

CCG-C-24-14643

REVISION 1

PHASE II GEOENVIRONMENTAL REPORT

FOR SITE AT

GAYWOOD GREEN, KIRKBY

LIVERPOOL

SEPTEMBER 2024



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DOCUMENT CONTROL FORM	
Client:	ALAN JOHNSON PARTNERSHIP LTD
Project Title:	Phase II Geoenvironmental Report for Gaywood Green, Liverpool
Reference Number:	CCG-C-24-14643
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FOR AND BEHALF OF CC GEOTECHNICAL LTD	
Date:	September 2024
Revision Number:	1
Comments:	Revision 1 – Updated to include full gas and groundwater monitoring regime
Status:	FINAL
Distribution:	ALAN JOHNSON PARTNERSHIP LTD

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1.0 INTRODUCTION

CC GEOTECHNICAL LIMITED (CCG) is providing ground investigation services to **ALAN JOHNSTON PARTNERSHIP LTD** on behalf of *The Client* – **LIVV HOUSING GROUP**, in connection with the proposed redevelopment of land located immediately to the north of Gaywood Avenue and east of Broad Lane, Kirkby. The land is presently disused following the recent demolition of 4nr high rise blocks of flats. The site is set in a residential context.

At the time of investigation and report preparation, the proposed development plans had not been finalised. However, the emerging option proposes that the site be redeveloped by the construction of circa 68nr dwellings, comprising a mixture of detached, terraced, semi-detached, cottage apartments (for the elderly), and general use apartments. The development will incorporate private gardens, public open space, access pavements, car parking bays etc. The site layout pre demolition, and the proposed site layout are shown on architectural drawings contained in Appendix A.

The proposed development falls within the administrative jurisdiction of the **KNOWSLEY METROPOLITAN BOROUGH COUNCIL**. At the time of reporting a Planning Application had been submitted for the demolition phase. A search of the KMBC planning portal did not show any evidence of a planning submission for the development phase.

It should be borne in mind that the data and opinions contained in this report should be read in conjunction with the Notes on Limitations, given in Appendix J.

2.0 PREVIOUS INVESTIGATIONS

This report should be read in conjunction with the Phase I Geo-Environmental Report prepared by **CCG** in September 2023 (CCG-C-23-14136)

3.0 PURPOSE OF INVESTIGATION

The main purpose of the Phase II Investigation was to confirm the conclusions of the desk study, with particular reference to:

- ⊕ The assessment of the nature and extent of any contamination which may be present, in relation to potential risks to human health of end users, construction workers, and occupants of adjacent properties
- ⊕ The assessment of the nature and extent of any contamination which may be present, in relation to potential risks to controlled waters
- ⊕ The assessment of the nature and extent of contamination which may be present, in relation to potential risks to the fabric of buildings and services
- ⊕ The refinement of the Preliminary Conceptual Model contained in the Phase I Desk Study, confirming pollution linkages that have been demonstrated to be actually present
- ⊕ The identification of feasible remediation measures to remove or break the identified pollution linkages

- ✦ The provision of factual information and interpretative discussion on ground conditions in relation to foundation selection, design and construction

The investigation was planned and executed in accordance with the LCRM procedures published by the Environment Agency.

4.0 SITE LOCATION & DESCRIPTION

A detailed description of the site location and its immediate environs is given in the above referenced desk study report, and some of the principal observations are summarised hereunder.

The study area comprises an irregular parcel of open land (after demolition of 4nr tower blocks) located immediately to the north of Gaywood Avenue, and east of Broad Lane, Kirkby, L32 7PQ as shown on **CCG** Drawing No. CCG-C-22-14136/02, and No. CCG-C-24-14643/2 contained herein. The **Ordnance Survey** coordinates for the approximate site centre are 341810E, 397649N. It stands at an approximate elevation of c.29mAOD. It slopes gently down from north to [REDACTED]

The site is situated within a mature residential context. It approximates to a right-angled triangle with a base length of circa 110m on its NW/SE axis and length of circa 140m along its SW/NE axis. It previously accommodated 4nr x 11 storey block tower blocks. However, since the demolition was completed, the site is now vacant, apart from couple of small terraces of garages on the eastern boundary of the site.

The site is bound by the gardens of adjacent residential houses along its eastern boundary, and by Broad Lane and Gaywood Avenue on its western and southern boundaries respectively.

5.0 DOCUMENTED GEOLOGY

The **BGS** superficial drift mapping data indicates an absence of superficial drift cover on site. Nearby environs are recorded to be underlain by Till – Diamicton – deposits recorded at approximately 40m southwest. The solid geology is recorded as Chester formation – sandstone, sedimentary bedrock formed in the Triassic period. There are no geological lines of weakness (faults) within 500m of the study site.

The 'Indicative Atlas of Radon in England and Wales' (Miles. J.C.H *et.al*, 2007) Map 13 'Northern Welsh Marches and Liverpool', shows the site to be situated within an area where it is believed that less than 1% of the properties within the area are affected by Radon, and therefore Radon Protection Measures will not be required for new structures in contact with the ground.

As with many brownfield sites superficial made ground deposits of an unknown composition, thickness and lateral extent may underlie the site.

6.0 HYDROGEOLOGY & HYDROLOGY

Information pertaining to hydrogeological and hydrological features of the site may be summarised as follows:

- ✦ The solid geology (Chester Sandstone Formation) is classified as a Principal aquifer

- ✦ The Drift geology (Diamicton) is not present on site but present 40m SW and is classified as a Secondary (undifferentiated) aquifer.
- ✦ There are no documented watercourses within 250m of the study site
- ✦ There is 1nr record pertaining to a Ground Water Abstraction Licence 807m southeast of the site
- ✦ There are no records pertaining to Surface Water Abstraction Licences within 1km of the site
- ✦ There are no records pertaining to Potable Water Abstraction Licences within 1km of the site
- ✦ The site is located within a Total Catchment of a Source Protection Zone
- ✦ The site is not located within an Environment Agency Zone II and/or III Flood Plain

7.0 PRELIMINARY CONCEPTUAL MODEL

7.1 Introduction

The Phase I Desk Study developed a Preliminary Conceptual Model, reiterated hereunder. The risk assessment methodologies adopted by **CCG** are based on [REDACTED] number of sources and are included in Appendix I.

The Tier 1 Risk Assessment and Preliminary Conceptual Model (PCM) were formulated using the information discussed above and based on the proposed site use describe above.

In constructing the Preliminary Conceptual Model (PCM), **CCG** applied the guidance contained in CIRIA C552: 2001. This recommends use of a Risk Matrix which classifies risk on the basis of the product of Probability of a source being present, and the Consequence of receptors being exposed to the source. Guidance tables setting out the classifications of probability and consequence together with a risk matrix are given in Tables 1 - 3 hereunder. In using this approach **CCG** recommends actual intrusive investigation of any Risk Classification of "Moderate" or over.

Table 1: Matrix of consequences against probability to gain a risk classification [CIRIA C552, 2001]

		CONSEQUENCE			
		SEVERE	MEDIUM	MILD	MINOR
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table 2: Classification Definitions (C552 CIRIA, 2001)

CLASSIFICATION	DEFINITION
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard. Or, there is evidence that server harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that such harm would be server, or if any harm were to occur it is more likely that harm would be relatively mild. Investigation (if not undertaken already) is normally required to clarify the risk and to determine to potential liability. Some remedial works may be required in the longer term.
Moderate / Low	
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be server.

7.2 Preliminary Conceptual Model

By application of the risk assessment methodology outlined above, the following PCM was constructed.

Table 3: Preliminary Conceptual Model (PCM)

POLLUTANT LINKAGE	SOURCE	PATHWAY	RECEPTOR	PROBABILITY	CONSEQUENCE	RISK RATING
1	Demolition works giving rise to a broad spectrum of contaminants in soils – heavy metals, hydrocarbons, polyaromatics	Soil and / or soil dust ingestion, dermal contact, inhalation	Ground workers Future Residents Residents in adjoining properties Flora in new development	Likely	Medium	Moderate
2	Asbestos containing materials (ACM) in made ground soils associated with the demolition works	Fibre Inhalation	Ground workers Future residents Residents in adjoining properties	Likely	Severe (ACM)	High
3	Ground gases from onsite or offsite sources i.e. made ground soils	Migration in buildings leading to: Asphyxiation of persons – CO ₂ and CO Explosive risk – CH ₄ in air where ignition risk present	Future residents Fabric of buildings	Low	Medium	Moderate / Low
4	Aggressive pH & Sulphates in soils	Direct contact	Fabric of future building	Low	Medium	Moderate / Low
5	Organics in soils – PAH's, petroleum hydrocarbons	Permeation through potable water supply mains	Consumers of potable water	Low	Medium	Moderate/Low
6	Leachable contaminants	Leaching and migration to bedrock aquifer	Protected water quality in Principal Aquifer	Low	Medium	Moderate/Low

The contaminants of concern associated with those risks which require intrusive investigation were researched by reference to published industry profiles, and are summarised hereunder:

Table 4: Summary of Contaminants of Concern based on PCM

LINKAGE NO.	METALS	NON-METALS	ORGANICS	GASES	OTHERS
PL1, PL2, PL5, PL6	Be, Cd, Cr (total and VI), Ni, Cu, Pb, Hg, Se	As, sulphates	TPHCWG, PAH's, BTEX, Volatiles (by PID), PCB's	-	pH Asbestos
PL1 & PL3	-	-	-	CH ₄ , CO ₂ , H ₂ S	-
PL1, PL5	-	-	TPHCWG, PAH's, BTEX, Volatiles VOC's, SVOC, PCB's	-	-
-	-	-	TPHCWG, BTEX	-	-
PL1-PL6	Be, Cd, Cr (total and VI), Ni, Cu, Pb, Hg, Se	As, sulphates	TPHCWG PAH's, BTEX, Volatiles VOC's, SVOC, PCB's	CH ₄ , CO ₂ , H ₂ S	pH Asbestos

7.3 Summary of Risks

The foregoing analysis identified a significant number of potential risks, and if present, these could adversely impact on human and/or environmental receptors. [REDACTED] proposed end use, and since no previous site investigation has been undertaken, an intrusive phase of investigation was carried out to determine whether the postulated pollutant linkages are actually present on site.

8.0 FIELDWORK

8.1 Introduction

The ground investigation was undertaken in June 2024, and comprised the following:

- ✦ The mechanical excavation of 18nr trial pits (TP01 – TP18), each terminating at rockhead
- ✦ The sinking of 25nr boreholes (WS01 – WS25) by light dynamic sampling methods, each terminating at rockhead
- ✦ The undertaking of falling head permeability tests in 5nr boreholes
- ✦ The installation and monitoring of standpipes for groundwater sampling / level monitoring, and ground gas composition / flow rate
- ✦ The undertaking of a programme of laboratory engineering and chemical testing on soil and groundwater samples recovered in the investigation works

The site investigation works were carried out in accordance with BS10175: 2011 and BS5930: 2015, and BS1377: 1990 insofar as they related to the specified scope.

A layout of the investigation is presented on **CCG** Drawing 24-14643-2 contained in Appendix A.

8.2 Trial Pit Excavations

A total of 18nr trial pits (TP01 – TP18) were mechanically excavated within the site using a JCB 3CX. Each trial pit location was scanned using a CAT service detector before commencement of excavation. The soil arisings were carefully logged and sampled, and then returned to the excavations in the reverse sequence of their excavation to preserve, insofar as was possible, the original lithology.

Photographs and logs of the trial pits annotated with details of sampling are given in Appendix B.

8.3 Light Dynamic Sampling Boreholes

A total of 25nr boreholes (WS01 – WS25) were sunk by light dynamic sampling methods using a Dando Terrier 2000 rig deploying 100mm casings and associated tools.

Each borehole location was positioned clear of services and was scanned using CAT cable avoidance scanner before being sunk into the ground as all services was cut off in the site.

Boring tools were decontaminated prior to commencement and between borehole moves.

In this method of investigation samples of subsoils are recovered by driving and extracting a series of reducing diameter 1m long steel tubes. Standard penetration test's (SPT's) were undertaken at regular depth increments, with hand shear vane (HSV) testing being undertaken in cohesive strata. This method of sampling recovers relatively "undisturbed" soil profiles in Perspex [REDACTED] el tubes. The Perspex tubes were split and carefully logged and subsampled. Subsamples for potential chemical analysis were removed at appropriate positions from the profile and transferred to chilled amber glass jars and vials for laboratory analysis.

The logs of the boreholes, annotated with sampling details, SPT 'N' and HSV (Cu-kN/m²) values, and monitoring installations (WS01, WS08, WS12, WS16, WS18 & WS23) are given in Appendix C.

8.4 Falling Head Permeability Tests

During the sinking of the boreholes 4nr falling head permeability tests were carried out in accordance with BS 5930:1999 Section 4, and BS 22282:2012 Part 1 and Part 2 standards.

9.0 OBSERVED STRATIGRAPHY

The observed stratigraphy was largely consistent with the documented geology. All boreholes and trial pits commenced in made ground deposits, generally comprising a matrix of sand with varying proportions of gravels and cobbles of sandstone, limestone, brick, concrete, wood, plastics, pipe remnants, glass, ceramics, metal fragments etc. The thickness of the made ground deposits varied across the site from a minimum of 0.2m to an observed maximum of 2.1m.

The made ground deposits were observed to rest on a sequence of interbedded layers of very sandy clay / clayey sand extending to the sandstone bedrock formation encountered at depths in the range 1-2.2mbgl, the formation observed to comprise weak reddish / brown fine to medium grained SANDSTONE.

Detailed descriptions can be observed on the borehole logs and trial pit logs presented in Appendix B and Appendix C respectively.

10.0 GROUNDWATER

Discrete accumulations of entrapped bodies of water were encountered in 4nr trial pit excavations, generally located on the west side of the site. There is no evidence of a prevailing groundwater table

11.0 FALLING HEAD TESTS

Falling head permeability tests gave results of an average of 1.2×10^{-5} m/sec and 2.5×10^{-6} m/sec for the natural sand and clay respectively. The results are shown in Appendix D.

12.0 LABORATORY CONTAMINATION TESTING

A programme of soil and water chemical analyses was undertaken at a UKAS / MCERTS accredited laboratory as follows:

- ✦ 25nr subsamples of soils were analysed to a broad-spectrum suite of contaminants including pH, metals, non-metals, heavy metals, speciated PAH's, speciated hydrocarbons to the TPHCWG methodology, BTEX and asbestos
- ✦ 5nr subsamples of soils were analysed for waste assessment criteria assessment (WAC testing).
- ✦ 2nr samples of water from the trial pits (TP07 and TP13) were analysed to a broad-spectrum suite of contaminants including pH, metals, non-metals, heavy metals, speciated PAH's, speciated hydrocarbons to the TPHCWG and BTEX.

The soil and groundwater contamination test results and certificates are presented in Appendix G. The WAC analyses are presented in Appendix I.

13.0 RISK ASSESSMENT FOR THE PROTECTION OF HUMAN HEALTH

13.1 Generic Quantitative Risk Assessment (Tier 2 / GQRA)

An assessment of the soil analysis data was carried out in accordance with the guidance presented in LCRM and in accordance with current guidance and legislation.

