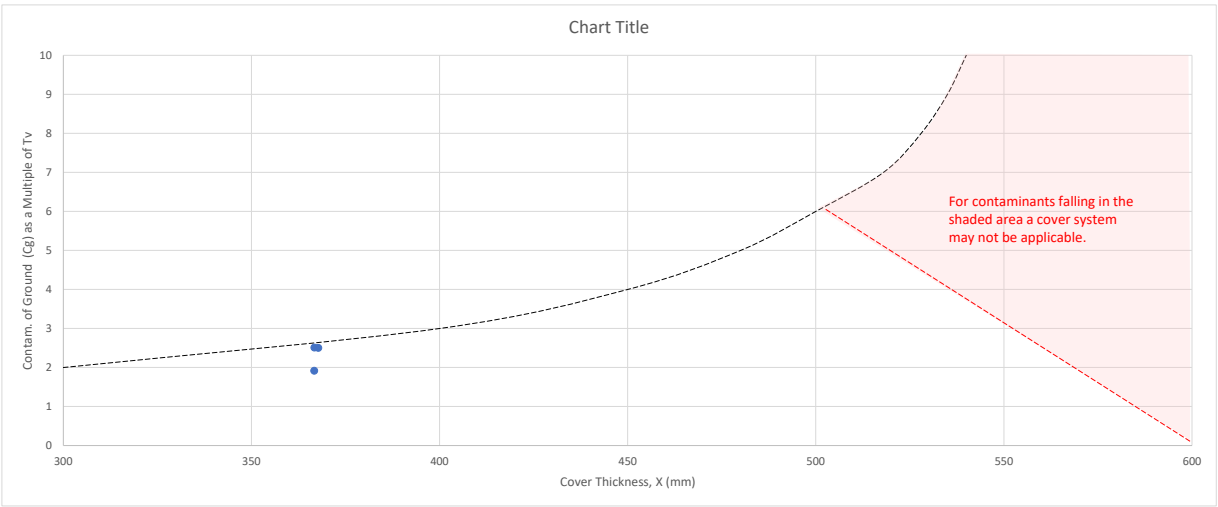
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Contamination Assessment

Site:	PLOT 6, LAUND ROAD, HUDDERSF ELD	Job Number	NE3941F/6
Client:	CREATIVE (DEVELOPMENTS) HUDDERSFILED	Sheet	1/1
Engineer:	NORTHERN DESIGN PARTNERSHIP		

BRE BR465 TOPSOIL COVER SYSTEM MINIMUM THICKNESS CALCULATOR

Determinand (Maximum Concentrations)	Contam of Ground (mg/kg)	Contam of Cover (mg/kg)	Target Value Tv (mg/kg)	Target Value Source	Soil/Target Value Cg	Cover/Target Value Cc	Cover Required X (mm)
Arsenic	68	1.4	37	S4UL	1.84	0.04	279
Lead	501	9.9	200	C4SL	2.51	0.05	368
Naphthalene	3.29	0.1	2.3	S4UL	1.43	0.04	186
Benzo(b)fluoranthene	6.53	0.1	2.6	S4UL	2.51	0.04	367
Benzo(a)pyrene	5.29	0.1	5	C4SL	1.06	0.02	34
Dibenz(a,h)anthracene	0.46	0.1	0.24	S4UL	1.92	0.42	367



Assumed Mixed Zone (mm) = 600

Cover system should comprise a minimum 300mm thickness

If X is >= 600mm then a cover sytem may not be appropriate

Minimum Thickness Required :

368 mm

Comments:

Calculations based on BRE Report BR465 "Cover systems for land regeneration" .

CONTAMINATION ANALYSIS RESULTS

**SUB SURFACE**

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Contamination Assessment

Site: PLOTS 5 & 6, LAUND ROAD, SALENDINE NOOK, HUDDERSFIELD

Client: CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED

Engineer:

Job Number:

NE3941F/6

Sheet:

