



211187/CB/WSPA

20 January 2023

Lewis Rogers  
Ark Data Centres

Dear Lewis

## **LONGCROSS FILM STUDIOS – WATER SUPPLY PIPEWORK ASSESSMENT**

### **Introduction**

Colliers has been instructed by Ark Data Centres to complete an assessment in relation to the selection of water supply pipework at Longcross Film Studios, Chobham Lane, Longcross, Chertsey, KT16 0EE (Figure 1, Appendix 1). The report has been completed in general accordance with United Kingdom Water Industry Research Limited (UKWIR) 2010 Guidance on the Selection of Water Supply Pipes to be used in Brownfield Sites.

The site is to be redeveloped into a data centre, as set out in the proposed layout plan shown in Figure 2, Appendix 1.

### **Methodology**

In general, the UKWIR methodology states that initially an assessment is required on whether the site has a history of chemical usage or storage. If there is no history or evidence of chemicals, then no pipe selection specific investigation is required, and pipes can be chosen to suit circumstances to meet design life requirements. However, if a site has a history of industrial use, or if manufacturing has occurred onsite then a ground investigation following the route of the proposed pipeline is required. Due to the historical uses at the site, the potential for some degree of contamination cannot be entirely discounted. However, it should be noted that no gross contamination is anticipated due to the remediation works that have been completed at the site.

The objective of the investigation is to identify contaminants which could be detrimental to pipe integrity or permeate the pipe to impact the water. UKWIR primarily identifies organic chemicals as posing a risk to pipework. As such, a mandatory testing suite has been identified by UKWIR comprising a list of hydrocarbons (petroleum hydrocarbons and BTEX), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), amines, ethers, nitrobenzene, ketenes and aldehydes.

It should be noted that the acceptance criteria for water supply pipework is significantly lower than the acceptance levels used for a generic human health risk assessment.



The pipework included in the assessment include polyethylene (PE) pipework (standard), metal pipework and barrier pipework (for use in contaminated settings).

## Fieldwork

Colliers attended site on 29 November 2022 to collect soil samples from along the proposed route. The assessment involved the collection of 5 samples from along the proposed route. A sample location plan is presented in as Figure 3, in Appendix 1.

The ground conditions from each test hole are presented in Table 1 below.

**Table 1. Ground Conditions**

Trial Hole Reference	Sample Depth (meters below ground level)	Soil Description
HP101	0.60mbgl	MADE GROUND. Dark brown and black, sandy clayey gravelly Topsoil. With fine to coarse, sub-angular mixed lithologies and brick.
HP102	0.40mbgl	MADE GROUND. Dark brown and black, sandy clayey gravelly Topsoil. With fine to coarse, sub-angular mixed lithologies and brick.
HP103	0.30mbgl	Orange, yellow and pale brown, fine to coarse SAND.
HP104	0.20mbgl	Orange, yellow and pale brown, fine to coarse SAND.
HP105	0.20mbgl	Orange, yellow and pale brown, fine to coarse SAND.

The assessment was constrained by surface water flooding to the site and very compacted ground conditions, following the excavation and proof rolling of the site. As such, HP104 and HP105 were taken at shallow depths in haul roads. In addition, no further progress was possible by hand in HP102 and HP103.

## Results

The results of the chemical analysis have been compared to the parameters as set out in UKWIR 2010. The table is presented in Appendix 3, and a summary is set out below.

In summary, the analysis has confirmed that the samples are free from contamination and are below the requirements for PE pipe as set out in UKWIR. As such, it is considered that PE pipework could be used at the site.

The above will need to be confirmed with the local water supply company prior to the installation of pipework onsite.



We hope the above is satisfactory. If you have any questions, please do not hesitate to contact the undersigned.

Yours Sincerely

A handwritten signature in black ink, appearing to read "Charlie Bruinvels".

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Encs: Appendix 1. Figures  
Appendix 2. Photographs  
Appendix 3. Laboratory Test Results  
Appendix 4. Water Pipework Risk Assessment Table  
Appendix 5. Extent of Survey and Limitations