The Human Health Risk Assessment was carried out in accordance with the **CCG** methodology for assessing soil contamination data and results are contained in Appendix H, and since it is proposed that the site be redeveloped for residential use with private gardens, the assessment was based on criteria contained in publication LQM/CIEH S4UL's for Human Health Risk Assessment (2015) (CCG licence S4UL3233), applicable to the "Residential with home grown produce" land use scenario. This document does not provide criteria for Lead, for which the results were compared to the C4SL published by DEFRA SP1010 Development of Category 4 Screening Levels.

13.2 Assessment of Contamination Data

Based on a Soil Organic Matter content average of 1.0%, the assessment of the soil data is summarised in the tabulations hereunder, and presented on the worksheets in Appendix G.

13.2.1 Assessment of Metal Data

The assessment of the metal data is presented hereunder:

Table 5: Assessment of Metal Data

Contaminant	LQM / CIEH S4UL (mg/kg)	Maximum (mg/kg)	Exceedances	
			(mg/kg)	Location
Cadmium	11	0.5	-	-
Chromium	910	83	-	-
Copper	240	180	-	-
Lead	200	87	-	-
Mercury	1.2	<0.3	-	-
Nickel	130	38	-	-
Zinc	3700	290	-	-

The above assessment identified no exceedances of any metal contaminants above their respective threshold values, and therefore no potential risk to human health is indicated.

13.2.2 Assessment of Non-Metal Data

The assessment of the non-metal data is presented hereunder:

Table 6: Assessment of Non-Metal Data

Contaminant	LQM / CIEH S4UL (mg/kg)	Maximum (mg/kg)	Exceedances	
			(mg/kg)	Location
Arsenic	37	94	94	WS01
			39	WS25
Selenium	250	1.6	-	-
Free Cyanide	22	<1	-	-

The above assessment identified two exceedances of Arsenic (WS01 and WS25) above its respective threshold value, and therefore a potential risk to human health is indicated. This is discussed further in Section 13.2.8.

13.2.3 Assessment of Polycyclic Aromatic Hydrocarbon [PAH's] Data

The assessment of the Polycyclic Aromatic Hydrocarbon (PAH's) data is presented hereunder:

Table 7: Assessment of PAH Data

Contaminant	LQM / CIEH S4UL (mg/kg)	Maximum (mg/kg)	Exceedances	
			(mg/kg)	Location
Acenaphthene	210	0.78	-	-
Acenaphthylene	170	0.09	-	-
Anthracene	2400	1.2	-	-
Benz(a)anthracene	7.2	2.1	-	-
Benzo(a)pyrene	2.2	1.6	-	-
Benzo(b)fluoranthene	2.6	1.9	-	-
Benzo(g,h,i)perylene	320	1.0	-	-
Benzo(k)fluoranthene	77	0.87	-	-
Chrysene	15	2.1	-	-
Dibenzo(ah)anthracene	0.24	0.27	0.27	TP14
Fluoranthene	280	4.4	-	-
Fluorene	170	0.7	-	-
Indeno(1,2,3-cd)pyrene	27	0.91	-	-
Naphthalene	2.3	1.3	-	-
Phenanthrene	95	4.1	-	-
Pyrene	620	3.9	-	-

The above assessment identified one exceedance of Dibenzo(ah)anthracene above its respective threshold value, and therefore a potential risk to human health is indicated. This is discussed further in Section 13.2.8.

13.2.4 Assessment of Total Petroleum Hydrocarbon [TPH's] Data

The assessment of TPH data is presented hereunder:

Table 8: Assessment of Hydrocarbon Data

Contaminant	LQM / CIEH S4UL (mg/kg)	Maximum (mg/kg)	Exceedances	
			(mg/kg)	Location
Aromatic EC5-EC7	70	<0.010	-	-
Aromatic EC7-EC8	130	<0.010	-	-
Aromatic EC8-EC10	34	<0.050	-	-
Aromatic EC10-EC12	74	<1.0	-	-
Aromatic EC12-EC16	140	4.3	-	-
Aromatic EC16-EC21	260	18	-	-
Aromatic EC21-EC35	1100	120	-	-
Aromatic EC35-EC44	1100	45	-	-
Aliphatic EC5-EC6	42	<0.020	-	-
Aliphatic EC6-EC8	100	<0.020	-	-
Aliphatic EC8-EC10	27	<0.050	-	-
Aliphatic EC10-EC12	130	1.6	-	-
Aliphatic EC12-EC16	1100	8.2	-	-
Aliphatic EC16-EC35	65000	179	-	-
Aliphatic EC35-EC44	65000	73	-	-

The above assessment identified no exceedances of any hydrocarbon contaminant above its respective threshold value, and therefore no potential risk to human health is indicated.

13.2.5 Assessment of BTEX Data

The assessment of BTEX data is presented hereunder:

Table 9: Assessment of BTEX data

Contaminant	LQM / CIEH S4UL (µg/kg)	Maximum (µg/kg)	Exceedances	
			(µg/kg)	Location
Benzene	0.33	<5.0	-	-
Toluene	610	<5.0	-	-
Ethylbenzene	350	<5.0	-	-
Total Xylenes	N/A	<5.0	-	-

The assessment concludes that no BTEX compounds are present at concentrations that exceed their respective guideline criteria and therefore no potential risk to human health is indicated.

13.2.6 Assessment of Asbestos Data

A total of 25nr soil samples were subject to Asbestos detection / identification testing, with none of the samples testing positive for asbestos containing materials (ACM), and therefore no risk to human health is indicated.

13.2.7 Assessment of WAC Data

By application of the Hazwaste program, all 25nr soil samples tested classified as Non-Hazardous waste. A total of 5nr soil samples (WS16 at 1.30mbgl, WS23 at 1.10mbgl, TP05 at 0.80mbgl, TP07 at 0.90 and 0.70mbgl) were subject to analysis for waste assessment criteria. The results of all 5 WAC analyses show compliance with the criteria for disposal at an inert waste landfill. The results of the Hazwaste assessment and WAC testing are shown in Appendix I.

13.2.8 Summary of Human Health Risk Assessment

The above assessment identified elevated levels of Arsenic and Dibenzo(ah)anthracene within the made ground soils, and it therefore indicates a potential risk to end users (future residents) and construction workers. Recommended mitigation measures are discussed further within the Post Investigation Conceptual Model - Section 16.0 below.

14.0 CONTROLLED WATERS RISK ASSESSMENT

14.1 Assessment of Metals, Non-Metals & Polycyclic Aromatic Hydrocarbon (PAH) Data

Groundwater samples recovered from TP07 and TP13 were analysed for a broad range of contaminants including speciated PAH and TPH concentrations. The results were assessed against Environmental Quality Standards (AA-EQS) for freshwater as shown hereunder:

Table 10: Assessment of Water data

Contaminant	AA-EQS (ug/l)	Maximum (ug/l)	Exceedances	
			(ug/l)	Location
Lead	20	0.8	-	-
Nickel	150	320	320	TP07
Copper	40	570	570	TP07
Arsenic	25	9.53	-	-
Mercury	1	<0.5	-	-
Selenium	-	16	-	-
Cadmium	5	<0.08	-	-
pH	-	11.8	-	-
Sulphate	400,000	460,000	460,000	TP07
Boron	1000	10	-	-
Cyanide	-	<10	-	-
Naphthalene	10	0.96	-	-
Fluoranthene	0.02	0.91	0.90 0.91	TP07 TP13
Phenanthrene	-	1.1	-	-
Anthracene	0.02	0.27	-	-
Acenaphthylene	-	<0.01	-	-
Pyrene	-	0.79	-	-
Chrysene	-	0.39	-	-
Fluorene	-	0.24	-	-
Indeno(123-cd)pyrene	0.10	0.16	0.16	TP13
Benzo(ghi)perylene	0.10	0.19	0.19	TP13
Benzo[a]pyrene	0.03	0.34	0.22 0.34	TP07 TP13
Benzo[a]anthracene	0.05	0.38	0.35 0.38	TP07 TP13
Benzo[k]fluoranthene	0.10	0.18	0.13 0.18	TP07 TP13
Benzo[b]fluoranthene	0.10	0.39	0.32 0.39	TP07 TP13

The above assessment confirms several contaminants exceed their respective guideline criteria, and therefore a potential risk to controlled water is indicated. These exceedances are discussed further in Section 14.3 hereunder.

14.2 Assessment of Hydrocarbon (TPH) Data

Speciated hydrocarbon results were assessed by comparison with AA-EQS values for inland waters. In case of determinants not covered by AA-EQS values, results were compared to EQS Inland water Criteria values or where no EQS Inland water Criterion is available, then WHO guidelines for Drinking Water are adopted.

Table 11: Assessment of Groundwater Hydrocarbon data

Contaminant	AA-EQS (ug/l)	Maximum (ug/l)	Exceedances	
			(ug/l)	Location
Aromatic EC5-EC7 (benzene)	10	<1.0	-	-
Aromatic EC7-EC8 (toluene)	700	<1.0	-	-
Aromatic EC8-EC10 (ethyl benzene)	300	<1.0	-	-
Aromatic EC10-EC12	100	30	-	-
Aromatic EC12-EC16	100	150	150	TP07
Aromatic EC16-EC21	90	50	-	-
Aromatic EC21-EC35	90	<10	-	-
Aliphatic EC5-EC6	15000	<1.0	-	-
Aliphatic EC6-EC8	15000	<1.0	-	-
Aliphatic EC8-EC10	300	<10	-	-
Aliphatic EC10-EC12	300	<10	-	-
Aliphatic EC12-EC16	300	<10	-	-
Aliphatic EC16-EC21	(300)*	<10	-	-
Aliphatic EC21-EC35	(300)*	<10	-	-

The above assessment identified a single fraction Aromatic EC12-EC16 that exceeded its respective guideline criterion, and therefore a potential risk to controlled water is indicated. This exceedance is discussed further in Section 13.3 hereunder.

14.3 Summary of Controlled Waters Risk Assessment

Whilst the above transgressions of recognised assessment criteria are noted, it should be borne in mind that the groundwater encountered in this investigation was entrapped within discrete trial pits is not a natural water table. Rather it is a series of discrete bodies of entrapped water probably arising from rainwater runoff. It is strongly recommended that where entrapped bodies of water are encountered in future development works, then they should be pumped out and the water disposed of to landfill. In the future developed state, rainwater infiltration will be reduced by hard cover and drainage infrastructure.

14.4 Assessment of Risk from Ground Gases

Standpipes were constructed such that response zones were within the permeable made ground strata. Using the data gathered in the monitoring programme, a gas risk assessment was undertaken in accordance with the ground gas risk assessment methodology employed by **CCG**. The ground gas risk assessment methodology conforms to current UK guidance on the assessment of risks posed by ground gases.

The potential sources of gas identified in the desk study were generally considered as sources of “Medium” generation potential, and High sensitivity, resulting in a programme of monitoring comprising of 6nr rounds distributed over a 3-month period.

A gas risk assessment was undertaken in accordance with current UK guidelines set out in CIRCA C665 2007 “Assessing Risk Posed by Hazardous Gases to Buildings”. The CIRIA risk assessment methodology uses typical maximum soil gas concentrations and worse case borehole flow rates to define a “Characteristic Situation” for the shallow gas regime.

The volumetric gas flow rate used by the risk assessment is termed “Gas Screening Value (GSV)” in the guidance and is defined below.

Where: $GSV \text{ (litres/hr)} = \text{borehole flow rate (litres/hr)} \times \text{gas concentration}$.

There are also two stages to the assessment method, firstly, compliance with a GSV Threshold Value and secondly, compliance with additional factors such as maximum permissible gas concentration. A summary of the gas monitoring data is presented hereunder and presented in Appendix E.

Table 12: Summary of Gas and Groundwater Monitoring Data

Position	WS01	WS08	WS12	WS16	WS18	WS23
No Monitoring Visits	6	6	6	6	6	6
Highest CH ₄ (%)	Nil	Nil	Nil	Nil	Nil	Nil
Highest CO ₂ (%)	2.8	Nil	Nil	Nil	3.1	Nil
Lowest O ₂ (%)	16.2	8.0	13.2	13.3	17.6	13.9
Highest H ₂ S (ppm)	Nil	Nil	Nil	Nil	Nil	Nil
Highest CO (ppm)	Nil	Nil	Nil	Nil	Nil	Nil
Highest Flow (l/hr)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Water Levels (m)	Dry	Dry	Dry	Dry	Dry	Dry
Highest PID response	0.0	0.0	0.0	0.0	0.0	0.0
Pressure Range (mb)	1008- 1016					

Based on the monitoring data, a Gas Screening Value (GSV) of 0.0031 l/hrs is calculated for CO₂. CH₄ was not detected and therefore unable to calculate a GSV.

Using these GSV values, the risk to the proposed development was assessed in line with Situation A as defined in CIRIA C665, and on this basis the readings conform to Characteristic Situation 1, and based on this classification, gas protection measures are not required.

15.0 NEW WATER MAINS SUPPLY

Assessment of the soil chemical data to specify the construction of new water mains at the development site was based on the criteria specified in Paper 10/WM/03/21 ‘Guidance for the selection of Water Supply Pipes to

be used in Brownfield Sites' January 2011 published by UK Water Industry Research (UKWIR) and the supplementary guidance UUENG/RL/V2/July 2011 published by United Utilities Water (U UW).

Concentrations of the pertinent soil contaminants were found to be above the threshold values recommended under the UKWIR and U UW guidance. On this basis, new water mains must be specified as PE/AL/PE barrier (Protectaline) pipe construction. Also, new watermains should be laid in a clean remediated alignment, with 300mm clean gravel surround (i.e 600mm wide trench, with mains set centrally).

Pipes should be laid in accordance with BS EN 12201-2 'Plastic piping systems for water supply, and for drainage and sewerage under pressure' as stated in UKWIR guidance.

Notwithstanding the above preliminary assessment, the developer should contact the local water supplier (U UW) to obtain concurrence with the recommendations given above. The supplier may require the developer to return a completed U UW Risk Assessment document.

16.0 POST INVESTIGATION CONCEPTUAL MODEL

Based on the findings of the investigation, a conceptual model was constructed illustrating proven pollution linkages and summarising the conceptual remediation recommendations discussed above, as tabulated hereunder:

Table 13: Post Investigation Conceptual Model

Proven Source	Pathway	Receptor	Remedial Options
Exceedances of arsenic, and Dibenzo[ah]anthracene within the made ground soils No evidence of vapour inhalation risk	Ingestion and dermal contact with soils	Future occupants / residents	No Remediation required under building and hardstanding cover. On private gardens, provide 600mm clean imported subsoil / topsoil cover. Where made ground remains in place at the reduced preparatory depth then Terram 1000 geotextile to be placed at the base of the cover On Public Open Space, provide 400mm clean imported subsoil / topsoil cover. Where made ground remains in place at the reduced preparatory depth then Terram 1000 geotextile to be placed at the base of the cover All cover as above to be undertaken under a strict validation regime with compliance analyses at a rate of 1 sample per 50 tonnes of import with a minimum of 4 analyses per source of import. Compliance criteria is shown on the table in Appendix I Thickness of cover to be independently validated by excavation through the completed cover
Contaminated groundwater	Direct migration to bedrock aquifer	Water quality in bedrock aquifer	Will require to be disposed of where encountered in groundworks No evidence of a potential vapour inhalation risk from groundwater
Organic contamination in soils	Direct migration into water mains	Future occupants / residents	Concentrations of the pertinent soil contaminants were found to be above the threshold values recommended under the UKWIR and U UW guidance. On this basis, new water mains may be specified as PE/AL/PE barrier (Protectaline) pipe construction. Also, the new watermain should be laid in a clean remediated

alignment, with 300mm clean gravel surround (i.e 600mm trench, with mains set centrally).