1/1

SOIL CONTAMINATION ASSESSMENT SUMMARY

Determinand	Units	GAC	GAC Source	Sample 091	Sample 092	Mean	No. of Exceedances
Asbestos Identification		N/A	N/A	ND	ND	N/A	0
Moisture	%	N/A	N/A	9.1	9.3	9.2	0
pH		N/A	N/A	8.5	8.7	8.6	0
Boron (Hot Water Soluble)	mg/kg	290	S4UL	0.4	1.5	1.0	0
Cyanide (Total)	mg/kg	20	Dutch	0.5	< 0.50	0.5	0
Arsenic	mg/kg	37	S4UL	1	1.4	1.2	0
Cadmium	mg/kg	11	S4UL	< 0.10	< 0.10	<LOD	0
Chromium	mg/kg	910	S4UL	3.2	4.9	4.1	0
Molybdenum	mg/kg	670	S4UL	< 0.5	< 0.5	<LOD	0
Copper	mg/kg	2400	S4UL	6.8	8.4	7.6	0
Mercury	mg/kg	40	S4UL	< 0.05	< 0.05	<LOD	0
Nickel	mg/kg	130	S4UL	3.2	4.9	4.1	0
Lead	mg/kg	200	C4SL	9.5	9.9	10	0
Selenium	mg/kg	250	S4UL	< 0.25	< 0.25	<LOD	0
Zinc	mg/kg	3700	S4UL	16	19	18	0
Chromium (Hexavalent)	mg/kg	6	S4UL	< 0.50	< 0.50	<LOD	0
TPH >C6-C10	mg/kg	27	S4UL**	< 1.0	< 1.0	<LOD	0
TPH >C10-C21	mg/kg	74	S4UL**	7.8	< 1.0	7.8	0
TPH >C21-C40	mg/kg	1100	S4UL**	26	< 1.0	26	0
Total TPH >C6-C40	mg/kg	N/A	N/A	33	< 10	33	0
Naphthalene	mg/kg	2.3	S4UL	< 0.10	< 0.10	<LOD	0
Acenaphthylene	mg/kg	170	S4UL	< 0.10	< 0.10	<LOD	0
Acenaphthene	mg/kg	210	S4UL	< 0.10	< 0.10	<LOD	0
Fluorene	mg/kg	170	S4UL	< 0.10	< 0.10	<LOD	0
Phenanthrene	mg/kg	95	S4UL	< 0.10	< 0.10	<LOD	0
Anthracene	mg/kg	2400	S4UL	< 0.10	< 0.10	<LOD	0
Fluoranthene	mg/kg	280	S4UL	< 0.10	< 0.10	<LOD	0
Pyrene	mg/kg	620	S4UL	< 0.10	< 0.10	<LOD	0
Eight Genotoxic PAHs*	mg/kg	5	C4SL	< 0.10	< 0.10	<LOD	0
Total Of 16 PAH's	mg/kg	N/A	N/A	< 2.0	< 2.0	<LOD	0
Benzene	µg/kg	87	S4UL	< 1.0	< 1.0	<LOD	0
Toluene	µg/kg	130000	S4UL	< 1.0	< 1.0	<LOD	0
Ethylbenzene	µg/kg	47000	S4UL	< 1.0	< 1.0	<LOD	0
m & p-Xylene	µg/kg	56000	S4UL	< 1.0	< 1.0	<LOD	0
o-Xylene	µg/kg	60000	S4UL	< 1.0	< 1.0	<LOD	0
Methyl Tert-Butyl Ether	µg/kg	160000	CL:AIRE	< 1.0	< 1.0	<LOD	0
Total Phenols	mg/kg	120	S4UL	< 0.10	< 0.10	<LOD	0

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*Benzo(a)pyrene as surrogate marker for Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-c,d)Pyrene, Dibenz(a,h)Anthracene, Benzo(g,h,i)perylene

**TPH carbon groups assessed using the most stringent aromatic or aliphatic GAC within the range.



2183

Final Report

Report No.:	22-23882-1		
Initial Date of Issue:	04-Jul-2022		
Client	Sub Surface		
Client Address:	3 Peel Street Preston Lancashire PR2 2QS		
Contact(s):	Simon Gabbatt		
Project	NE3941 Laund Road, Huddersfield		
Quotation No.:		Date Received:	27-Jun-2022
Order No.:		Date Instructed:	27-Jun-2022
No. of Samples:	2		
Turnaround (Wkdays):	7	Results Due:	05-Jul-2022
Date Approved:	04-Jul-2022		
Approved By:			