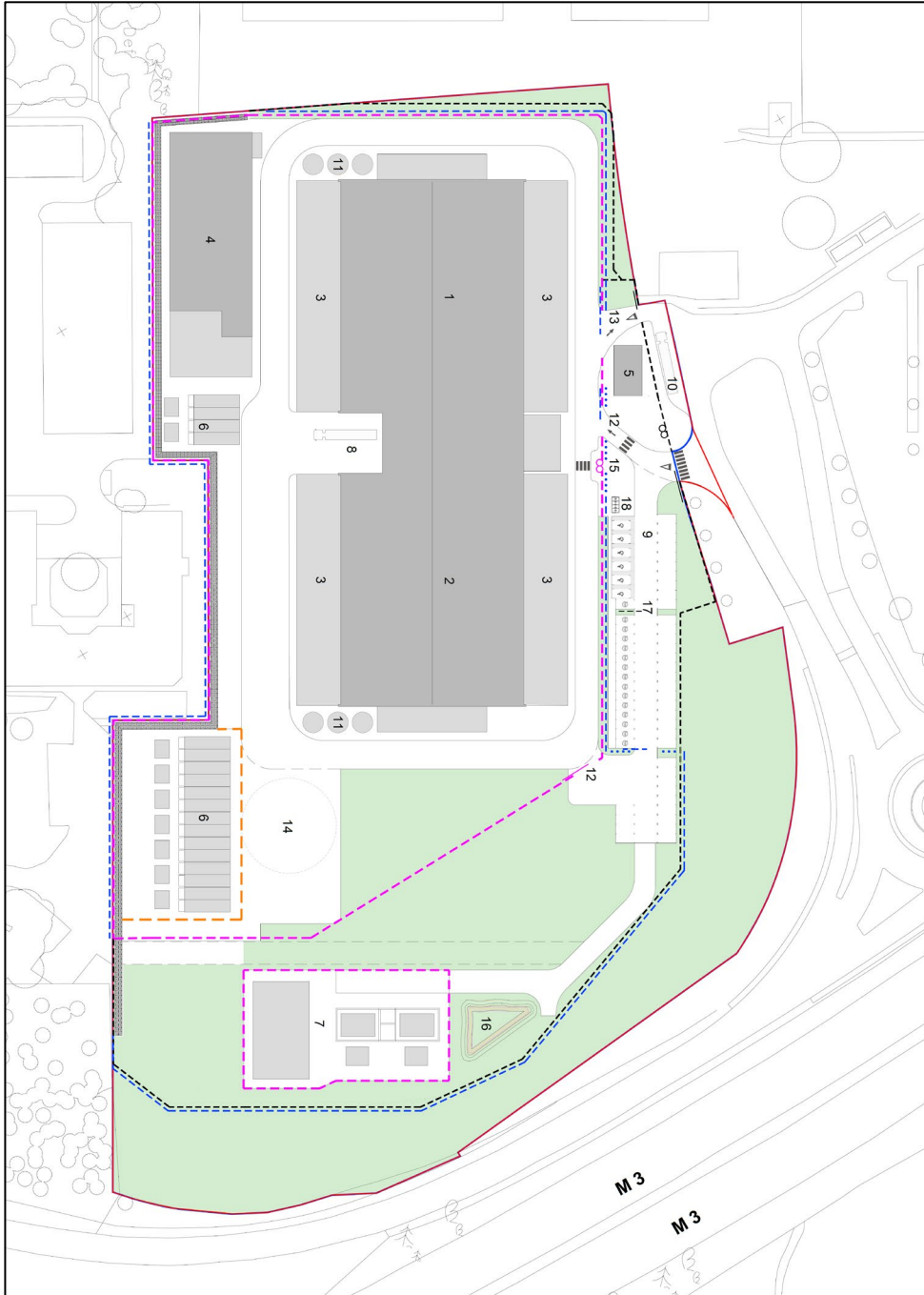


## Appendix 1. Figures

Figure 1. Site Location Plan

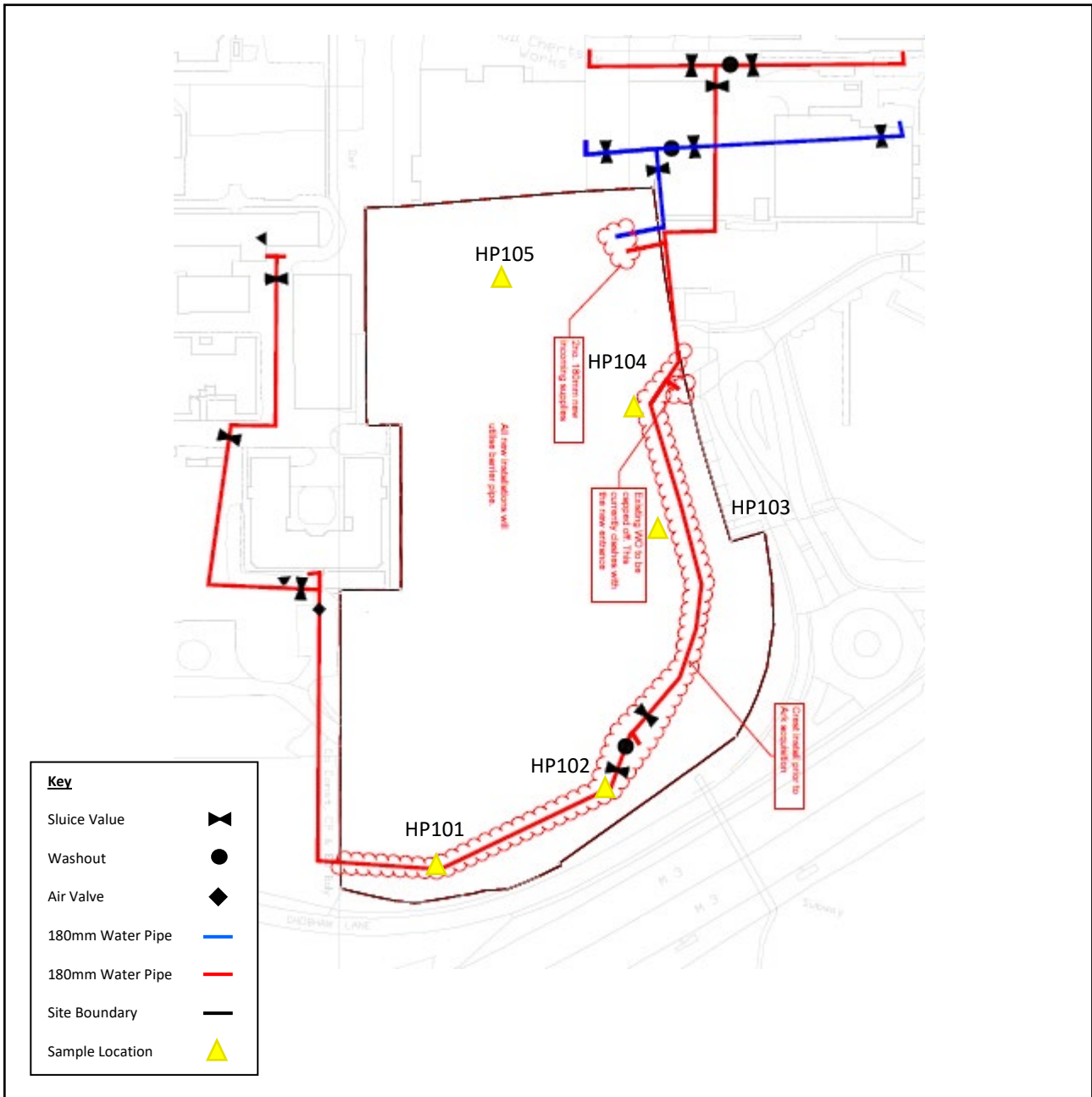


**Figure 2. Proposed Development**





**Figure 3. Proposed Pipe Route**





## Appendix 2. Photographs





01: Site Overview



02: HP101



03: HP102



04: HP103



## **Appendix 3. Laboratory Test Results**



## Longcross Film Studios Water Supply Pipework Analysis

Lab Sample Number	22-11377	22-11377	22-11377	22-11377	22-11377
Sample Reference	HP101	HP102	HP103	HP104	HP105
Sample Number	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.6	0.4	0.3	0.2	0.2
Date Sampled	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken	N/A	N/A	N/A	N/A	N/A

Parameter Group	Units	Limit of Detection	PE Pipe Threshold (mg/kg)	Metal or Barrier Pipe Threshold					
Total VOC	µg/kg	<5.0	0.5	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Total BTEX and MTBE	µg/kg	<5.0	0.1	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Total SVOC	mg/kg	Varied	2	No Limit	1.4	0.3	<LOD	1.8	1.2
TPH >C5-C10	mg/kg	<0.001	2	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
TPH >C10-C16	mg/kg	<2.0	10	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
TPH >C16-C40	mg/kg	<10	500	No Limit	<LOD	26	<LOD	<LOD	<LOD
Phenols* (SVOC analysis)	mg/kg	1.3	2	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Cresols* and chlorinated phenols* from SVOC analysis	mg/kg	<0.3	2	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Ethers*	µg/kg	<5.0	0.5	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Nitrobenzene*	mg/kg	<0.3	0.5	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Ketones*	mg/kg	<0.1	0.5	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
Aldehydes*	mg/kg	<1.0	0.5	No Limit	<LOD	<LOD	<LOD	<LOD	<LOD
pH	pH Units	N/A	No Limit	Wrapped steel: corrosive if pH<7 and EC>400uS/cm. Wrapped ductile iron corrosive if pH<5, Eh not neutral and EC>400uS/cm. Copper:corrosive if pH<5 and Eh positive	10.8	12	5.3	10.3	10.2
Conductivity EC	µS/cm	10			430	1200	180	360	390
Presence of liquid free phase hydrocarbons	N/A	N/A	None allowed	None allowed	None present	None present	None present	None present	None present



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## **Analytical Report Number : 22-11085**

<b>Project / Site name:</b>	Lonecross	<b>Samples received on:</b>	30/11/2022
<b>Your job number:</b>		<b>Samples instructed on/ Analysis started on:</b>	02/12/2022
<b>Your order number:</b>		<b>Analysis completed by:</b>	16/12/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	16/12/2022
<b>Samples Analysed:</b>	5 soil samples		

**Signed:** \_\_\_\_\_

Adam Fenwick  
Technical Reviewer  
**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

Excel copies of reports are only valid when accompanied by this PDF certificate.

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: 22-11085

Project / Site name: Lonecross

Lab Sample Number	2520020				2520021		2520022		2520023		2520024	
Sample Reference	HP101				HP102		HP103		HP104		HP105	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.60				0.40		0.30		0.20		0.20	
Date Sampled	29/11/2022				29/11/2022		29/11/2022		29/11/2022		29/11/2022	
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	50	31	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	0.01	NONE	11	9.6	12	15	17				
Total mass of sample received	kg	0.001	NONE	0.7	0.7	0.7	0.7	0.7				

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	Amosite- Loose Fibres	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EC	EC	EC	EC	EC

#### General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.8	12.0	5.3	10.3	10.2
Electrical Conductivity	µS/cm	10	ISO 17025	430	1200	180	360	390
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Complex Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	2300	1700	200	1200	750
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.13	0.024	0.029	0.17	0.14
Sulphide	mg/kg	1	MCERTS	12	11	11	11	7.1
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	24	12	72	16	18
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0099	0.01	< 0.0010	< 0.0010	< 0.0010
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1	1	< 0.1	< 0.1	< 0.1

#### 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*	0.1*	< 0.05*	< 0.05*	< 0.05*
Fluorene	mg/kg	0.05	MCERTS	< 0.05*	0.12*	< 0.05*	< 0.05*	< 0.05*
Phenanthrene	mg/kg	0.05	MCERTS	0.61*	2.2*	< 0.05*	0.12*	0.65*
Anthracene	mg/kg	0.05	MCERTS	0.15*	0.62*	< 0.05*	< 0.05*	0.14*
Fluoranthene	mg/kg	0.05	MCERTS	1.2*	4.6*	< 0.05*	0.39*	1.2*
Pyrene	mg/kg	0.05	MCERTS	1.1*	4*	< 0.05*	0.38*	1.1*
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.6	2.1	< 0.05*	0.25	0.7
Chrysene	mg/kg	0.05	MCERTS	0.52*	1.9*	< 0.05*	0.21*	0.6*
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.64*	2.3*	< 0.05*	0.26*	0.87*
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.31*	1.2*	< 0.05*	0.15*	0.34*
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.59	2.1	< 0.05	0.2	0.63
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.29	1.1	< 0.05	0.11	0.35
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.06	0.24	< 0.05	< 0.05	0.08
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.34	1.3	< 0.05	0.14	0.39

#### Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	6.39*	23.8*	< 0.80*	2.21*	6.96*
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#### Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	< 1.0	2.7	1.5	< 1.0	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.7	7.4	4.9	7	6.1
Barium (aqua regia extractable)	mg/kg	1	MCERTS	42	55	11	22	30
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.44	0.47	0.34	0.32	0.4
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	< 0.2	< 0.2	0.4	0.6

Analytical Report Number: 22-11085

Project / Site name: Lonecross

Lab Sample Number	2520020				2520021	2520022	2520023	2520024
Sample Reference	HP101				HP102	HP103	HP104	HP105
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.60				0.40	0.30	0.20	0.20
Date Sampled	29/11/2022				29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	16	16	12	17
Cobalt (aqua regia extractable)	mg/kg	0.15	MCERTS	4	4.3	2.3	2.2	2.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.3	17	6.5	7.2	7
Iron (aqua regia extractable)	mg/kg	40	MCERTS	14000	10000	9300	7800	9300
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	35	4.7	13	9.8
Manganese (aqua regia extractable)	mg/kg	1	MCERTS	190	200	20	55	69
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	0.42	0.71	< 0.25	0.32	0.47
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.5	8.7	3.6	4.7	5.7
Phosphorus (aqua regia extractable)	mg/kg	20	ISO 17025	170	180	39	91	82
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tin (aqua regia extractable)	mg/kg	1	MCERTS	1.6	3.2	1	1.5	1.3
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	30	16	19	19
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	30	82	9.1	20	18
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	20000	19000	690	21000	10000
Magnesium (aqua regia extractable)	mg/kg	20	ISO 17025	1100	1900	640	780	840
Potassium (aqua regia extractable)	mg/kg	20	ISO 17025	1300	1100	1000	990	1300
Sodium (aqua regia extractable)	mg/kg	20	ISO 17025	240	260	220	210	380

#### Monoaromatics & Oxygenates

	µg/kg		MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0



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Lab Sample Number				2520020	2520021	2520022	2520023	2520024
Sample Reference				HP101	HP102	HP103	HP104	HP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.40	0.30	0.20	0.20
Date Sampled				29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

