eurofins | Chemtest
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Amended Report

Report No.:	21-43627-2		
Initial Date of Issue:	24-Dec-2021	**Date of Re-Issue:**	04-Jan-2022
Client	Springbridge Direct Ltd		
Client Address:	Oxford Road Denham Middlesex UB9 4DF		
Contact(s):	Bethan Morgan Tom Hawkins		
Project	Springbridge Yard		
Quotation No.:	Q21-24578	**Date Received:**	10-Dec-2021
Order No.:	118569	**Date Instructed:**	10-Dec-2021
No. of Samples:	2		
Turnaround (Wkdays):	10	**Results Due:**	23-Dec-2021
Date Approved:	24-Dec-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: Springbridge Yard

Client: Springbridge Direct Ltd			**Chemtest Job No.:**		21-43627
Quotation No.: Q21-24578			**Chemtest Sample ID.:**		1337239
Order No.: 118569			Client Sample Ref.:		Topsoil
			Client Sample ID.:		Top
			Sample Type:		SOIL
			Date Sampled:		09-Dec-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	14
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Roots and Stones
Soil Texture	N	2040		N/A	Loam
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	2.0
Cyanide (Total)	M	2300	mg/kg	0.50	0.50
Arsenic	M	2450	mg/kg	1.0	20
Cadmium	M	2450	mg/kg	0.10	0.12
Chromium	M	2450	mg/kg	1.0	15
Copper	M	2450	mg/kg	0.50	13
Mercury	M	2450	mg/kg	0.10	0.11
Nickel	M	2450	mg/kg	0.50	12
Lead	M	2450	mg/kg	0.50	34
Selenium	M	2450	mg/kg	0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	51
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	5.7
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	12
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	4.3
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	5.8
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	21
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	49
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	3.2
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	37
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	290
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	26
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	360
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	410
Naphthalene	N	2700	mg/kg	0.010	< 0.010

Results - Soil

Project: Springbridge Yard

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Quotation No.: Q21-24578			**Chemtest Sample ID.:**		1337239
Order No.: 118569			Client Sample Ref.:		Topsoil
			Client Sample ID.:		Top
			Sample Type:		SOIL
			Date Sampled:		09-Dec-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Acenaphthylene	N	2700	mg/kg	0.010	< 0.010
Acenaphthene	N	2700	mg/kg	0.010	< 0.010
Fluorene	N	2700	mg/kg	0.010	< 0.010
Phenanthrene	N	2700	mg/kg	0.010	0.69
Anthracene	N	2700	mg/kg	0.010	0.23
Fluoranthene	N	2700	mg/kg	0.010	0.99
Pyrene	N	2700	mg/kg	0.010	0.99
Benzo[a]anthracene	N	2700	mg/kg	0.010	1.3
Chrysene	N	2700	mg/kg	0.010	1.1
Benzo[b]fluoranthene	N	2700	mg/kg	0.010	0.78
Benzo[k]fluoranthene	N	2700	mg/kg	0.010	0.84
Benzo[a]pyrene	N	2700	mg/kg	0.010	0.68
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	0.010	0.65
Dibenz(a,h)Anthracene	N	2700	mg/kg	0.010	0.30
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010	3.8
Total Of 16 PAH's	N	2700	mg/kg	0.20	12
Benzene	M	2760	µg/kg	1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	2.1
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.10	< 0.10