Details: Stuart Henderson, Technical
Manager

Results - Soil

Project: NE3941 Laund Road, Huddersfield

Client: Sub Surface	Chemtest Job No.:				22-23882	22-23882
Quotation No.:	Chemtest Sample ID.:				1455687	1455688
	Client Sample ID.:				91	92
	Sample Location:				Plot 5 HD1	Plot 6 HD1
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.20	0.00
	Bottom Depth (m):				0.50	0.50
	Date Sampled:				22-Jun-2022	22-Jun-2022
	Asbestos Lab:				COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	9.1	9.3
pH	U	2010		4.0	8.5	8.7
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	0.40	1.5
Cyanide (Total)	U	2300	mg/kg	0.50	0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	< 0.50	< 0.50
Sulphate (Total)	U	2430	%	0.010	0.033	0.031
Arsenic	U	2455	mg/kg	0.5	1.0	1.4
Cadmium	U	2455	mg/kg	0.10	< 0.10	< 0.10
Chromium	U	2455	mg/kg	0.5	3.2	4.9
Molybdenum	U	2455	mg/kg	0.5	< 0.5	< 0.5
Copper	U	2455	mg/kg	0.50	6.8	8.4
Mercury	U	2455	mg/kg	0.05	< 0.05	< 0.05
Nickel	U	2455	mg/kg	0.50	3.2	4.9
Lead	U	2455	mg/kg	0.50	9.5	9.9
Selenium	U	2455	mg/kg	0.25	< 0.25	< 0.25
Zinc	U	2455	mg/kg	0.50	16	19
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
TPH >C6-C10	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C10-C21	N	2670	mg/kg	1.0	7.8	< 1.0
TPH >C21-C40	N	2670	mg/kg	1.0	26	< 1.0
Total TPH >C6-C40	U	2670	mg/kg	10	33	< 10
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10

Results - Soil

Project: NE3941 Laund Road, Huddersfield

Client: Sub Surface	Chemtest Job No.:				22-23882	22-23882
Quotation No.:	Chemtest Sample ID.:				1455687	1455688
	Client Sample ID.:				91	92
	Sample Location:				Plot 5 HD1	Plot 6 HD1
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.20	0.00
	Bottom Depth (m):				0.50	0.50
	Date Sampled:				22-Jun-2022	22-Jun-2022
	Asbestos Lab:				COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD		
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	< 2.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Ethy benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0
Total Phenols	U	2920	mg/kg	0.10	< 0.10	< 0.10

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 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

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

TRANSFER NOTES FOR TOPSOIL

DARRINGTON QUARRIES LTD

Darrington Leys, Cridling Stubbs, Knottingley, Yorkshire WF11 0AH
Telephone: (01977) 672368 Fax: (01977) 673246
www.fccenvironment.co.uk/darrington

Ticket No. 4171281

PLACE OF LOADING

CUSWORTH H

SIGNATURE

HAULIER

WHITEHEAD

VEHICLE
REG'N. No.

YD19AWR

DRIVER'S SIGNATURE

JORDAN ASHINGT

0

22/06/2022
09:04

First Wt
Tare Wt
Second Wt

0 Kg
13,060 Kg
31,080 Kg

0
0054357

Nett Wt 18020 Kg

DESCRIPTION OF GOODS

GT LANDSCAPE SOIL
(BS3882:2015)

CUSTOMER

GREEN TECH LTD
Cust Order No
420704
Source

DESTINATION

EX WORKS

RECEIVED BY:

SIGNATURE

PRINT NAME

DATE

JORDAN

22-6-22



FT 352768



EMS 552767



ONS 102769



ONS 102769

DARRINGTON QUARRIES LTD

Darrington Leys, Cridling Stubbs, Knottingley, Yorkshire WF11 0AH
Telephone: (01977) 672368 Fax: (01977) 673246
www.fccenvironment.co.uk/darrington

Ticket No. 4171210

PLACE OF LOADING

CUSWORTH H

SIGNATURE

0

21/06/2022
13:31

HAULIER

PA WHITEHEAD

VEHICLE

REG'N. No.

YG17HWP

First Wt

0 Kg

Tare Wt

13,220 Kg

Second Wt

31,260 Kg

0

0054282

DRIVER'S SIGNATURE

GRAHAM TORRIE

Nett Wt

18040

Kg

DESCRIPTION OF GOODS

GT LANDSCAPE SOIL
(BS3882:2015)

CUSTOMER

GREEN TECH LTD

Cost Order No

420679

Source

DESTINATION

EX WORKS

RECEIVED BY:

SIGNATURE.....

PRINT NAME.....

DATE.....