**Petroleum Hydrocarbons**

Diesel Range Organics (C10 - C28) <small>EH_CU_ID_TOTAL</small>	mg/kg	50	NONE	< 50	< 50	< 50	< 50	< 50
Mineral Oil (C10 - C40) <small>EH_CU_ID_AL</small>	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH C10 - C40 <small>EH_CU_ID_TOTAL</small>	mg/kg	10	MCERTS	< 10	26	< 10	< 10	< 10
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TPH2 (C6 - C10) <small>HS_ID_TOTAL</small>	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
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TPH-CWG - Aliphatic >EC5 - EC6 <small>HS_ID_AL</small>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 <small>HS_ID_AL</small>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 <small>HS_ID_AL</small>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 <small>EH_CU_ID_AL</small>	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 <small>EH_CU_ID_AL</small>	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 <small>EH_CU_ID_AL</small>	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 <small>EH_CU_ID_AL</small>	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) <small>EH_CU+HS_ID_AL</small>	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 <small>HS_ID_AR</small>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 <small>HS_ID_AR</small>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 <small>HS_ID_AR</small>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 <small>EH_CU_ID_AR</small>	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 <small>EH_CU_ID_AR</small>	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 <small>EH_CU_ID_AR</small>	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 <small>EH_CU_ID_AR</small>	mg/kg	10	MCERTS	< 10	17	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) <small>EH_CU+HS_ID_AR</small>	mg/kg	10	NONE	< 10	26	< 10	< 10	< 10

TPH (C10 - C25) <small>EH_CU_ID_TOTAL</small>	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
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Analytical Report Number: 22-11085

Project / Site name: Lonecross

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Sample Reference				HP101	HP102	HP103	HP104	HP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.40	0.30	0.20	0.20
Date Sampled				29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

**VOCs**

Compound	Units	Limit of detection	Accreditation Status	2520020	2520021	2520022	2520023	2520024
Chloromethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Chloroethane	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Bromomethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trichloromethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trans-1,2-dichloroethene	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Tetrachloromethane	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trichloroethene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Dibromomethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,2-Dibromoethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Tribromomethane	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Bromobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
n-Propylbenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
2-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
4-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
tert-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
sec-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
p-Isopropyltoluene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Butylbenzene	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0

Analytical Report Number: 22-11085

Project / Site name: Lonecross

Lab Sample Number				2520020	2520021	2520022	2520023	2520024
Sample Reference				HP101	HP102	HP103	HP104	HP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.40	0.30	0.20	0.20
Date Sampled				29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
				1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	< 5.0
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Hexachlorobutadiene	µg/kg	5	NONE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0

Analytical Report Number: 22-11085

Project / Site name: Lonecross

Lab Sample Number	2520020				2520021	2520022	2520023	2520024
Sample Reference	HP101				HP102	HP103	HP104	HP105
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.60				0.40	0.30	0.20	0.20
Date Sampled	29/11/2022				29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

**SVOCS**

Analytical Parameter	Units	Limit of detection	Accreditation Status	2520020	2520021	2520022	2520023	2520024
Aniline	mg/kg	0.1	NONE	1.4	< 0.1	< 0.1	1.8	1.2
Phenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05*	< 0.05*	< 0.05*	< 0.05*	< 0.05*
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05*	< 0.05*	< 0.05*	< 0.05*	< 0.05*
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05*	0.1*	< 0.05*	< 0.05*	< 0.05*
2,4-Dinitrotoluene	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05*	0.12*	< 0.05*	< 0.05*	< 0.05*
Azobenzene	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	0.61*	2.2*	< 0.05*	0.12*	0.65*
Anthracene	mg/kg	0.05	MCERTS	0.15*	0.62*	< 0.05*	< 0.05*	0.14*
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	1.2*	4.6*	< 0.05*	0.39*	1.2*
Pyrene	mg/kg	0.05	MCERTS	1.1*	4*	< 0.05*	0.38*	1.1*
Butyl benzyl phthalate	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.6	2.1	< 0.05	0.25	0.7
Chrysene	mg/kg	0.05	MCERTS	0.52*	1.9*	< 0.05*	0.21*	0.6*
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.64*	2.3*	< 0.05*	0.26*	0.87*
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.31*	1.2*	< 0.05*	0.15*	0.34*
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.59	2.1	< 0.05	0.2	0.63

Analytical Report Number: 22-11085

Project / Site name: Lonecross

Lab Sample Number				2520020	2520021	2520022	2520023	2520024
Sample Reference				HP101	HP102	HP103	HP104	HP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.40	0.30	0.20	0.20
Date Sampled				29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
				Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.29
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.06	0.24	< 0.05	< 0.05	0.08
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.34	1.3	< 0.05	0.14	0.39

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

\*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

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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 solid 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 *
2520020	HP101	None Supplied	0.6	Brown clay and sand with gravel and stones.
2520021	HP102	None Supplied	0.4	Brown clay and sand with gravel and stones.
2520022	HP103	None Supplied	0.3	Brown sand.
2520023	HP104	None Supplied	0.2	Brown sand with vegetation.
2520024	HP105	None Supplied	0.2	Brown sand with gravel.



**Analytical Report Number : 22-11085**

**Project / Site name: Loncross**

**Water matrix abbreviations:**

**Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)**

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 MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
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	MCERTS
Cations in soil by ICP-OES	Determination of cations in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Complex Cyanide in soil	Determination of complex cyanide by calculation.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
DRO C10-28 (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Electrical conductivity of soil	Determination of electrical conductivity in soil by electrometric measurement.	In-house method	L031-PL	D	ISO 17025
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated 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	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
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO <sub>4</sub> in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

**Analytical Report Number : 22-11085**

**Project / Site name: Lonecross**

**Water matrix abbreviations:**

**Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)**

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
DRO (Soil)	Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method with silica gel split/clean up.	L076-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

**For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).**

**For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).**

**For method numbers ending in 'PL or B' 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.**

Analytical Report Number : 22-11085

Project / Site name: Loncross

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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### Information in Support of Analytical Results

#### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

## Sample Deviation Report



**Analytical Report Number : 22-11085**

**Project / Site name: Lonecross**

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
HP101	None Supplied	S	2520020	c	Free cyanide in soil	L080-PL	c
HP101	None Supplied	S	2520020	c	Hexavalent chromium in soil	L080-PL	c
HP101	None Supplied	S	2520020	c	Ammoniacal Nitrogen as N in soil	L082-PL	c
HP101	None Supplied	S	2520020	c	Ammonium as NH4 in soil	L082-PL	c
HP101	None Supplied	S	2520020	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
HP101	None Supplied	S	2520020	c	Chloride, water soluble, in soil	L082-PL	c
HP101	None Supplied	S	2520020	c	Complex Cyanide in soil	L080-PL	c
HP101	None Supplied	S	2520020	c	DRO (Soil)	L076-PL	c
HP101	None Supplied	S	2520020	c	DRO C10-28 (Soil)	L076-PL	c
HP101	None Supplied	S	2520020	c	Electrical conductivity of soil	L031-PL	c
HP101	None Supplied	S	2520020	c	Fraction Organic Carbon FOC Automated	L009	c
HP101	None Supplied	S	2520020	c	Mineral Oil (Soil) C10 - C40	L076-PL	c
HP101	None Supplied	S	2520020	c	Monohydric phenols in soil	L080-PL	c
HP101	None Supplied	S	2520020	c	Organic matter (Automated) in soil	L009-PL	c
HP101	None Supplied	S	2520020	c	Semi-volatile organic compounds in soil	L064-PL	c
HP101	None Supplied	S	2520020	c	Speciated EPA-16 PAHs in soil	L064-PL	c
HP101	None Supplied	S	2520020	c	Sulphide in soil	L010-PL	c
HP101	None Supplied	S	2520020	c	TPH Banding in Soil by FID	L076-PL	c
HP101	None Supplied	S	2520020	c	TPH2 (Soil)	L088-PL	c
HP101	None Supplied	S	2520020	c	TPHCWG (Soil)	L088/76-PL	c
HP101	None Supplied	S	2520020	c	Total cyanide in soil	L080-PL	c
HP101	None Supplied	S	2520020	c	Total organic carbon (Automated) in soil	L009-PL	c
HP101	None Supplied	S	2520020	c	Volatile organic compounds in soil	L073B-PL	c
HP101	None Supplied	S	2520020	c	pH in soil (automated)	L099-PL	c
HP102	None Supplied	S	2520021	c	Free cyanide in soil	L080-PL	c
HP102	None Supplied	S	2520021	c	Hexavalent chromium in soil	L080-PL	c
HP102	None Supplied	S	2520021	c	Ammoniacal Nitrogen as N in soil	L082-PL	c
HP102	None Supplied	S	2520021	c	Ammonium as NH4 in soil	L082-PL	c
HP102	None Supplied	S	2520021	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
HP102	None Supplied	S	2520021	c	Chloride, water soluble, in soil	L082-PL	c
HP102	None Supplied	S	2520021	c	Complex Cyanide in soil	L080-PL	c
HP102	None Supplied	S	2520021	c	DRO (Soil)	L076-PL	c
HP102	None Supplied	S	2520021	c	DRO C10-28 (Soil)	L076-PL	c
HP102	None Supplied	S	2520021	c	Electrical conductivity of soil	L031-PL	c
HP102	None Supplied	S	2520021	c	Fraction Organic Carbon FOC Automated	L009	c
HP102	None Supplied	S	2520021	c	Mineral Oil (Soil) C10 - C40	L076-PL	c
HP102	None Supplied	S	2520021	c	Monohydric phenols in soil	L080-PL	c
HP102	None Supplied	S	2520021	c	Organic matter (Automated) in soil	L009-PL	c
HP102	None Supplied	S	2520021	c	Semi-volatile organic compounds in soil	L064-PL	c
HP102	None Supplied	S	2520021	c	Speciated EPA-16 PAHs in soil	L064-PL	c
HP102	None Supplied	S	2520021	c	Sulphide in soil	L010-PL	c
HP102	None Supplied	S	2520021	c	TPH Banding in Soil by FID	L076-PL	c
HP102	None Supplied	S	2520021	c	TPH2 (Soil)	L088-PL	c
HP102	None Supplied	S	2520021	c	TPHCWG (Soil)	L088/76-PL	c
HP102	None Supplied	S	2520021	c	Total cyanide in soil	L080-PL	c
HP102	None Supplied	S	2520021	c	Total organic carbon (Automated) in soil	L009-PL	c
HP102	None Supplied	S	2520021	c	Volatile organic compounds in soil	L073B-PL	c
HP102	None Supplied	S	2520021	c	pH in soil (automated)	L099-PL	c
HP103	None Supplied	S	2520022	c	Free cyanide in soil	L080-PL	c
HP103	None Supplied	S	2520022	c	Hexavalent chromium in soil	L080-PL	c
HP103	None Supplied	S	2520022	c	Ammoniacal Nitrogen as N in soil	L082-PL	c
HP103	None Supplied	S	2520022	c	Ammonium as NH4 in soil	L082-PL	c
HP103	None Supplied	S	2520022	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
HP103	None Supplied	S	2520022	c	Chloride, water soluble, in soil	L082-PL	c
HP103	None Supplied	S	2520022	c	Complex Cyanide in soil	L080-PL	c
HP103	None Supplied	S	2520022	c	DRO (Soil)	L076-PL	c
HP103	None Supplied	S	2520022	c	DRO C10-28 (Soil)	L076-PL	c
HP103	None Supplied	S	2520022	c	Electrical conductivity of soil	L031-PL	c
HP103	None Supplied	S	2520022	c	Fraction Organic Carbon FOC Automated	L009	c

