

Our ref: TH/L21056/Validation Report

Ms B. Lohlun
Inland Homes
Burnham Yard
London End
Beaconsfield
HP9 2JH

28 October 2021

Dear Bronwen

VALIDATION REPORT VINE STREET, UXBRIDGE

Further to your recent instruction Patrick Parsons have undertaken validation of the capping layer at the above site. The focus of this report is to provide; verification of the imported capping materials, information relating to the presence of obstructions or unusual ground conditions encountered during the construction phase, details of waste management and nature of the water supply pipes used in the development. The remedial strategy for the site was set in the following report:

- 'Former Randalls Site, Vine Street, Uxbridge – Remediation Strategy', Fairhurst, Report Ref 113780 R1.4, dated 18/02/2019.

The above report concluded that due to elevated levels of lead and various PAH compounds that a 500mm capping layer was required in soft landscaped areas and that the validation should comprise verification pits on an approximate 25m grid and testing of the imported capping material at a rate of one sample per 25m³.

Capping Validation

An engineer from Patrick Parsons visited the site on the 03 June 2021 and 30 September 2021 to excavate hand dug trial pits in the soft landscaped areas. A plan of the hole locations on each of the respective visits is attached for reference, the number of pits is in line with the requirements set out in the above report. On the first visit, hand pits were excavated to shallow depth and samples collected for analysis. On the second visit, each hand excavated pit was progressed to a depth of 0.60m begl and photographic evidence was obtained of the observed capping thicknesses. The second visit found that in all locations the capping layer to be the required 500mm, compromising predominantly 0.20m topsoil and 0.55m subsoil, this is shown on the enclosed logs and photographs.

Whilst no survey plans indicating the depths of the clean covering layer thickness have been provided, based on the Lotus Design Studio Ltd Soft Landscaping Proposals (ref:LDS18.026.001.N) the total area in which imported clean capping material has been placed is 149m². Based on the area and general thicknesses of topsoil and subsoil outlined above, it is considered that the total volume of imported clean



topsoil is 30m³. The source of the imported topsoil is Springbridge Yard, Oxford Road, Denham. This is confirmed by the test certificates appended to this report. Additionally, a report has been submitted in relation to the chemical acceptance test results of the topsoil prior to placement. The report by Tim O'hare Associates is appended to this report and has confirmed the following:

'The topsoil was largely compliant with the requirements of British Standard for Topsoil (BS3882:2015-Specification for Topsoil – Table 1, Multipurpose topsoil) with the exception of the elevated extractable potassium content and arsenic value. On this occasion, provided the arsenic value is deemed acceptable for the topsoil's proposed end-use, the high extractable potassium content would be considered a minor non-compliance when reviewed in the context of the other results.'

The volume of subsoil in the soft landscaping area is 82m³, the source of this material is considered to be the same location in which it has been deposited.

In accordance with section 6.10 and 6.20 of the Fairhurst RMS (ref: 113780 R1.4, dated 18/02/2019) which relate to imported materials and arisings to be reused on-site, to ensure the imported and site derived soils were suitable for use, three samples of subsoil and three samples of topsoil were collected on the initial visit and subject to chemical analysis for a general suite of contaminants. As such, six samples have been tested then in accordance with the RMS this is sufficient to validate a total soil import of 1500m³ which is far more than has actually been imported and used to form the capping layer.

The results of the chemical validation analysis are enclosed for reference, the results have been compared against the Patrick Parsons Generic Assessment Criteria for residential end use without plant uptake (enclosed for reference). All the results for metals, inorganics, PAH and hydrocarbons were below their respective GAC and asbestos was not recorded in any of the samples as such, the soils do not pose a risk to human health and are suitable for use.

Obstructions and Unusual Ground Conditions

Obstructions or unusual ground conditions were not encountered as part of the construction phase. A written statement has been provided by the client and is appended to this report. A detailed site diary was not produced as part of the construction phase however, a photographic record has been provided and is appended. The client has informed PP that site staff were briefed in advance of the groundworks in accordance with the comments provided in section 5.2 of the Fairhurst RMS (ref: 113780 R1.4, dated 18/02/2019), no encounters of unexpected contamination were recorded as part of the groundworks.

Waste Management

Waste transfer notes have been provided by client and are appended to this report. It is considered that all waste removed from site has been transported by and to the following landfills:

- Quattro Park Royal (Knowckbawn)
- Streeters (Quattro UK Ltd)
- Harefield (Thames Materials Ltd)
- GBN Uxbridge Depot (GBN Services Ltd)

The waste codes given on the waste transfer notes are mixed of 17 09 04 (mixed construction and demolition waste) and 20 02 02 (soil and stone). Whilst the volume and classification of the waste is not included on all waste transfer notes, all of the classifications given specify that the waste is inert. Given that the Fairhurst contamination report (ref:113780 dated May 2016) has specified that waste disposed

from site is suitable for disposal as non-hazardous or inert waste, it is considered that this has been adhered to.

Water Supply Pipes

The new utilities survey specifying the location and type of water supply pipes is appended to this report. Based on the recommendations set out in the Fairhurst contamination report and RMS, the use of barrier supply pipes on-site has been adhered to due to the presence of elevated organic contaminants.

Conclusions

The validation works completed have shown the capping layer in the soft landscaped areas is the required thickness and is made up of soils that do not pose a risk to human health as such it is considered that remediation works have been successfully completed in accordance with the Remediation Method Statement and the residual risk to human health is negligible. In addition, no obstructions, unusual ground conditions or unexpected contamination has been encountered as part of the ground works. All waste disposed of from site has been done so in line with the recommendations set out in the Fairhurst contamination report and has been disposed of as inert waste. Barrier supply pipes have been utilised in construction as specified in the Fairhurst contamination report.

We trust that this report is suitable for your current requirements. Should you have any queries, please do not hesitate to contact us.

Yours sincerely



Tom Heath
Senior Engineer

Enc. L21056 - 01 Capping Validation Location Plan
L21056 – 02 Capping Validation Photographs
Design Studio Ltd Soft Landscaping Proposals (ref:LDS18.026.001.N)
Topsoil source Conveyance Notes
Tim O'Hare Associates Imported Topsoil Chemical Acceptance Report (Ref:AFSL29/MJM/228488)
Topsoil Chemical Acceptance Results
Topsoil and Subsoil Chemical Results (i2 Report 21-79744)
Patrick Parsons General Acceptance Criteria
Written statement of encountered obstructions/unusual ground conditions
Waste Transfer Notes
Inland Homes Water Supply Pipes Drawing (ref:18006-XX-ME-DR-XX-3001)



40 St Pauls Square
Birmingham
B3 1FQ
T. +44 (0) 121 592 0000
E. info@patrickparsons.co.uk
W. www.patrickparsons.co.uk

Client: Inland Homes

Project: Vine street, Uxbridge

Drawing:

Title: Photographs of validations

Scales: Not to scale

Design/drawn:

Drawing no:

Issue:

Checked:

Rev.



 PATRICK PARSONS 40 St Pauls Square Birmingham B3 1FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client: Inland Homes	Drawing:
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Scales: Not to scale

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Checked:

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HP07



HP08



HP09



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Birmingham
B3 1FQ
T. +44 (0) 121 592 0000
E. info@patrickparsons.co.uk
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Project: Vine street, Uxbridge

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Title: Photographs of validations

Scales: Not to scale

Design/drawn:

Drawing no:

Issue:

Checked:

Rev.