DARRINGTON QUARRIES LTD

Darrington Leys, Cridling Stubbs, Knottingley, Yorkshire WF11 0AH
Telephone: (01977) 672368 Fax: (01977) 673246
www.fccenvironment.co.uk/darrington

Ticket No. 4171168

PLACE OF LOADING

CUSWORTH H

SIGNATURE

0

21/06/2022
10:51

HAULIER

PA WHITEHEAD

VEHICLE

REG/N: No. 1019HWP

First Wt 0 Kg
Tare Wt 13,220 Kg 0
Second Wt 31,620 Kg 0054243

DRIVER'S SIGNATURE

GRAHAM TORRIE

Nett Wt 18400 Kg

DESCRIPTION OF GOODS

GT LANDSCAPE SOIL
(BS3882:2015)

CUSTOMER

GREEN TECH LTD

Cust Order No

420679

Source

DESTINATION

EX WORKS

RECEIVED BY:

SIGNATURE

PRINT NAME

DATE



COVER SYSTEM PHOTOGRAPHS



SUB SURFACE

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS
3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

Photographs

Site: PLOT 6 LAUND ROAD, HUDDERSFIELD
Client: CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED
Engineer: NORTHERN DESIGN PARTNERSHIP

Job Number:
NE3941F/6
Sheet:
1/2

COVER SYSTEM VERIFICATION PHOTOGRAPHS

HD1





SUB SURFACE

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS
3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

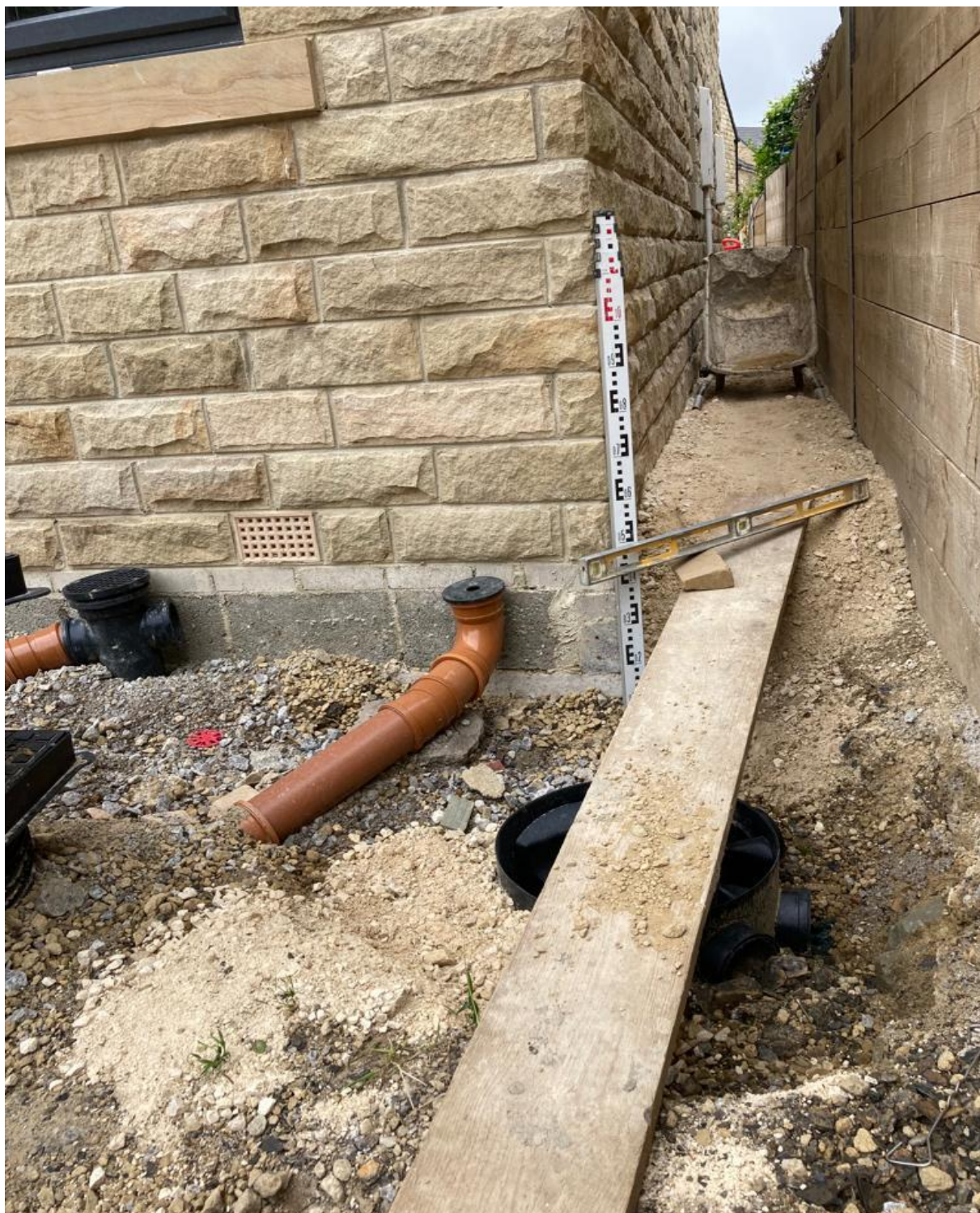
Photographs

Site: PLOT 6 LAUND ROAD, HUDDERSFIELD
Client: CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED
Engineer: NORTHERN DESIGN PARTNERSHIP