## Sample Deviation Report



**Analytical Report Number : 22-11085**

**Project / Site name: Lonecross**

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
HP103	None Supplied	S	2520022	c	Mineral Oil (Soil) C10 - C40	L076-PL	c
HP103	None Supplied	S	2520022	c	Monohydric phenols in soil	L080-PL	c
HP103	None Supplied	S	2520022	c	Organic matter (Automated) in soil	L009-PL	c
HP103	None Supplied	S	2520022	c	Semi-volatile organic compounds in soil	L064-PL	c
HP103	None Supplied	S	2520022	c	Speciated EPA-16 PAHs in soil	L064-PL	c
HP103	None Supplied	S	2520022	c	Sulphide in soil	L010-PL	c
HP103	None Supplied	S	2520022	c	TPH Banding in Soil by FID	L076-PL	c
HP103	None Supplied	S	2520022	c	TPH2 (Soil)	L088-PL	c
HP103	None Supplied	S	2520022	c	TPHCWG (Soil)	L088/76-PL	c
HP103	None Supplied	S	2520022	c	Total cyanide in soil	L080-PL	c
HP103	None Supplied	S	2520022	c	Total organic carbon (Automated) in soil	L009-PL	c
HP103	None Supplied	S	2520022	c	Volatile organic compounds in soil	L073B-PL	c
HP103	None Supplied	S	2520022	c	pH in soil (automated)	L099-PL	c
HP104	None Supplied	S	2520023	c	Free cyanide in soil	L080-PL	c
HP104	None Supplied	S	2520023	c	Hexavalent chromium in soil	L080-PL	c
HP104	None Supplied	S	2520023	c	Ammoniacal Nitrogen as N in soil	L082-PL	c
HP104	None Supplied	S	2520023	c	Ammonium as NH4 in soil	L082-PL	c
HP104	None Supplied	S	2520023	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
HP104	None Supplied	S	2520023	c	Chloride, water soluble, in soil	L082-PL	c
HP104	None Supplied	S	2520023	c	Complex Cyanide in soil	L080-PL	c
HP104	None Supplied	S	2520023	c	DRO (Soil)	L076-PL	c
HP104	None Supplied	S	2520023	c	DRO C10-28 (Soil)	L076-PL	c
HP104	None Supplied	S	2520023	c	Electrical conductivity of soil	L031-PL	c
HP104	None Supplied	S	2520023	c	Fraction Organic Carbon FOC Automated	L009	c
HP104	None Supplied	S	2520023	c	Mineral Oil (Soil) C10 - C40	L076-PL	c
HP104	None Supplied	S	2520023	c	Monohydric phenols in soil	L080-PL	c
HP104	None Supplied	S	2520023	c	Organic matter (Automated) in soil	L009-PL	c
HP104	None Supplied	S	2520023	c	Semi-volatile organic compounds in soil	L064-PL	c
HP104	None Supplied	S	2520023	c	Speciated EPA-16 PAHs in soil	L064-PL	c
HP104	None Supplied	S	2520023	c	Sulphide in soil	L010-PL	c
HP104	None Supplied	S	2520023	c	TPH Banding in Soil by FID	L076-PL	c
HP104	None Supplied	S	2520023	c	TPH2 (Soil)	L088-PL	c
HP104	None Supplied	S	2520023	c	TPHCWG (Soil)	L088/76-PL	c
HP104	None Supplied	S	2520023	c	Total cyanide in soil	L080-PL	c
HP104	None Supplied	S	2520023	c	Total organic carbon (Automated) in soil	L009-PL	c
HP104	None Supplied	S	2520023	c	Volatile organic compounds in soil	L073B-PL	c
HP104	None Supplied	S	2520023	c	pH in soil (automated)	L099-PL	c
HP105	None Supplied	S	2520024	c	Free cyanide in soil	L080-PL	c
HP105	None Supplied	S	2520024	c	Hexavalent chromium in soil	L080-PL	c
HP105	None Supplied	S	2520024	c	Ammoniacal Nitrogen as N in soil	L082-PL	c
HP105	None Supplied	S	2520024	c	Ammonium as NH4 in soil	L082-PL	c
HP105	None Supplied	S	2520024	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
HP105	None Supplied	S	2520024	c	Chloride, water soluble, in soil	L082-PL	c
HP105	None Supplied	S	2520024	c	Complex Cyanide in soil	L080-PL	c
HP105	None Supplied	S	2520024	c	DRO (Soil)	L076-PL	c
HP105	None Supplied	S	2520024	c	DRO C10-28 (Soil)	L076-PL	c
HP105	None Supplied	S	2520024	c	Electrical conductivity of soil	L031-PL	c
HP105	None Supplied	S	2520024	c	Fraction Organic Carbon FOC Automated	L009	c
HP105	None Supplied	S	2520024	c	Mineral Oil (Soil) C10 - C40	L076-PL	c
HP105	None Supplied	S	2520024	c	Monohydric phenols in soil	L080-PL	c
HP105	None Supplied	S	2520024	c	Organic matter (Automated) in soil	L009-PL	c
HP105	None Supplied	S	2520024	c	Semi-volatile organic compounds in soil	L064-PL	c
HP105	None Supplied	S	2520024	c	Speciated EPA-16 PAHs in soil	L064-PL	c
HP105	None Supplied	S	2520024	c	Sulphide in soil	L010-PL	c
HP105	None Supplied	S	2520024	c	TPH Banding in Soil by FID	L076-PL	c
HP105	None Supplied	S	2520024	c	TPH2 (Soil)	L088-PL	c
HP105	None Supplied	S	2520024	c	TPHCWG (Soil)	L088/76-PL	c
HP105	None Supplied	S	2520024	c	Total cyanide in soil	L080-PL	c
HP105	None Supplied	S	2520024	c	Total organic carbon (Automated) in soil	L009-PL	c

## Sample Deviation Report



**Analytical Report Number : 22-11085**

**Project / Site name: Lonecross**

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
HP105	None Supplied	S	2520024	c	Volatile organic compounds in soil	L073B-PL	c
HP105	None Supplied	S	2520024	c	pH in soil (automated)	L099-PL	c





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## **Analytical Report Number : 22-11377**

<b>Project / Site name:</b>	Lonecross	<b>Samples received on:</b>	30/11/2022
<b>Your job number:</b>		<b>Samples instructed on/ Analysis started on:</b>	02/12/2022
<b>Your order number:</b>		<b>Analysis completed by:</b>	20/12/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	20/12/2022
<b>Samples Analysed:</b>	5 soil samples		

**Signed:** \_\_\_\_\_

Dominika Warjan  
Junior Reporting Specialist  
**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: 22-11377  
Project / Site name: Luncross

Lab Sample Number	2521816	2521817	2521818	2521819	2521820			
Sample Reference	HP101	HP102	HP103	HP104	HP105			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.60	0.40	0.30	0.20	0.20			
Date Sampled	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022			
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	50	31	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	9.6	12	15	17
Total mass of sample received	kg	0.001	NONE	0.7	0.7	0.7	0.7	0.7

#### General Inorganics

Parameter	Units	Limit of detection	Accreditation Status					
pH - Automated	pH Units	N/A	MCERTS	10.5	11.5	5.8	10	10.1
Electrical Conductivity	µS/cm	10	ISO 17025	240	230	93	200	250
Redox Potential	mV	-800	NONE	307.6	284.3	330.5	202	183.6