HP01

PATRICK PARSONS 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client: Inland Homes Project: Vine Street, Uxbridge	Project Number: L21056 Title: Capping Validation Photographs	Scales: Not to scale Design/drawn: PS Drawing no: L21056-TSV	Issue:1 Checked: Rev.0
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HP02

 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T: +44 (0) 121 592 0000 E: info@patrickparsons.co.uk W: www.patrikparsons.co.uk	Client: Inland Homes Project: Vine Street, Uxbridge	Project Number: L21056 Title: Capping Validation Photographs	Scales: Not to scale	Issue:1
				Checked:
				Rev:0 Drawing no: L21056-TSV



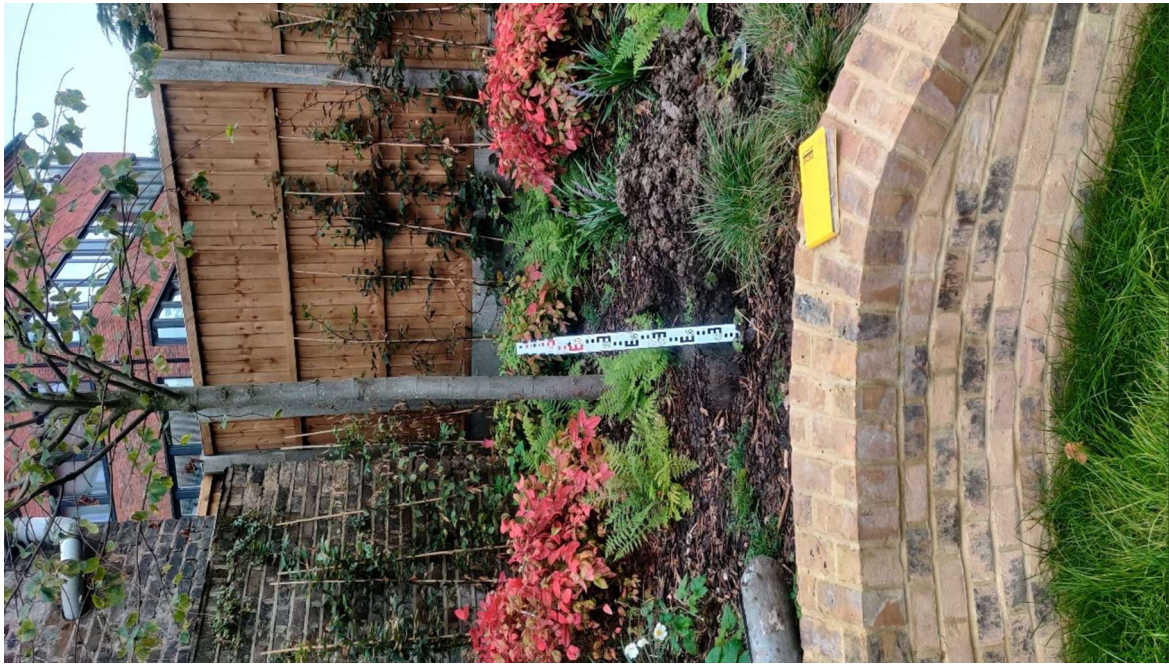
HP03

 PATRICK PARSONS 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client: Inland Homes	Project Number: L21056	Scales: Not to scale	Issue:1
	Project: Vine Street, Uxbridge	Title: Capping Validation Photographs	Design/drawn: PS	Checked:
			Drawing no: L21056-TSV	Rev:0



HP04

 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client: Inland Homes		Project Number: L21056		Issue:1	
Project: Vine Street, Uxbridge		Title: Capping Validation Photographs		Design/drawn: PS		Checked:
				Drawing no: L21056-TSV		Rev:0



HP05

 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client: Inland Homes	Project Number: L21056	Scales: Not to scale	Issue: 1
	Project: Vine Street, Uxbridge	Title: Capping Validation Photographs	Design/drawn: PS	Checked:
			Drawing no: L21056-TSV	Rev: 0



HP06

 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client:	Inland Homes	Project Number:	L21056	Scales: Not to scale	Issue:1
	Project:	Vine Street, Uxbridge	Title:	Capping Validation Photographs	Design/drawn: PS	Checked:
					Drawing no: L21056-TSV	Rev.0

HP07



 40 St Pauls Square Jewellery Quarter Birmingham B3 1 FQ T. +44 (0) 121 592 0000 E. info@patrickparsons.co.uk W. www.patrikparsons.co.uk	Client: Inland Homes Project: Vine Street, Uxbridge	Project Number: L21056 Title: Capping Validation Photographs	Scales: Not to scale Design/drawn: PS Drawing no: L21056-TSV	Issue:1 Checked: Rev.0
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LEGEND

Handwritten Digit	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Image																																																																																																				

The Address 500-520 11th Avenue	Description A new retail development [10]
Drawing No. 125-BUILDING-01	Designed by: N. Doris
Dated: 05/03/2007	Scale: 1:100 & 1:50
Notes: Information	
Client: Islands Homes	
LOTUS DESIGN STUDIO LTD	
Lotus Design Studio Ltd 100 Portland Way, E14 6ST, London Tel: +44 (0) 20 729 40 61 Email: info@lotusdesignstudio.co.uk Website: www.lotusdesignstudio.co.uk	
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309502

CONVEYANCE NOTE / DUTY OF CARE CONTROLLED WASTE TRANSFER NOTE

Weights and Measures Act 1985 Control of Pollution Act 1990

Waste Carriers Licence No. CBDU205876 Issued by Environment Agency

LOADED AT: Springbridge	SIC CODE 43120	DATE OF DELIVERY: 28/05/2021	WEIGHTS GROSS: TARE:
	OR OTHER:	CUSTOMER ORDER NUMBER	
Customer Name & Address (Current Holder of Waste) Sirom Ltd Merton Dell Farm Monkton Lane Little Marlow SL7 3RE		Customer Name & Telephone Number: Alex 07450219148 Account Reference CHAMB Type Of Customer CREDIT CUSTOMER	Delivery Address Blaze c/o Sirom Randalls, Cricket Field Road, Uxbridge UB8 1QE

Quantity

1.00 Load(s)

Material / Waste

MULTI PURPOSE BS3882:2015 TOPSOIL (19-12-12) 8 WHEELER LOAD

VEHICLE REGISTRATION No. * NNR - SATURDAY	DISPOSAL FACILITY By signing below I confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 12 of the waste (England and Wales) regulations 2011 DATE: RECEIVED ON BEHALF OF SITE OPERATOR PRINT: SIGN:	
DRIVER NAME (PRINT) * RYAN		
DRIVER NAME (SIGNATURE) *		
N.B WAITING TIME IS CHARGED AFTER 20 MINUTES ON SITE Springbridge Direct Limited Oxford Road (A40), Denham, Buckinghamshire, UB9 4DF Tel: 0333 456 1919 www.springbridge.co.uk	SIGNED FOR AND ON BEHALF OF CUSTOMER WASTE PRODUCER / HOLDER I confirm that the above is an accurate description of the material / waste transferred and any waiting time. When ordering vehicles off the public road we do so entirely on our own responsibility. We accept responsibility for any damage caused by Springbridge Direct Ltd vehicles while on our site. All topsoil supplied must be used in accordance with RPS190. Signed for and on behalf of Springbridge Direct Ltd	



Springbridge Direct Limited
Oxford Road (A40), Denham,
Buckinghamshire, UB9 4DF
Tel: 0333 456 1919
www.springbridge.co.uk

Ticket No: 3220

Blaze of Sirom
Randalls

Delivery Note No:

