

Contamination Assessment Summary Statement

Land at Ash Bank Road, Werrington

September 2021

Following the two phases of site investigation undertaken for the site located at Ash Bank Road, Werrington (2019 by Wood and 2021 by TBGE), Travis Baker have had the opportunity to review the chemical test data and have provided Countryside Properties with a summary and proposed mitigation.

1. Summary

1.1 Data obtained from the site investigations have been used to assess the contamination status of the site. Current technical guidance published by the Environment Agency (EA) i.e. their Contaminated Land Exposure Assessment (CLEA) model has been utilised. The Chartered Institute of Environmental Health (CIEH) and Land Quality Management (LQM) published updated Suitable for Use Levels (S4ULs) in January 2015 for a number of potential contaminants of concern (COC). These include those with previously published soil guidance values (SGVs) available from the EA. The published S4ULs are designed to be used as generic screening values. The new S4ULs have been produced to incorporate updates to toxicological data, where available, together with adaptations to the exposure modelling originally proposed by Defra in the production of Category 4 Screening Levels (C4SL). However, unlike the C4SLs, the S4ULs are still based on the concept of minimal risk and are considered appropriate for use in generic quantitative risk assessment (GQRA).

1.2 Moderate risks have been identified to future site users relating to the potential presence of Made ground and agricultural land. Risks to the other receptors, including offsite users, controlled waters and buildings and services have been assessed as Moderate/low and Low.

1.3 Geotechnical risks identified for the site include the potential for soft clay deposits, unknown depths of Made ground deposits, unknown mining data for the site, potential groundwater flooding, unknown thicknesses of cohesive material and potentially shrinkable deposits.

1.4 Whilst much of the site is considered suitable for use, localised deposits of made ground principally within the bund tested positive for loose asbestos fibres and asbestos debris. Asbestos was positively identified to a maximum depth of 1.2 m bgl however it is likely to be present throughout the extent of made ground within the bund. In addition to the known extent of made ground in the central parcel of the site, it is possible that localised areas of made ground or contamination sources may exist

that have not been discovered during the ground investigation. Therefore, it is recommended that contingencies are allowed for dealing with such things should they come to light during the development.

2. Human Health Risk Assessment

- 2.2 In accordance with current best practice outlined within, the exploratory hole logs have been reviewed to determine any differences within the soil types encountered at the site. Given the complexities relating to the natural ground, no distinguishment has been made between the different units at this preliminary stage. Consequently, there are three main material types considered in the assessment i.e. topsoil, made ground and natural ground.
- 2.3 The testing regime for this supplementary phase of works was based on delineating the area of made ground recorded in the east of the northern site area and supplementing the existing data to provide a robust assessment of the existing ground conditions. A general suite of testing has been undertaken on samples across the site. In addition, the made ground samples from the mound were also targeted for PAH and asbestos screening based on the results of the previous testing.
- 2.4 The topsoil and made ground have been tested for a general suite of potential contaminants found on UK greenfield sites i.e. metals and metalloids. Samples have also been tested for asbestos and polyaromatic hydrocarbons (PAH) and limited samples were also screened for pesticides.
- 2.5 Given the generally low concentrations, initially, a direct comparison of the contamination test results with the adopted guidance values for a residential end use was undertaken. A copy of the laboratory test reports are attached as an Appendix, together with a list of the guideline values used for this initial assessment. A sketch plan illustrating the locations where exceedances have been identified is also attached as an Appendix.
- 2.6 When directly comparing the results of the chemical testing data with the guidance values, the topsoil and natural ground are considered suitable for reuse at the site. The recent testing has generally confirmed the results of the previous investigation; there are localised issues relating to asbestos and PAH, as can be seen on the attached sketch plan.
- 2.7 The 'mound' located in the south east of the main northern field, adjacent to the Young Offenders Institute, recorded the presence of chrysotile and amosite asbestos. Quantification testing was not generally undertaken as part of the Wood's investigation; recent quantification testing has generally identified <0.001%. The 'mound'



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currently coincides with a small number of house plots and associated gardens, up to a maximum of say 8 gardens, based on the current layout provided.

2.8 The only other contamination identified was confined to an isolated area of made ground identified along the southern site boundary in the Wood's investigation centred at WS02. Asbestos (chrysotile) was recorded in the sample between 0.2m and 0.3m bgl at 0.003%. The dynamic sample log identified a piece of asbestos roof tile within the topsoil at this location. Based on the log provided, the majority of the made ground comprises soft gravelly clay with an organic odour noted at the base of the infill. Based on the description, consistency and odour recorded, the materials recorded could represent an infilled pond (likely to be limited in extent). The historic mapping has been checked and it does not show any evidence of a former pond in this location therefore further investigation is likely to be required to delineate this feature. This area currently relates to an area of public open space / edge of the attenuation pond based on the layout provided.

Table 1 - Summary of results - the 'mound' location

Investigation	Sample	Determinand	Result
TBGE - 2021	DS102 - 0.6m – 0.7m	Benzo(a)anthracene	7.3mg/kg
		Benzo(b)fluoranthene	6.0mg/kg
		Benzo(a)pyrene	5.6mg/kg
	DS104 - 0.4m-0.5m	Chrysotile	<0.001%
	DS104 - 0.9m – 1.0m	Amosite	<0.001%
Wood - 2019	TP15 - 0.2m	Benzo(a)anthracene	8mg/kg
		Benzo(b)fluoranthene	8.7mg/kg
		Benzo(a)pyrene	7.0mg/kg
		Dibenzo(a,h)anthracene	1.1mg/kg
	WS06 – 0.1m – 0.2m	Chrysotile	Detected (no quantification)
	WS06 – 1.1m-1.2m	Amosite	Detected (no quantification)
		Benzo(a)anthracene	11mg/kg
		Benzo(b)fluoranthene	9.5mg/kg
		Benzo(a)pyrene	10mg/kg
		Dibenzo(a,h)anthracene	1.3mg/kg

Table 2 -Summary of Result - Southern site boundary location

Investigation	Sample	Determinand	Result
Wood - 2019	WS02 - 0.2m-0.3m	Chrysotile	0.003%

3. Possible Remediation

3.1 The majority of the materials across the site will be suitable for re-use without any remedial measures. However, two discrete areas, as outlined above, will need some form of remediation, for ease of reference we have referenced these the 'Mound Area' and 'WS02'.

3.2 'Mound Area' Based on the proposed levels, the levels are typically being raised in the order of say 0.5m to 1m (although locally approximately 0.35m) in the garden areas situated in the mound. On this basis, it should generally be possible to incorporate the required 600mm of clean cover across the garden and landscaping areas. It may be necessary to remove some of the materials to accommodate the placement of clean cover. As the materials in the mound contain asbestos (albeit at relatively low levels where quantified).

3.3 Due to the depth of made ground in the mound area, some of the plots are likely to be piled, however, where trench fill foundations are used, the foundation arisings from the mound are unlikely to be suitable for use within garden / landscaping. Again, consideration may need to be given reusing these soils at depth in less sensitive areas of the site or disposing them off-site at a suitably licensed facility.