17.0 SPECIFICATION OF BURIED CONCRETE

The data obtained in the investigations was assessed against the guidance given in BRE Special Digest 1: 2005, presented in Appendix F and summarised hereunder:

Table 14: Design Chemical Class Based on Soil Data

CONCRETE SPECIFICATION DATA SHEET		
Is the site Brownfield or Greenfield?	Brownfield	
Is the water table static or mobile?	Static	
Highest water-soluble Sulphate results	733mg/l	Design Sulphate Class of DS-2 Class of AC-1s
Lowest pH result	7.0	
Intended Working Life	100 years	Adopt Design Chemical Classification of DC-1

Table 15: Design Chemical Class Based on Groundwater Data

CONCRETE SPECIFICATION DATA SHEET		
Is the site Brownfield or Greenfield?	Brownfield	
Is the water table static or mobile?	Static	
Highest Sulphate results	460mg/l	Design Sulphate Class of DS-1 Class of AC-1s
Lowest pH result	7.3	
Intended Working Life	100 years	Adopt Design Chemical Classification of DC-1

On the basis of the foregoing soil assessment, concrete in the ground should be specified to conform to the compositional requirements of Design Chemical Class DC-1, as defined in BRE Special Digest 1: 2005.

18.0 GEOTECHNICAL ASSESSMENT

18.1 Introduction

It is envisaged that the site be redeveloped by the construction of circa 68nr dwellings, comprising a mixture of detached, terraced, semi-detached, cottage apartments (for the elderly), and general use apartments. The development will incorporate private gardens, public open space, paved access and car parking bays.

18.2 Foundations & Ground Slabs

In the observed ground conditions, it is recommended that foundations be carried down to bear on the sandstone bedrock formation. This will require a typical depth of excavation of around 1m below existing ground levels, although a greater depth of excavation will be required at some locations. A maximum excavation depth of 2m should be anticipated. Foundations bearing on the sandstone may be designed on an Allowable Bearing Pressure of 200kN/m²

Fully suspended beam and block ground floors must be adopted.

18.3 Excavations

Excavations may be undertaken in the made ground / natural deposits by light hydraulic excavators. Excavations in excess of 1.2mbgl will require side support or battered slopes. Some localised breaking out of remnants of existing foundation structures may be required.

18.4 Groundwater Management

Discrete accumulations of perched groundwater are entrapped within made ground resting on localised depressions in the clayey sand or clay strata underlying the site. These accumulations exhibit a significant degree of contamination. They will require to be pumped out and disposed of when encountered in the course of groundworks.

18.5 Potential for Soakaway Drainage

The adoption of soakaway drainage is not viable for the following reasons:

- The vertical drainage path is inefficient due to the shallow depth to sandstone (low permeability)
- The evidence of the investigation is that localised accumulations of perched water have acquired contamination by leaching. Soakaway drains will disperse laterally and will aggravate the distribution of these contaminated accumulations
- Soil infiltration rates are generally low requiring inordinately large soakaway construction
- The site location is served by existing drainage infrastructure and the proposed development may well result in reduced run-off when compared to the recently demolished site layout

19.0 CONCLUSIONS & RECOMMENDATIONS

The conclusions and recommendations hereunder are based on the salient sections of the report and should not be referred to in isolation of the relevant sections of the text. All recommendations are subject to Regulatory Authority review.

Table 17: Conclusions & Recommendations

Soil Contamination / Remediation	The assessment identified elevated levels of Lead, Mercury, and several PAH species within the made ground soils, and it therefore indicates a potential risk to end users (future residents) and construction workers. No Remediation required under building and hardstanding cover. On private gardens, provide 600mm clean imported subsoil / topsoil cover. Where made ground remains in place at the reduced preparatory depth then Terram 1000 geotextile to be placed at the base of the cover On Public Open Space, provide 400mm clean imported subsoil / topsoil cover. Where made ground remains in place at the reduced preparatory depth then Terram 1000 geotextile to be placed at the base of the cover All cover as above to be undertaken under a strict validation regime with compliance analyses at a rate of 1 sample per 50 tonnes of import with a minimum of 4 analyses per source of import. Compliance criteria is shown on the table in Appendix H Thickness of cover to be independently validated by excavation through the completed cover Refer to Phase III Remediation Strategy.
Concrete Specification	Concrete in the ground should be specified to conform to the compositional requirements of Design Chemical Class DC-1 , as defined in BRE Special Digest 1: 2005.
Ground assessment gas	Using the GSV values obtained in the monitoring, the risk to the proposed development was assessed in line with Situation A as defined in CIRIA C665, and on this basis the readings conform to Characteristic Situation 1, and based on this classification, gas protection measures are not required.
Water Mains	Assessment of the soil chemical data to specify the construction of new water mains at the development site was based on the criteria specified in Paper 10/WM/03/21 'Guidance for the selection of Water Supply Pipes to be used in Brownfield Sites' January 2011 published by UK Water Industry Research (UKWIR) and the supplementary guidance UUENG/RL/V2/July 2011 published by United Utilities Water (UWU). Concentrations of the pertinent soil contaminants were found to be above the threshold values recommended under the UKWIR and UWU guidance. On this basis, new water mains must be specified as PE/AL/PE barrier (Protectaline) pipe construction. Also, new water mains should be laid in a clean remediated alignment, with 300mm clean gravel surround (i.e 600mm wide trench, with mains set centrally). Pipes should be laid in accordance with BS EN 12201-2 'Plastic piping systems for water supply, and for drainage and sewerage under pressure' as stated in UKWIR guidance. Notwithstanding the above preliminary assessment, the developer should contact the local water supplier (UWU) to obtain concurrence with the recommendations given above. The supplier may require the developer to return a completed UWU Risk Assessment document.
Foundations & Ground Floor Slabs	See Section 18 for full discussion.
Excavations	Excavations may be undertaken in the made ground / <u>natural</u> clay deposits by light hydraulic excavators. Excavations in excess of 1.2mbgl will require side support or battered slopes. Some localised breaking out of existing foundation structures may be required.
Groundwater Management	Discrete accumulations of perched groundwater are entrapped within made ground resting on localised depressions in the clayey sand or clay strata underlying the site. These accumulations exhibit a significant degree of contamination. They will require to be pumped out and disposed of.
Potential for Soakaway Drainage	The adoption of soakaway drainage is not viable for the following reasons: - The vertical drainage path is inefficient due to the shallow depth to sandstone (low permeability) - The evidence of the investigation is that localised accumulations of perched water have acquired contamination by leaching. Soakaway drains will disperse laterally and will aggravate the distribution of these contaminated accumulations - Soil infiltration rates are generally low requiring inordinately large soakaway construction The site location is served by existing drainage infrastructure and the proposed development may well result in reduced run-off when compared to the recently demolished site layout



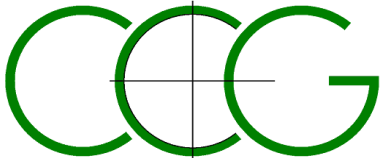
APPENDIX A

DRAWINGS



DO NOT SCALE

Notes: Study Site



CC GEOTECHNICAL LIMITED
UNIT 1 DELTIC WAY
KNOWSLEY INDUSTRIAL ESTATE
LIVERPOOL
L33 7BA
0151 545 2750

Client:
Alan Johnson Partnership

Project:
Gaywood Green, Kirkby

Title:
Aerial Photograph

Scale:
NTS

Issue:
01

Drawn by:
DG

Date:
July 2023

Project No.
CCG-C-22-14136

Drawing No.
02

GENERAL NOTES

- SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
- ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 6TH EDITION AND UNITED UTILITIES DETAILS & GUIDELINES.
- THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADOPTABLE HIGHWAYS SHALL BE 150mm.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARDS TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE FOR HAND TO HAND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES.
- THE OUTSIDES OF ALL SEWERS SHALL BE A MINIMUM OF 1.5m FROM KERB LINES AND THE OUTSIDE OF MANHOLES SHALL BE A MINIMUM OF 0.5m FROM KERB LINES.
- EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES.
- ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES.
- ALL MATERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR TO WITHSTAND A CLASS.
- ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A. INBC OR THE NETWORK OPERATOR AS APPLICABLE.
- WHERE "A" TRA RIP UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADOPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION.
- A CLASS 2 BEDDING AND SURROUND MUST BE USED FOR SUCH PIPES. TRENCH BACKFILL IN HIGHWAYS TO WITHIN 1M OF HIGHWAY SHALL AS DIRECTED BY THE HIGHWAY AUTHORITY BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL. 4.3.4.
- SUB LEVELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE.
- DOMESTIC DRAINAGE SHALL BE TO BUILDING REGULATIONS APPROVED DOCUMENT H: 110mm U.P.V.C. PIPES LAID TO THE FOLLOWING MINIMUM FALLS UNLESS OTHERWISE SHOWN.

FOUL	S.W.
1 IN 40	1 IN 60
1 IN 60	1 IN 100
- ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED CLAY UNLESS NOTED OTHERWISE.

MINIMUM COVER TO DRAINAGE SCOFFIT LEVEL	LANDSCAPING	TRAFFICKED AREAS	HIGHWAYS
0.600m	0.900m	0.900m	1.200m

• CLASS 2 BEDDING AND SURROUND TO BE USED WHERE MINIMUM COVER IS ACHIEVED
• WHERE MINIMUM COVER IS NOT ACHIEVED CLASS 2 BEDDING AND SURROUND (CONCRETE ENCASEMENT) IS TO BE USED.

REFER TO UNITED UTILITIES STANDARD DRAWINGS FOR CONSTRUCTION DETAILS

- STND/19/001 - TYPE 1 MANHOLE
- STND/19/002 - TYPE 2 MANHOLE & INVERT ACCESS DETAIL
- STND/19/003 - SHALLOW MANHOLE DETAIL FOR SMALL DIAMETER PIPES
- STND/19/004 - SHALLOW SW MANHOLE DETAIL
- STND/19/007 - EXTERNAL AND INTERNAL BACKDROPS
- STND/19/008 - PIPE EMBEDMENT DETAILS
- STND/19/010 - VARIABLE MANHOLE GUIDANCE NOTES

P01	15.02.2024	PRELIMINARY ISSUE	LS	KOB	KOB
REV	DATE	DESCRIPTION	BY	CHK	APP

DRAWING STATUS

CLIENT: LIV HOUSING GROUP

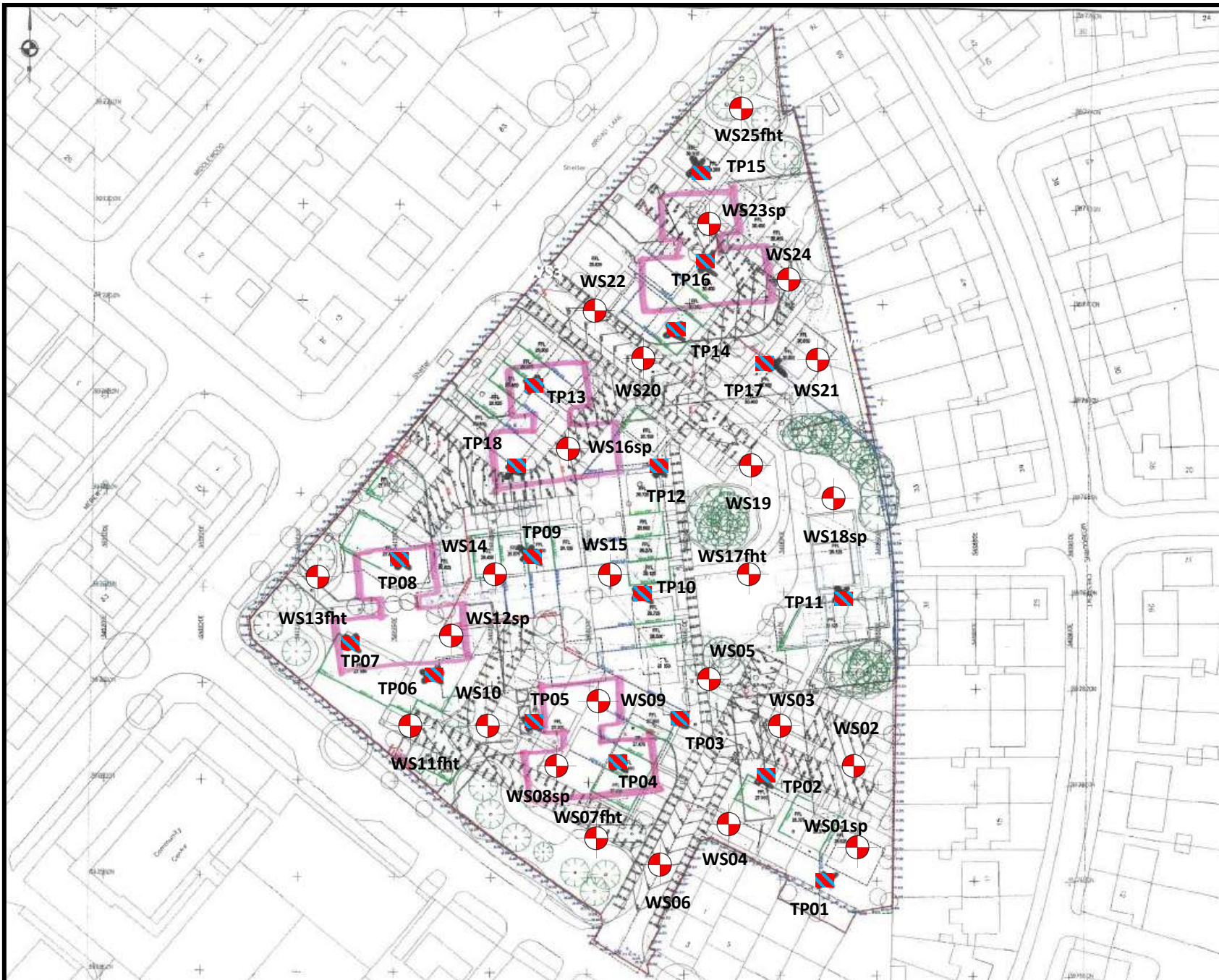
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PROJECT: GAYWOOD GREEN
KIRKBY
LIVERPOOL

TITLE: PRELIMINARY LEVELS PLAN

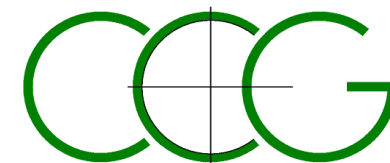
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S2	223-068	GWG - AJP - XX - 00 - DR - C - 0400					P01	

SCALE @ 1:	DESIGNED	DRAWN	CHECKED	APPROVED	DATE
1:250	LS	LS	KOB	KOB	FEB 2023



Notes:

-  Dynamic Sample Borehole
(WS01-WS25)
-  Trial Pits (TP01-TP18)



CC GEOTECHNICAL LIMITED
UNIT 1 DELTIC WAY
KNOWSLEY INDUSTRIAL ESTATE
LIVERPOOL
L33 7BA
0151 545 2750

Client:

Alan Johnston Partnership

Project:

Phase II Investigation Gaywood Green, Kirkby

Title:

Site Investigation Layout Plan

Scale:

NTS

Drawing No:

1

Created by:

KH

Date:

16/04/24

Project No.