Job Number:
NE3941F/6
Sheet:
2/2

COVER SYSTEM VERIFICATION PHOTOGRAPHS

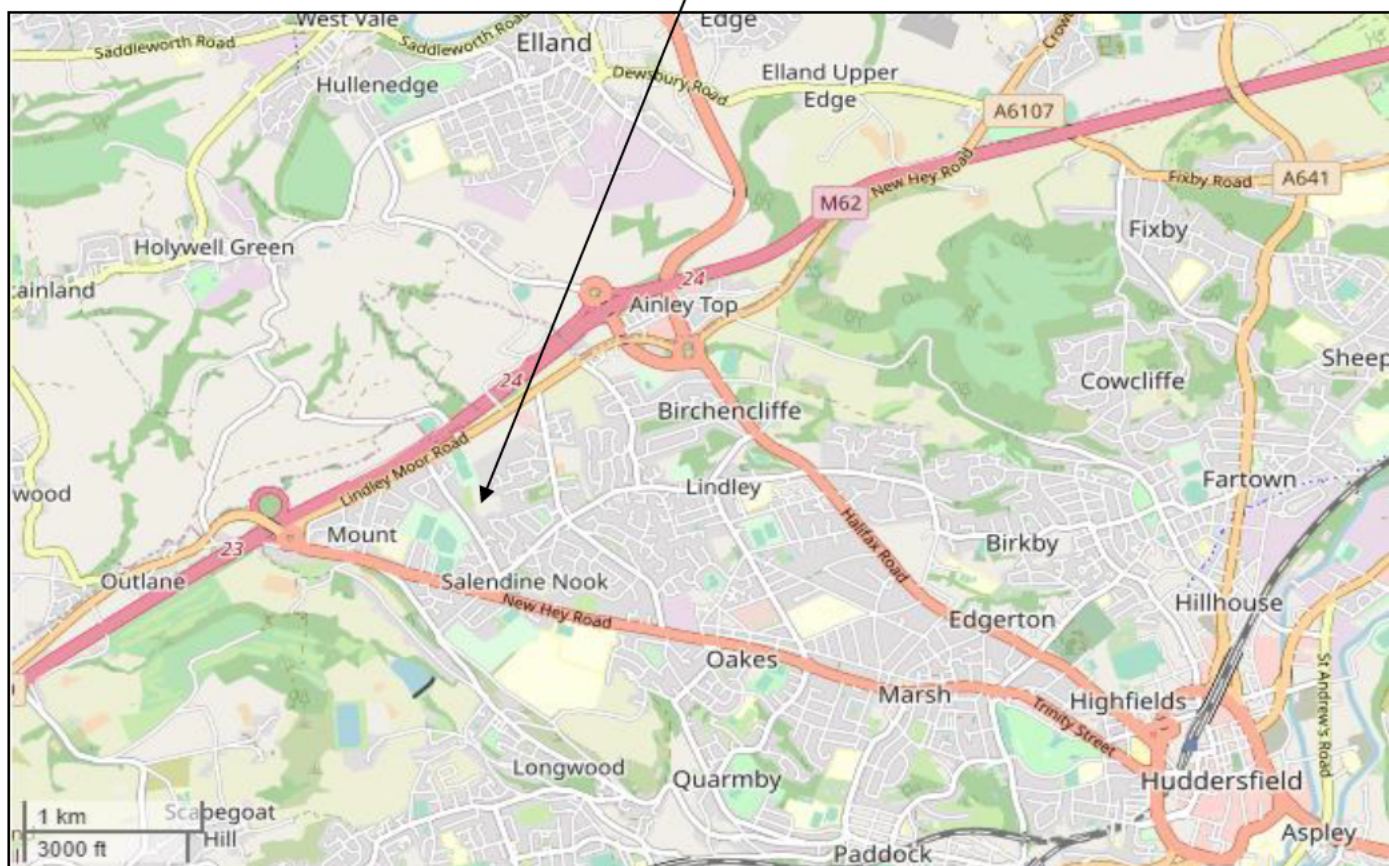