3.4 'WS02'

The asbestos identified in the area of WS02 is within an area of public open space (POS) which would also require clean cover. WS02 lies adjacent to an area currently proposed to be an attenuation pond; any made ground excavated as part of the attenuation pond (if any) could potentially contain asbestos. Prior to excavating the attenuation pond it is recommended that area of asbestos contamination is delineated and any contaminated soils segregated to minimise the amount of potentially contaminated soils that will be removed as part of the excavation of the attenuation pond. If asbestos contaminated soils are identified outside the attenuation pond the options include the removal of the soils off-site or to less sensitive areas of the site or to use clean cover over the affected area.

3.5 The approximate extent of anticipated remedial works is provided on the attached sketch plan.

3.6 If the contaminated materials are to be removed offsite, WAC analysis will be required to confirm their classification. It may be prudent to send the results of the initial testing to the landfill operator to determine their requirements.



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Appendices

Figure 1 – Soil Target Values	6
Figure 2 - Preliminary contamination assessment sketch plan	7
Figure 3 - Analytical Report Findings 21-62107	8
Figure 4 - Analytical Report Findings 21-63651	21



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Figure 1 – Soil Values

ASH BANK ROAD, WERRINGTON Target Values Used for Contamination Assessment

Substance	Source	Target Value (mg/kg)
Inorganic Mercury	CIEH/LQM – S4UL	40
Elemental Mercury	CIEH/LQM – S4UL	1.2
Selenium	CIEH/LQM – S4UL	250
Arsenic	CIEH/LQM – S4UL	37
Nickel	CIEH/LQM – S4UL	180
Cadmium	CIEH/LQM – S4UL	11
Boron	CIEH/LQM – S4UL	290
Chromium (III)	CIEH/LQM – S4UL	910
Copper	CIEH/LQM – S4UL	2,400
Lead	C4SL	200
Zinc	CIEH/LQM – S4UL	3,750
Asbestos	In House	None Detected
Acenaphthene	CIEH/LQM – S4UL	210
Acenaphthylene	CIEH/LQM – S4UL	170
Anthracene	CIEH/LQM – S4UL	2,400
Benzo(a)anthracene	CIEH/LQM – S4UL	7.2
Benzo(a)pyrene	CIEH/LQM – S4UL	2.2
Benzo(b)fluoranthene	CIEH/LQM – S4UL	2.6
Benzo(ghi)perylene	CIEH/LQM – S4UL	320
Benzo(k)fluoranthene	CIEH/LQM – S4UL	77
Chrysene	CIEH/LQM – S4UL	15
Dibenzo(ah)anthracene	CIEH/LQM – S4UL	0.24
Fluoranthene	CIEH/LQM – S4UL	280
Fluorene	CIEH/LQM – S4UL	170
Indeno(123-cd)pyrene	CIEH/LQM – S4UL	27
Naphthalene	CIEH/LQM – S4UL	2.3
Phenanthrene	CIEH/LQM – S4UL	95
Pyrene	CIEH/LQM – S4UL	620
Benzene	CIEH/LQM – S4UL	0.087
Toluene	CIEH/LQM – S4UL	130
Ethylbenzene	CIEH/LQM – S4UL	47
o-xylene	CIEH/LQM – S4UL	60
m-xylene	CIEH/LQM – S4UL	59
p-xylene	CIEH/LQM – S4UL	56
Aliphatic EC 5-6	CIEH/LQM – S4UL	42
Aliphatic EC >6-8	CIEH/LQM – S4UL	100
Aliphatic EC >8-10	CIEH/LQM – S4UL	27
Aliphatic EC >10-12	CIEH/LQM – S4UL	130
Aliphatic EC >12-16	CIEH/LQM – S4UL	1,100
Aliphatic EC >16-35	CIEH/LQM – S4UL	65,000
Aliphatic EC >35-14	CIEH/LQM – S4UL	65,000
Aromatic EC >5-7 (benzene)	CIEH/LQM – S4UL	70
Aromatic EC >7-8 (toluene)	CIEH/LQM – S4UL	130
Aromatic EC >8-10	CIEH/LQM – S4UL	34
Aromatic EC >10-12	CIEH/LQM – S4UL	74
Aromatic EC >12-16	CIEH/LQM – S4UL	140
Aromatic EC >16-21	CIEH/LQM – S4UL	260
Aromatic EC >21-35	CIEH/LQM – S4UL	1,100
Aromatic EC >35-14	CIEH/LQM – S4UL	1,100

Notes

CIEH/LQM • Suitable for Use Level (S4UL) published by the Chartered Institute of Environmental Health (CIEH) and Land Quality Management (LQM) dated January 2015 (Copyright Land Quality Management Ltd reproduced with permission; Publication Number S4UL3689).

C4SL • Category 4 Screening Levels published by DEFRA in 2014



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Figure 2 - Preliminary contamination sketch plan





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Figure 3 - Analytical Report Findings 21-62107



Analytical Report Number: 21-62107
Project / Site name: Ash Bank Road, Werrington
Your Order No: 20706

Lab Sample Number	1800320	1800321	1800322	1800323	1800324
Sample Reference	D5101	D5101	D5102	D5102	D5102
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.30-0.40	0.00-0.25	0.30-0.40	0.60-0.70
Date Sampled	10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Units of detection	Accreditation	Units	Units of detection
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	26	14
Total mass of sample received	kg	0.001	NONE	0.90	0.40

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	+	+	+	+	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	+	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	+	+	+	+	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	+	+	+	+	< 0.001

General Inorganics

pH - Automated	pH Units	N/A	HCERTS	6.9	7.1	+	7.1	7.0
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	HCERTS	0.041	0.0096	+	0.013	0.0097

Speciated PAHs

Naphthalene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	< 0.05	2.0
Fluorene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	< 0.05	1.8
Phenanthrene	mg/kg	0.05	HCERTS	0.22	+	0.22	< 0.05	16
Anthracene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	< 0.05	5.7
Fluoranthene	mg/kg	0.05	HCERTS	0.42	+	0.49	0.55	21
Pyrene	mg/kg	0.05	HCERTS	0.43	+	0.50	0.54	18
Benzo(a)anthracene	mg/kg	0.05	HCERTS	0.28	+	0.34	0.30	7.3
Chrysene	mg/kg	0.05	HCERTS	0.24	+	0.27	0.35	6.1
Benzo(b)fluoranthene	mg/kg	0.05	HCERTS	0.37	+	0.44	0.49	6.0
Benzo(k)fluoranthene	mg/kg	0.05	HCERTS	0.13	+	0.16	0.14	2.9
Benzo(a)pyrene	mg/kg	0.05	HCERTS	0.30	+	0.32	0.34	5.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	HCERTS	< 0.05	+	0.21	< 0.05	2.3
Dibenzo(a,h)anthracene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	HCERTS	< 0.05	+	0.24	< 0.05	2.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	HCERTS	2.39	+	3.19	2.71	97.4
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Heavy Metals / Metalloids