#### Phenols by HPLC\*

Parameter	Units	Limit of detection	Accreditation Status					
Catechol	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Resorcinol	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Cresols (o-, m-, p-)	mg/kg	0.3	NONE	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Total Naphthols (sum of 1- and 2- Naphthol)	mg/kg	0.2	NONE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
2-Isopropylphenol	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenol	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Trimethylphenol (2,3,5-)	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Xylenols and Ethylphenols	mg/kg	0.3	NONE	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

#### Total Phenols\*

Parameter	Units	Limit of detection	Accreditation Status					
Total Phenols (HPLC)	mg/kg	1.3	NONE	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3

#### Monoaromatics & Oxygenates

Parameter	Units	Limit of detection	Accreditation Status					
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

#### Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status					
Mineral Oil (C10 - C20) <small>EH_CU_1D_AL</small>	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Mineral Oil (C21 - C40) <small>EH_CU_1D_AL</small>	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

#### Chlorinated Solvents

Parameter	Units	Limit of detection	Accreditation Status					
Total Chlorinated Solvents	µg/kg	100	NONE	< 100	< 100	< 100	< 100	< 100

Analytical Report Number: 22-11377

Project / Site name: Loncross

Lab Sample Number	2521816	2521817	2521818	2521819	2521820
Sample Reference	HP101	HP102	HP103	HP104	HP105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.60	0.40	0.30	0.20	0.20
Date Sampled	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

**VOCs**

Compound	Units	Limit of detection	Accreditation Status	2521816	2521817	2521818	2521819	2521820
Chloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trans-1,2-dichloroethene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloromethane	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dibromomethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dibromoethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tribromomethane	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Propylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
tert-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
sec-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p-Isopropyltoluene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Butylbenzene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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Lab Sample Number				2521816	2521817	2521818	2521819	2521820
Sample Reference				HP101	HP102	HP103	HP104	HP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.40	0.30	0.20	0.20
Date Sampled				29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
				1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	< 5.0
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexachlorobutadiene	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

**VOCs TICs**

VOCs TICs Compound Name		N/A	NONE	ND	ND	ND	ND	ND

**Ketones by headspace GC-MS**

Acetone	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

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Lab Sample Number	2521816	2521817	2521818	2521819	2521820
Sample Reference	HP101	HP102	HP103	HP104	HP105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.60	0.40	0.30	0.20	0.20
Date Sampled	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

**SVOCs**

Compound	Unit	Limit of detection	Accreditation Status	2521816	2521817	2521818	2521819	2521820
Aniline	mg/kg	0.1	NONE	0.3	0.3	< 0.1	0.5	0.5
Phenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.11	< 0.05	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	0.25	1.5	< 0.05	0.15	0.46
Anthracene	mg/kg	0.05	MCERTS	0.06	0.49	< 0.05	< 0.05	0.15
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	0.64	3.4	< 0.05	0.4	1.3
Pyrene	mg/kg	0.05	MCERTS	0.61	3	< 0.05	0.38	1.2
Butyl benzyl phthalate	mg/kg	0.3	NONE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene*	mg/kg	0.05	NONE	0.38	1.6	< 0.05	0.22	0.78
Chrysene	mg/kg	0.05	MCERTS	0.34*	1.5*	< 0.05	0.26*	0.75*
Benzo(b)fluoranthene*	mg/kg	0.05	NONE	0.46	2.1	< 0.05	0.29	1
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.14	0.61	< 0.05	0.1	0.4
Benzo(a)pyrene*	mg/kg	0.05	NONE	0.34	1.5	< 0.05	0.19	0.67

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Lab Sample Number	2521816	2521817	2521818	2521819	2521820			
Sample Reference	HP101	HP102	HP103	HP104	HP105			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.60	0.40	0.30	0.20	0.20			
Date Sampled	29/11/2022	29/11/2022	29/11/2022	29/11/2022	29/11/2022			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Indeno(1,2,3-cd)pyrene*	mg/kg	0.05	NONE	0.21	0.96	< 0.05	0.13	0.45
Dibenz(a,h)anthracene*	mg/kg	0.05	NONE	< 0.05	0.21	< 0.05	< 0.05	0.09
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.24	1.2	< 0.05	0.14	0.47

#### SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	Benzo[e]pyrene	Pyrene, substituted	ND	Benz[e]acephenanthrylene	Benzo[e]pyrene
SVOC % Match	%	N/A	NONE	96	98	ND	96	97
SVOCs TICs Compound Name		N/A	NONE	Fluoranthene, substituted	Benzo[e]pyrene	ND	ND	2,5-Cyclohexadiene-1,4-dione, 2-(phenylthio)-
SVOC % Match	%	N/A	NONE	95	98	ND	ND	95
SVOCs TICs Compound Name		N/A	NONE	Benzo[b]naphtho[2,1-d]thiophene	Benzo[a]anthracene, substituted	ND	ND	Pyrene, substituted
SVOC % Match	%	N/A	NONE	93	96	ND	ND	92
SVOCs TICs Compound Name		N/A	NONE	ND	Benzo[b]naphtho[2,1-d]thiophene	ND	ND	ND
SVOC % Match	%	N/A	NONE	ND	95	ND	ND	ND
SVOCs TICs Compound Name		N/A	NONE	ND	11H-Benzo[b]fluorene	ND	ND	ND
SVOC % Match	%	N/A	NONE	ND	94	ND	ND	ND
SVOCs TICs Compound Name		N/A	NONE	ND	Anthracene, substituted	ND	ND	ND
SVOC % Match	%	N/A	NONE	ND	93	ND	ND	ND
SVOCs TICs Compound Name		N/A	NONE	ND	Naphthalene, substituted	ND	ND	ND
SVOC % Match	%	N/A	NONE	ND	93	ND	ND	ND
SVOCs TICs Compound Name		N/A	NONE	ND	Benzo[b]naphtho[2,3-d]furan	ND	ND	ND
SVOC % Match	%	N/A	NONE	ND	93	ND	ND	ND
SVOCs TICs Compound Name		N/A	NONE	ND	Phenanthrene, substituted	ND	ND	ND
SVOC % Match	%	N/A	NONE	ND	92	ND	ND	ND

#### Aldehydes (various)

Acetaldehyde	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Propanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Butanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Methacrolein [Crotonaldehyde]	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Pentanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Hexanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Heptanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Benzaldehyde	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Octanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Nonanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1
Decanal	mg/kg	1	NONE	< 1	< 1	< 1	< 1	< 1

#### Environmental Forensics

Formaldehyde	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

\*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

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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 solid 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 *
2521816	HP101	None Supplied	0.6	Brown clay and sand with gravel and stones.
2521817	HP102	None Supplied	0.4	Brown clay and sand with gravel and stones.
2521818	HP103	None Supplied	0.3	Brown sand.
2521819	HP104	None Supplied	0.2	Brown sand with vegetation.
2521820	HP105	None Supplied	0.2	Brown sand with gravel.



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**Water matrix abbreviations:**

**Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)**

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Phenols, speciated, in soil, by HPLC	Determination of speciated phenols by HPLC.	In house method based on Blue Book Method.	L030-PL	W	NONE
Electrical conductivity of soil	Determination of electrical conductivity in soil by electrometric measurement.	In-house method	L031-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Redox Potential of soil	Determination of redox potential in soil by electrometric measurement.	In house method.	L084-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Tentatively identified compounds (VOC) in soil	Determination of volatile organic compounds total ion count in soil by headspace GC-MS followed by a full library scan.	In-house method based on USEPA8260	L073-PL	W	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total Chlorinated Solvents in soil	Determination of chlorinated solvents in soil by headspace GC-MS.	In-house method based on USEPA8260	L017-UK	W	NONE
Ketones in soil by HS-GC-MS	Determination of ketones in soil by headspace GC-MS.	In house method	L053B-PL	W	NONE
Aldehydes in soil		In-house method	L073B-PL	W	NONE
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
WIR compounds	Determination of WIR compounds by various methods listed in the Methods Table.	In House Method		W	MCERTS

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Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TO - Aldehyde in soil	Determination of aldehydes by LC-UV	In-house method based on EPA 8315		W	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' 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.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



## **Appendix 4. Extent of Survey and Limitations**

# Extent of Survey and Limitations

Section 1 shall apply to all our appointments. The relevant sections 2 to 8 will only apply where the terms of our appointment state we are providing the corresponding service. For example, where we are appointed to provide a pre-acquisition survey, sections 1 and 2 below will apply to that appointment.

## 1. Standard Limitations

**Inspection and Concealed Parts:** Our report will cover all parts of the site made available to us during our visual inspection of the property, which is normally and safely accessible without the use of ladders, and therefore exclude all ceiling, wall and floor voids unless stated within the report. Where inspection of roof areas by use of access hoists or a drone is required this will be agreed with you prior to inspection. The structure and fabric will not be opened up for further investigation. Those parts of the building and engineering services that are concealed, inaccessible or covered will not be inspected and confirmation that such parts are free from defects cannot be provided. Where we feel further investigation is merited, reference will be made in our report. Our services survey is based on a visual inspection and comment on the condition and the quality of the installation relating to normal good standards. We will specifically exclude tests relating to the performance of any heating, air conditioning or ventilation systems, pipe pressure tests, electrical or drainage tests. The omission of such tests might give risks to the fact that certain problems could exist which are not reflected in our report. No inspection or comment is made on the below ground drainage installations or service conduits unless instructed otherwise.

**Occupied Buildings:** Where buildings are occupied at the time of our inspection access to some areas may be restricted or denied although these areas will be noted in our report. Regardless of occupation, we will not lift fitted carpets, nor disturb any part of the fabric or fittings which are fixed or may cause damage.