307979

CONVEYANCE NOTE

Weights and Measures Act 1985

ORDER No	SOURCE TICKET No.	DATE & TIME OF LOADING 21/5/2021	WAITING TIME/DAYWORK on site off site
CUSTOMER NAME & ADDRESS Blaze of Sirom Randalls		N.B. WAITING TIME IS CHARGED AFTER 20 MINUTES ON SITE DELIVERY ADDRESS UB8 1QE	
PRIMARY PRODUCTS		HAULIER Springbridge	
PRIMARY TYPE 1		VEHICLE REGISTRATION LR 68 HSO	
SHINGLE		DRIVER NAME (PRINT) Franks	
BALLAST		DRIVER NAME (SIGNATURE) [Signature]	
SHARP SAND		CUSTOMER NAME (PRINT) x/LEO	
REJECT SAND		CUSTOMER SIGNATURE (SIGNED ON BEHALF OF CUSTOMER WASTE PRODUCER / HOLDER) [Signature]	
BUILDING SAND			
TOPSOIL (GRADE)	✓		
JUMBO BAG			
OTHER			
RECYCLED PRODUCTS			
RECYCLED TYPE 1			
6F5			
10/20mm RECYCLED SHINGLE			
OTHER			
MISCELLANEOUS			
WAITING TIME		I confirm that the above is an accurate description of the material and any waiting time. When ordering vehicles off the public road we do so entirely on our own responsibility. We accept responsibility for any damage caused by Springbridge Direct Ltd vehicles while on our site.	
WASTED JOURNEY			
HAULAGE ONLY			
TONNES	LOOSE QUANTITY LOAD	CUBIC METRES	
GROSS			
TARE	Full load		
NETT			

WHITE COPY: Office BLUE COPY: Customer YELLOW COPY: Haulier



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Matt Matkins
Ferns Aggregates
Wrotham Quarry
Trottiscliffe Road
Addington
Wrotham ME19 5DP

16th February 2018
Our Ref: TOHA/18/7481/SS
Your Ref: AFSL29/MJM/228488

Dear Sirs

Soil Analysis Report: Trottiscliffe Topsoil

We have completed the analysis of the soil sample recently submitted, referenced *Trottiscliffe Topsoil*, and have pleasure reporting our findings.

The purpose of the analysis was to determine the suitability of the sample for general landscape purposes (trees, shrubs, amenity grass). In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Topsoil (*BS3882:2015 – Specification for Topsoil – Table 1, Multipurpose Topsoil*).

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the topsoil source. The report and results should therefore not be used by third parties as a means of verification or validation testing or waste designation purposes.

SAMPLE EXAMINATION

The sample was described as a very dark grey (Munsell colour 10YR 3/1), slightly moist, friable, slightly calcareous LOAMY SAND with a moderately developed, fine to medium granular structure*. The sample was slightly stony and contained frequent organic fines and woody fragments. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

*This appraisal of soil structure was made from examination of a disturbed sample(s). Structure is a key soil characteristic that may only be accurately assessed by examination in an in-situ state.

Tim O'Hare Associates LLP
Howbery Park Wallingford Oxfordshire OX10 8BA
T:01491 822653 E:info@toha.co.uk
www.toha.co.uk

ANALYTICAL SCHEDULE

The sample was submitted to a UKAS and MCERTS accredited laboratory for a range of physical and chemical tests to confirm the composition and fertility of the soil, and the concentration of selected potential contaminants. The following parameters were determined:

- particle size analysis (sand, silt, clay);
- stone content (2-20mm, 20-50mm, >50mm);
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- major plant nutrients (N, P, K, Mg);
- organic matter content;
- C:N ratio;
- heavy metals (As, B, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16 suite);
- aromatic and aliphatic TPH (C5-C35 banding);
- benzene, toluene, ethylbenzene, xylene (BTEX).

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below.

RESULTS OF ANALYSIS

Particle Size Analysis and Stone Content

The sample fell into the *loamy sand* texture class, which is usually considered suitable for general landscape applications provided the soil's physical condition is satisfactory.

The stone content of the sample was low and, as such, stones should not restrict the use of the soil for general landscape purposes.

pH and Electrical Conductivity Values

The sample was strongly alkaline in reaction (pH 8.2). This pH value would be considered suitable for general landscape purposes providing species with a wide pH tolerance or those known to prefer alkaline soils are selected for planting, turfing and seeding.

The electrical conductivity (salinity) value (water extract) was moderate, which indicates that soluble salts should not be present at levels that would be harmful to plants.

The electrical conductivity value by CaSO₄ extract (*BS3882* requirement) fell below the maximum specified value (3300 µS/cm) given in *BS3882:2015 – Table 1*.

Organic Matter and Fertility Status

The sample was well supplied with organic matter and all major plant nutrients.

The recorded level of extractable potassium was slightly elevated (1630 mg/l) and exceeded the maximum permissible value given in *BS3882:2015 – Table 1* (1500 mg/l).

The C:N ratio of the sample was acceptable for general landscape purposes.

Potential Contaminants

With reference to *BS3882:2015 - Table 1*: Notes 3 and 4, there is a recommendation to confirm levels of potential contaminants in relation to the topsoil's proposed end use. This includes human health, environmental protection and metals considered toxic to plants. In the absence of site-specific assessment criteria, the concentrations that affect human health have been compared with the *residential with homegrown produce* land use in the Suitable For Use Levels (S4ULs) presented in *The LQM/CIEH S4ULs for Human Health Risk Assessment* (2015) and the DEFRA SP1010: *Development of Category 4 Screening Levels (C4SLs) for Assessment of Land Affected by Contamination – Policy Companion Document* (2014).

The sample contained an elevated level of arsenic (66 mg/kg), which exceeded the level given in the LQM/CIEH S4ULs for Human Health Risk Assessment (2015) for *residential with homegrown produce* land use (37 mg/kg). This may limit the re-use of the soil to less sensitive *commercial* land use only. Confirmation should be sought from the project environmental consultant, or the Local Authority Contaminated Land Officer on the suitability of the soil prior to its use if there is any doubt.

Of the remaining potential contaminants determined, none exceeded their respective guideline values.

Phytotoxic Contaminants

Of the phytotoxic (toxic to plants) contaminants determined (copper, nickel, zinc), none was found at levels that exceeded the maximum permissible levels specified in *BS3882:2015 – Table 1*.

CONCLUSION

The purpose of the analysis was to determine the suitability of the sample for general landscape purposes (trees, shrubs and amenity grass). In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Topsoil (*BS3882:2015 – Specification for Topsoil – Table 1, Multipurpose Topsoil*).

From the soil examination and subsequent laboratory analysis, the sample was described as a strongly alkaline, non-saline, slightly calcareous loamy sand with a moderately developed structure and low stone content. The sample was well supplied with organic matter and all major plant nutrients, with a high level of extractable potassium. An elevated level of arsenic was recorded within the sample. Of the remaining potential contaminants determined, none exceeded their respective guideline values.

To conclude, based on our findings, the topsoil represented by this sample would be considered suitable for general landscape purposes (trees, shrubs and amenity grass), provided the following conditions are met:

- the elevated arsenic value is deemed acceptable for the topsoil's proposed end-use;
- species with a wide pH tolerance or those known to prefer alkaline soils are selected;
- the physical condition of the soil is satisfactory.

The topsoil was largely compliant with the requirements of the British Standard for Topsoil (*BS3882:2015 – Specification for Topsoil – Table 1, Multipurpose Topsoil*) with the exception of the elevated extractable potassium content and arsenic value. On this occasion, provided the arsenic value is deemed acceptable for the topsoil's proposed end-use, the high extractable potassium content would be considered a minor non-compliance when reviewed in the context of all the other results.

Soil Handling Recommendations

It is important to maintain the physical condition of the soil and avoid structural damage during all phases of soil handling (e.g. stockpiling, resspreading, cultivating, planting, seeding or turfing). As a consequence, soil handling operations should be carried out when soil is reasonably dry and non-plastic (friable) in consistency.

It is important to ensure that the soil is not unnecessarily compacted by trampling or trafficking by site machinery, and soil handling should be stopped during and after heavy rainfall and not continued until the soil is friable in consistency. If the soil is structurally damaged and compacted at any stage during the course of soiling or landscaping works, it should be cultivated appropriately to relieve the compaction and to restore the soil's structure prior to any planting, turfing or seeding.

Further details on soil handling are provided in Annex A of *BS3882:2015*.

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if we can be of further assistance.