Arsenic (aqueous extractable)	mg/kg	1	HCERTS	9.0	7.1	+	9.6	12
Boron (water soluble)	mg/kg	0.2	HCERTS	1.3	0.4	+	< 0.2	0.6
Cadmium (aqueous extractable)	mg/kg	0.2	HCERTS	0.6	< 0.2	+	0.5	0.6
Chromium (aqueous extractable)	mg/kg	1	HCERTS	20	19	+	13	18
Copper (aqueous extractable)	mg/kg	1	HCERTS	30	18	+	32	34
Lead (aqueous extractable)	mg/kg	1	HCERTS	68	18	+	72	79
Mercury (aqueous extractable)	mg/kg	0.3	HCERTS	< 0.3	< 0.3	+	< 0.3	< 0.3
Nickel (aqueous extractable)	mg/kg	1	HCERTS	11	14	+	9.9	15
Selenium (aqueous extractable)	mg/kg	1	HCERTS	< 1.0	< 1.0	+	< 1.0	< 1.0
Zinc (aqueous extractable)	mg/kg	1	HCERTS	97	54	+	84	110

Pesticides

Alachlor	µg/kg	10	NONE	+	+	+	+	+
Aldrin	µg/kg	10	NONE	+	+	+	+	+
Azinphos-ethyl	µg/kg	10	NONE	+	+	+	+	+
Azinphos-methyl	µg/kg	10	NONE	+	+	+	+	+
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	+	+	+	+	+
BHC-beta	µg/kg	10	NONE	+	+	+	+	+

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Iss No 21-62107-1 Ash Bank Road, Werrington 21048
Page 2 of 16



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Lab Sample Number	1800320	1800321	1800322	1800323	1800324
Sample Reference	DS101	DS101	DS102	DS102	DS102
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.30-0.40	0.00-0.25	0.30-0.40	0.60-0.70
Date Sampled	10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Unit	Unit of detection	Acceptation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	26	14
Total mass of sample received	kg	0.001	NONE	0.90	0.40

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	*	*	*	*	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	*	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	*	*	*	*	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	*	*	*	*	< 0.001

General Inorganics

pH - Automated	pH Units	N/A	HCERTS	6.9	7.1	*	7.1	7.0
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	HCERTS	0.041	0.0096	*	0.013	0.0097

Speciated PAHs

Naphthalene	mg/kg	0.05	HCERTS	< 0.05	*	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	HCERTS	< 0.05	*	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	HCERTS	< 0.05	*	< 0.05	< 0.05	2.0
Fluorene	mg/kg	0.05	HCERTS	< 0.05	*	< 0.05	< 0.05	1.8
Phenanthrene	mg/kg	0.05	HCERTS	0.22	*	0.22	< 0.05	16
Anthracene	mg/kg	0.05	HCERTS	< 0.05	*	< 0.05	< 0.05	5.7
Fluoranthene	mg/kg	0.05	HCERTS	0.42	*	0.49	0.55	21
Pyrene	mg/kg	0.05	HCERTS	0.43	*	0.50	0.54	18
Benzo(a)anthracene	mg/kg	0.05	HCERTS	0.26	*	0.34	0.30	7.3
Chrysene	mg/kg	0.05	HCERTS	0.24	*	0.27	0.35	6.1
Benzo(b)fluoranthene	mg/kg	0.05	HCERTS	0.37	*	0.44	0.49	6.0
Benzo(k)fluoranthene	mg/kg	0.05	HCERTS	0.13	*	0.16	0.14	2.9
Benzo(a)pyrene	mg/kg	0.05	HCERTS	0.30	*	0.32	0.34	5.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	HCERTS	< 0.05	*	0.21	< 0.05	2.3
Dibenzo(a,h)anthracene	mg/kg	0.05	HCERTS	< 0.05	*	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	HCERTS	< 0.05	*	0.24	< 0.05	2.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	HCERTS	2.39	*	3.19	2.71	97.4
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	HCERTS	9.0	7.1	*	9.6	12
Boron (water soluble)	mg/kg	0.2	HCERTS	1.3	0.4	*	< 0.2	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	HCERTS	0.6	< 0.2	*	0.5	0.6
Chromium (aqua regia extractable)	mg/kg	1	HCERTS	20	19	*	13	18
Copper (aqua regia extractable)	mg/kg	1	HCERTS	30	18	*	32	34
Lead (aqua regia extractable)	mg/kg	1	HCERTS	68	18	*	72	79
Mercury (aqua regia extractable)	mg/kg	0.3	HCERTS	< 0.3	< 0.3	*	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	HCERTS	11	14	*	9.9	15
Selenium (aqua regia extractable)	mg/kg	1	HCERTS	< 1.0	< 1.0	*	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	HCERTS	97	54	*	84	110

Pesticides

Alachlor	µg/kg	10	NONE	*	*	*	*	*
Aldrin	µg/kg	10	NONE	*	*	*	*	*
Azinphos-ethyl	µg/kg	10	NONE	*	*	*	*	*
Azinphos-methyl	µg/kg	10	NONE	*	*	*	*	*
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	*	*	*	*	*
BHC-beta	µg/kg	10	NONE	*	*	*	*	*



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Lab Sample Number				1800320	1800321	1800322	1800323	1800324
Sample Reference				D5101	D5101	D5102	D5102	D5102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.30-0.40	0.00-0.25	0.30-0.40	0.60-0.70
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Unit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	+	+	+	+	+
Phorate	µg/kg	10	NONE	+	+	+	+	+
Phosalone	µg/kg	10	NONE	+	+	+	+	+
Phosphamidon (Sum)	µg/kg	10	NONE	+	+	+	+	+
Phospho-ethyl	µg/kg	10	NONE	+	+	+	+	+
Phospho-methyl	µg/kg	10	NONE	+	+	+	+	+
Propetamphos	µg/kg	10	NONE	+	+	+	+	+
Propyzamide	µg/kg	10	NONE	+	+	+	+	+
Tecnazene	µg/kg	10	NONE	+	+	+	+	+
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	+	+	+	+	+
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	+	+	+	+	+
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	+	+	+	+	+
Trifluralin	µg/kg	10	NONE	+	+	+	+	+

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



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Lab Sample Number	1800325	1800326	1800327	1800328	1800329
Sample Reference	DS103	DS104	DS104	DS104	DS105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.20	0.00-0.20	0.40-0.50	0.90-1.00	0.00-0.20
Date Sampled	10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Unit	Unit of detection	Accreditation status		
Stone Content	%	0.1	NDNE	< 0.1	< 0.1
Moisture Content	%	0.01	NDNE	27	31
Total mass of sample received	kg	0.001	NDNE	1.0	1.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Amosite	Chrysotile	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	< 0.001	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	< 0.001	< 0.001	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.7	6.8	7.0	7.6	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00125	MCERTS	0.011	0.022	0.087	0.18	-