CCG-C-24-14643

Drawing No.

24-14643-2

CC GEOTECHNICAL LIMITED



APPENDIX B

**TRIAL PIT LOGS
AND
PHOTOGRAPHS**

	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP01																			
	Contract Number: CCG-C-24-14643	Date Started: 12/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																				
Trial Pit Log	Easting: 341857.9	Northing: 397583.1	Ground Level: 28.02mAOD	Plant Used: JCB 3CX Excavator	Date Printed: 24/07/2024	Scale: 1:25																				
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Stable																					
Samples & In Situ Testing			Strata Details				Water	Backfill																		
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																				
0.30	B		27.82	0.20		REINFORCED CONCRETE																				
			27.62	0.40		CONCRETE SUBBASE																				
0.70	B			(0.60)		Brown slightly gravelly very clayey silty fine to medium SAND. Gravel is fine to coarse angular to subangular sandstone																				
1.40	B			(0.70)		Reddish brown slightly gravelly very silty fine SAND. Gravel is fine to medium subangular to subrounded sandstone	1																			
1.80	B		26.32	1.70		Reddish brown SANDSTONE. Recovered as slightly gravelly very silty fine sand.																				
			26.12	1.90	End of Trial Pit at 1.90m			2																		
							3																			
Dimensions:			General Remarks:																							
Final Depth: 1.90m																										
← Length (m) → 2.00m ↑ Width (m) ↓ 0.80m Orientation: ° ←																										
Inclination: °			<table><tr><td colspan="6">Water Strikes</td></tr><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td></td><td></td><td></td><td>0</td><td></td><td>Dry</td></tr></table>						Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks				0		Dry
Water Strikes																										
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																					
			0		Dry																					
CC GEOTECHNICAL LTD 0151 545 2750 www.cogeotechnical.com																										

Plate 1: TP01 showing the base of the excavation and side wall



Unit 1
Deltic Way
Knowsley Industrial Estate
Merseyside
L33 7BA
e: enquiries@ccgeotechnical.com
w: www.ccgeotechnical.com

Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP01
Photograph Page:	1

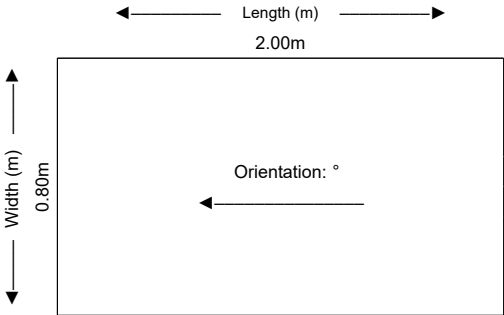
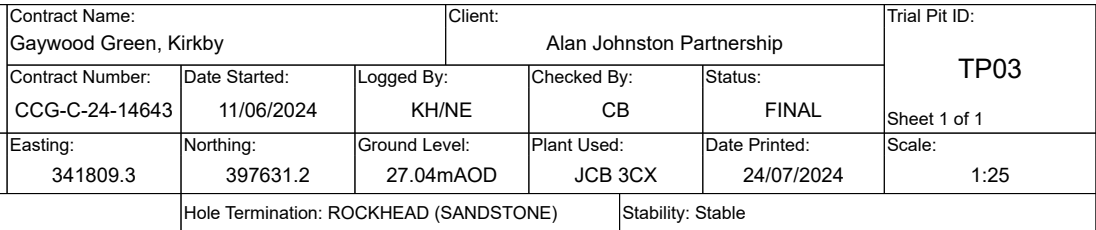
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP02																					
	Contract Number: CCG-C-24-14643	Date Started: 11/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																						
	Easting: 341835.1		Northing: 397623.5		Ground Level: 27.99mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25																				
Trial Pit Log				Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Stable																				
Samples & In Situ Testing				Strata Details					Water	Backfill																		
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																						
						TOPSOIL with frequent rootlets.																						
			27.79	0.20																								
			27.69	0.30		Dark brown slightly gravelly slightly silty fine to medium SAND. Gravel is fine to coarse subangular sandstone with occasional fragments of brick (MADE GROUND). Reddish brown slightly gravelly very silty fine SAND. Gravel is fine to coarse subangular to subrounded sandstone.																						
0.50	B																											
0.50	ES																											
				(0.90)					1																			
0.90	B																											
			26.79	1.20		Reddish brown weathered SANDSTONE. Locally recovered as red slightly gravelly very silty fine sand. Gravel is fine to coarse subangular to subrounded sandstone.																						
1.40	B			(0.30)																								
			26.49	1.50		End of Trial Pit at 1.50m			2																			
									3																			
Dimensions:					General Remarks:																							
Final Depth: 1.50m																												
																												
					Inclination: °																							
					<table><tr><td colspan="6">Water Strikes</td></tr><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td></td><td></td><td></td><td>0</td><td></td><td>DRY</td></tr></table>						Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks				0		DRY
Water Strikes																												
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																							
			0		DRY																							
					CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com																							

Plate 2: TP02 showing the southern face and base of excavation





Dimensions:

Final Depth: 1.30m

← Length (m) →

2.10m

↑ Width (m) ↓

0.80m

Orientation: °

←

Inclination: °

General Remarks:

Water Strikes					
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
			0		DRY

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Plate 3: TP03 showing the base of excavation and vertical side wall of pit



Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP03
Photograph Page:	3

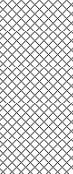
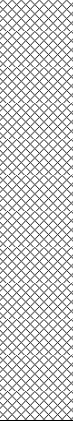
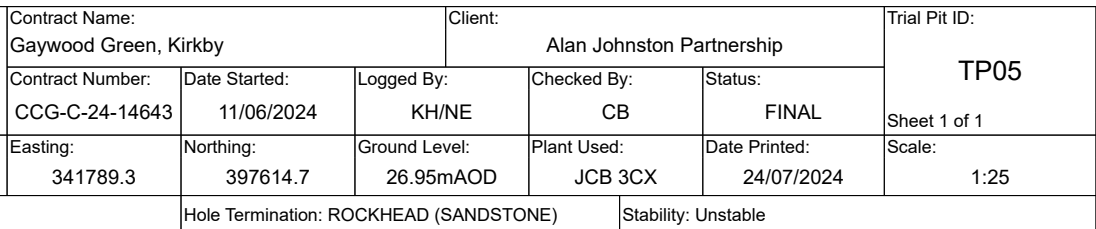
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	Contract Number: CCG-C-24-14643	Date Started: 11/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1			
Trial Pit Log	Easting: 341801.9	Northing: 397604.0	Ground Level: 26.92mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25			
	Weather: Rain		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Stable				
Samples & In Situ Testing			Strata Details				Water	Backfill	
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			
0.40	B		26.32	(0.60)		Brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone, limestone, ceramic, brick, plastic, fabric, metal and occasional pieces of wood (MADE GROUND).	1		
0.90	B			0.60		Reddish brown very gravelly very silty fine to medium grained SAND with occasional black and green lenses (synthetic turf). Gravel is fine to coarse subangular to subrounded sandstone, ceramic, fabric and occasional pieces of wood (MADE GROUND).			
1.60	B		24.92	(1.40)			2		
2.20	B			2.00		Reddish brown weathered SANDSTONE. Recovered as slightly gravelly slightly clayey very silty fine to medium grained sand. Gravel is fine to coarse subangular to subrounded sandstone.			
2.20	D		24.62	(0.30)			3		
				2.30		End of Trial Pit at 2.30m			
Dimensions:				General Remarks:					
Final Depth: 2.30m									
← Length (m) → 2.10m ↑ Width (m) ↓ 0.80m Orientation: ° ←									
				Water Strikes					
				Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
							0		DRY
Inclination: °				CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com					

Plate 4: TP04 showing the depth of the excavation and stratigraphy





Dimensions:		General Remarks:					
Final Depth: 1.50m							
← Length (m) → 2.20m ↑ Width (m) ↓ 0.80m ← Orientation: ° →							
Inclination: °							
		Water Strikes					
		Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
					0		DRY
		CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com					

Plate 5: TP05 showing the base and depth of excavation



Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP05
Photograph Page:	5

	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP06			
	Contract Number: CCG-C-24-14643	Date Started: 11/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1				
Trial Pit Log	Easting: 341761.2	Northing: 397618.1	Ground Level: 26.72mAOD	Plant Used: JCB 3CX	Date Printed: 07/08/2024	Scale: 1:25				
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)			Stability: Stable				
Samples & In Situ Testing			Strata Details				Water	Backfill		
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description				
0.40	B		26.52	0.20		TOPSOIL with frequent rootlets.				
			26.42	0.30		Dark brown slightly gravelly slightly silty fine to medium grained SAND. Gravel is fine to coarse subangular sandstone and occasional fragments of brick.				
1.00	B			(0.40)		Soft to firm greyish brown slightly gravelly very sandy silty CLAY. Gravel is fine to coarse subangular to subrounded sandstone.	1			
				26.02		0.70			Reddish brown slightly gravelly very silty fine grained SAND. Gravel is fine to coarse subangular to subrounded sandstone.	
2.00	B			(1.30)		Reddish brown SANDSTONE. Locally recovered as red slightly gravelly very silty fine grained sand. Gravel is fine to coarse subangular to subrounded sandstone.	2			
									24.72	2.00
			24.52	2.20		End of Trial Pit at 2.20m	3			
Dimensions:					General Remarks:					
Final Depth: 2.20m										
← Length (m) → 2.20m ↑ Width (m) ↓ 0.80m Orientation: ° ←										
					Water Strikes					
					Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
								0		DRY
Inclination: °					CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com					

Plate 6: TP06 showing depth of excavation and roots encountered during the excavation



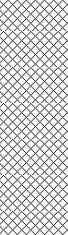
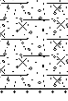
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership		Trial Pit ID: TP07																											
	Contract Number: CCG-C-24-14643	Date Started: 11/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																											
Trial Pit Log	Easting: 341749.7	Northing: 397630.5	Ground Level: 26.53mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25																											
	Weather: Dry			Hole Termination: POTENTIAL ROCKHEAD (NOT OBSERVED-BELOW WATER LEVEL)		Stability: Unstable																											
Samples & In Situ Testing			Strata Details					Water	Backfill																								
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																											
0.40	B			(0.80)		Brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone, limestone, brick, ceramic, plastic, fabric and glass (MADE GROUND).		1																									
0.90 0.90	B ES		25.73	0.80 (0.40)		Dark brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone, limestone, brick and fabric (MADE GROUND).																											
1.50	B		25.33	1.20 (0.60)		Reddish brown slightly gravelly slightly clayey silty fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone and limestone.		2																									
2.20	B		24.73	1.80 (0.60)		Reddish brown SANDSTONE. Locally recovered as reddish brown slightly gravelly very clayey silty fine to medium grained SAND. Gravel is fine to coarse subrounded sandstone and limestone. (High moisture content).																											
			24.13	2.40		End of Trial Pit at 2.40m		3																									
Dimensions:			General Remarks:																														
Final Depth: 2.40m			← Length (m) → 2.20m ↑ Width (m) ↓ 0.80m Orientation: ° ← <table><tr><td colspan="6">Water Strikes</td></tr><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td>0.70</td><td></td><td></td><td>0</td><td></td><td>Water seepage at 0.7mbgl.</td></tr><tr><td colspan="6">CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com</td></tr></table>							Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks	0.70			0		Water seepage at 0.7mbgl.	CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com					
Water Strikes																																	
Strike (m)	Casing (m)	Sealed (m)								Time (mins)	Rose to (m)	Remarks																					
0.70										0		Water seepage at 0.7mbgl.																					
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com																																	
Inclination: °																																	

Plate 7: TP07 showing northern face of the excavation



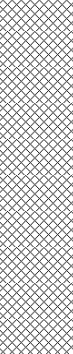
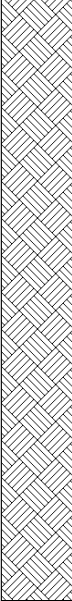
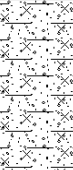
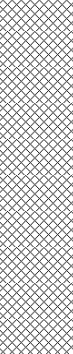
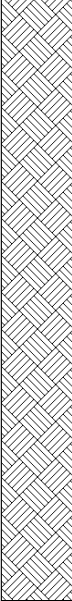
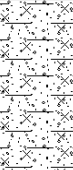
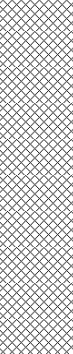
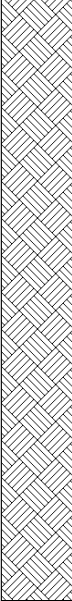
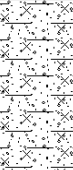
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP08																																																																
	Contract Number: CCG-C-24-14643	Date Started: 11/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																																																																	
Trial Pit Log	Easting: 341764.9	Northing: 397648.0	Ground Level: 26.74mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25																																																																	
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Unstable																																																																		
Samples & In Situ Testing Strata Details Water Backfill <table><thead><tr><th>Depths</th><th>Sample ID</th><th>Test Result</th><th>Reduced Level</th><th>Depth (m) (Thickness)</th><th>Legend</th><th>Strata Description</th><th></th><th></th></tr></thead><tbody><tr><td>0.40</td><td>B</td><td></td><td></td><td>(1.20)</td><td></td><td>Brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone, limestone, brick, ceramic, wood, plastic and metal (MADE GROUND).</td><td>1</td><td></td></tr><tr><td>0.80</td><td>B</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1.40</td><td>B</td><td></td><td>25.54</td><td>1.20 (0.60)</td><td></td><td>Reddish brown slightly gravelly slightly clayey very silty fine to medium grained SAND. Gravel is fine to coarse subrounded sandstone and limestone.</td><td></td><td></td></tr><tr><td>1.90</td><td>B</td><td></td><td>24.94</td><td>1.80</td><td></td><td>Reddish brown SANDSTONE. Locally recovered as reddish brown slightly gravelly slightly clayey very silty fine to medium grained sand. Gravel is fine to coarse subrounded sandstone.</td><td>2</td><td></td></tr><tr><td></td><td></td><td></td><td>24.74</td><td>2.00</td><td></td><td>End of Trial Pit at 2.00m</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td></td></tr></tbody></table>									Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description			0.40	B			(1.20)		Brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone, limestone, brick, ceramic, wood, plastic and metal (MADE GROUND).	1		0.80	B								1.40	B		25.54	1.20 (0.60)		Reddish brown slightly gravelly slightly clayey very silty fine to medium grained SAND. Gravel is fine to coarse subrounded sandstone and limestone.			1.90	B		24.94	1.80		Reddish brown SANDSTONE. Locally recovered as reddish brown slightly gravelly slightly clayey very silty fine to medium grained sand. Gravel is fine to coarse subrounded sandstone.	2					24.74	2.00		End of Trial Pit at 2.00m										3	
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																																																																	
0.40	B			(1.20)		Brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone, limestone, brick, ceramic, wood, plastic and metal (MADE GROUND).	1																																																																
0.80	B																																																																						
1.40	B		25.54	1.20 (0.60)		Reddish brown slightly gravelly slightly clayey very silty fine to medium grained SAND. Gravel is fine to coarse subrounded sandstone and limestone.																																																																	
1.90	B		24.94	1.80		Reddish brown SANDSTONE. Locally recovered as reddish brown slightly gravelly slightly clayey very silty fine to medium grained sand. Gravel is fine to coarse subrounded sandstone.	2																																																																
			24.74	2.00		End of Trial Pit at 2.00m																																																																	
							3																																																																
Dimensions:					General Remarks:																																																																		
Final Depth: 2.00m ← Length (m) → 2.10m ↑ Width (m) 0.80m Orientation: ° ←					<table><thead><tr><th colspan="6">Water Strikes</th></tr><tr><th>Strike (m)</th><th>Casing (m)</th><th>Sealed (m)</th><th>Time (mins)</th><th>Rose to (m)</th><th>Remarks</th></tr></thead><tbody><tr><td>0.70</td><td></td><td></td><td>0</td><td></td><td>Water seepage at 0.7mbgl.</td></tr></tbody></table> CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com				Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks	0.70			0		Water seepage at 0.7mbgl.																																													
Water Strikes																																																																							
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																																																																		
0.70			0		Water seepage at 0.7mbgl.																																																																		
Inclination: °																																																																							