Yours faithfully



Rebecca Hollands
BSc MSc AMIAgrE
Soil Scientist



Tim O'Hare
BSc MSc MlSoilSci MBIAC CSci
Principal Consultant

For & on behalf of Tim O'Hare Associates LLP



TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	Ferns Aggregates
Project	Trottisccliffe Topsoil
Job:	Topsoil Analysis - BS3882:2015
Date:	16/02/2018
Job Ref No:	TOHA/18/7481/SS

Sample Reference		Accreditation	
Clay (<0.002mm)	%	UKAS	
Silt (0.002-0.063mm)	%	UKAS	
Sand (0.063-2.0mm)	%	UKAS	
Texture Class (UK Classification)	--	UKAS	
Stones (2-20mm)	% DW	GLP	
Stones (20-50mm)	% DW	GLP	
Stones (>50mm)	% DW	GLP	

Trottisccliffe Topsoil
8
10
82
LS
3
1
0

pH Value (1:2.5 water extract)	units	UKAS
Electrical Conductivity (1:2.5 water extract)	uS/cm	UKAS
Electrical Conductivity (1:2 CaSO ₄ extract)	uS/cm	UKAS
Exchangeable Sodium Percentage	%	UKAS
Organic Matter (LOI)	%	UKAS
Total Nitrogen (Dumas)	%	UKAS
C : N Ratio	ratio	UKAS
Extractable Phosphorus	mg/l	UKAS
Extractable Potassium	mg/l	UKAS
Extractable Magnesium	mg/l	UKAS

8.2
1057
2909
4.9
9.5
0.38
15
76
1670
147

Total Arsenic (As)	mg/kg	MCERTS
Total Cadmium (Cd)	mg/kg	MCERTS
Total Chromium (Cr)	mg/kg	MCERTS
Hexavalent Chromium (Cr VI)	mg/kg	MCERTS
Total Copper (Cu)	mg/kg	MCERTS
Total Lead (Pb)	mg/kg	MCERTS
Total Mercury (Hg)	mg/kg	MCERTS
Total Nickel (Ni)	mg/kg	MCERTS
Total Selenium (Se)	mg/kg	MCERTS
Total Zinc (Zn)	mg/kg	MCERTS
Water Soluble Boron (B)	mg/kg	MCERTS
Total Cyanide (CN)	mg/kg	MCERTS
Total (mono) Phenols	mg/kg	MCERTS

66
< 0.2
69
< 4.0
16
31
< 0.3
55
< 1.0
120
1.1
< 1.0
< 1.0

Naphthalene	mg/kg	MCERTS
Acenaphthylene	mg/kg	MCERTS
Acenaphthene	mg/kg	MCERTS
Fluorene	mg/kg	MCERTS
Phenanthrene	mg/kg	MCERTS
Anthracene	mg/kg	MCERTS
Fluoranthene	mg/kg	MCERTS
Pyrene	mg/kg	MCERTS
Benzo(a)anthracene	mg/kg	MCERTS
Chrysene	mg/kg	MCERTS
Benzo(b)fluoranthene	mg/kg	MCERTS
Benzo(k)fluoranthene	mg/kg	MCERTS
Benzo(a)pyrene	mg/kg	MCERTS
Indeno(1,2,3-cd)pyrene	mg/kg	MCERTS
Dibenzo(a,h)anthracene	mg/kg	MCERTS
Benzo(g,h,i)perylene	mg/kg	MCERTS
Total PAHs (sum USEPA16)	mg/kg	MCERTS

< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.05
< 0.80

Aliphatic TPH >C5 - C6	mg/kg	MCERTS
Aliphatic TPH >C6 - C8	mg/kg	MCERTS
Aliphatic TPH >C8 - C10	mg/kg	MCERTS
Aliphatic TPH >C10 - C12	mg/kg	MCERTS
Aliphatic TPH >C12 - C16	mg/kg	MCERTS
Aliphatic TPH >C16 - C21	mg/kg	MCERTS
Aliphatic TPH >C21 - C35	mg/kg	MCERTS
Aliphatic TPH (C5 - C35)	mg/kg	MCERTS
Aromatic TPH >C5 - C7	mg/kg	MCERTS
Aromatic TPH >C7 - C8	mg/kg	MCERTS
Aromatic TPH >C8 - C10	mg/kg	MCERTS
Aromatic TPH >C10 - C12	mg/kg	MCERTS
Aromatic TPH >C12 - C16	mg/kg	MCERTS
Aromatic TPH >C16 - C21	mg/kg	MCERTS
Aromatic TPH >C21 - C35	mg/kg	MCERTS
Aromatic TPH (C5 - C35)	mg/kg	MCERTS

< 0.001
< 0.001
< 0.001
< 1.0
< 2.0
< 8.0
< 8.0
< 10.0
< 0.001
< 0.001
< 0.001
< 1.0
< 2.0
< 10.0
< 10.0
< 10.0

Benzene	mg/kg	MCERTS
Toluene	mg/kg	MCERTS
Ethylbenzene	mg/kg	MCERTS
p & m-xylene	mg/kg	MCERTS
o-xylene	mg/kg	MCERTS
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	MCERTS

< 0.001
< 0.001
< 0.001
< 0.001
< 0.001
< 0.001

LS = LOAMY SAND

Visual Examination

The sample was described as a very dark grey (Munsell colour 10YR 3/1), slightly moist, friable, slightly calcareous LOAMY SAND with a moderately developed, fine to medium granular structure. The sample was slightly stony and contained frequent organic fines and woody fragments. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

Results of analysis should be read in conjunction with the report they were issued with.

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Rebecca Hollands

Rebecca Hollands
BSc MSc AMIAgrE
Soil Scientist



Final Report

Report No.:	20-34138-1		
Initial Date of Issue:	24-Dec-2020		
Client	Springbridge Direct Ltd		
Client Address:	Oxford Road Denham Middlesex UB9 4DF		
Contact(s):	Katie East Tom Hawkins		
Project	Springbridge Yard		
Quotation No.:	Q20-21261	Date Received:	11-Dec-2020
Order No.:	105715	Date Instructed:	11-Dec-2020
No. of Samples:	1		
Turnaround (Wkdays):	10	Results Due:	24-Dec-2020
Date Approved:	24-Dec-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: Springbridge Yard

Client: Springbridge Direct Ltd		Chemtest Job No.:		20-34138
Quotation No.: Q20-21261		Chemtest Sample ID.:		1112427
		Client Sample ID.:		TOPSOIL
		Sample Type:		SOIL
		Date Sampled:		08-Dec-2020
		Asbestos Lab:		DURHAM
Determinand	Accred.	SOP	Units	LOD
ACM Type	U	2192		N/A
Asbestos Identification	U	2192		N/A
ACM Detection Stage	U	2192	%	N/A
Moisture	N	2030		13
Soil Colour	N	2040		N/A
Other Material	N	2040		N/A
Soil Texture	N	2040		N/A
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40
Cyanide (Total)	M	2300	mg/kg	0.50
Arsenic	M	2450	mg/kg	1.0
Cadmium	M	2450	mg/kg	0.10
Chromium	M	2450	mg/kg	1.0
Copper	M	2450	mg/kg	0.50
Mercury	M	2450	mg/kg	0.10
Nickel	M	2450	mg/kg	0.50
Lead	M	2450	mg/kg	0.50
Selenium	M	2450	mg/kg	0.20
Zinc	M	2450	mg/kg	0.50
Chromium (Hexavalent)	N	2490	mg/kg	0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0
Naphthalene	N	2700	mg/kg	0.010