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	0.19	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.20	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.34	1.7	0.63	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.44	0.16	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.0	3.1	1.3	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.98	2.8	1.2	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.62	1.5	0.68	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.57	1.4	0.56	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.68	1.5	0.68	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.42	0.77	0.30	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.66	1.3	0.60	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.40	0.60	0.21	< 0.05
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	< 0.05	0.45	0.65	0.29	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	6.16	16.2	6.54	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.4	8.7	14	13	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	1.8	1.0	1.6	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.5	0.6	0.6	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	16	16	15	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	48	35	45	35	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	66	77	130	110	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.8	13	21	16	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	79	92	140	160	-

Pesticides

Alachlor	µg/kg	10	NDNE	-	-	-	-	-
Aldrin	µg/kg	10	NDNE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NDNE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NDNE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NDNE	-	-	-	-	-
BHC-beta	µg/kg	10	NDNE	-	-	-	-	-



COUNTRYSIDE

Places People Love

Lab Sample Number				1800325	1800326	1800327	1800328	1800329
Sample Reference				D5103	D5104	D5104	D5104	D5105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.40-0.50	0.90-1.00	0.00-0.20
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Unit	Limit of detection	Accreditation Status					
BHC-delta	µg/kg	10	NONE	+	+	+	+	+
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	+	+	+	+	+
Bifenthrin	µg/kg	10	NONE	+	+	+	+	+
Carbophenothion	µg/kg	10	NONE	+	+	+	+	+
Chlordane-cis	µg/kg	10	NONE	+	+	+	+	+
Chlordane-trans	µg/kg	10	NONE	+	+	+	+	+
Chlorfenvinphos	µg/kg	10	NONE	+	+	+	+	+
Chlorothaloxyl	µg/kg	20	NONE	+	+	+	+	+
Chlorpyrifos	µg/kg	10	NONE	+	+	+	+	+
Cyfluthrin (Sum)	µg/kg	10	NONE	+	+	+	+	+
Cyhalothrin (Lambda)	µg/kg	10	NONE	+	+	+	+	+
Cypermethrin (Sum)	µg/kg	10	NONE	+	+	+	+	+
DDD-o,p'	µg/kg	10	NONE	+	+	+	+	+
DDD-p,p'	µg/kg	10	NONE	+	+	+	+	+
DDE-o,p'	µg/kg	10	NONE	+	+	+	+	+
DDE-p,p'	µg/kg	10	NONE	+	+	+	+	+
DDT-o,p'	µg/kg	10	NONE	+	+	+	+	+
DDT-p,p'	µg/kg	10	NONE	+	+	+	+	+
Deltamethrin	µg/kg	10	NONE	+	+	+	+	+
Demeton-O	µg/kg	10	NONE	+	+	+	+	+
Demeton-S	µg/kg	10	NONE	+	+	+	+	+
Diadzinon	µg/kg	10	NONE	+	+	+	+	+
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	+	+	+	+	+
Dichlorvos	µg/kg	10	NONE	+	+	+	+	+
Dieldrin	µg/kg	10	NONE	+	+	+	+	+
Dimethoate	µg/kg	10	NONE	+	+	+	+	+
Dimethylvinphos	µg/kg	10	NONE	+	+	+	+	+
Endosulfan I (alpha isomer)	µg/kg	10	NONE	+	+	+	+	+
Endosulfan II (beta isomer)	µg/kg	10	NONE	+	+	+	+	+
Endosulfan sulfate	µg/kg	10	NONE	+	+	+	+	+
Endrin	µg/kg	20	NONE	+	+	+	+	+
Endrin aldehyde	µg/kg	10	NONE	+	+	+	+	+
Endrin ketone	µg/kg	10	NONE	+	+	+	+	+
Ethion	µg/kg	10	NONE	+	+	+	+	+
Etrinfos	µg/kg	10	NONE	+	+	+	+	+
Fenitrothion	µg/kg	10	NONE	+	+	+	+	+
Fenthion	µg/kg	10	NONE	+	+	+	+	+
Fenvalerate (Sum)	µg/kg	10	NONE	+	+	+	+	+
Heptachlor	µg/kg	10	NONE	+	+	+	+	+
Heptachlor epoxide	µg/kg	10	NONE	+	+	+	+	+
Hexachlorobenzene	µg/kg	10	NONE	+	+	+	+	+
Hexachlorobutadiene	µg/kg	10	NONE	+	+	+	+	+
Isodrin	µg/kg	20	NONE	+	+	+	+	+
Malathion	µg/kg	10	NONE	+	+	+	+	+
Methacrinfos	µg/kg	10	NONE	+	+	+	+	+
Methoxychlor, p,p'	µg/kg	20	NONE	+	+	+	+	+
Mevinphos, E+Z	µg/kg	10	NONE	+	+	+	+	+
Ormethoate	µg/kg	20	NONE	+	+	+	+	+
Parathion	µg/kg	10	NONE	+	+	+	+	+
Parathion-methyl	µg/kg	10	NONE	+	+	+	+	+
Pendimethalin	µg/kg	10	NONE	+	+	+	+	+
Pentachlorobenzene	µg/kg	10	NONE	+	+	+	+	+
Permethrin, Cis-	µg/kg	10	NONE	+	+	+	+	+



COUNTRYSIDE

Places People Love

Lab Sample Number				1800325	1800326	1800327	1800328	1800329
Sample Reference				DS103	DS104	DS104	DS104	DS105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.40-0.50	0.90-1.00	0.00-0.20
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Unit of detection	Accreditation Status					
Azinphos, Trans-	µg/kg	10	NONE	+	+	+	+	+
Phorate	µg/kg	10	NONE	+	+	+	+	+
Phosalone	µg/kg	10	NONE	+	+	+	+	+
Phosphamidon (Sum)	µg/kg	10	NONE	+	+	+	+	+
Phospho-ethyl	µg/kg	10	NONE	+	+	+	+	+
Phospho-methyl	µg/kg	10	NONE	+	+	+	+	+
Propetamphos	µg/kg	10	NONE	+	+	+	+	+
Propylazide	µg/kg	10	NONE	+	+	+	+	+
Tecnazene	µg/kg	10	NONE	+	+	+	+	+
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	+	+	+	+	+
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	+	+	+	+	+
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	+	+	+	+	+
Trifluralin	µg/kg	10	NONE	+	+	+	+	+

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



COUNTRYSIDE

Places People Love

Lab Sample Number				1800330	1800331	1800332	1800333	1800334
Sample Reference				DS105	DS106	TP101	TP102	TP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30-0.40	0.00-0.40	0.05	0.50	0.05
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation SQA UK					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	35	20	17	16
Total mass of sample received	kg	0.001	NONE	0.40	1.0	1.0	0.40	0.40

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	*	*	*	*	*
Asbestos in Soil	Type	N/A	ISO 17025	*	Not-detected	Not-detected	*	*
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	*	*	*	*	*
Asbestos Quantification Total	%	0.001	ISO 17025	*	*	*	*	*