Plate 8: TP08 showing northern face and the depth of the excavation



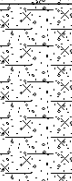
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP09				
	Contract Number: CCG-C-24-14643	Date Started: 11/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1					
	Easting: 341781.2		Northing: 397644.9	Ground Level: 26.65mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25				
Trial Pit Log			Weather: Dry			Hole Termination: ROCKHEAD (SANDSTONE)			Stability: Stable		
Samples & In Situ Testing				Strata Details						Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description					
0.20	B		26.45	0.20		BITUMINOUS PAVEMENT (TARMAC).					
			26.35	0.30		TARMAC SUBBASE.					
0.50	B			(0.30)		Firm greyish brown slightly gravelly very sandy silty CLAY. Gravel is fine to coarse subangular to subrounded sandstone and limestone.					
			26.05	0.60		Reddish brown slightly gravelly slightly clayey silty fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone.					
1.00	B			(0.60)		Reddish brown slightly gravelly very silty fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone.					
1.50	B		25.45	1.20						1	
				(0.30)		Reddish brown slightly gravelly very silty fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone.					
1.50	D		25.15	1.50		Reddish brown SANDSTONE. Locally recovered as reddish brown slightly gravelly very silty fine to medium grained sand.					
1.50			24.95	1.70		Gravel is fine to coarse subangular to subrounded sandstone. End of Trial Pit at 1.70m				2	
										3	
Dimensions:					General Remarks:						
Final Depth: 1.70m					← Length (m) → 2.40m ↑ Width (m) ↓ 0.80m Orientation: ° ←						
					Water Strikes						
					Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks	
					0.60			0		Water seepage at 0.6mbgl.	
Inclination: °					CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com						

Plate 9: TP09 showing northern face and the concrete at the top of excavation



Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP09
Photograph Page:	9

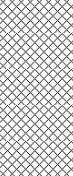
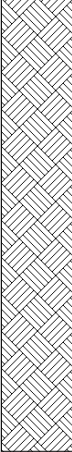
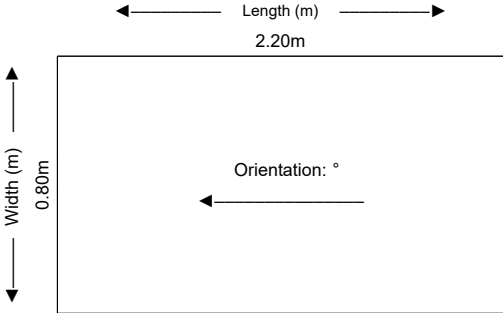
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP10			
	Contract Number: CCG-C-24-14643	Date Started: 12/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1				
Trial Pit Log	Easting: 341804.2	Northing: 397655.9	Ground Level: 28.35mAOD	Plant Used: JCB 3CX Excavator	Date Printed: 24/07/2024	Scale: 1:25				
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Stable					
Samples & In Situ Testing			Strata Details					Water	Backfill	
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description				
0.40	B		27.75	(0.60)		Dark brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse angular to rounded sandstone, limestone, brick, ceramic and plastic (MADE GROUND)		1		
0.90 0.90	B D			0.60		Reddish brown slightly gravelly very silty fine to medium (becoming fine with depth) grained SAND. Gravel is fine to coarse subangular to subrounded sandstone and limestone.				
1.40 1.40	B ES		27.05	1.30		Reddish brown SANDSTONE. Recovered as slightly gravelly very silty fine to medium grained sand.				2
			26.85	1.50	End of Trial Pit at 1.50m		3			
Dimensions:					General Remarks:					
Final Depth: 1.50m										
										
					Water Strikes					
					Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
								0		Dry
Inclination: °					CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com					

Plate 10: TP10 showing southern face and the depth of the excavation



Unit 1
Deltic Way
Knowsley Industrial Estate
Merseyside
L33 7BA
e: enquiries@ccgeotechnical.com
w: www.ccgeotechnical.com

Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP10
Photograph Page:	10

	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP11						
	Contract Number: CCG-C-24-14643	Date Started: 13/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1							
	Trial Pit Log						Easting: 341837.2	Northing: 397664.1	Ground Level: 29.88m AOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25	
Weather: Dry			Hole Termination: ROCKHEAD (SANDSTONE)				Stability: Stable						
Samples & In Situ Testing						Strata Details						Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description							
0.30	B		29.68	0.20		TOPSOIL with frequent rootlets.							
			29.48	0.40		Dark brown slightly silty slightly clayey very gravelly fine to medium grained SAND. Gravel is fine to coarse angular to subangular sandstone, limestone, brick, ceramic and occasional pieces of wood (MADE GROUND). Reddish brown slightly gravelly very silty fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone.							
0.70 0.70	B ES			(0.60)									
1.20	B		28.88	1.00		Reddish brown slightly gravelly very silty fine grained SAND. Gravel is fine to coarse subangular sandstone.					1		
				(0.60)									
1.70	B		28.28	1.60		Reddish brown SANDSTONE. Locally recovered as reddish brown slightly gravelly very silty fine grained sand. Gravel is fine to coarse subangular sandstone.							
			28.08	1.80		End of Trial Pit at 1.80m							
												2	
												3	
Dimensions:						General Remarks:							
Final Depth: 1.80m													
← Length (m) → 2.00m ↑ Width (m) ↓ 0.80m Orientation: ° ←													
Inclination: °						Water Strikes							
						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks		
									0		DRY		
						CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com							

Plate 11: TP11 showing northern face and the base of the excavation



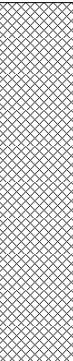
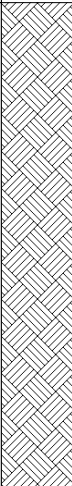
	Contract Name: Gaywood Green, Kirkby		Client: Alan Johnston Partnership			Trial Pit ID: TP12																				
	Contract Number: CCG-C-24-14643	Date Started: 12/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																				
Trial Pit Log	Easting: 341825.5	Northing: 397671.0	Ground Level: 29.92mAOD	Plant Used: JCB 3CX Excavator	Date Printed: 07/08/2024	Scale: 1:25																				
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Stable																					
Samples & In Situ Testing			Strata Details				Water	Backfill																		
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																				
0.50	B			(1.20)		Dark brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse angular to subangular sandstone, limestone, brick, plastic, glass, metal and occasional pieces of wood (MADE GROUND)	1																			
1.50	B		28.72	1.20		Reddish brown slightly silty very gravelly fine to medium SAND. Gravel is fine to coarse angular to subangular sandstone	2																			
		28.52	1.40		Reddish brown highly weathered SANDSTONE. Recovered as slightly gravelly very silty fine to medium grained sand. Gravel is fine to coarse subangular to subrounded sandstone																					
		28.32	1.60	End of Trial Pit at 1.60m																						
Dimensions:						General Remarks:																				
Final Depth: 1.60m ← Length (m) → 2.10m ↑ Width (m) ↓ 0.80m Orientation: ° ←						<table><tr><td colspan="6">Water Strikes</td></tr><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td></td><td></td><td></td><td>0</td><td></td><td>Dry</td></tr></table>			Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks				0		Dry
Water Strikes																										
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																					
			0		Dry																					
Inclination: °						CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com																				

Plate 12: TP12 showing northern face and the base of the excavation



Plate 13: TP12 obstruction found during the excavation



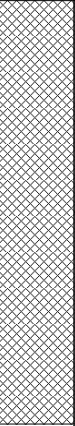
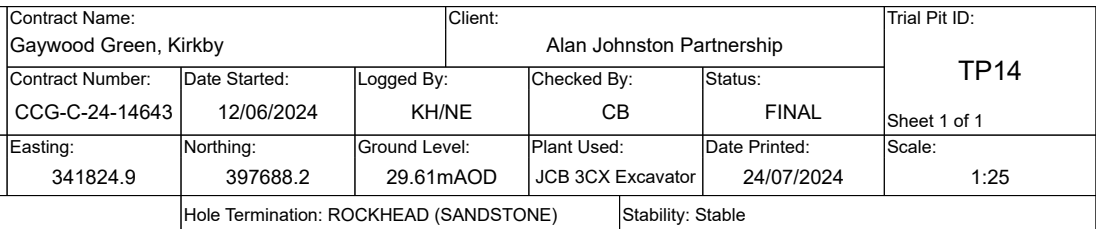
	Contract Name: Gaywood Green, Kirkby		Client: Alan Johnston Partnership			Trial Pit ID: TP13																				
	Contract Number: CCG-C-24-14643	Date Started: 12/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																				
Trial Pit Log	Easting: 341790.3	Northing: 397678.0	Ground Level: 28.88mAOD	Plant Used: JCB 3CX Excavator	Date Printed: 24/07/2024	Scale: 1:25																				
	Weather: Dry		Hole Termination: HIGH WATER TABLE		Stability: Unstable																					
Samples & In Situ Testing			Strata Details				Water	Backfill																		
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																				
0.40 0.40 - 0.70	B EW			(1.40)		Dark brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse angular to subangular sandstone, limestone, brick, ceramic, metal, fabric, plastic occasional pieces of wood (MADE GROUND) HEAVY WATER SEEPAGE																				
1.00 1.00 1.00	B D ES		27.48	1.40		End of Trial Pit at 1.40m																				
Dimensions:			General Remarks:																							
Final Depth: 1.40m																										
← Length (m) → 1.80m ↑ Width (m) ↓ 0.80m Orientation: ° ←																										
Inclination: °			<table><tr><th colspan="6">Water Strikes</th></tr><tr><th>Strike (m)</th><th>Casing (m)</th><th>Sealed (m)</th><th>Time (mins)</th><th>Rose to (m)</th><th>Remarks</th></tr><tr><td>0.40</td><td></td><td></td><td>0</td><td></td><td>Heavy water seepage</td></tr></table>						Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks	0.40			0		Heavy water seepage
Water Strikes																										
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																					
0.40			0		Heavy water seepage																					
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Plate 14: TP13 showing the ingress of water and depth of the excavation



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Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP13
Photograph Page:	14



Dimensions:

Final Depth: 1.20m

←

Length (m)

→

2.10m

↑

Width (m)

↓

0.80m

Orientation: °

←

Inclination: °

General Remarks:

Water Strikes					
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
			0		Dry

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Plate 15: TP14 showing the base of the excavation



Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP14
Photograph Page:	15

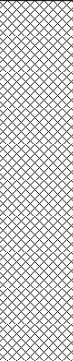
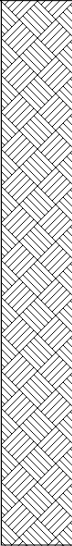
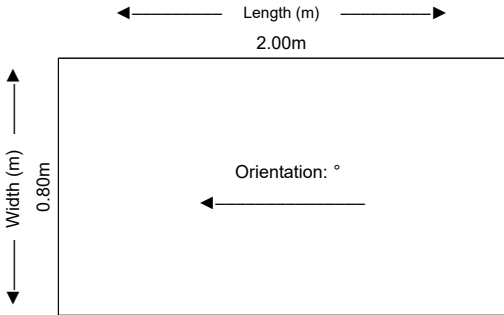
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP15														
	Contract Number: CCG-C-24-14643	Date Started: 13/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1															
Trial Pit Log	Easting: 341816.3	Northing: 397720.6	Ground Level: 30.13mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25															
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Unstable																
Samples & In Situ Testing			Strata Details				Water	Backfill													
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description															
0.40	B			(1.20)		Dark brown slightly silty very gravelly fine to medium grained SAND. High cobble content. Gravel is fine to coarse angular to subangular sandstone, limestone, brick, ceramic, wood, fabric, plastic, glass and metal (MADE GROUND).	1														
1.00	B		28.93	1.20		Reddish brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse angular to subangular sandstone and limestone.															
1.40 1.40	B D		28.53	(0.40)		Reddish brown weathered SANDSTONE. Locally recovered as reddish brown slightly silty very gravelly fine to medium grained sand. Gravel is fine to coarse angular to subangular sandstone and limestone.															
1.70	B		28.33	1.80		End of Trial Pit at 1.80m															
								2													
								3													
Dimensions:					General Remarks:																
Final Depth: 1.80m					Rebar observed at 1.3mbgl - no obstruction.																
																					