**Budget Costs:** Where budget costs are included in our report, these costs are for guidance purposes only and will not be calculated from measured quantities but will be based on knowledge and experience of similar repair or replacement situations. Costs are inclusive of contractor's preliminaries but exclusive of all contingencies, professional fees and VAT. They will be based on current prices and no allowances will be made for inflation. Access costs for high level works will be included. There will be no allowances for loss or damage as a result of force majeure, terrorism, discovery or removal of any deleterious materials or out of hours working. Estimates are not to be thought of as a substitute for obtaining competitive quotations from reputable contractors. We will not investigate whether the cost of carrying out all necessary works immediately will be

different in cost to carrying them out individually, as and when required.

**Specialist Sub-Consultants / Sub-Contractors:** Where specialist consultants or contractors are engaged on your behalf. We may make reference to their findings in our report, but this should not be considered as a substitute for reading their report in its entirety, nor can we take responsibility for their conclusion.

**Compliance with Legislation:** In respect of planning permissions and building regulations consents we will review relevant documentation made available to us and liaise with your lawyers in this regard. If documentation is missing we will record this as a risk in our report, as should your lawyer. Our inspection will involve a review of the state of compliance with Statutory Requirements such as Workplace Regulations, Fire Regulations, Equality Act and other relevant matters. We will provide general comments on these matters in our report. Please note that compliance with these Regulations often requires a more detailed specialist study and / or the preparation of a risk assessment. Such studies and risk assessments are beyond the scope of our report. Where appropriate we will make recommendations for further specialist surveys.

**Weather conditions:** Our inspection may be restricted by the prevailing weather conditions at the time of our inspection.

**Communicable Disease** – we shall not be liable in respect of any Claim, circumstance, loss or Defence Cost that arise as a result of, or is connected in any way, directly or indirectly with;

- a) A *Communicable Disease* or the fear or threat (whether actual or perceived) of a *Communicable Disease* regardless of any other cause or event contributing concurrently or in any other sequence thereto;
- b) any action taken to control, prevent, isolate, quarantine, suppress, mitigate or in any way relating to any actual or suspected outbreak of any *Communicable Disease* or the fear or threat (whether actual or perceived) of a *Communicable Disease*;
- c) instructions, orders, requests, restrictions or limitations given by any national or local government, regulatory or statutory body, health authority or organisation relating to any *Communicable Disease*.

A *Communicable Disease* means any disease which can be transmitted by means of any substance, medium or agent from any organism to another organism where:

- i. the substance, medium or agent includes, but is not limited to, a virus, bacterium, parasite or other organism or any variation thereof, whether deemed living or not, and
- ii. the method of transmission, whether direct or indirect, includes but is not limited to, airborne transmission, bodily fluid transmission, transmission from or to any surface or object, solid, liquid or gas or between organisms, and
- iii. the disease, substance or agent can cause or threaten damage to human health or human welfare or can cause or threaten damage to, deterioration of, loss of value of, marketability of or loss of use of property.

**Reliance and disclosure:** The issued findings or reports following our inspection are for the addressee's use only and no liability will be accepted to any third party. Neither the whole or any part of the report may be published or disclosed to a third party without our prior written approval.

### Deleterious and Hazardous Materials

**Generally:** Our report and survey excludes any investigation into the unsuitable use of deleterious or hazardous materials except in so far as such matters may come to our knowledge in the normal course of inspecting the property and state of repair. We will advise you if we consider there is a significant possibility that deleterious or hazardous materials exist at the property, although we will not undertake or commission specific inspections, laboratory testing or reports unless this possibility has been raised by us as a concern and further instructions received which in any event will be confined to the following: admixtures / aggregates in concrete, asbestos, brick slips, calcium silicate brickwork, high alumina cement, lead, urea formaldehyde foam, woodwool cement slab (used as permanent shuttering), aluminium composite panels, thin stone panels.

Many factors including location, use, design and quantity determine whether a material is deleterious or not and, therefore, the inclusion in the material in the above list does not, of itself, imply that it is deleterious.

As a result of the Grenfell tower fire in 2017, external cladding systems including the materials used in them remain under intense scrutiny. There continues to be wide-ranging discussions in the Construction Industry over the use of combustible cladding materials, particularly (but not limited to) to buildings in excess of 18m in height or over 6 storeys. In our report, we will report on the suspected use of any combustible materials where this can be ascertained from a review of as-built information, or if it is suspected from our inspection. However, it may not be possible to ascertain purely from a visual inspection the presence or not

of combustible materials and we cannot be held liable for not identifying their presence in such circumstances.

Where composite cladding panels may be identified in our report we confirm that no intrusive testing will be undertaken to determine the type of insulation, classification of the insulating core or whether this is approved by the Loss Prevention Certification Board (LPCB) unless instructed otherwise.

**Concrete:** Where instructed to undertake a concrete investigation, our specialist report will be based on a visual examination of the concrete structure in sample test locations only. Whilst such test locations are chosen to be representative of the structure as a whole, we are not able to confirm that the structure is free from structural defects other than deleterious effect of HAC, chlorides and reinforcement corrosion durability.

**Asbestos:** Where instructed to undertake a specialist asbestos survey, we cannot guarantee that all asbestos containing materials will be identified, despite the best endeavours of our asbestos sub-consultant. Where instructed, every effort will be made to remove representative samples however it is possible that indiscriminate uses of asbestos may be present between sample locations of otherwise visually similar materials. An asbestos management survey is non-destructive and includes an inspection within accessible ceiling voids, above loose laid removable tiles, inside openable risers and cupboards, within accessible risers and behind removable casings.

Similarly access within lift shafts, live electrical equipment and mechanical plant may be restricted. A Refurbishment and Demolition asbestos survey is destructive and includes an inspection within accessible ceiling voids, above loose laid removable tiles, inside openable risers and cupboards, within accessible risers and behind removable casings. Representative areas of each element of building fabric will be intrusively opened up to inspect for the presence of ACM's behind built-in ducts, voids or similar enclosed or concealed areas within the building fabric. No intrusive work will be undertaken within the structural framework, concrete floors and masonry walls.

**Environmental issues:** Save where we are commissioned to provide environmental services (in which case the relevant section of this document shall apply), the following applies. We will not carry out nor commission formal enquiries or tests relating to potential soil or ground contamination, or the ground bearing conditions of the site or neighbouring land. We will not carry out any searches with statutory bodies to establish any mining or landfill issues, and associated potential subsidence risk as a result of historic site operations. Whilst we will comment on any potential contamination issues apparent from our survey, our report will not constitute an environmental report. You are advised to procure your own environmental reporting, but we will be happy to arrange audits, reports or tests on your behalf, by specialist consultants, who are to be directly appointed by you, if required. You should ensure that your

solicitors obtain as much information as possible about the prior use of the land. Such information should be revealed to us as soon as possible as it may materially affect our/ or the consultant's advice to you. Such advice may include recommendations for testing or obtaining a warranty.

We have no liability in relation to the presence of low frequency electronic fields, radiation, toxic mould, and the presence of Japanese Knotweed or other invasive plant species as defined in the Wildlife and Countryside Act 1981 or the Environmental Protection Act 1990. We may however note their apparent presence for investigation by others as appropriate.

### Mechanical and Electrical Surveys

**Generally:** Our survey and report is compiled under the brief to visually inspect and comment on the condition and the quality of the installation relating to normal good standards in the building services industry as dictated by CIBSE and IEE's current recommendations and standards without testing or dismantling of the plant. Where appropriate, we have provided an overview of the lift installations, which was carried out by the attending building services consultant.

**Budget Costs:** Any costs indicated within this report are based on our best assessment of the situation and the work involved at current prices and should not be taken as firm costs for the items of work detailed. To provide more accurate costs an investigation will be required in greater detail for individual items of the plant and systems, and may involve the employment of specialists where appropriate.

This overview provides a description of the lift services and general condition other than inspection of the lift shafts and associated equipment.

There are occasions when the building services will be inspected by a building surveyor rather than a mechanical and electrical consultant and we will advise within the fee quotation. In this case, if you require a survey by a mechanical and electrical consultant, you should confirm this prior to our inspection.

**Concealed Parts:** We have not inspected parts of the Engineering Services which are encased, covered up, or otherwise made inaccessible in a normal course of construction, alteration, or fitting out. We will not carry out any internal inspection of the plant/systems.

**Design Analysis:** No definitive calculations have been undertaken to determine the capacity or performance of the plant items, nor have performance tests been carried out on any of the systems or plant items. Design analysis of the systems has been undertaken using generally accepted design criteria both past and present, primarily to establish the principles of design. We have specifically excluded tests relating to the performance or efficiency of any heating, air conditioning, or ventilation systems, pipe pressure tests,

electrical or drainage tests. The omission of such tests might give rise to the fact that certain problems could exist which are not reflected in this report. We would point out that during the course of our building services survey we did not carry out an inspection of the below ground services.

**Deleterious & Hazardous Materials:** Our report and survey excludes any investigation into structural engineering design, compliance with legislation relating to buildings, or the unsuitable use of high alumina cement or calcium chloride, calcium silicate brickwork, alkali-silicate reaction in concrete, cavity wall tie failure, radon gas seepage, woodwool slab permanent shuttering, asbestos or PCB's or other materials considered as deleterious in construction, except insofar as such matters may come to knowledge in the normal course of inspecting the materials and state of repair.

**White Goods & Data:** This report does not include an inspection of the white goods, catering and vending equipment, telecommunication, data or wireless systems installed within the property. We are unable to comment, advise or identify items that are reliant on day/date dependent embedded chips.