General Inorganics

pH - Automated	pH Units	N/A	HCERTS	8.2	*	*	7.0	6.7
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	HCERTS	0.027	*	*	0.016	0.0099

Speciated PAHs

Naphthalene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Acenaphthylene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Acenaphthene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Fluorene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Phenanthrene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Anthracene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Fluoranthene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Pyrene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Benzo(a)anthracene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Chrysene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Benzo(b)fluoranthene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Benzo(k)fluoranthene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Benzo(a)pyrene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Dibenzo(a,h)anthracene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*
Benzo(ghi)perylene	mg/kg	0.05	HCERTS	*	< 0.05	< 0.05	*	*

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	HCERTS	*	< 0.80	< 0.80	*	*
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	HCERTS	5.0	*	*	7.1	11
Boron (water soluble)	mg/kg	0.2	HCERTS	0.4	*	*	0.4	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	HCERTS	< 0.2	*	*	< 0.2	0.5
Chromium (aqua regia extractable)	mg/kg	1	HCERTS	18	*	*	27	11
Copper (aqua regia extractable)	mg/kg	1	HCERTS	19	*	*	12	28
Lead (aqua regia extractable)	mg/kg	1	HCERTS	15	*	*	13	64
Mercury (aqua regia extractable)	mg/kg	0.3	HCERTS	< 0.3	*	*	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	HCERTS	12	*	*	16	6.0
Selenium (aqua regia extractable)	mg/kg	1	HCERTS	< 1.0	*	*	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	HCERTS	40	*	*	21	64

Pesticides

Aldicarb	µg/kg	10	NONE	*	*	*	*	< 10
Aldrin	µg/kg	10	NONE	*	*	*	*	< 10
Azinphos-ethyl	µg/kg	10	NONE	*	*	*	*	< 10
Azinphos-methyl	µg/kg	10	NONE	*	*	*	*	< 10
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	*	*	*	*	< 10
BHC-beta	µg/kg	10	NONE	*	*	*	*	< 10

Page 15



COUNTRYSIDE

Places People Love

Lab Sample Number				1800330	1800331	1800332	1800333	1800334
Sample Reference				DS105	DS106	TP101	TP102	TP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30-0.40	0.00-0.40	0.05	0.50	0.05
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	*	*	*	*	< 10
Phorate	µg/kg	10	NONE	*	*	*	*	< 10
Phosalone	µg/kg	10	NONE	*	*	*	*	< 10
Phosphamidon (Sum)	µg/kg	10	NONE	*	*	*	*	< 10
Phimiphos-ethyl	µg/kg	10	NONE	*	*	*	*	< 10
Phimiphos-methyl	µg/kg	10	NONE	*	*	*	*	< 10
Propetamphos	µg/kg	10	NONE	*	*	*	*	< 10
Propyzamide	µg/kg	10	NONE	*	*	*	*	< 10
Tecnazene	µg/kg	10	NONE	*	*	*	*	< 10
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	*	*	*	*	< 10
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	*	*	*	*	< 10
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	*	*	*	*	< 10
Trifluralin	µg/kg	10	NONE	*	*	*	*	< 10



COUNTRYSIDE

Places People Love

Lab Sample Number	1800335	1800336	1800337	1800338	1800339
Sample Reference	TP104	TP105	TP106	TP107	TP108
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	0.05	0.10	0.05	0.10
Date Sampled	10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Acceptable Soil Use		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	18
Total mass of sample received	kg	0.001	NONE	0.40	1.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	HCERTS	5.8	7.0	-	-	6.9
Water Soluble SO4 16hr extraction (2:1 Leachate Equivale	g/l	0.00025	HCERTS	0.011	0.010	-	-	0.042

Speciated PAHs

Naphthalene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Fluorene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Phenanthrene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Anthracene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Fluoranthene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Pyrene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Chrysene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	HCERTS	< 0.05	-	-	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	HCERTS	< 0.80	-	-	< 0.80	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	HCERTS	10	9.2	-	-	7.4
Boron (water soluble)	mg/kg	0.2	HCERTS	0.5	0.6	-	-	0.8
Cadmium (aqua regia extractable)	mg/kg	0.2	HCERTS	0.5	0.5	-	-	0.5
Chromium (aqua regia extractable)	mg/kg	1	HCERTS	15	11	-	-	17
Copper (aqua regia extractable)	mg/kg	1	HCERTS	27	26	-	-	32
Lead (aqua regia extractable)	mg/kg	1	HCERTS	80	57	-	-	56
Mercury (aqua regia extractable)	mg/kg	0.3	HCERTS	0.4	< 0.3	-	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	HCERTS	7.7	6.7	-	-	12
Selenium (aqua regia extractable)	mg/kg	1	HCERTS	< 1.0	< 1.0	-	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	HCERTS	81	66	-	-	110

Pesticides

Alachlor	µg/kg	10	NONE	-	-	< 10	-	-
Aldrin	µg/kg	10	NONE	-	-	< 10	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	< 10	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	< 10	-	-
BHC-beta	µg/kg	10	NONE	-	-	< 10	-	-



