

Our ref: ML/GML19177/Val1 Rev0

Date: 19th June 2024

EMAIL (SCANNED)

Seagate Home (UK) Ltd
33 Boston Road South
Holbeach
Spalding
Lincs
PE12 7LR

For the attention of D Cheung

Dear Douglas,

GML19177: Validation of Hotspot at Malting Lane, Donington

Geo-Matters Ltd were instructed by Seagate Homes (UK) Ltd (hereafter referred to as 'the Client') to undertake a validation exercise around an Asbestos hotspot in the Central part of the subject site (following on from our delineation works letter referenced below).

Report Status

This letter report provides a summary of validation sampling works undertaken by Geo-Matters Limited in June 2024. This letter report has been prepared for the sole use and reliance of the Client and their appointed agents (e.g. Geo-Matters Ltd). No other third party may rely upon or reproduce the content of this report without the written approval of Geo-Matters Ltd. If any unauthorised third party comes into possession of this report, they rely upon it entirely at their own risk and the authors do not owe them any warranty, duty of care or skill.

The conclusions and recommendations presented herein are considered reasonable based on the assessments of the site undertaken by Geo-Matters Ltd. However, these cannot be guaranteed to gain regulatory approval and therefore copies of this report should be sent to the appropriate regulatory authorities and / or other organisations (as appropriate) by the Client for their comments and approval prior to undertaking any irrecoverable works associated with the site.

- Hydrock: Desk Study and Ground Investigation Malting Lane, Donington Ref MLD-HYD-XX-GI-RP-GE-1001 dated May 2017;
- Geo-Matters Ltd: GML19177 Report for Recent Delineation Works at the Site off Malting Lane, Donington (ref: AT/GML19177/DL1/1) dated August 2019);
- Geo-Matters Ltd: Remedial Method Statement Ref GM19177/4/0 dated July 2022.



The above referenced reports shall not be reproduced herein although relevant extracts shall be used and discussed where relevant. Information from the above referenced reports has been used to extend and refine the investigations presented herein.

The above referenced reports must be read in conjunction with this report. This letter report does not supersede the recommendations and conclusions presented within the above referenced reports unless otherwise stated.

It is reiterated that this Letter Report has been written to assess the chemical status of soils post-remedial excavation works. It does not address any other issues (e.g. geotechnical issues).

Site Work

Geo-Matters Ltd were asked to attend the subject site on the 3rd June 2024 to complete the inspection and validation works of the resultant excavation.

The soils, post remedial works; within the validation excavation did not display any staining or odours and they did not contain any noticeable anthropogenic materials. Groundwater was not encountered within the shallow excavation.

Samples were retrieved from the remedial excavation; around the original hotspot location for confirmatory laboratory analysis.

The soil samples were placed in appropriate laboratory supplied sampling vessels and were stored in coolboxes pending dispatch to the laboratory. The environmental analysis was scheduled by Geo-Matters Ltd and carried out by a UKAS / MCERTS accredited laboratory.

Sampling Regime

The samples taken during the intrusive investigation will be analysed for a range of contaminants in accordance with NHBC Standards Chapter 4.1 'Land Quality – managing ground conditions' and CLR 8 'Potential Contaminants for the Assessment of Land' (withdrawn but used for reference purposes where applicable). The soil samples will be analysed for asbestos free fibres.

Chemical Test Results

The laboratory results have been reviewed against a combined set of Tier 1 Screening Values (T1SVs).

A summary of the test results is shown in the table below and chemical test certificates are enclosed.

Laboratory analysis

Determinand	No. of samples analysed	Maximum Concentration (mg/kg)	Acceptance Criteria (mg/kg)*	No. exceeding threshold
<i>Inorganics & Organics</i>				
Asbestos	5	NAD	NONE	0

Inorganics and Organics

Asbestos

None of the samples analysed for asbestos fibres recorded any positive results. On this basis, no risks have been identified from asbestos fibres within the area of concern previously identified on the subject site.



General Contaminants

Visual, Olfactory and Field Measurements

No other significant visual or olfactory evidence of any potential contamination (such as petroleum hydrocarbons or asbestos) was noted within any other exploratory locations advanced at the site.

Conclusions and Recommendations

Samples retrieved from the resultant remedial excavation did not record any positive results for asbestos in excess of the T1SVs for the proposed residential end-use. It is therefore, Geo-Matters Limited professional opinion that the contamination around the area of concern; and as highlighted on the enclosed plans; has been adequately remediated and that development works around the area can continue; subject to the approval of the regulatory authorities.

If any soils are imported to site then these works must be undertaken in full compliance with all regulatory licensing procedures (i.e. U1, MMP etc), and validation of the soils prior to importation will be required, subject to the approval of the Local Authority.