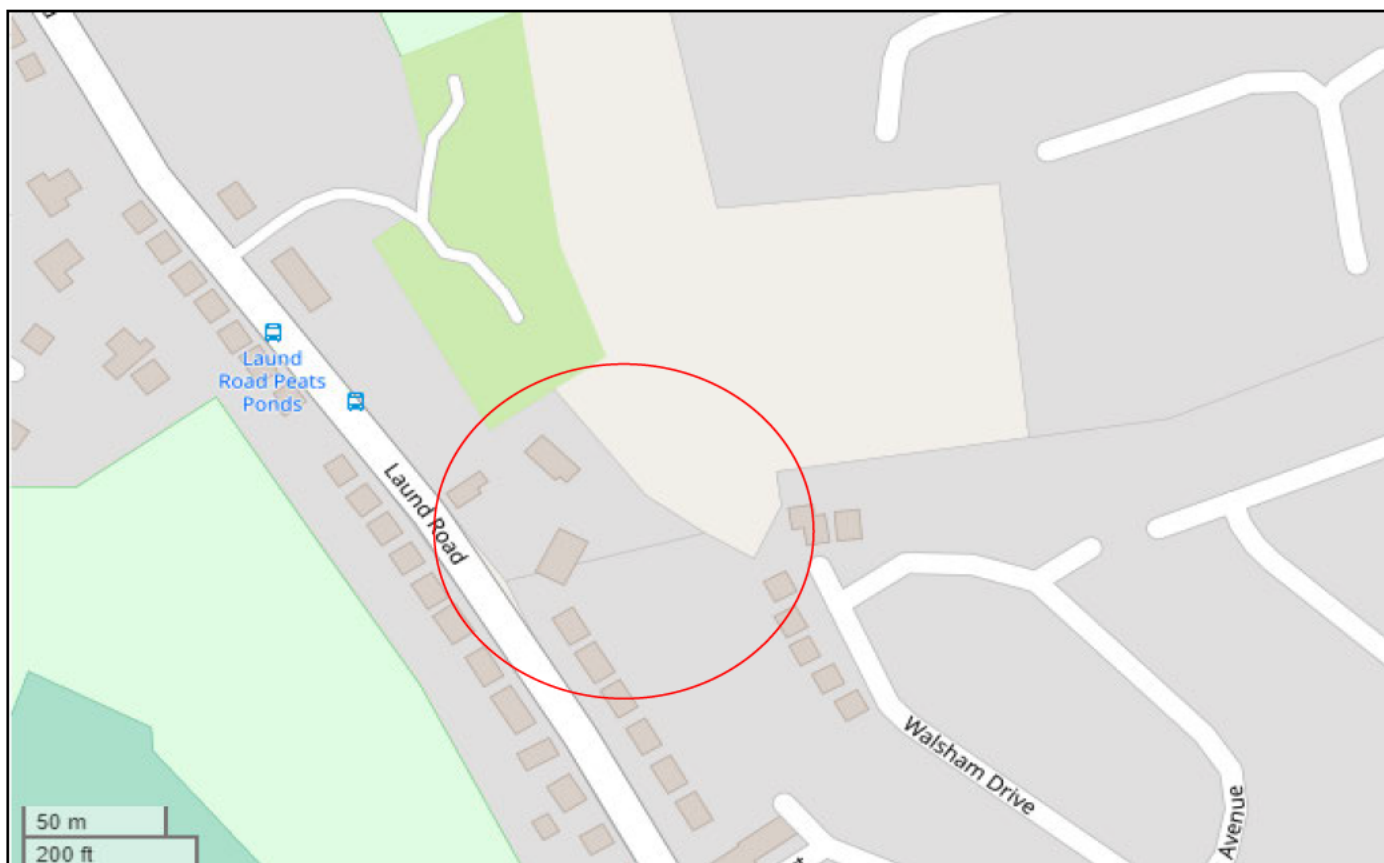
FRONT & SIDE HARD PAVING PREPARATION