COUNTRYSIDE

Places People Love

Lab Sample Number				1800335	1800336	1800337	1800338	1800339
Sample Reference				TP104	TP105	TP106	TP107	TP108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.05	0.10	0.05	0.10
Date Sampled				10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Unit	Limit of detection	Accuracy Soil in					
BHC-delta	µg/kg	10	NONE	*	*	< 10	*	*
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	*	*	< 10	*	*
Bifenthrin	µg/kg	10	NONE	*	*	< 10	*	*
Carbophenothion	µg/kg	10	NONE	*	*	< 10	*	*
Chlordane-cis	µg/kg	10	NONE	*	*	< 10	*	*
Chlordane-trans	µg/kg	10	NONE	*	*	< 10	*	*
Chlorfenvinphos	µg/kg	10	NONE	*	*	< 10	*	*
Chlorothalonil	µg/kg	20	NONE	*	*	< 20	*	*
Chlorpyrifos	µg/kg	10	NONE	*	*	< 10	*	*
Cyfluthrin (Sum)	µg/kg	10	NONE	*	*	< 10	*	*
Cyhalothrin (Lambda)	µg/kg	10	NONE	*	*	< 10	*	*
Cypermethrin (Sum)	µg/kg	10	NONE	*	*	< 10	*	*
DDD- <i>o,p'</i>	µg/kg	10	NONE	*	*	< 10	*	*
DDD- <i>p,p'</i>	µg/kg	10	NONE	*	*	< 10	*	*
DDE- <i>o,p'</i>	µg/kg	10	NONE	*	*	< 10	*	*
DDE- <i>p,p'</i>	µg/kg	10	NONE	*	*	< 10	*	*
DDT- <i>o,p'</i>	µg/kg	10	NONE	*	*	< 10	*	*
DDT- <i>p,p'</i>	µg/kg	10	NONE	*	*	< 10	*	*
Deltamethrin	µg/kg	10	NONE	*	*	< 10	*	*
Demeton-O	µg/kg	10	NONE	*	*	< 10	*	*
Demeton-S	µg/kg	10	NONE	*	*	< 10	*	*
Diazinon	µg/kg	10	NONE	*	*	< 10	*	*
Dichlorobenzotrile, 2,6-	µg/kg	10	NONE	*	*	< 10	*	*
Dichlorvos	µg/kg	10	NONE	*	*	< 10	*	*
Dieldrin	µg/kg	10	NONE	*	*	< 10	*	*
Dimethoate	µg/kg	10	NONE	*	*	< 10	*	*
Dimethylvinphos	µg/kg	10	NONE	*	*	< 10	*	*
Endosulfan I (alpha isomer)	µg/kg	10	NONE	*	*	< 10	*	*
Endosulfan II (beta isomer)	µg/kg	10	NONE	*	*	< 10	*	*
Endosulfan sulfate	µg/kg	10	NONE	*	*	< 10	*	*
Endrin	µg/kg	20	NONE	*	*	< 20	*	*
Endrin aldehyde	µg/kg	10	NONE	*	*	< 10	*	*
Endrin ketone	µg/kg	10	NONE	*	*	< 10	*	*
Ethion	µg/kg	10	NONE	*	*	< 10	*	*
Ebrimfos	µg/kg	10	NONE	*	*	< 10	*	*
Fenitrothion	µg/kg	10	NONE	*	*	< 10	*	*
Fenitron	µg/kg	10	NONE	*	*	< 10	*	*
Fenvalerate (Sum)	µg/kg	10	NONE	*	*	< 10	*	*
Heptachlor	µg/kg	10	NONE	*	*	< 10	*	*
Heptachlor exo-epoxide	µg/kg	10	NONE	*	*	< 10	*	*
Hexachlorobenzene	µg/kg	10	NONE	*	*	< 10	*	*
Hexachlorobutadiene	µg/kg	10	NONE	*	*	< 10	*	*
Isodrin	µg/kg	20	NONE	*	*	< 20	*	*
Malathion	µg/kg	10	NONE	*	*	< 10	*	*
Methacrifos	µg/kg	10	NONE	*	*	< 10	*	*
Methoxychlor, <i>p,p'</i> -	µg/kg	20	NONE	*	*	< 20	*	*
Mevinphos, E+Z	µg/kg	10	NONE	*	*	< 10	*	*
Omethoate	µg/kg	20	NONE	*	*	< 20	*	*
Parathion	µg/kg	10	NONE	*	*	< 10	*	*
Parathion-methyl	µg/kg	10	NONE	*	*	< 10	*	*
Pendimethalin	µg/kg	10	NONE	*	*	< 10	*	*
Pentachlorobenzene	µg/kg	10	NONE	*	*	< 10	*	*
Permethrin, Cis-	µg/kg	10	NONE	*	*	< 10	*	*



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Lab Sample Number	1800335	1800336	1800337	1800338	1800339
Sample Reference	TP104	TP105	TP106	TP107	TP108
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	0.05	0.10	0.05	0.10
Date Sampled	10/03/2021	10/03/2021	10/03/2021	10/03/2021	10/03/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Unit	Limit of detection	Accreditation Status		
Permethrin, Trans-	µg/kg	10	NONE	*	*
Phorate	µg/kg	10	NONE	*	*
Phosalone	µg/kg	10	NONE	*	*
Phosphamidon (Sum)	µg/kg	10	NONE	*	*
Phospho-ethyl	µg/kg	10	NONE	*	*
Phospho-methyl	µg/kg	10	NONE	*	*
Propitampfos	µg/kg	10	NONE	*	*
Propyzamide	µg/kg	10	NONE	*	*
Tecnazene	µg/kg	10	NONE	*	*
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	*	*
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	*	*
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	*	*
Trifluralin	µg/kg	10	NONE	*	*

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

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1800324	DS102	0.60-0.70	144	Loose Fibres	Chrysotile	< 0.001	< 0.001
1800327	DS104	0.40-0.50	149	Loose Fibres	Amosite	< 0.001	< 0.001
1800328	DS104	0.90-1.00	147	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



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* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of soil should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1800320	DS101	None Supplied	0.00-0.30	Brown loam and clay with vegetation and gravel.
1800321	DS101	None Supplied	0.30-0.40	Light brown clay and sand with vegetation and gravel.
1800322	DS102	None Supplied	0.00-0.25	Brown loam and clay with vegetation and gravel.
1800323	DS102	None Supplied	0.30-0.40	Brown loam and clay with vegetation and gravel.
1800324	DS102	None Supplied	0.60-0.70	Brown loam and clay with vegetation and gravel.
1800325	DS103	None Supplied	0.00-0.30	Brown loam and clay with vegetation and gravel.
1800326	DS104	None Supplied	0.00-0.20	Brown loam and clay with vegetation and gravel.
1800327	DS104	None Supplied	0.40-0.50	Brown clay and sand with gravel.
1800328	DS104	None Supplied	0.90-1.00	Brown clay and sand with gravel and vegetation.
1800329	DS105	None Supplied	0.00-0.20	Brown loam and clay with vegetation and gravel.
1800330	DS105	None Supplied	0.30-0.40	Light brown clay and sand with gravel and vegetation.
1800331	DS106	None Supplied	0.00-0.40	Brown loam and clay with vegetation and gravel.
1800332	TP101	None Supplied	0.05	Brown loam and sand with vegetation and gravel.
1800333	TP102	None Supplied	0.5	Light brown clay and sand with vegetation and gravel.
1800334	TP103	None Supplied	0.05	Brown loam and sand with vegetation and gravel.
1800335	TP104	None Supplied	0.1	Brown loam and sand with vegetation and gravel.
1800336	TP105	None Supplied	0.05	Brown loam and sand with vegetation and gravel.
1800337	TP106	None Supplied	0.1	Brown loam and clay with vegetation and gravel.
1800338	TP107	None Supplied	0.05	Brown loam and clay with vegetation and gravel.
1800339	TP108	None Supplied	0.1	Brown loam and clay with vegetation and gravel.