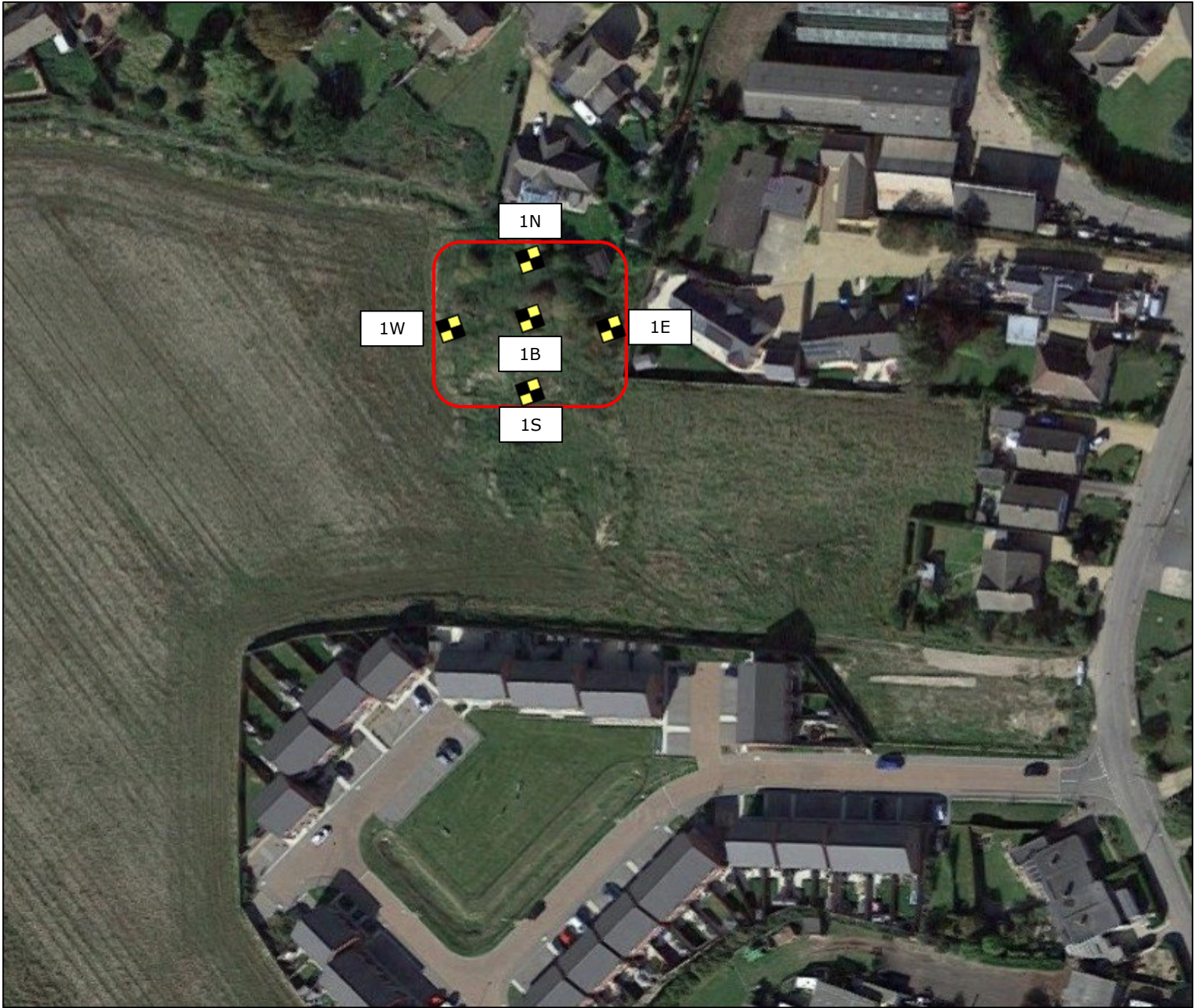
Copies of this letter report should be forwarded to the Local Authority / NHBC by the Client in order to obtain necessary approvals prior to any irrevocable actions on site. We would be happy to do this on your behalf, pending your instruction.

Should you have any queries or require any further information then please do not hesitate to contact us.

Yours sincerely
for Geo-Matters Ltd.