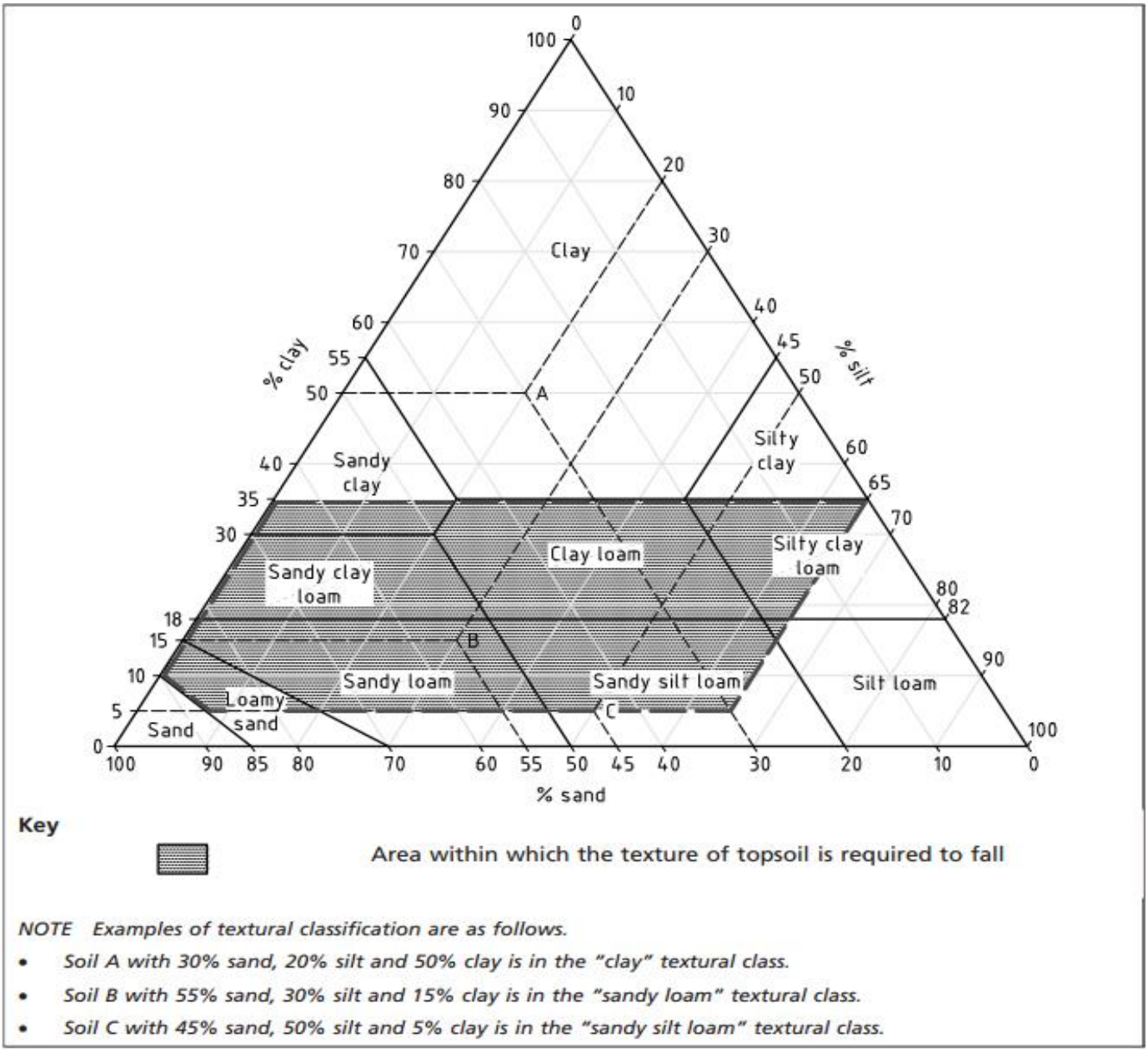
Results - Topsoil Report

BS3882:2015

Chemtest Job No.: 21-43627
Chemtest Sample ID.: 1337239
Client Sample Ref.: Topsoil
Sample Location:
Client Sample ID.: Top
Top Depth (m):
Bottom Depth (m):
Date Sampled: 09-Dec-2021
Time Sampled:

Parameter	Units	Multipurpose Range			Result	Compliant with Multipurpose Range? (Y/N)	Compliant with Specific Purpose Range? (Y/N)		
Texture							**Acid**	**Low F**	**Calc.**
Clay content	%				5.000				
Silt content	%				11				
Sand content	%				84				
Soil texture class		See Attached Chart			Loamy Sand	YES			
Mass Loss on Ignition									
Clay 5-20%		3.0-20			5.0	YES	YES	YES	YES
Clay 20-35%		5.0-20							
Stone Content	**% m/m**								
>2mm		0-30			25	YES			
>20mm		0-10			< 0.020	YES			
>50mm		0			< 0.020	YES			
Soil pH value		5.5-8.5			8.3	YES	NO	YES	YES
Carbonate (Calcareous only)	%				3.6				YES
Electrical Conductivity	µS/cm	If >3300 do ESP			2500	YES			
Available Nutrient Content									
Nitrogen %		>0.15			0.30	YES	YES		YES
Extractable phosphorus	mg/l	16-140			17	YES	YES	YES	YES
Extractable potassium	mg/l	121-1500			210	YES	YES		YES
Extractable magnesium	mg/l	51-600			590	YES	YES		YES
Carbon : Nitrogen Ratio		<20:1			9.8/1	YES	YES	YES	YES
Exchangeable sodium	**%**	<15			3.9				
Available Calcium	mg/l				550				
Available Sodium	mg/l				190				
Phytotoxic Contaminants (by soil pH)		**< 6.0**	**6.0-7.0**	**> 7.0**					
Zinc (Nitric Acid extract)	mg/kg	<200	<200	<300	42	YES			
Copper (Nitric Acid extract)	mg/kg	<100	<135	<200	14	YES			
Nickel (Nitric Acid extract)	mg/kg	<60	<75	<110	9.2	YES			
Visible Contaminants	**% mm**								
>2mm		<0.5			0.000	YES			
….. of which plastics		<0.25			0.000	YES			
….. man-made sharps		zero in 1kg			0.000	YES			

Topsoil:
Texture Classification Chart



Key

Area within which the texture of topsoil is required to fall

NOTE Examples of textural classification are as follows.

- *Soil A with 30% sand, 20% silt and 50% clay is in the "clay" textural class.*
- *Soil B with 55% sand, 30% silt and 15% clay is in the "sandy loam" textural class.*
- *Soil C with 45% sand, 50% silt and 5% clay is in the "sandy silt loam" textural class.*

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2020	Electrical Conductivity	Electrical conductivity (EC) of aqueous extract or calcium sulphate solution for topsoil	Measurement of the electrical resistance of a 2:1 water/soil extract.
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
2115	Total Nitrogen in Soils	Nitrogen	Determination by elemental analyser
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2260	Carbonate	Carbonate	Titration
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2400	Cations	Cations	ICP-MS
2420	Phosphate	Phosphate	Spectrophotometry - Discrete analyser
2450	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.
2620	LOI 440	LOI 440 Trommel Fines	Determination of the proportion by mass that is lost from a soil by ignition at 440°C.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
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)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

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