					Water Strikes																
					<table><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td>1.00</td><td></td><td></td><td>0</td><td></td><td>Slight water seepage at 1.0mbgl.</td></tr></table>					Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks	1.00			0		Slight water seepage at 1.0mbgl.
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																
1.00			0		Slight water seepage at 1.0mbgl.																
Inclination: °					CC GEOTECHNICAL LTD 0151 545 2750 www.cogeotechnical.com																

Plate 16: TP15 showing the base of the excavation



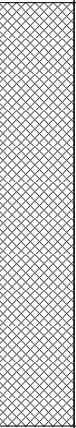
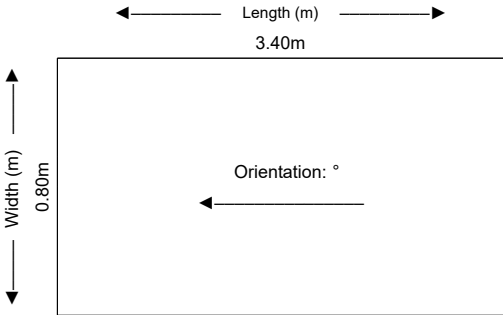
	Contract Name: Gaywood Green, Kirkby		Client: Alan Johnston Partnership			Trial Pit ID: TP16		
	Contract Number: CCG-C-24-14643	Date Started: 12/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1		
Trial Pit Log	Easting: 341825.6	Northing: 397704.2	Ground Level: 30.14mAOD	Plant Used: JCB 3CX Excavator	Date Printed: 24/07/2024	Scale: 1:25		
	Weather: Dry		Hole Termination: CONCRETE OBSTRUCTION.		Stability: Unstable			
Samples & In Situ Testing			Strata Details				Water	Backfill
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description		
0.40	B			(1.40)		Dark brown slightly silty very gravelly fine to medium grained SAND. Low cobble content. Low boulder content. Gravel is fine to coarse angular to subangular sandstone, limestone, brick, ceramic, metal, plastic, fabric, rubber, rope and occasional pieces of wood(MADE GROUND)	1	
1.00 1.00	B ES			1.40		End of Trial Pit at 1.40m		
			28.74				3	
Dimensions:			General Remarks:					
Final Depth: 1.40m			Trial pit terminated due to concrete obstruction Possible footings - thick rebar Rebar encountered throughout pit					
			Water Strikes					
			Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
						0		Dry
Inclination: °			CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com					

Plate 17: TP16 showing the base of the excavation and metal obstructions found



	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP17																				
	Contract Number: CCG-C-24-14643	Date Started: 13/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																					
Trial Pit Log	Easting: 341837.6	Northing: 397687.0	Ground Level: 30.11mAOD	Plant Used: JCB 3CX	Date Printed: 24/07/2024	Scale: 1:25																					
	Weather: Dry		Hole Termination: ROCKHEAD (SANDSTONE)		Stability: Unstable																						
Samples & In Situ Testing			Strata Details					Water	Backfill																		
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																					
0.30	B		29.91	0.20		CONCRETE		1																			
			29.71	0.40		Dark grey concrete SUBBASE with occasional fragments of brick (MADE GROUND).																					
0.70	B			(0.60)		Reddish brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse angular to subangular sandstone and limestone.																					
1.20	B		29.11	1.00		Reddish brown weathered SANDSTONE. Locally recovered as reddish brown slightly silty very gravelly fine to medium grained sand. Gravel is fine to coarse angular to subangular sandstone.		2																			
				(0.30)																							
			28.81	1.30	----- End of Trial Pit at 1.30m -----		3																				
Dimensions:			General Remarks:																								
Final Depth: 1.30m			← Length (m) → 2.10m ↑ Width (m) ↓ 0.80m Orientation: ° ← <table><tr><td colspan="6">Water Strikes</td></tr><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td></td><td></td><td></td><td>0</td><td></td><td>DRY</td></tr></table>							Water Strikes						Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks				0		DRY
Water Strikes																											
Strike (m)	Casing (m)	Sealed (m)								Time (mins)	Rose to (m)	Remarks															
										0		DRY															
Inclination: °																											
			CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com																								

Plate 18: TP17 showing the base of the excavation and side walls



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Site	Gaywood Green, Kirkby
Job Number:	24-14643
Location ID:	TP17
Photograph Page:	18

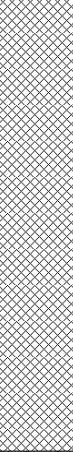
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Trial Pit ID: TP18																
	Contract Number: CCG-C-24-14643	Date Started: 12/06/2024	Logged By: KH/NE	Checked By: CB	Status: FINAL	Sheet 1 of 1																	
	Easting: 341779.6		Northing: 397668.3	Ground Level: 28.72mAOD	Plant Used: JCB 3CX Excavator	Date Printed: 25/07/2024	Scale: 1:25																
Trial Pit Log			Weather: Dry			Hole Termination: HIGH WATER TABLE			Stability: Unstable														
Samples & In Situ Testing				Strata Details						Water	Backfill												
Depths	Sample ID	Test Result	Reduced Level	Depth (m) (Thickness)	Legend	Strata Description																	
0.30 0.40 - 0.70	B EW					Dark brown slightly silty very gravelly fine to medium grained SAND. Medium cobble content. Gravel is fine to coarse angular to subangular sandstone, limestone, wood, plastic, fabric and metal (MADE GROUND)																	
0.80	B			(1.50)		HEAVY WATER SEEPAGE - 0.40-0.70mbgl																	
						POTENTIAL DRAIN @ EAST SIDEWALL OF PIT - 1.00mbgl				1													
1.70	B		27.22	1.50		Reddish brown slightly silty very gravelly fine to medium grained SAND. Gravel is fine to coarse subangular to subrounded sandstone.				2													
			26.82	1.90		End of Trial Pit at 1.90m																	
										3													
Dimensions:					General Remarks:																		
Final Depth: 1.90m					← Length (m) → 2.00m ↑ Width (m) ↓ 0.80m Orientation: ° ←																		
					Water Strikes <table><tr><td>Strike (m)</td><td>Casing (m)</td><td>Sealed (m)</td><td>Time (mins)</td><td>Rose to (m)</td><td>Remarks</td></tr><tr><td>0.40</td><td></td><td></td><td>0</td><td></td><td>Heavy water seepage</td></tr></table>							Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks	0.40			0		Heavy water seepage
Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks																		
0.40			0		Heavy water seepage																		
Inclination: °					CC GEOTECHNICAL LTD 0151 545 2750 www.ccgteotechnical.com																		

Plate 19: TP18 showing the base of the excavation and the ingress of water





APPENDIX C

**BOREHOLE LOGS
AND
CROSS SECTION TRAVERSES**

Project Id: CCG-C-24-14643
Project Title: Gaywood Green, Kirkby
Location: Gaywood Green, Kirkby
Client: Alan Johnston Partnership

Title: Line 1: South to north
Vertical Scale: 1:46
Horizontal Scale: 1:775
Engineer: Kenneth Hignett



Legend Key

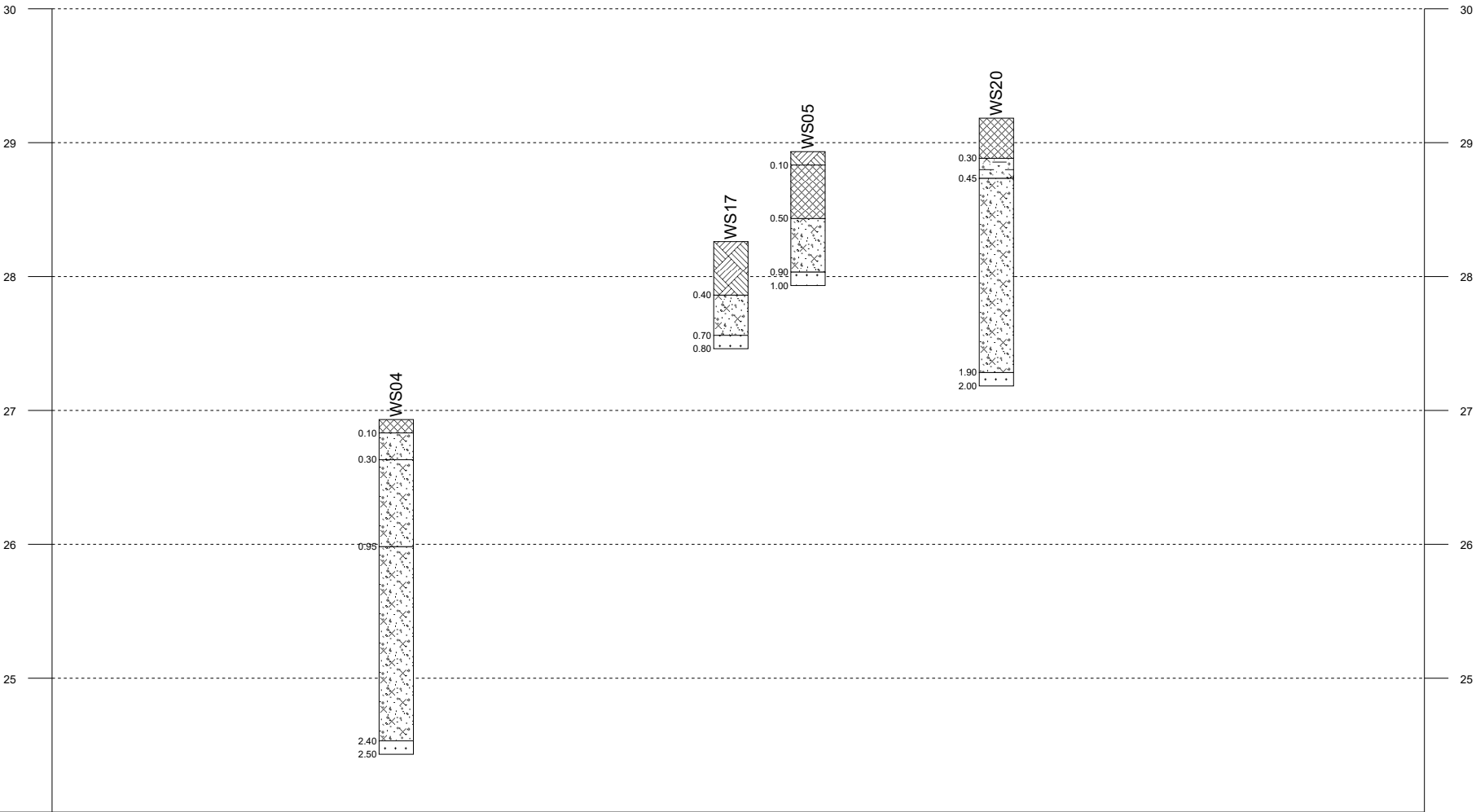
 MADE GROUND

 TOPSOIL

 Silty sandy gravelly CLAY

 Silty gravelly SAND

 SANDSTONE



Chainage (m)	0.00	23.88	65.96	75.68	79.36	99.39	120.43
Offset (m)		1.11	4.76	3.33	1.85	2.51	
Elevation (mAOD)		26.93	28.26	28.93	29.18	29.18	

Project Id: CCG-C-24-14643
Project Title: Gaywood Green, Kirkby
Location: Gaywood Green, Kirkby
Client: Alan Johnston Partnership

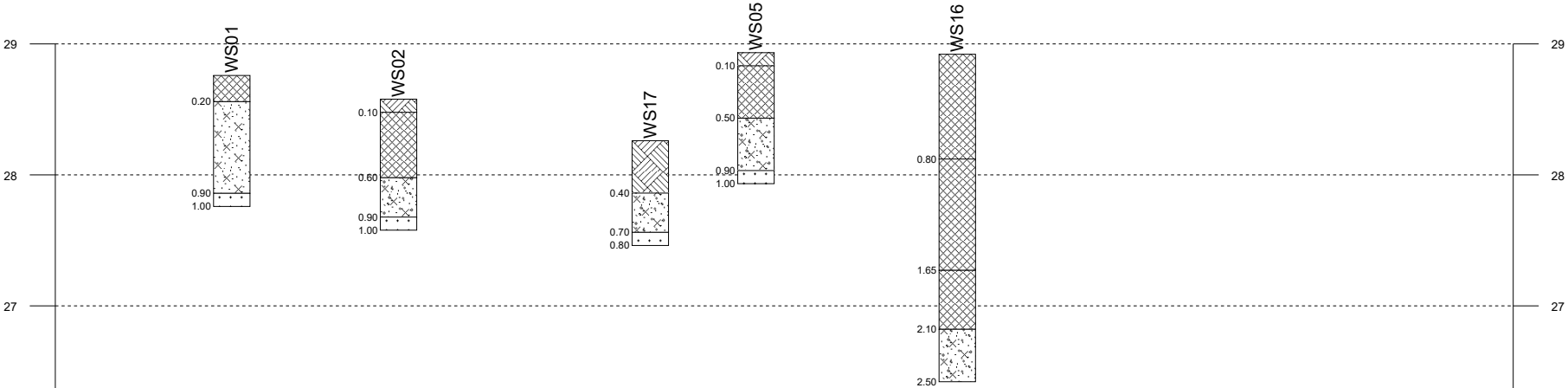
Title: Line 2:South west to east
Vertical Scale: 1:50
Horizontal Scale: 1:775
Engineer: Kenneth Hignett



Legend Key

- TOPSOIL
- MADE GROUND
- Silty SAND
- Silty gravelly SAND
- SANDSTONE

23.00



Chainage (m)	0.00	21.22	51.04	63.55	70.32	87.40
	1.48					88.90
Offset (m)	3.88	0.29	1.74	3.46	5.25	1.60
Elevation (mAOD)	28.76	28.58	28.26	28.93	28.35	28.92

Project Id: CCG-C-24-14643
Project Title: Gaywood Green, Kirkby
Location: Gaywood Green, Kirkby
Client: Alan Johnston Partnership