Results - Soil

Project: Springbridge Yard

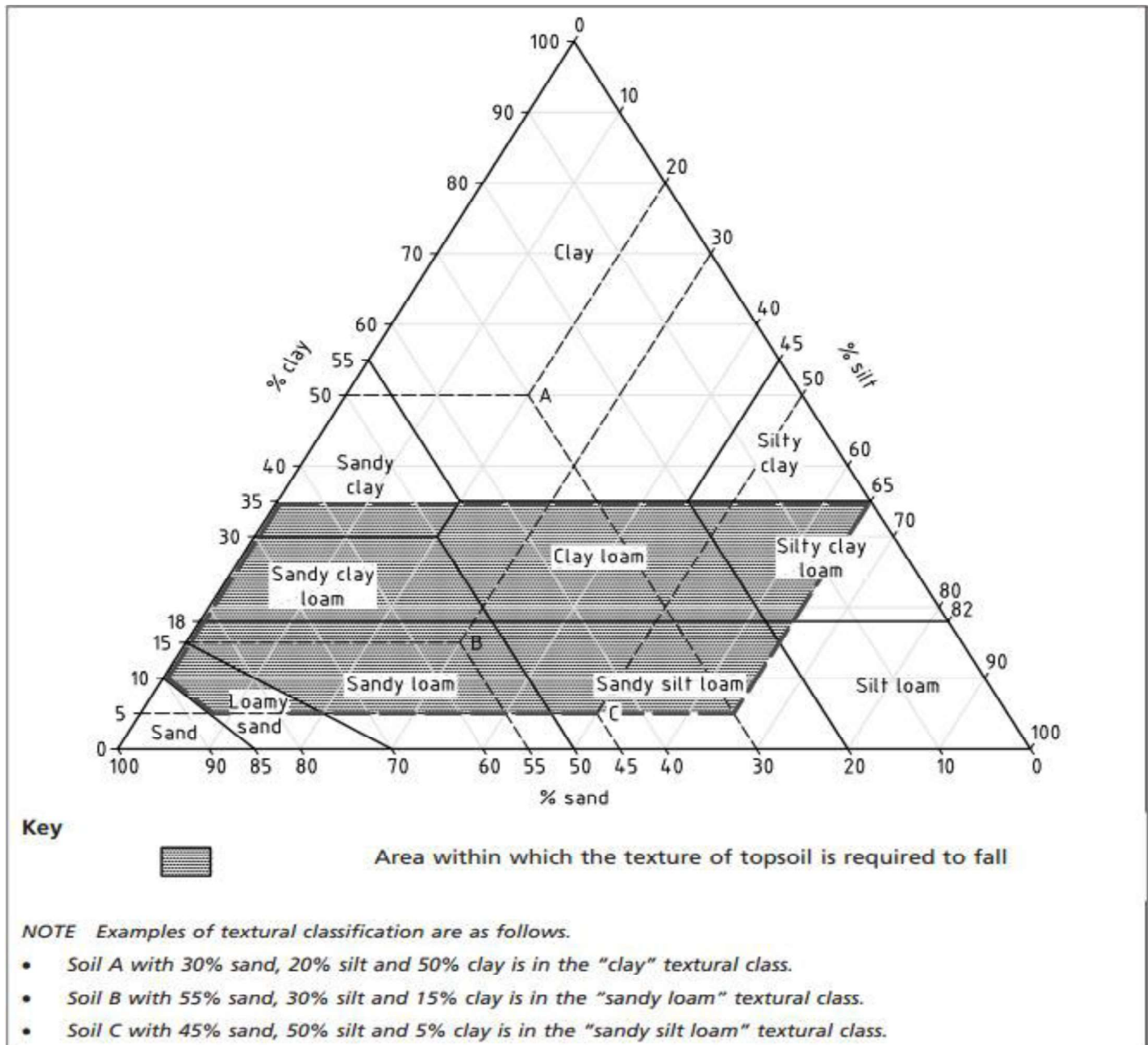
Client: Springbridge Direct Ltd		Chemtest Job No.:		20-34138
Quotation No.: Q20-21261		Chemtest Sample ID.:		1112427
		Client Sample ID.:		TOPSOIL
		Sample Type:		SOIL
		Date Sampled:		08-Dec-2020
		Asbestos Lab:		DURHAM
Determinand	Accred.	SOP	Units	LOD
Acenaphthylene	N	2700	mg/kg	0.010
Acenaphthene	N	2700	mg/kg	< 0.010
Fluorene	N	2700	mg/kg	< 0.010
Phenanthrene	N	2700	mg/kg	1.0
Anthracene	N	2700	mg/kg	0.12
Fluoranthene	N	2700	mg/kg	0.010
Pyrene	N	2700	mg/kg	0.37
Benzo[a]anthracene	N	2700	mg/kg	0.89
Chrysene	N	2700	mg/kg	0.42
Benzo[b]fluoranthene	N	2700	mg/kg	< 0.010
Benzo[k]fluoranthene	N	2700	mg/kg	< 0.010
Benzo[a]pyrene	N	2700	mg/kg	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	< 0.010
Dibenz(a,h)Anthracene	N	2700	mg/kg	< 0.010
Benzo[g,h,i]perylene	N	2700	mg/kg	< 0.010
Total Of 16 PAH's	N	2700	mg/kg	3.1
Benzene	M	2760	µg/kg	1.0
Toluene	M	2760	µg/kg	1.0
Ethylbenzene	M	2760	µg/kg	1.0
m & p-Xylene	M	2760	µg/kg	1.0
o-Xylene	M	2760	µg/kg	1.0
Total Phenols	M	2920	mg/kg	0.30

Results - Topsoil Report

BS3882:2015

Chemtest Job No.: 20-34138
 Chemtest Sample ID.: 1112427
 Client Sample Ref.:
 Sample Location:
Client Sample ID.: TOPSOIL
 Top Depth (m):
 Bottom Depth (m):
 Date Sampled: 08-Dec-2020
 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	%		5.0				
Silt content	%		10				
Sand content	%		85				
Soil texture class		See Attached Chart	Sandy Loam	YES			
Mass Loss on Ignition							
Clay 5-20%		3.0-20	5.8	YES	YES	YES	YES
Clay 20-35%		5.0-20					
Stone Content	% m/m						
>2mm		0-30	18	YES			
>20mm		0-10	< 0.020	YES			
>50mm		0	< 0.020	YES			
Soil pH value		5.5-8.5	8.4	YES	NO	YES	YES
Carbonate (Calcareous only)	%		1.0				YES
Electrical Conductivity	µS/cm	If >3300 do ESP	2900	YES			
Available Nutrient Content							
Nitrogen %		>0.15	0.16	YES	YES		YES
Extractable phosphorus	mg/l	16-140	57	YES	YES	NO	YES
Extractable potassium	mg/l	121-1500	1500	YES	YES		YES
Extractable magnesium	mg/l	51-600	310	YES	YES		YES
Carbon : Nitrogen Ratio		<20:1	18/1	YES	N/A	N/A	N/A
Exchangeable sodium	%	<15	7.4				
Available Calcium	mg/l		2700				
Available Sodium	mg/l		360				
Phytotoxic Contaminants (by soil pH)		< 6.0 6.0-7.0 > 7.0					
Zinc (Nitric Acid extract)	mg/kg	<200 <200 <300	34	YES			
Copper (Nitric Acid extract)	mg/kg	<100 <135 <200	12	YES			
Nickel (Nitric Acid extract)	mg/kg	<60 <75 <110	9.5	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			

Texture Classification Chart

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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	Alkaline 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-diphenylcarbazine.
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; Dibenzo[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"