HAND DUG TRIAL PIT RECORD SHEETS

S S SUB SURFACE SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS 3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907						Site PLOT 6, LAUND ROAD, HUDDERSFIELD			Trial Pit Number HD1		
Excavation Method HAND DUG TRIAL PIT (FOR COVER SYSTEM VERIFICATION)		Dimensions 0.5 x 0.5m		Ground Level (mOD)		Client CREATIVE DEVELOPMENTS LIMITED		Job Number NE3941F/6			
		Location As Shown on Fig 3		Dates 22/06/2022		Engineer NORTHERN DESIGN PARTNERSHIP		Sheet 1/1			
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water			
0.00-0.50	B					MADE GROUND: imported brown slightly gravelly sandy topsoil.					
			22/06/2022: DRY		0.68	Complete at 0.68m					
Plan						Remarks					
						On completion backfilled with arisings.					
						Scale (approx)		Logged By		Figure No.	
						1:10		DS/DJ		NE3941F/7.HD30	

FIGURES



SUB SURFACE

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Site

PLOT 6, LAUND ROAD, SALENDINE NOOK,
HUDDERSFIELD

Client

CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED

Site Location

Date Drawn

15/09/2021

Date Checked

Checked By

DJ

Orientation



Scale

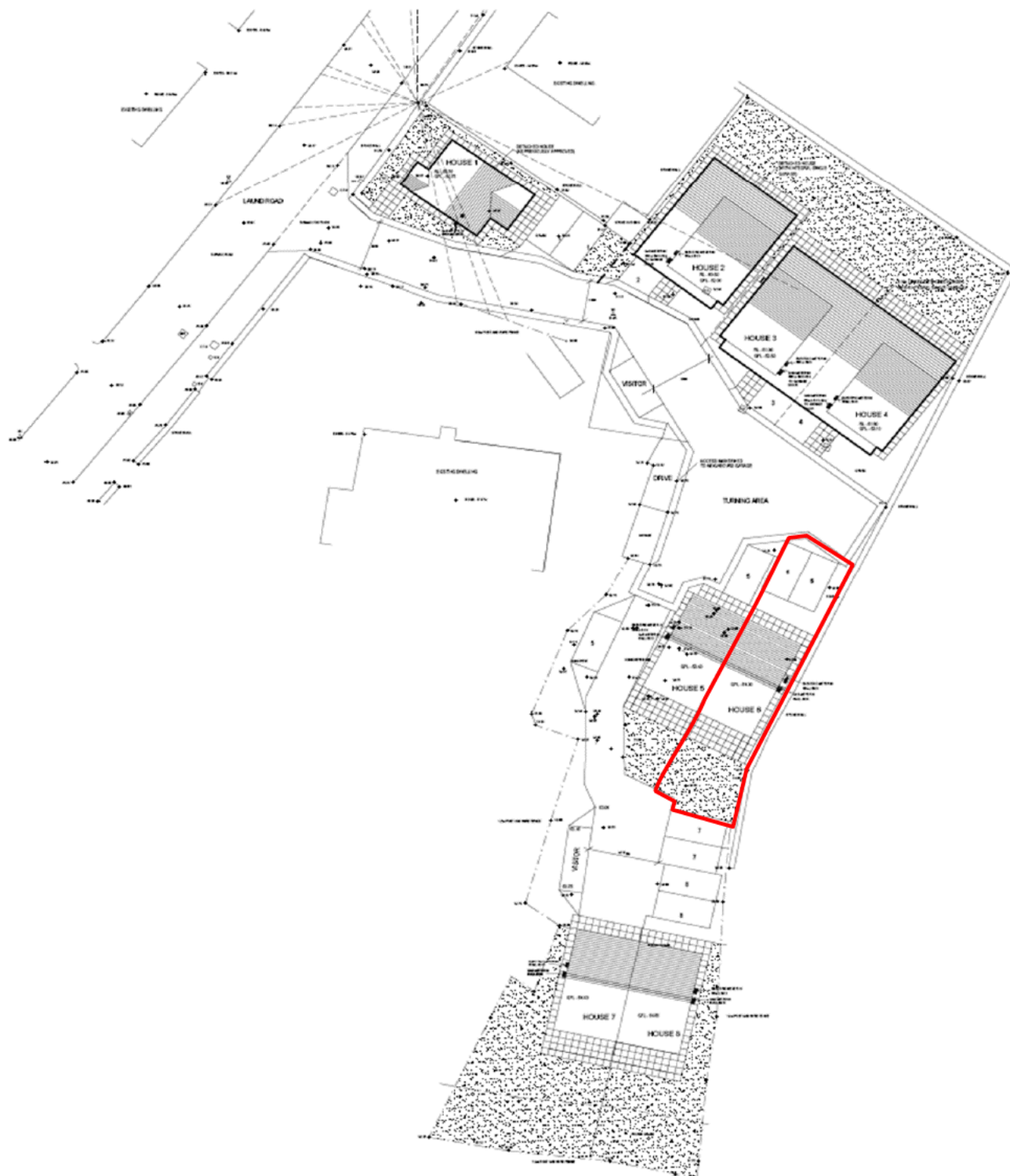
As Shown

Job No.

NE3941F/6

Figure No.