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on HETMAN 2004 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos Identification in soil	Asbestos Identification with the use of polarized light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 ±0.2)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-05 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L0558-PL	W	NONE
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 364 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.D. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



COUNTRYSIDE

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Figure 4 - Analytical Report Findings 21-63651

Lab Sample Number				1809017	1809018	1809019	1809020	1809021
Sample Reference				HDP1	HDP2	HDP3	HDP4	HDP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Acceptation (Status)					
Stone Content	%	0.1	NONE	< 0.1	+	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	33	+	22	22	19
Total mass of sample received	kg	0.001	NONE	1.0	+	1.0	1.0	1.2
Asbestos in Soil				Type	N/A	ISO 17025	Not-detected	Not-detected
General Inorganics								
pH - Automated				pH Units	N/A	HCERTS	+	+
Water Soluble SO4 16hr extraction (2:1 Leachate Equiv)				g/l	0.00125	HCERTS	+	+
Speciated PAHs								
Naphthalene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Acenaphthylene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Acenaphthene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Fluorene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Phenanthrene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Anthracene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Fluoranthene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Pyrene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Benzo(a)anthracene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Chrysene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Benzo(a)pyrene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	HCERTS	< 0.05	+	< 0.05	+	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs				mg/kg	0.8	HCERTS	< 0.80	+
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)				mg/kg	1	HCERTS	+	+
Boron (water soluble)				mg/kg	0.2	HCERTS	+	+
Cadmium (aqua regia extractable)				mg/kg	0.2	HCERTS	+	+
Chromium (aqua regia extractable)				mg/kg	1	HCERTS	+	+
Copper (aqua regia extractable)				mg/kg	1	HCERTS	+	+
Lead (aqua regia extractable)				mg/kg	1	HCERTS	+	+
Mercury (aqua regia extractable)				mg/kg	0.3	HCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)				mg/kg	1	HCERTS	+	+
Selenium (aqua regia extractable)				mg/kg	1	HCERTS	< 1.0	< 1.0
Zinc (aqua regia extractable)				mg/kg	1	HCERTS	+	+



COUNTRYSIDE

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Lab Sample Number				1809017	1809018	1809019	1809020	1809021
Sample Reference				HDP1	HDP2	HDP3	HDP4	HDP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	units	limit of detection	Accreditation Status					
Pesticides								
Aldicarb	µg/kg	10	NONE	+	+	+	< 10	+
Aldrin	µg/kg	10	NONE	+	+	+	< 10	+
Azinphos-ethyl	µg/kg	10	NONE	+	+	+	< 10	+
Azinphos-methyl	µg/kg	10	NONE	+	+	+	< 10	+
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	+	+	+	< 10	+
BHC-beta	µg/kg	10	NONE	+	+	+	< 10	+
BHC-delta	µg/kg	10	NONE	+	+	+	< 10	+
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	+	+	+	< 10	+
Bifenthrin	µg/kg	10	NONE	+	+	+	< 10	+
Carbophenothion	µg/kg	10	NONE	+	+	+	< 10	+
Chlordane-cis	µg/kg	10	NONE	+	+	+	< 10	+
Chlordane-trans	µg/kg	10	NONE	+	+	+	< 10	+
Chlorfenvinphos	µg/kg	10	NONE	+	+	+	< 10	+
Chlorothalonil	µg/kg	20	NONE	+	+	+	< 20	+
Chlorpyrifos	µg/kg	10	NONE	+	+	+	< 10	+
Cyfluthrin (Sum)	µg/kg	10	NONE	+	+	+	< 10	+
Cyhalothrin (Lambda)	µg/kg	10	NONE	+	+	+	< 10	+
Cypermethrin (Sum)	µg/kg	10	NONE	+	+	+	< 10	+
DDD-o,p'	µg/kg	10	NONE	+	+	+	< 10	+
DDD-p,p'	µg/kg	10	NONE	+	+	+	< 10	+
DDE-o,p'	µg/kg	10	NONE	+	+	+	< 10	+
DDE-p,p'	µg/kg	10	NONE	+	+	+	< 10	+
DDT-o,p'	µg/kg	10	NONE	+	+	+	< 10	+
DDT-p,p'	µg/kg	10	NONE	+	+	+	< 10	+
Deltamethrin	µg/kg	10	NONE	+	+	+	< 10	+
Demeton-O	µg/kg	10	NONE	+	+	+	< 10	+
Demeton-S	µg/kg	10	NONE	+	+	+	< 10	+
Diazinon	µg/kg	10	NONE	+	+	+	< 10	+
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	+	+	+	< 10	+
Dichlorvos	µg/kg	10	NONE	+	+	+	< 10	+
Dieldrin	µg/kg	10	NONE	+	+	+	< 10	+
Dimethoate	µg/kg	10	NONE	+	+	+	< 10	+
Dimethylinphos	µg/kg	10	NONE	+	+	+	< 10	+
Endosulfan I (alpha isomer)	µg/kg	10	NONE	+	+	+	< 10	+
Endosulfan II (beta isomer)	µg/kg	10	NONE	+	+	+	< 10	+
Endosulfan sulfate	µg/kg	10	NONE	+	+	+	< 10	+
Endrin	µg/kg	20	NONE	+	+	+	< 20	+
Endrin aldehyde	µg/kg	10	NONE	+	+	+	< 10	+
Endrin ketone	µg/kg	10	NONE	+	+	+	< 10	+
Ethion	µg/kg	10	NONE	+	+	+	< 10	+
Ethionfos	µg/kg	10	NONE	+	+	+	< 10	+
Fenitrothion	µg/kg	10	NONE	+	+	+	< 10	+
Fenitron	µg/kg	10	NONE	+	+	+	< 10	+
Fenvalerate (Sum)	µg/kg	10	NONE	+	+	+	< 10	+
Heptachlor	µg/kg	10	NONE	+	+	+	< 10	+
Heptachlor epoxide	µg/kg	10	NONE	+	+	+	< 10	+
Hexachlorobenzene	µg/kg	10	NONE	+	+	+	< 10	+
Hexachlorobutadiene	µg/kg	10	NONE	+	+	+	< 10	+
Isodrin	µg/kg	20	NONE	+	+	+	< 20	+
Malathion	µg/kg	10	NONE	+	+	+	< 10	+
Methacrifos	µg/kg	10	NONE	+	+	+	< 10	+
Methoxychlor, p,p'-	µg/kg	20	NONE	+	+	+	< 20	+



COUNTRYSIDE

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Lab Sample Number				1809017	1809018	1809019	1809020	1809021
Sample Reference				HDP1	HDP2	HDP3	HDP4	HDP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				17/03/2021	17/03/2021	17/03/2021	17/03/2021	17/03/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	unit	limit of detection	acceleration status					
Nevinphos, E+Z	µg/kg	10	NONE	+	+	+	< 10	+
Omethoate	µg/kg	20	NONE	+	+	+	< 20	+
Parathion	µg/kg	10	NONE	+	+	+	< 10	+
Parathion-methyl	µg/kg	10	NONE	+	+	+	< 10	+
Pendimethalin	µg/kg	10	NONE	+	+	+	< 10	+
Pentachlorobenzene	µg/kg	10	NONE	+	+	+	< 10	+
Permethrin, Cis-	µg/kg	10	NONE	+	+	+	< 10	+
Permethrin, Trans-	µg/kg	10	NONE	+	+	+	< 10	+
Phorate	µg/kg	10	NONE	+	+	+	< 10	+
Phosalone	µg/kg	10	NONE	+	+	+	< 10	+
Phosphamidon (Sum)	µg/kg	10	NONE	+	+	+	< 10	+
Priniphos-ethyl	µg/kg	10	NONE	+	+	+	< 10	+
Priniphos-methyl	µg/kg	10	NONE	+	+	+	< 10	+
Propamphos	µg/kg	10	NONE	+	+	+	< 10	+
Propyzamide	µg/kg	10	NONE	+	+	+	< 10	+
Tecnazene	µg/kg	10	NONE	+	+	+	< 10	+
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	+	+	+	< 10	+
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	+	+	+	< 10	+
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	+	+	+	< 10	+
Trifluralin	µg/kg	10	NONE	+	+	+	< 10	+