### Rights of Way / Support / Light

Where necessary we will comment on apparent rights of way / support or light which may be visible or suspected albeit our comments will be outline in nature and without any detailed investigations.

## 2. Pre Acquisition Survey

**Compliance with Legislation:** Our inspection will involve a general review of the state of compliance with Statutory Requirements such as the Building Regulations, Workplace Regulations, Fire Regulations, Equality Act and other relevant matters applicable within the relevant country. Please note that compliance with these Regulations often requires a more detailed specialist study and/ or the preparation of a risk assessment. Such studies and risk assessments are beyond the scope of our report.

## 3. Environmental

**Desk Based Risk Assessment:** The risk assessment is dictated by the finite data on which it is based and is relevant only for the purpose of which the report is commissioned. If additional information or data becomes available which may affect the opinions expressed in our report, we reserve the right to review such information and, if warranted, to modify the risk assessment accordingly. We reserve the right to charge an additional fee for un-anticipated second opinion reviewing of previous reports.

The survey excludes intrusive opening up of the building fabric. Accordingly, an inspection is not undertaken behind built-in ducts, voids or similar enclosed or concealed areas within the structure and fabric.



**Compliance with Legislation:** The environmental risk assessment will be undertaken with due regard to Contaminated Land Guidance documents (available and relevant at the time of issuing our report) issued by (but not limited to) the Environmental Protection Act Part IIA 1990, Department for Environment, Food and Rural Affairs (DEFRA) and its predecessors, the Environment Agency (and its devolved equivalents), British Standards Institute (BSI), the Royal Institution of Chartered Surveyors (RICS) and the American Society for Testing and Materials (ASTM) Standard E 1527-00. No liability can be accepted for the effects of any future changes to such guidelines and legislation. In the event that guidance / legislation changes it may be necessary for us to update or modify reports.

**Content of Report:** Our Phase I Environmental Audit will be based on a visual inspection of the site, a review of available historical and environmental setting records, consultations with site representatives, pertinent information provided from the client and regulatory consultations. No samples will be taken as part of this study.

**Generic Risk Assessment:** The risk assessment is dictated by the finite data on which it is based and is relevant only for the purpose of which the report is commissioned. If additional information or data becomes available which may affect the opinions expressed in our report, we reserve the right to review such information and, if warranted, to modify the risk assessment accordingly. We reserve the right to charge an additional fee for un-anticipated second opinion reviewing of previous reports.

The survey excludes intrusive opening up of the building fabric. Accordingly, an inspection is not undertaken behind built-in ducts, voids or similar enclosed or concealed areas within the structure and fabric. Where necessary we will comment on apparent rights of way / support or light which may be visible or suspected albeit our comments will be outline in nature and without any detailed investigations.

### Phase 2 Site Investigation

**Content of report:** The content and findings of the report will be based on data obtained by employing site assessment methods and techniques, considered appropriate to the site as far as can be interpreted from desk based materials and a visual walkover of the site. Such techniques and methods are subject to limitations and constraints set out in the report. The findings and opinions are relevant at the time of writing, and should not be relied upon at a substantially later date as site conditions can change. For example, seasonal groundwater levels, natural degradation of contaminants etc. No liability is accepted for areas not covered by the investigation.

**Risk Assessment:** The opinions and findings conveyed via the report will be based on information obtained from a variety of sources as detailed by the report. The information should not be treated as exhaustive but is, in good faith, considered as representative as possible of the site conditions when considering constraints set out by the

report. The risk assessment will be completed in line with current industry practices but is not a guarantee that the site is free of hazardous conditions. The risk assessment is completed in line with the relevant land use agreed for the site and the time of completing the works. Changes to site conditions or land use may require a reassessment.

**Unforeseen Contamination:** Where Colliers is responsible for directing the number and location of exploratory holes, it shall exercise all the reasonable skill, care and diligence to be expected of a properly qualified and competent member of the Consultant's profession experienced in performing such services, taking into account site conditions, and available knowledge, as well as access, budgetary and scheduling constraints. Subject to having complied with the foregoing: (1) no liability can be accepted for the conditions that have not been revealed by the exploratory hole locations, or those which occur between each location and (2) whilst every effort will be made to interpolate the conditions between exploratory locations, such information is only indicative and liability cannot be accepted for its accuracy. By their nature, it is generally the case that exploratory holes provide a relatively small and localised snapshot of the ground conditions relative to the size of the site.

**Buried Services:** Whilst reasonable efforts will be taken to avoid buried services, we accept no liability for damage to services which have not been accurately identified in advance of site works.

**Flooding:** Our commentary is only based on the publicly available mapping available via the EA, NRW or SEPA at the time of writing and we cannot accept any liability where the information is updated following the issue of our report.

## 4. Dilapidations

**Generally:** We will assume unless otherwise requested that we are engaged as an advisor to prepare or comment on a schedule or claim which is distinct from an instruction to act as an expert witness. However, in discharging the advisory role it is always necessary for us to take account of considerations relating to expert witnesses as set out in the current Practice Statement and Guidance Note for Surveyors Acting as Expert Witnesses by the Royal Institute of Chartered Surveyors, a copy of which can be provided on request. This states that the primary function, and duty, of an expert witness is to assist the court on matters within their expertise.

**Ongoing Advice:** Our dilapidations advice aims to provide you with an informed opinion as to the anticipated level of liability/claim. Changes in case law, statute and the passage of time may affect the accuracy of our advice; it is therefore important that our advice is reviewed at regular intervals and, in particular, prior to the expiry of the lease.

**Documentation Provided:** Our assessments can only be as accurate as the information provided to us; it is therefore



important that the most complete set of documentation possible is provided in order for the best advice to be given. We cannot take any responsibility for distorted findings resulting from deficient, incorrect or incomplete information.

**Estimated Settlement:** When an estimate of settlement is provided at any time prior to concluding the claim, this is for guidance only and should never be taken as a definitive evaluation of the likely damages which may fall due.

**Final Settlement:** Settlements can be limited by S.18(1) of the Landlord & Tenant Act 1927 and the common law principles to the diminution in the value of the Landlord's reversion, regardless of the cost of works and other heads of claim. We will advise you if we consider that a formal valuation (commonly known as a Section 18 valuation) is necessary.

A claim based on the cost of the works may also be capped or even extinguished if it can be shown that the premises are to be altered or demolished after the expiry of the lease. Landlords should advise us if this is the case. Again, we will advise you if we consider that a Section 18 valuation is necessary. Where no formal release is provided by a Landlord we reserve the right to charge on a time expended basis.

**Solicitors:** In some cases it may be necessary to liaise with a solicitor on matters of strict legal interpretation. In the event of litigation, our communications with surveyors and other experts, including solicitors, may not be privileged.

Your legal advisors need to advise you on compliance with break notices as we only look at dilapidation liabilities under a lease and there may be other liabilities which impact on the break such as vacant possession, payment of rent, etc. Your legal advisors will be responsible for service of any schedules / notices. If you do not use a lawyer then we cannot accept any liability for incorrect service of schedules / notices.

Your legal advisors will be responsible for agreeing the wording of any forms of release used to record agreement on a financial settlement. If you do not use a lawyer then we cannot accept any liability for incorrect wording in helping to conclude matters between parties.

### Heads of Claim

**Loss of Rent, Rates, Service Charge, etc.:** For the purposes of the calculation of a loss of rent (and where applicable, service charge) claim we will provide an assessment of the period that it is likely to take to procure and complete works identified in the Schedule of Dilapidations. However, the applicability of such a claim will depend on market conditions prevailing at the end of the term and require initial input from your appointed letting agents shortly before lease expiry. Unless specifically agreed or stated within the lease, we will not include finance charges, loss of rates and other similar items in our assessments/claims.

**Fees:** We will include an allowance for legal fees only for the service of Schedules of Dilapidations in our assessments and claims. Surveyors' fees for the preparation and service of schedules will be included but other professionals' fees (such as building services or structural engineers) will not be included unless otherwise stated. All professional fees included will be estimates.

**VAT:** VAT may form part of a claim and is subject to the VAT status of the property and parties to the lease. The total claim (of which VAT may form part) is a damages payment that Customs and Excise do not deem a taxable supply. Invoices are not usually issued by landlords to tenants for this reason.

**Contamination:** We will include in our assessment any obvious contamination issues but we will not undertake any tests or investigation of current or previous uses of the site or adjoining land. We will advise you where we consider a need for specialist advice.

## 5. Energy Performance Certificates

**Generally:** This work is usually undertaken in three stages being:

1. Site inspection and research;
2. Data inputting and Calculating the Certificate; and
3. Lodging the certificate and reporting to the client.

We will initially determine the level of complexity of the building from the information provided by the client. Should it be determined during the site inspection that the complexity of the building and/or its services makes the standard assessment methodology inappropriate, this will be drawn to the attention of the client and a revised proposal will be submitted for sub-consulting the assessment to enable Dynamic Simulation Modelling (DSM) to be carried out.

**Fees:** Our fee quote is based on the assumption that the building can be inspected in one visit with unrestricted access to all areas. If we find that access is restricted to some parts of the building and that a return visit is required we will invoice all additional time on a time charge basis.

Where keys are held remotely from the property we will charge an additional fee on a time charge basis to cover our time in collecting and returning the keys. Where an instruction is made on the basis that plans are available the following applies:

- Plans must be to scale.
- Plans must accurately show the current layout of the premises.
- Plans must be provided at the time of appointment or before inspection.

Where plans are not immediately available and we are expected to recover them from other parties an additional charge may be made to cover our time in this regard.