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



Final Report

Report No.: 20-24412-1

Initial Date of Issue: 24-Sep-2020

Client Springbridge Direct Ltd

Client Address: Oxford Road
Denham
Middlesex
UB9 4DF

Contact(s): Katie East
Tom Hawkins

Project Springbridge Yard

Quotation No.: Q20-21261 **Date Received:** 11-Sep-2020

Order No.: 103254 **Date Instructed:** 11-Sep-2020

No. of Samples: 1

Turnaround (Wkdays): 10 **Results Due:** 24-Sep-2020

Date Approved: 24-Sep-2020

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: Springbridge Yard					
Client: Springbridge Direct Ltd		Chemtest Job No.: 20-24412			
Quotation No.: Q20-21261		Chemtest Sample ID.: 1063098			
		Client Sample ID.: 1			
		Sample Type: SOIL			
		Asbestos Lab: COVENTRY			
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-
Moisture	N	2030	%	0.020	10
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Sand
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	[A] 1.4
Cyanide (Total)	M	2300	mg/kg	0.50	[A] < 0.50
Arsenic	M	2450	mg/kg	1.0	11
Cadmium	M	2450	mg/kg	0.10	0.13
Chromium	M	2450	mg/kg	1.0	8.2
Copper	M	2450	mg/kg	0.50	12
Mercury	M	2450	mg/kg	0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	9.4
Lead	M	2450	mg/kg	0.50	29
Selenium	M	2450	mg/kg	0.20	0.21
Zinc	M	2450	mg/kg	0.50	45
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	[A] < 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	[A] < 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	[A] < 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	[A] < 10
Naphthalene	N	2700	mg/kg	0.010	[A] < 0.010
Acenaphthylene	N	2700	mg/kg	0.010	[A] < 0.010

Results - Soil

Project: Springbridge Yard

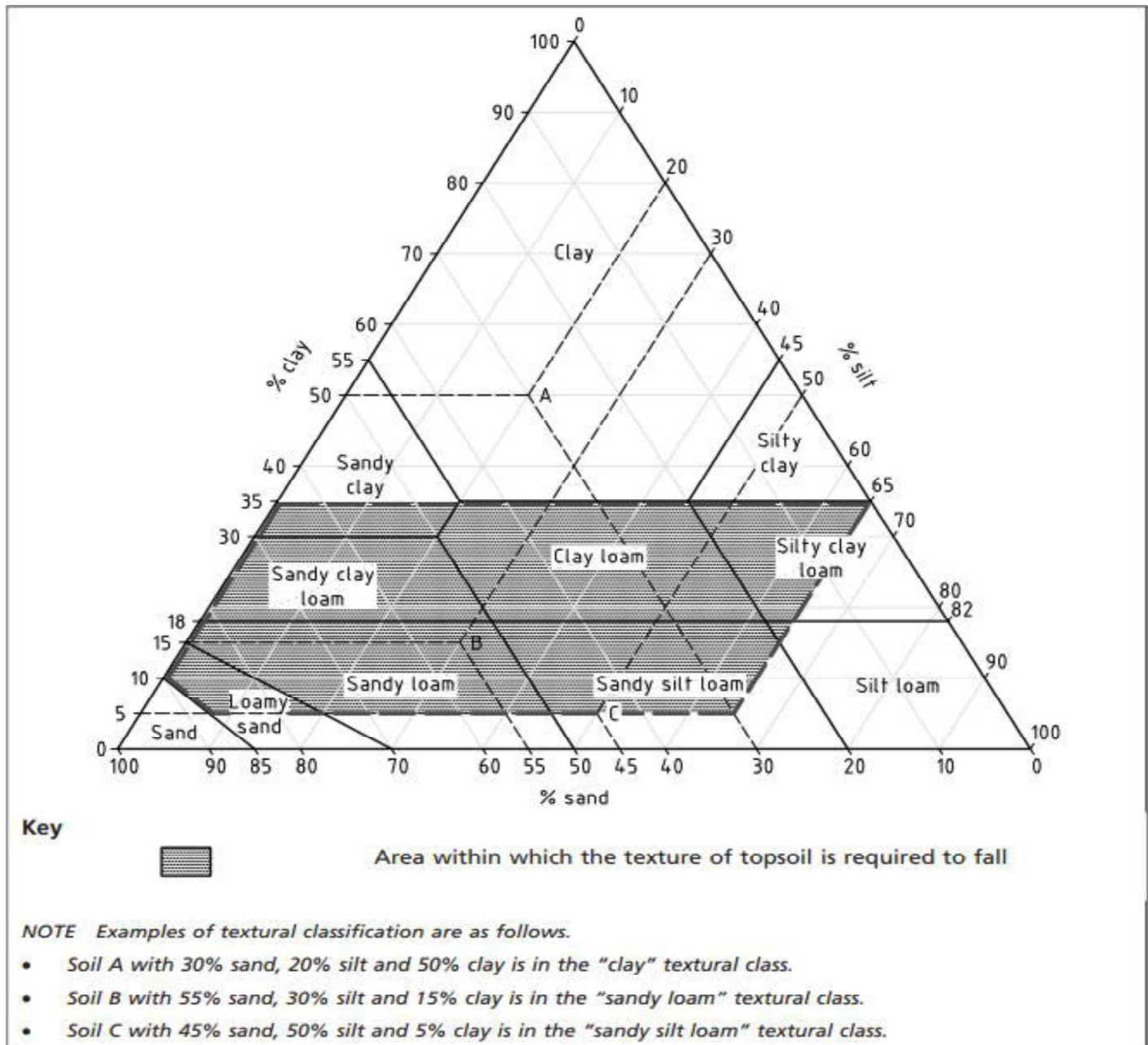
Client: Springbridge Direct Ltd		Chemtest Job No.:		20-24412
Quotation No.: Q20-21261		Chemtest Sample ID.:		1063098
		Client Sample ID.:		1
		Sample Type:		SOIL
		Asbestos Lab:		COVENTRY
Determinand	Accred.	SOP	Units	LOD
Acenaphthene	N	2700	mg/kg	0.010
Fluorene	N	2700	mg/kg	[A] < 0.010
Phenanthrene	N	2700	mg/kg	[A] < 0.010
Anthracene	N	2700	mg/kg	[A] < 0.010
Fluoranthene	N	2700	mg/kg	[A] < 0.010
Pyrene	N	2700	mg/kg	[A] < 0.010
Benzo[a]anthracene	N	2700	mg/kg	[A] < 0.010
Chrysene	N	2700	mg/kg	[A] < 0.010
Benzo[b]fluoranthene	N	2700	mg/kg	[A] < 0.010
Benzo[k]fluoranthene	N	2700	mg/kg	[A] < 0.010
Benzo[a]pyrene	N	2700	mg/kg	[A] < 0.010
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	[A] < 0.010
Dibenz(a,h)Anthracene	N	2700	mg/kg	[A] < 0.010
Benzo[g,h,i]perylene	N	2700	mg/kg	[A] < 0.010
Total Of 16 PAH's	N	2700	mg/kg	[A] < 0.20
Benzene	M	2760	µg/kg	1.0
Toluene	M	2760	µg/kg	1.0
Ethylbenzene	M	2760	µg/kg	1.0
m & p-Xylene	M	2760	µg/kg	1.0
o-Xylene	M	2760	µg/kg	1.0
Total Phenols	M	2920	mg/kg	0.30

Results - Topsoil Report

BS3882:2015

Chemtest Job No.: 20-24412
 Chemtest Sample ID.: 1063098
 Client Sample Ref.:
 Sample Location:
Client Sample ID.: 1
 Top Depth (m):
 Bottom Depth (m):
 Date Sampled:
 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	%		8.1				
Silt content	%		16				
Sand content	%		76				
Soil texture class		See Attached Chart	Sandy Loam	YES			
Mass Loss on Ignition							
Clay 5-20%		3.0-20	5.5	YES	YES	YES	YES
Clay 20-35%		5.0-20					
Stone Content	% m/m						
>2mm		0-30	11	YES			
>20mm		0-10	< 0.020	YES			
>50mm		0	< 0.020	YES			
Soil pH value		5.5-8.5	[A] 8.4	YES	NO	YES	YES
Carbonate (Calcareous only)	%		1.2				YES
Electrical Conductivity	µS/cm	If >3300 do ESP	[A] 2500	YES			
Available Nutrient Content							
Nitrogen %		>0.15	0.13	NO	NO		NO
Extractable phosphorus	mg/l	16-140	120	YES	YES	NO	YES
Extractable potassium	mg/l	121-1500	1400	YES	YES		YES
Extractable magnesium	mg/l	51-600	140	YES	YES		YES
Carbon : Nitrogen Ratio		<20:1	24.7/1	NO	NO	YES	NO
Exchangeable sodium	%	<15	3.6				
Available Calcium	mg/l		3200				
Available Sodium	mg/l		180				
Phytotoxic Contaminants (by soil pH)		< 6.0 6.0-7.0 > 7.0					
Zinc (Nitric Acid extract)	mg/kg	<200 <200 <300	39	YES			
Copper (Nitric Acid extract)	mg/kg	<100 <135 <200	12	YES			
Nickel (Nitric Acid extract)	mg/kg	<60 <75 <110	8.0	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			