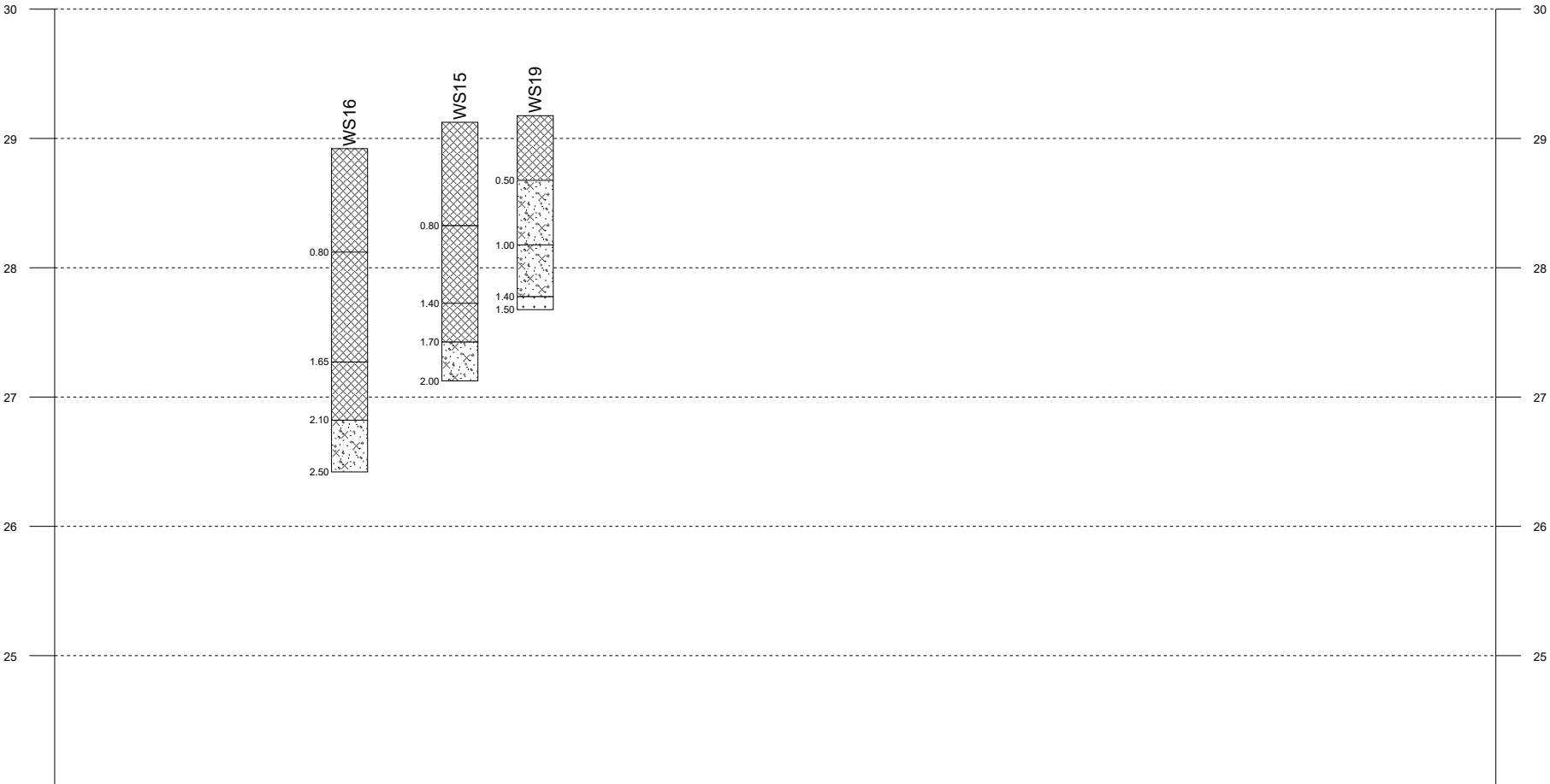
Title: Line 3: East to west
Vertical Scale: 1:50
Horizontal Scale: 1:775
Engineer: Kenneth Hignett



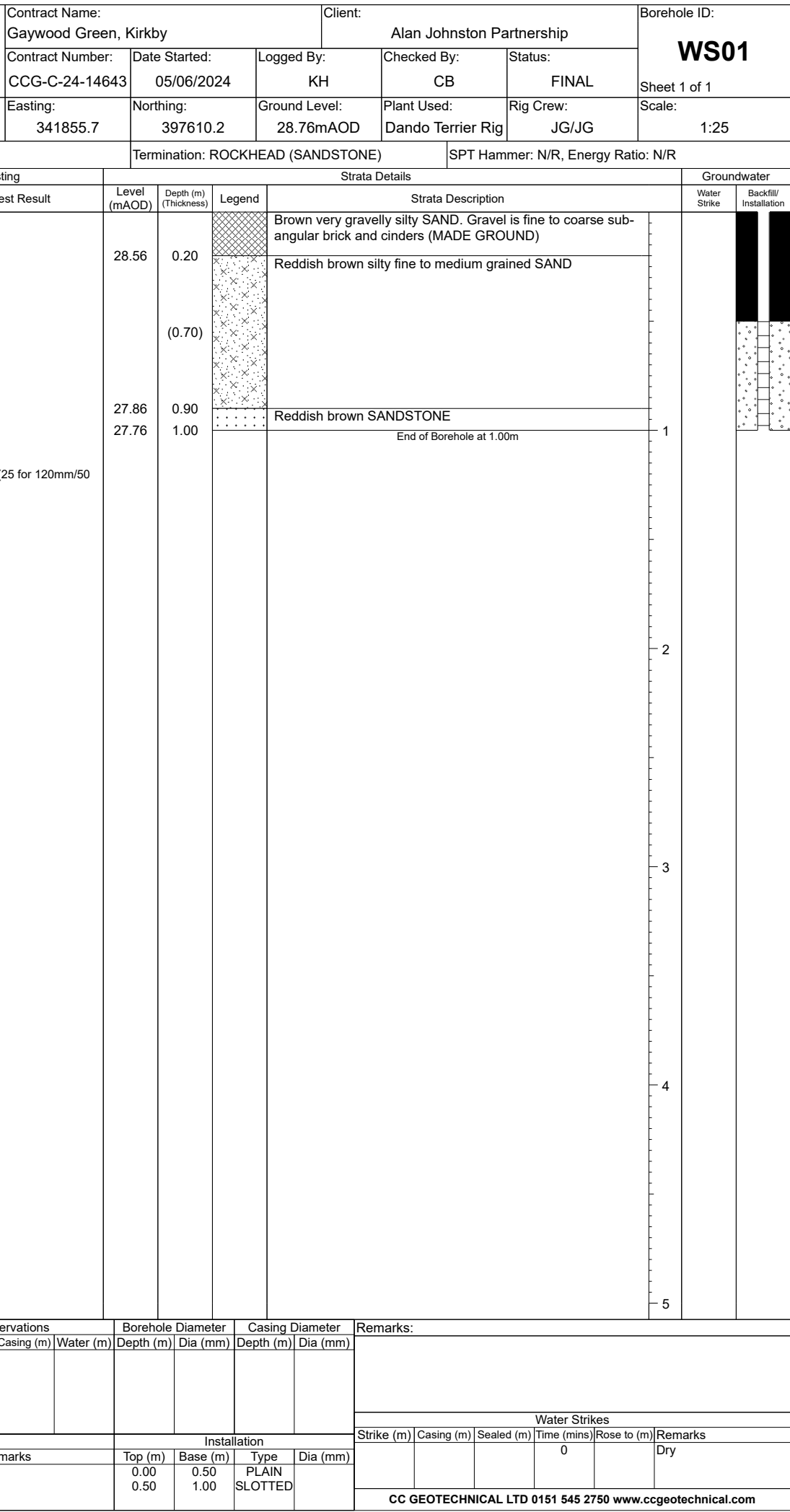
Legend Key

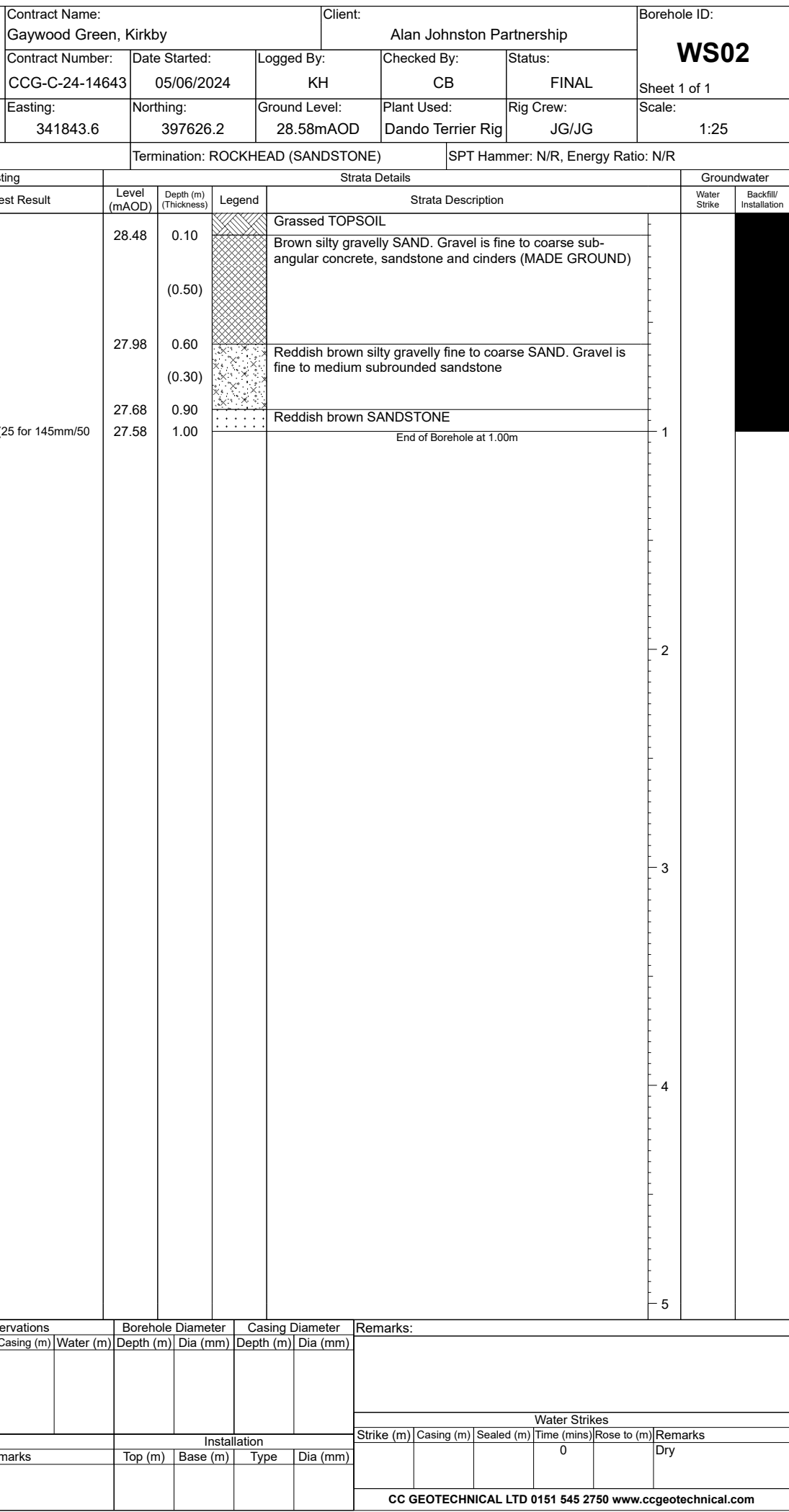
- MADE GROUND
- Silty gravelly SAND
- SANDSTONE

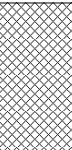
24.00



Chainage (m)	0.00	1.34	15.90	29.13	38.15	47.29	58.83	80.88
Offset (m)	3.53	5.06	3.31	4.23	5.18	1.99		
Elevation (mAOD)	28.72	28.92	29.13	29.18	29.92	29.88		

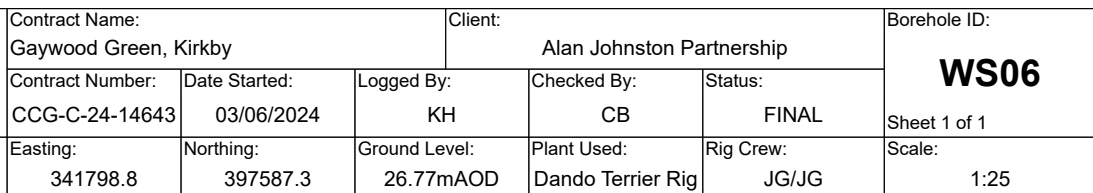




Weather: Dry					Termination: ROCKHEAD (SANDSTONE)					SPT Hammer: N/R, Energy Ratio: N/R				
Samples & In Situ Testing					Strata Details							Groundwater		
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description					Water Strike	Backfill/ Installation		
0.00 - 1.00	U	SPT(S)50 (10,15/50 for 110mm)	28.25	(0.50)		Reddish brown very gravelly silty SAND. Gravel is fine to coarse subangular concrete, cinders and sandstone					1			
0.40	ES			0.50		Reddish brown very gravelly slightly silty fine to medium SAND. Gravel is fine to coarse subangular sandstone								
0.80	D			(0.40)		Reddish brown SANDSTONE								
				27.85	0.90									
				27.75	1.00	End of Borehole at 1.00m								
											2			
											3			
											4			
											5			
Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
									CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com					

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

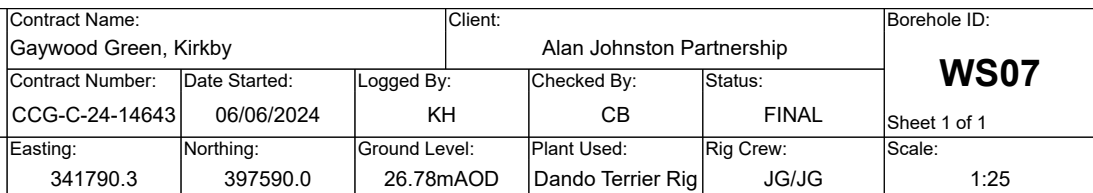
Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														



Samples & In Situ Testing	Strata Details	Groundwater
---------------------------	----------------	-------------

[illegible]

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
									CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com					



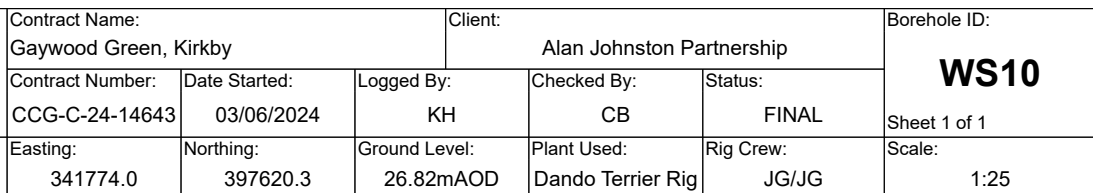
Weather: Dry	Termination: ROCKHEAD (SANDSTONE)	SPT Hammer: N/R, Energy Ratio: N/R
--------------	-----------------------------------	------------------------------------

[illegible]

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

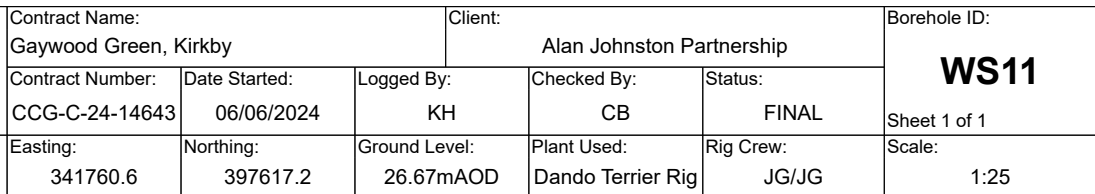
Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
					0.00	0.30	PLAIN					0		Dry
					0.30	2.00	SLOTTED							
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
									CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com					



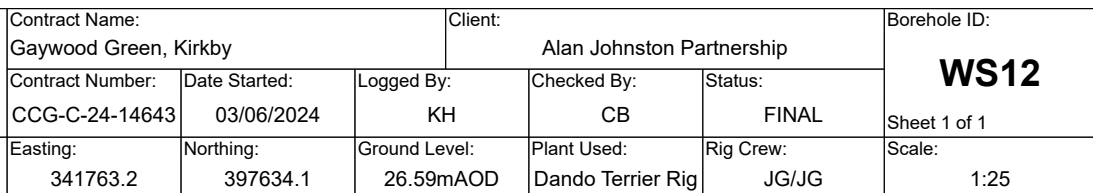
Samples & In Situ Testing	Strata Details	Groundwater
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Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														