Mark Lewis BEng(Hons) CEnv MSEE FFB
Managing Director

Encs. Chemical Test Certificates



DO NOT SCALE

NOTES:

Approx. Location of
Geo-Matters Ltd pits



www.geo-matters.com
info@geo-matters.com

CLIENT:

Seagate Homes

PROJECT:

Site off Malting Lane, Donington,
Spalding, PE11 4XA

TITLE:

Asbestos Sampling Plan

SCALE@SIZE : NTS	ISSUE: Final
DESIGN/DRAWN : AT	DATE: June 2024
PROJECT No: GML19177	DRAWING No: 001a



DO NOT SCALE
NOTES:



www.geo-matters.com
info@geo-matters.com

CLIENT:

Seagate Homes

PROJECT:
Site off Malting Lane, Donington,
Spalding, PE11 4XA

TITLE:

General Photographic Plan

SCALE@SIZE : NTS	ISSUE: Final
DESIGN/DRAWN : AT	DATE: June 2024
PROJECT No: GML19177	DRAWING No: 001b

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DE74 2NR

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Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 24-06136

Site Reference: SITE OFF THE MALTINGS, DONNINGTON

Project / Job Ref: GML19177

Order No: ML/GML19177/009

Sample Receipt Date: 04/06/2024

Sample Scheduled Date: 04/06/2024

Report Issue Number: 1

Reporting Date: 10/06/2024

Authorised by:

Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.



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Soil Analysis Certificate						
DETS Report No: 24-06136	~Date Sampled	03/06/24	03/06/24	03/06/24	03/06/24	03/06/24
Geo-Matters Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: SITE OFF THE MALTINGS, DONNINGTON	~TP / BH No	1N	1E	1S	1W	1B
~Project / Job Ref: GML19177	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: ML/GML19177/009	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 10/06/2024	DETS Sample No	718943	718944	718945	718946	718947

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	8.0	7.9	7.8	7.8	8.0
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	302	230	< 200	< 200	224
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.03	0.02	< 0.02	< 0.02	0.02
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	33	37	28	21	24
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.03	0.04	0.03	0.02	0.02
TOC (Total Organic Carbon)	%	< 0.1	MCERTS	1.2	1.1	1	1	1.1
Arsenic (As)	mg/kg	< 2	MCERTS	16	12	12	10	12
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	24	21	22	22	20
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	14	10	10	10	11
Lead (Pb)	mg/kg	< 3	MCERTS	21	15	14	13	15
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	26	22	26	23	21
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	mg/kg	< 3	MCERTS	59	57	56	60	63
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion

Subcontracted analysis (S)

~Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - Speciated PAHs					
DETS Report No: 24-06136	~Date Sampled	03/06/24	03/06/24	03/06/24	03/06/24
Geo-Matters Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: SITE OFF THE MALTINGS, DONNINGTON	~TP / BH No	1N	1E	1S	1W
~Project / Job Ref: GML19177	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: ML/GML19177/009	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 10/06/2024	DETS Sample No	718943	718944	718945	718946

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.28	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.44	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.41	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.23	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.23	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.22	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.22	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.14	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.16	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	2.3	< 1.6

~Sample details provided by customer and can affect the validity of results



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Soil Analysis Certificate - EPH Banded (Type E)					
DETS Report No: 24-06136	~Date Sampled	03/06/24	03/06/24	03/06/24	03/06/24
Geo-Matters Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: SITE OFF THE MALTINGS, DONNINGTON	~TP / BH No	1N	1E	1S	1W
~Project / Job Ref: GML19177	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: ML/GML19177/009	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 10/06/2024	DETS Sample No	718943	718944	718945	718946

Determinand	Unit	RL	Accreditation					
EPH (C6 - C8)	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
EPH (>C8 - C10)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C10 - C12)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C12 - C16)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C16 - C21)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	2	< 1
EPH (>C21 - C35)	mg/kg	< 6	NONE	< 6	< 6	< 6	< 6	< 6
EPH (C6 - C35)	mg/kg	< 6	NONE	< 6	< 6	< 6	< 6	< 6

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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 24-06136	
Geo-Matters Limited	
~Site Reference: SITE OFF THE MALTINGS, DONNINGTON	
~Project / Job Ref: GML19177	
~Order No: ML/GML9177/009	
Reporting Date: 10/06/2024	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
718943	1N	None Supplied	None Supplied	17.1	Light brown sandy clay
718944	1E	None Supplied	None Supplied	16.6	Light brown sandy clay
718945	1S	None Supplied	None Supplied	17.7	Light brown sandy clay
718946	1W	None Supplied	None Supplied	16.6	Light brown sandy clay
718947	1B	None Supplied	None Supplied	15.7	Light brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{U/S}

Unsuitable Sample ^{U/S}

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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 24-06136

Geo-Matters Limited

~Site Reference: SITE OFF THE MALTINGS, DONNINGTON

~Project / Job Ref: GML19177

~Order No: ML/GML19177/009

Reporting Date: 10/06/2024

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (all: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (all: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried

AR As Received

~Sample details provided by customer and can affect the validity of results