COUNTRYSIDE

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Lab Sample Number	1809002			
Sample Reference	H016			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	17/03/2021			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Unit of detection	Accreditation status	
Stone Content	%	0.1	None	< 0.1
Moisture Content	%	0.01	None	20
Total mass of sample received	kg	0.000	None	1.2

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

pH - Automated	pH Units	N/A	NCERTS	6.0
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	NCERTS	0.011

Speciated PAHs

Naphthalene	mg/kg	0.05	NCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	NCERTS	< 0.05
Acenaphthene	mg/kg	0.05	NCERTS	< 0.05
Fluorene	mg/kg	0.05	NCERTS	< 0.05
Phenanthrene	mg/kg	0.05	NCERTS	< 0.05
Anthracene	mg/kg	0.05	NCERTS	< 0.05
Fluoranthene	mg/kg	0.05	NCERTS	< 0.05
Pyrene	mg/kg	0.05	NCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	NCERTS	< 0.05
Chrysene	mg/kg	0.05	NCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	NCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	NCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	NCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NCERTS	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	NCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	NCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NCERTS	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	NCERTS	9.2
Boron (water soluble)	mg/kg	0.2	NCERTS	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	NCERTS	0.5
Chromium (aqua regia extractable)	mg/kg	1	NCERTS	10
Copper (aqua regia extractable)	mg/kg	1	NCERTS	23
Lead (aqua regia extractable)	mg/kg	1	NCERTS	55
Mercury (aqua regia extractable)	mg/kg	0.3	NCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	NCERTS	5.6
Selenium (aqua regia extractable)	mg/kg	1	NCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	NCERTS	74



COUNTRYSIDE

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Lab Sample Number				1809022
Sample Reference				HDP6
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				17/03/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Unit	Unit of detection	Absorbance Sensitivity	
Pesticides				
Aldicarb	µg/kg	10	NONE	+
Aldrin	µg/kg	10	NONE	+
Azinphos-ethyl	µg/kg	10	NONE	+
Azinphos-methyl	µg/kg	10	NONE	+
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	+
BHC-beta	µg/kg	10	NONE	+
BHC-gamma	µg/kg	10	NONE	+
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	+
Bifenthrin	µg/kg	10	NONE	+
Carbophenothion	µg/kg	10	NONE	+
Chlordane-cis	µg/kg	10	NONE	+
Chlordane-trans	µg/kg	10	NONE	+
Chlorfenvinphos	µg/kg	10	NONE	+
Chlorothalonil	µg/kg	20	NONE	+
Chlorpyrifos	µg/kg	10	NONE	+
Cyfluthrin (Sum)	µg/kg	10	NONE	+
Cyhalothrin (Lambda)	µg/kg	10	NONE	+
Cypermethrin (Sum)	µg/kg	10	NONE	+
DDD-o,p'	µg/kg	10	NONE	+
DDD-p,p'	µg/kg	10	NONE	+
DDE-o,p'	µg/kg	10	NONE	+
DDE-p,p'	µg/kg	10	NONE	+
DDT-o,p'	µg/kg	10	NONE	+
DDT-p,p'	µg/kg	10	NONE	+
Deltamethrin	µg/kg	10	NONE	+
Demeton-O	µg/kg	10	NONE	+
Demeton-S	µg/kg	10	NONE	+
Diadzin	µg/kg	10	NONE	+
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	+
Dichlorvos	µg/kg	10	NONE	+
Disulfoton	µg/kg	10	NONE	+
Dimethoate	µg/kg	10	NONE	+
Dimethylnphos	µg/kg	10	NONE	+
Endosulfan I (alpha isomer)	µg/kg	10	NONE	+
Endosulfan II (beta isomer)	µg/kg	10	NONE	+
Endosulfan sulfate	µg/kg	10	NONE	+
Endrin	µg/kg	20	NONE	+
Endrin aldehyde	µg/kg	10	NONE	+
Endrin ketone	µg/kg	10	NONE	+
Ethion	µg/kg	10	NONE	+
Ethionox	µg/kg	10	NONE	+
Fenitrothion	µg/kg	10	NONE	+
Fenitrothion	µg/kg	10	NONE	+
Fenvalerate (Sum)	µg/kg	10	NONE	+
Heptachlor	µg/kg	10	NONE	+
Heptachlor epoxide	µg/kg	10	NONE	+
Hexachlorobenzene	µg/kg	10	NONE	+
Hexachlorobutadiene	µg/kg	10	NONE	+
Isochlor	µg/kg	20	NONE	+
Malathion	µg/kg	10	NONE	+
Methacryl	µg/kg	10	NONE	+
Methoxychlor, p,p'	µg/kg	20	NONE	+



COUNTRYSIDE

Places People Love

Lab Sample Number				1809002
Sample Reference				HDP6
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				17/03/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Nitrophos, E+Z	µg/kg	10	NONE	•
Ornithoate	µg/kg	20	NONE	•
Parathion	µg/kg	10	NONE	•
Parathion-methyl	µg/kg	10	NONE	•
Pendimethalin	µg/kg	10	NONE	•
Pentachlorobenzene	µg/kg	10	NONE	•
Permethrin, Cis-	µg/kg	10	NONE	•
Permethrin, Trans-	µg/kg	10	NONE	•
Phorate	µg/kg	10	NONE	•
Phosalone	µg/kg	10	NONE	•
Phosphamidon (Sum)	µg/kg	10	NONE	•
Phosphos-ethyl	µg/kg	10	NONE	•
Phosphos-methyl	µg/kg	10	NONE	•
Propitaphos	µg/kg	10	NONE	•
Propyzamide	µg/kg	10	NONE	•
Teconazene	µg/kg	10	NONE	•
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	•
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	•
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	•
Trifluralin	µg/kg	10	NONE	•

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of soil should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1809017	HDP1	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.
1809019	HDP3	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.
1809020	HDP4	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.
1809021	HDP5	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.
1809022	HDP6	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.



COUNTRYSIDE

Places People Love

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on HENSLAH 2004 Method for the Determination of Metals in Soil.	L038-PL	D	HCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	HCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	HCERTS
Moisture Content	Moisture content, determined gravimetrically. (10 oC)	In house method.	L019-UK/PL	W	NONE
Specified EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	HCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	HCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and HCERTS requirements.	L019-UK/PL	D	NONE
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L0558-PL	W	NONE
U.S. for Gravimetric Quant if Screen/10 positive	Dependent option for Gravimetric Quant if Screen/10 positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.