Texture Classification Chart

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Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1063098		1			A	Amber Glass 250ml
1063098		1			A	Amber Glass 60ml
1063098		1			A	Plastic Tub 500g

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	Alkaline 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-diphenylcarbazine.
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; Dibenzo[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"

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

Results - Soil

Project: Springbridge Yard			
Client: Springbridge Direct Ltd	Chemest Job No.:		
Quotation No.: Q20-21261	Chemtest Sample ID.:	21-10364	
Order No.: 109288	Client Sample Ref.:	1170307	
	Sample Type:	TOPSOIL	
	Date Sampled:	22-Mar-2021	
	Asbestos Lab:	COVENTRY	
Determinand	Accred.	SOP	Units LOD
ACM Type	U	2192	N/A
Asbestos Identification	U	2192	N/A
ACM Detection Stage	U	2192	N/A
Moisture	N	2030	%
Soil Colour	N	2040	N/A
Other Material	N	2040	N/A
Soil Texture	N	2040	N/A
Boron (Hot Water Soluble)	M	2120	mg/kg
Cyanide (Total)	M	2300	mg/kg
Arsenic	M	2450	mg/kg
Cadmium	M	2450	mg/kg
Chromium	M	2450	mg/kg
Copper	M	2450	mg/kg
Mercury	M	2450	mg/kg
Nickel	M	2450	mg/kg
Lead	M	2450	mg/kg
Selenium	M	2450	mg/kg
Zinc	M	2450	mg/kg
Chromium (Hexavalent)	N	2490	mg/kg
Aliphatic TPH >C5-C6	N	2680	mg/kg
Aliphatic TPH >C6-C8	N	2680	mg/kg
Aliphatic TPH >C8-C10	M	2680	mg/kg
Aliphatic TPH >C10-C12	M	2680	mg/kg
Aliphatic TPH >C12-C16	M	2680	mg/kg
Aliphatic TPH >C16-C21	M	2680	mg/kg
Aliphatic TPH >C21-C35	M	2680	mg/kg
Aliphatic TPH >C35-C44	N	2680	mg/kg
Total Aliphatic Hydrocarbons	N	2680	mg/kg
Aromatic TPH >C5-C7	N	2680	mg/kg
Aromatic TPH >C7-C8	N	2680	mg/kg
Aromatic TPH >C8-C10	M	2680	mg/kg
Aromatic TPH >C10-C12	M	2680	mg/kg
Aromatic TPH >C12-C16	M	2680	mg/kg
Aromatic TPH >C16-C21	U	2680	mg/kg
Aromatic TPH >C21-C35	M	2680	mg/kg
Aromatic TPH >C35-C44	N	2680	mg/kg
Total Aromatic Hydrocarbons	N	2680	mg/kg
Total Petroleum Hydrocarbons	N	2680	mg/kg

Results - Soil

Project: Springbridge Yard

Client: Springbridge Direct Ltd		Chemtest Job No.:		21-10364
Quotation No.: Q20-21261		Chemtest Sample ID.:	1170307	
Order No.: 109288		Client Sample Ref.:	TOPSOIL	
		Sample Type:	SOIL	
		Date Sampled:	22-Mar-2021	
		Asbestos Lab:	COVENTRY	
Determinand	Accred.	SOP	Units	LOD
Naphthalene	N	2700	mg/kg	0.010
Acenaphthylene	N	2700	mg/kg	0.010
Acenaphthene	N	2700	mg/kg	0.010
Fluorene	N	2700	mg/kg	0.010
Phenanthrene	N	2700	mg/kg	0.010
Anthracene	N	2700	mg/kg	0.010
Fluoranthene	N	2700	mg/kg	0.010
Pyrene	N	2700	mg/kg	0.010
Benzo[a]anthracene	N	2700	mg/kg	0.010
Chrysene	N	2700	mg/kg	0.010
Benzo[b]fluoranthene	N	2700	mg/kg	0.010
Benzo[k]fluoranthene	N	2700	mg/kg	0.010
Benzo[a]pyrene	N	2700	mg/kg	0.010
Indeno[1,2,3-c,d]Pyrene	N	2700	mg/kg	0.010
Dibenzo[a,h]Anthracene	N	2700	mg/kg	0.010
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010
Total Of 16 PAH's	N	2700	mg/kg	0.20
Benzene	M	2760	µg/kg	1.0
Toluene	M	2760	µg/kg	1.0
Ethylbenzene	M	2760	µg/kg	1.0
m & p-Xylene	M	2760	µg/kg	1.0
o-Xylene	M	2760	µg/kg	1.0
Total Phenols	M	2920	mg/kg	0.30