1



Extract from Northern Design Partnership Drawing 1801/02/A



SUB SURFACE

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Site
PLOT 6, LAUND ROAD, SALENDINE NOOK,
HUDDERSFIELD

Client
CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED

Proposed Site Layout & Plot 6 Location

Date Drawn
23-Nov-21

Date Checked

Orientation



Job No.
NE3941F/6

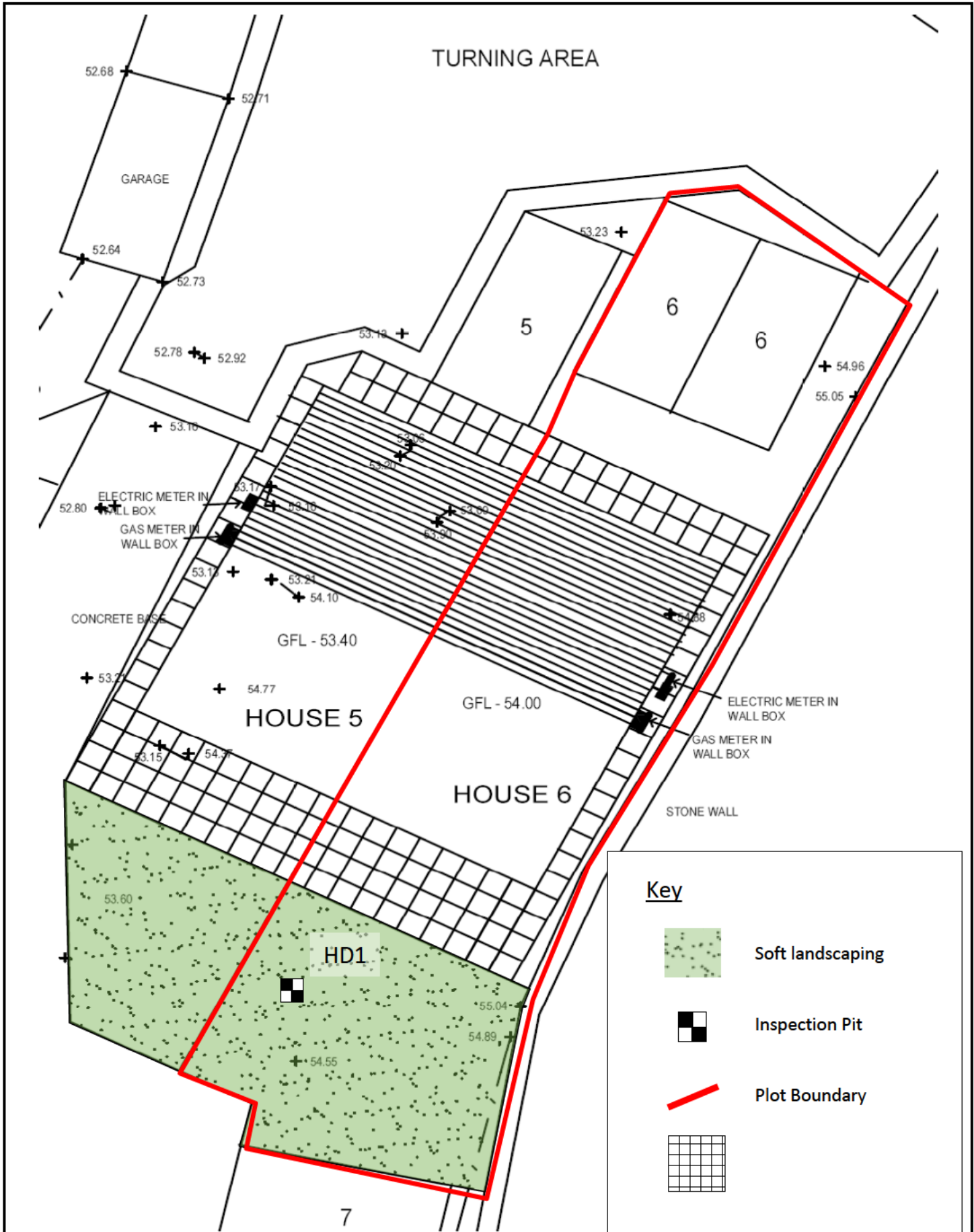
Drawn By
DJ

Checked By

Scale

—

Figure No.
2



 SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	Plot 6 Layout & Locations of Hand Dug Pits			
Site PLOT 6, LAUND ROAD, SALENDINE NOOK, HUDDERSFIELD	Date Drawn 08-Jul-22	Date Checked	Orientation 	Job No. NE3941F/6
Client CREATIVE DEVELOPMENTS (HUDDERSFIELD) LIMITED	Drawn By DJ	Checked By	Scale —	Figure No. 3