**Site Inspection:** The nature of a building's construction will not always be obvious from a visual inspection alone. Where sectional details are not available we will use the inference values provided in iSBEM. Where these are poor and possibly have an effect on the banding/rating of the property we may advise the client to consider opening up elements of the property so that more accurate construction details can be obtained. Opening up works will fall outside the initial fee agreement and we reserve the right to invoice our time for this separately.

**Lifespan/Carbon Checker:** We will generate the EPCs using Lifespan. This system is a software application tool that provides an interface to enable the user to enter data into DCLG's SBEM (Simplified Building Energy Model). SBEM is at the heart of all government approved interface tools and whilst it has been passed for use, and Lifespan is an accredited software tool, there are inherent built in faults with the software that may affect the final rating. Although some tests have been undertaken to establish the accuracy of this software. We accept no responsibility for the software's accuracy.

**Reporting and Advice:** The EPC generates a Recommendations Report within which advice is given for the building owner to upgrade the building's efficiency performance. The advice is generic and in some cases is not considered to be relevant. Where we consider the advice to be poor, we will tailor the report to more accurately reflect the requirements of the building. The recommendations given in the report are not mandatory, so where a building owner implements improvement works based on the recommendations we would expect them to discuss the proposals in more detail before any expense is incurred.

**Documentation Provided:** We cannot take responsibility for the accuracy of any information provided by others for the purpose of carrying out the assessments. Similarly we cannot take responsibility where information to be provided is missing or its provision is delayed and that information conflicts with our assessment. Where such documents become available we recommend that copies are forwarded to us immediately in order that any advice provided can be refined.

### 6. Bank or Fund Monitoring

Our report is based upon discussions with the borrower (being the person to whom our client, a funder, is lending money), as well as reports, records and data provided by the borrower or on their behalf ("Information"). We will use our professional judgement and experience to evaluate and interrogate the Information, however we are not auditing the Information and we cannot guarantee that it is accurate and complete in all respects. It is the borrower's duty to ensure that the Information is accurate and complete, and

we shall not be liable for any errors or omissions in the Information, or for losses arising as a result of such errors or omissions.

### 7. Rights of Light and Daylight

Where necessary we will comment on apparent rights of way / support or light which may be visible or suspected albeit our comments will be outline in nature and without any detailed investigations.

#### Generally

This work is usually undertaken in three stages being:

1. Site inspection and research;
2. Modelling and testing; and
3. Reporting and provision of advice.

Analyses are often reliant on third party advice and particularly in relation to initial RoL and DSO studies based on a number of assumptions relating to the surrounding buildings. The RoL work also involves legal and valuation matters on which we may offer opinions but should be verified by reference to appropriate specialist consultants.

#### Site Inspection

Whilst we will endeavour to undertake a thorough review of the buildings surrounding the site, where certain parts are not readily visible from vantage points available to us, we cannot guarantee that all relevant receptors will be included. Assumptions may be made as to the presence and position of windows situated on elevations of existing buildings, which cannot be readily seen. To prevent alarm and respect privacy of neighbouring occupiers, close inspection of windows in neighbouring buildings may not be possible and this may affect the quality and accuracy of information taken on site. Assumptions will be made as to room size, use and layout where necessary. No topographical survey of site levels or elevation detailing will be undertaken. Should precise dimensions and window locations be required, we would recommend that separate topographical land, building and elevation surveys are instructed and provided in AutoCAD format.

#### Research

Limited research will be undertaken where necessary to determine:

1. Age of buildings;
2. Historic site development;
3. Legal constraints; and
4. Planning policies.

Where necessary to assist research, historic maps, aerial photographs and Land Registry title documents may be purchased and charged as disbursements.

#### Modelling & Testing

3D Modelling is usually undertaken using AutoCAD software. Unless provided with accurate topographical survey information relating to levels and elevation detailing, approximate dimensions will be used from limited measurements taken on site, available OS data and 'brick counting' from photographs. Where necessary we may buy third party photogrammetry models as a starting point for creating our models. The cost of same will be

charged as a disbursement. Tests are usually undertaken using software licensed to us by Waterslade/MBS Survey Software. Although some tests have been undertaken to establish the accuracy of this software we take no responsibility for the software's accuracy.

### Reporting and Advice

Reports and advice will usually be based on a number of assumptions and with reliance on third party information. Where assumptions have been made, these will usually be stated and recommendations will be given for further work required. Where specialist legal, planning and/or valuation advice is required, recommendations for same will be highlighted within our report or separately.

### Third Party Advice and Products

Our processes include the use of third party advice and products such as:

1. Ordinance Survey data;
2. Title documents;
3. Baseline models;
4. Topographic surveys;
5. Aerial photography;
6. Architects' drawings; and
7. Local authority archive information.

Whilst we will review this information for accuracy insofar as required for our assessments, we do not accept any liability for inaccuracies in third party information or loss or damage arising from some.

### Valuation of Damages

Where appropriate we will provide book value damages estimates for right to light infringements.

### Valuations Will Be

- Based on assumed rents and yields;
- Formulated in accordance with standard industry practice;
- Given at current prices; no adjustments will be made for future inflation;
- Quoted as budget estimates only and are not to be thought of as a substitute for obtaining specialist valuation advice;
- Exclusive of both parties' professional fees;
- Exclusive of any taxes that may be applicable i.e. VAT/SDLT.

### We Will Not

- Provide valuations based on development gain or profit share method.

## 8. Party Wall Terms – Building Owner and Adjoining Owner

### Surveyors Appointment

References to 'Appointing Owner' and 'Building Owner' are references to you. References to 'Adjoining Owner' relate to the owner/s of the neighbouring property adjacent to your work that is or may be subject to the Act.

To administer the requirements of the Act surveyors need a

written appointment. The appointment must be an individual and cannot be a company. Liability for work undertaken remains solely with us and not the appointed individual under the Act. We will provide a draft letter of appointment which must be completed and returned to confirm the appointment at or before the point at which there is either a deemed or actual dispute.

The letter of appointment must be signed by the Appointing Owner, or an agent with specific authorisation to sign on your behalf.

Once the appointment is confirmed it cannot be retracted or determined except if the surveyor appointed declares themselves incapable of acting in certain circumstances as prescribed by the Act. You should be aware that appointments follow a statutory procedure which requires the appointed surveyor(s) to work within the jurisdiction of the Act by administering its provisions fairly and impartially.

### Fees

You are contractually responsible for payment of your surveyor's fee and those of the Adjoining Owner where we advise it is reasonable to do so.

An Award will generally determine that the Building Owner is responsible to pay the fee of both appointed surveyors. However, specific circumstances may mean this is not always the case. For example, fees may be apportioned between Owners if they both benefit from the works.

We reserve the right to charge additional fees in relation to changes in the design or scope of the works that requires addendum Award(s) or new Notice(s).

We reserve the right to charge additional fees in relation to assessing claims for damage and awarding any necessary compensation or making good.

### Fees – Specialist Consultants

In some circumstances appointed Surveyors may suggest that specialists such as engineers or solicitors are appointed to assist in matters directly related to the administration of the Act or determination of the dispute.

The contract and responsibility for fees in relation to this appointment will be between the specialist and you. You are also likely to be responsible for the reasonable fees of the Adjoining Owner's Specialist Consultants' fees.

### Boundary Determination

Whether a wall is built up to, or astride the boundary is not always easy to determine. Sometimes this can only be established by reviewing title deeds and with the assistance of a solicitor. Our advice without the benefit of title information is very much outline and will be based on certain assumptions.

### Timescales

Whilst we will liaise with the design team and contractor to procure information required for Notices and Awards, it is outside our control if information from the design team and/or contractor is either incorrect in terms of design or

level of detail, or is not provided to us in good time.

### **Information for the Award**

The design team and appointed contractor are responsible to provide the information requested to be included within the Award. Where possible we will give an indication of the likely information that will be required. We are not responsible for any delay to action requests for information that may impact the development programme.

### **Right of Access**

In certain circumstances the Act allows the Building Owner to access the Adjoining Owner's land for the purpose of executing work in pursuance of the Act. Our fee does not include for discussing access to works that are not in pursuance of the Act and if that is required, a separate agreement and fee will be given.

### **Security for Expenses**

We will not hold monies for Security for Expenses. It is usual practice that any sum agreed will be held in a solicitor's client account sometimes managed as an escrow account and only released on signature of two of the three surveyors.

Where relevant, the terms and conditions in relation to Security for Expenses will be set out in the Award.

### **Third Surveyor Referrals**

The appointed surveyors are required to appoint a Third Surveyor to determine any disputed matters. If referral of a disputed matter to the third surveyor is necessary, the procedure will be set out to you, along with any cost implications.

We may charge an additional fee for time relating to matters incidental to third surveyor referrals.

### **General**

We will make all reasonable efforts to identify the Adjoining Owner(s) of a property by making checks with the Land Registry (with the cost charged as a disbursement). We cannot accept any liability it after making reasonable enquiries, we do not manage to ascertain all Adjoining Owners with an interest in the property.

The ability to agree an Award is very much linked to the quality and level of detail that is provided from the design team and/or contractor. We cannot accept responsibility if the Information provided is insufficient to enable completion of an Award.

We do not accept any liability arising from the loss or delay in delivery of Notices by the Royal Mail or other carriers.

Where the depth of foundations is unknown and in the absence of any information such as trial pit Information, we will make a reasonable estimate on the foundation depth.

Our schedules of condition in relation to the Act only extend to the area of the property in close proximity to the notifiable work and will not unless considered necessary, extend to a full record of the condition of the entire Adjoining Owner's property.