Results - Topsoil Report

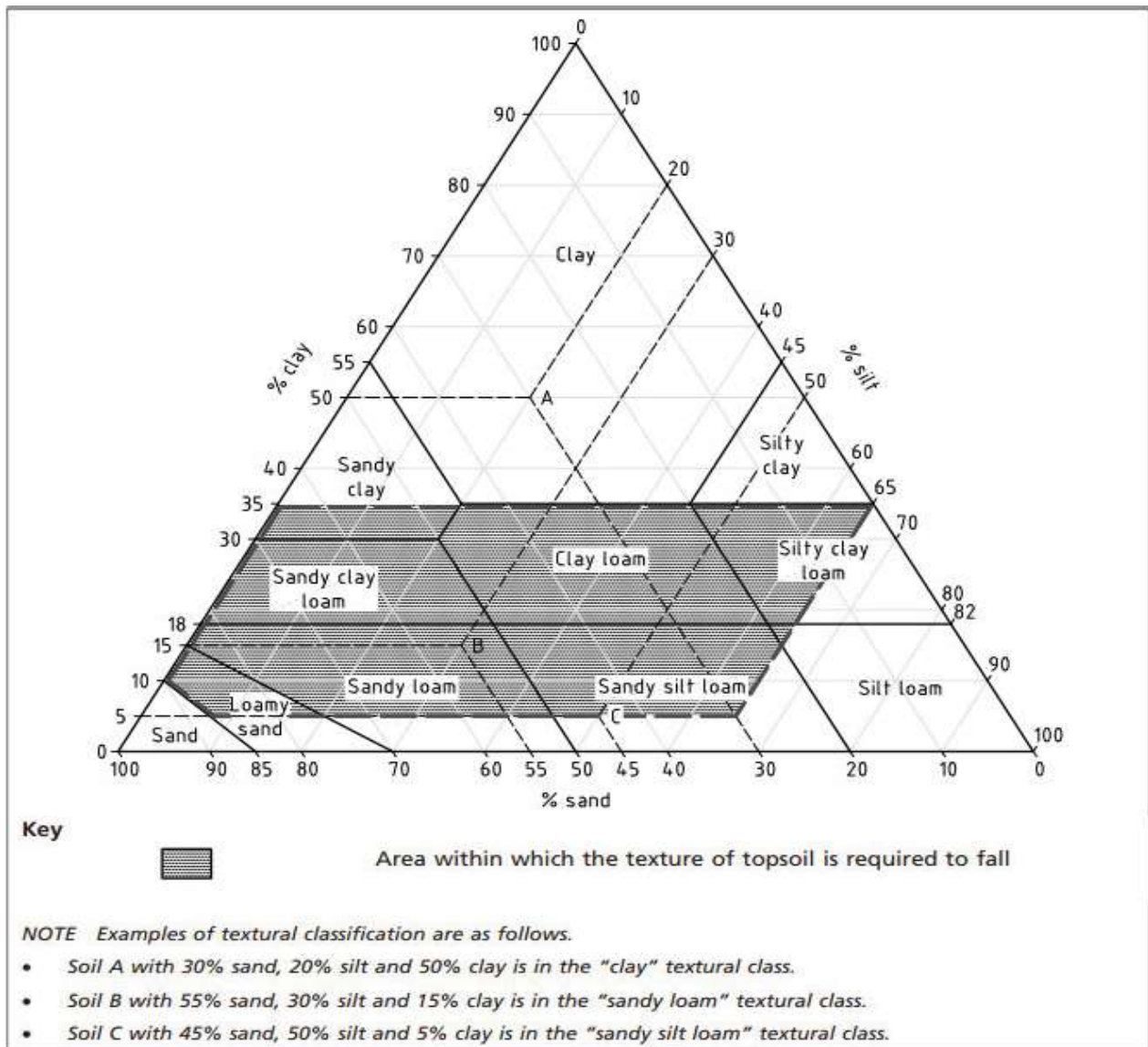
BS3882:2015

Chemtest Job No.: 21-10364
 Chemtest Sample ID.: 1170307
 Client Sample Ref.: TOPSOIL
 Sample Location:
 Client Sample ID.:
 Top Depth (m):
 Bottom Depth (m):
 Date Sampled: 22-Mar-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	%		6.0				
Sand content	%		89				
Soil texture class		See Attached Chart	Sandy Loam	YES			
Mass Loss on Ignition							
Clay 5-20%		3.0-20	4.8	YES	YES	YES	YES
Clay 20-35%		5.0-20					
Stone Content	% m/m						
>2mm		0-30	19	YES			
>20mm		0-10	< 0.020	YES			
>50mm		0	< 0.020	YES			
Soil pH value		5.5-8.5	8.4	YES	NO	YES	YES
Carbonate (Calcareous only)	%		3.8				YES
Electrical Conductivity	µS/cm	If >3300 do ESP	2600	YES			
Available Nutrient Content							
Nitrogen %		>0.15	0.160	YES	YES		YES
Extractable phosphorus	mg/l	16-140	35	YES	YES	NO	YES
Extractable potassium	mg/l	121-1500	1100	YES	YES		YES
Extractable magnesium	mg/l	51-600	130	YES	YES		YES
Carbon : Nitrogen Ratio		<20:1	12	N/A	N/A	N/A	N/A
Exchangeable sodium	%	<15	3.5				
Available Calcium	mg/l		310				
Available Sodium	mg/l		95				
Phytotoxic Contaminants (by soil pH)		< 6.0 6.0-7.0 > 7.0					
Zinc (Nitric Acid extract)	mg/kg	<200 <200 <300	12	YES			
Copper (Nitric Acid extract)	mg/kg	<100 <135 <200	7.9	YES			
Nickel (Nitric Acid extract)	mg/kg	<60 <75 <110	< 5.0	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**

BS3882:2015



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British Standards can be obtained in PDF or hard copy formats from the BSI online shop: www.bsigroup.com/Shop or by contacting BSI Customer Services for hardcopies only: Tel: +44 (0)20 8996 9001, Email: cservices@bsigroup.com.

Test Methods

SOP	Title	Parameters included	Method summary
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
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	Alkaline 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; Diben[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.

Test Methods

SOP	Title	Parameters included	Method summary
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.

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Tom Heath

Patrick Parson
40 St. Paul's Square
Birmingham
B3 1FQ

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: tom.heath@patrickparsons.co.uk

Analytical Report Number : 21-79744

Project / Site name:	Vine street, Uxbridge	Samples received on:	04/06/2021
Your job number:	L21056	Samples instructed on/ Analysis started on:	08/06/2021
Your order number:	PP186	Analysis completed by:	15/06/2021
Report Issue Number:	1	Report issued on:	15/06/2021
Samples Analysed:	6 soil samples		

Signed:



Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-79744
Project / Site name: Vine street, Uxbridge
Your Order No: PP186

Lab Sample Number				1895689	1895690	1895691	1895692	1895693
Sample Reference				HP01	HP04	HP06	HP07	HP09
Sample Number				Topsoil	Subsoil	Topsoil	Subsoil	Topsoil
Depth (m)				0.20	0.35	0.10	0.30	0.10
Date Sampled				03/06/2021	03/06/2021	03/06/2021	03/06/2021	03/06/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Stone Content				%	0.1	NONE	< 0.1	
Moisture Content				%	0.01	NONE	20	
Total mass of sample received				kg	0.001	NONE	0.60	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.0	9.9	8.3	11.6	8.4
Total Sulphate as SO ₄	%	0.005	MCERTS	0.109	0.102	0.100	1.19	0.125
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	470	430	440	47	350
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.23	0.22	0.22	0.023	0.18
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	234	216	218	23.3	177
Total Organic Carbon (TOC)	%	0.1	MCERTS	5.5	0.9	4.1	1.0	4.4

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.96	0.41	0.81	< 0.05	0.44
Anthracene	mg/kg	0.05	MCERTS	0.25	< 0.05	0.30	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.9	1.5	1.9	0.33	1.1
Pyrene	mg/kg	0.05	MCERTS	1.7	1.4	1.6	0.31	0.91
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.85	0.91	1.1	0.20	0.59
Chrysene	mg/kg	0.05	MCERTS	0.82	0.72	0.82	0.24	0.59
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.0	0.86	1.2	0.22	0.73
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.45	0.41	0.46	0.23	0.36
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.82	0.60	0.92	0.21	0.56
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.71	0.58	0.86	0.21	0.63
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.86	0.74	0.90	0.26	0.67

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	10.3	8.11	10.9	2.21	6.56
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Analytical Report Number: 21-79744
Project / Site name: Vine street, Uxbridge
Your Order No: PP186

Lab Sample Number				1895689	1895690	1895691	1895692	1895693
Sample Reference				HP01	HP04	HP06	HP07	HP09
Sample Number				Topsoil	Subsoil	Topsoil	Subsoil	Topsoil
Depth (m)				0.20	0.35	0.10	0.30	0.10
Date Sampled				03/06/2021	03/06/2021	03/06/2021	03/06/2021	03/06/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	16	14	15	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	1.0	0.8	0.9	0.7
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	24	22	45	16
Copper (aqua regia extractable)	mg/kg	1	MCERTS	46	28	45	31	37
Lead (aqua regia extractable)	mg/kg	1	MCERTS	140	230	110	290	90
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	17	14	24	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	260	120	180	110

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	2.1	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	46	< 8.0	33
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	56	< 10	41

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	13	< 10	11	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	39	22	35	16	32
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	52	30	46	22	42

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-79744
Project / Site name: Vine street, Uxbridge
Your Order No: PP186

Lab Sample Number				1895694
Sample Reference				HP10
Sample Number				Subsoil
Depth (m)				0.40
Date Sampled				03/06/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9.8
Total mass of sample received	kg	0.001	NONE	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.8
Total Sulphate as SO ₄	%	0.005	MCERTS	0.489
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	840
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.42
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	421
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.8

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.44
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.94
Pyrene	mg/kg	0.05	MCERTS	0.86
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.56
Chrysene	mg/kg	0.05	MCERTS	0.54
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.76
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.35
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.54
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.64
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.79

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	6.42
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Analytical Report Number: 21-79744
Project / Site name: Vine street, Uxbridge
Your Order No: PP186

Lab Sample Number	1895694
Sample Reference	HP10
Sample Number	Subsoil
Depth (m)	0.40
Date Sampled	03/06/2021
Time Taken	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	4.2
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	11
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	40
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	54

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	30
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	36

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