Samples & In Situ Testing	Strata Details	Groundwater
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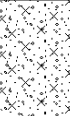
Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)	
					Water Strikes				
Chiselling					Installation				Strike (m)
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Casing (m)
									Sealed (m)
									Time (mins)
									Rose to (m)
									Remarks
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com									



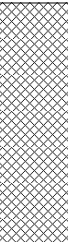
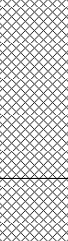
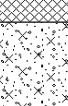
Samples & In Situ Testing	Strata Details	Groundwater
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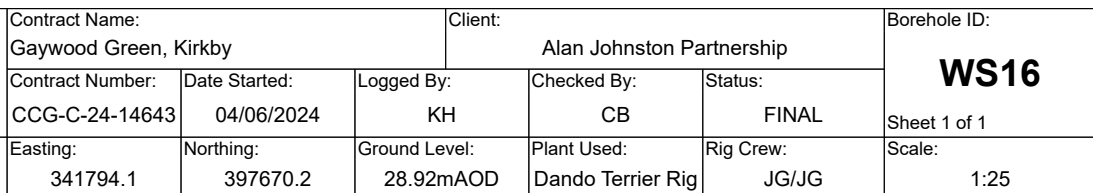
[illegible]

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
					0.00	0.50	PLAIN		1.00			0		Seepage
					0.50	2.00	SLOTTED							
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

Weather: Dry					Termination: ROCKHEAD (SANDSTONE)				SPT Hammer: N/R, Energy Ratio: N/R					
Samples & In Situ Testing					Strata Details						Groundwater			
Depth	Sample ID	Test Result			Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description			Water Strike	Backfill/ Installation		
0.00 - 1.00	U	HVP=110 SPT(S)50 (25 for 125mm/50 for 90mm)			26.03	(0.40)		Grassed TOPSOIL with frequent inclusions of rootlets and inclusions of brick			1			
0.80	ES					0.40		Brown very gravelly slightly silty fine to medium SAND. Gravel is fine to coarse subangular to subrounded quartz and sandstone						
						(0.50)								
						0.90		Stiff brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to medium subrounded sandstone						
						1.00	End of Borehole at 1.00m							
Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

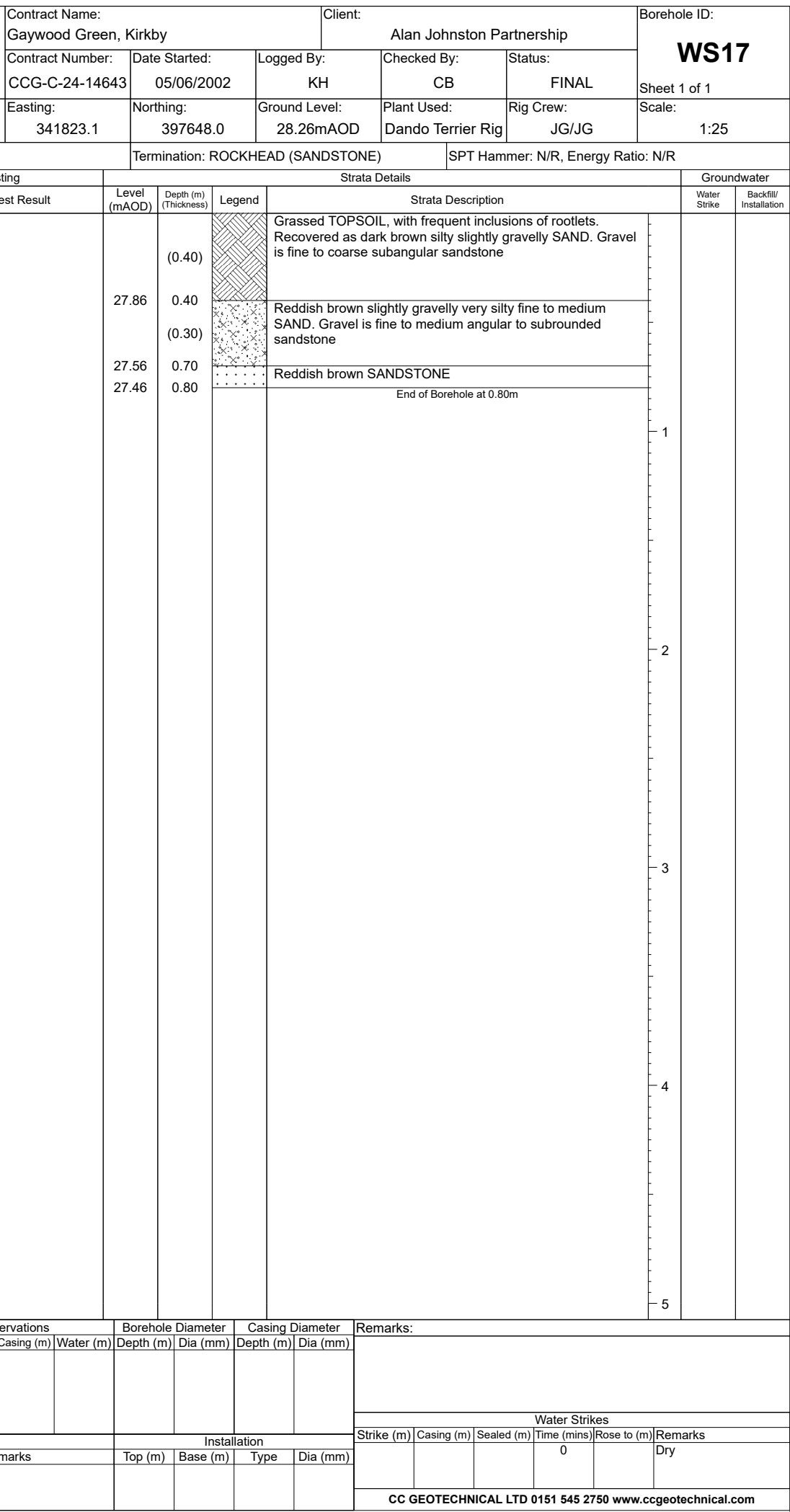
	Contract Name: Gaywood Green, Kirkby			Client: Alan Johnston Partnership			Borehole ID: WS15						
	Contract Number: CCG-C-24-14643		Date Started: 05/06/2024		Logged By: KH		Checked By: CB		Status: FINAL				
	Easting: 341807.4		Northing: 397668.7		Ground Level: 29.12mAOD		Plant Used: Dando Terrier Rig		Rig Crew: JG/JG				
Dynamic Sampling Borehole Log			Weather: Dry			Termination: ROCKHEAD (SANDSTONE)			SPT Hammer: N/R, Energy Ratio: N/R				
Samples & In Situ Testing			Strata Details						Groundwater				
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description			Water Strike	Backfill/Installation			
0.00 - 1.00	U			(0.80)		Brown very sandy slightly silty GRAVEL. Gravel is fine to coarse angular to subangular brick and concrete (MADE GROUND)			1				
1.00 - 2.00	U	SPT(S)N=12 (2,3/2,4,3,3)	28.32	0.80		Dark brown very silty gravelly SAND. Gravel is fine to coarse subangular concrete, sandstone and brick (MADE GROUND)							
1.10	ES		27.72	1.40		Brown very sandy slightly silty GRAVEL. Gravel is fine to coarse angular to subangular brick and concrete (MADE GROUND)							
			27.42	1.70		Reddish brown gravelly slightly silty fine to medium SAND. Gravel is fine to medium subangular sandstone							
		SPT(S)50 (25 for 75mm/50 for 5mm)	27.12	2.00		End of Borehole at 2.00m			2				
									3				
									4				
									5				
Start & End of Shift Observations			Borehole Diameter		Casing Diameter		Remarks:						
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)					
Chiselling			Installation		Water Strikes								
From (m)	To (m)	Duration	Remarks	Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
											0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com													

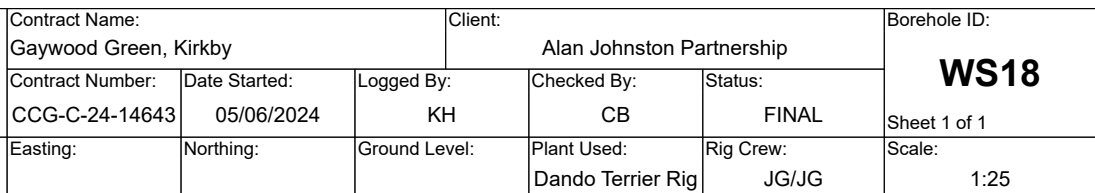


Weather: Dry	Termination: ROCKHEAD (SANDSTONE)	SPT Hammer: N/R, Energy Ratio: N/R
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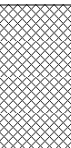
[illegible]

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
					0.00	0.50	PLAIN					0		Dry
					0.50	2.50	SLOTTED							
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

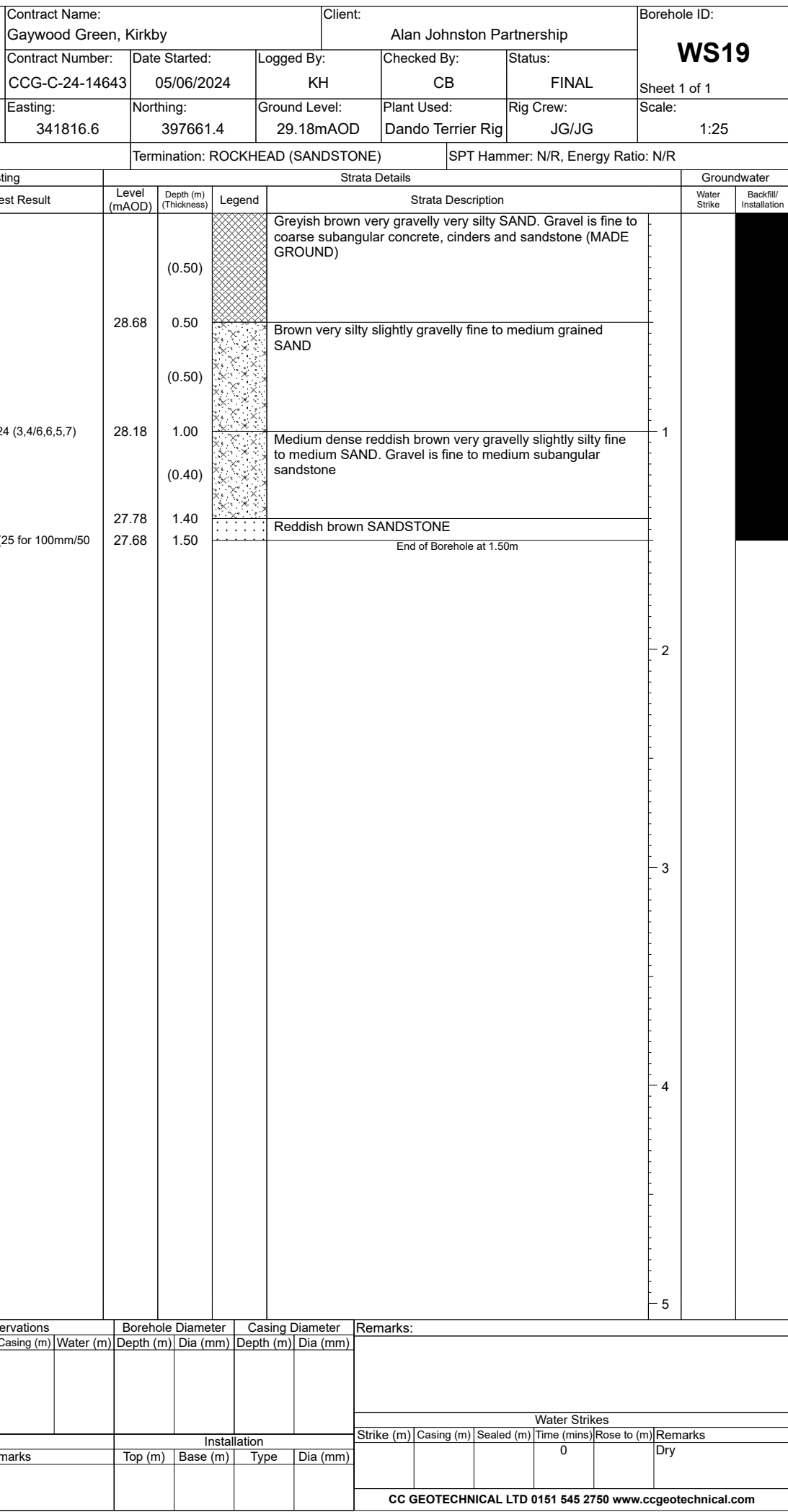


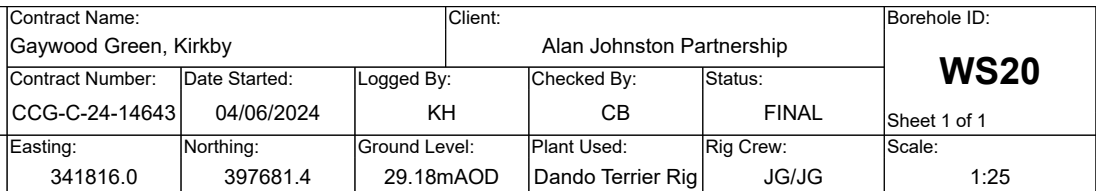


Weather: Dry	Termination: ROCKHEAD (SANDSTONE)	SPT Hammer: N/R, Energy Ratio: N/R
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Samples & In Situ Testing			Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation
0.00 - 1.00	U	SPT(S)50 (10,13/50 for 110mm)		(0.50)		Grassed TOPSOIL with frequent inclusions of rootlets. Recovered as dark brown silty slightly gravelly SAND. Gravel is fine to medium subangular cinders and concrete (MADE GROUND)		
0.60	ES			0.50		Dark brown silty slightly gravelly fine to medium SAND. Gravel is fine to medium subrounded sandstone		
				0.75		Reddish brown very sandy slightly silty GRAVEL. Gravel is fine to coarse angular to subangular sandstone		
				0.90		Reddish brown SANDSTONE		
				1.00	End of Borehole at 1.00m			
						1		
							2	
							3	
							4	
							5	

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
					0.00	0.50	PLAIN					0		Dry
					0.50	1.00	SLOTTED							
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														





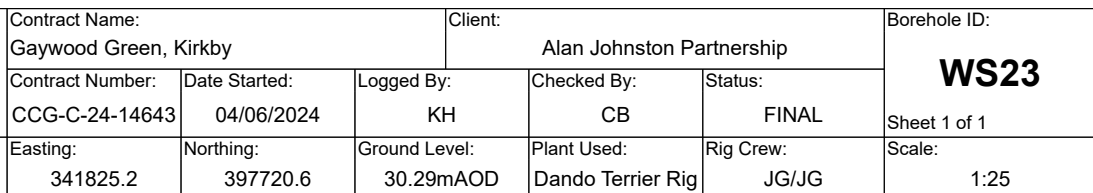
Weather:	Termination: ROCKHEAD (SANDSTONE)	SPT Hammer: N/R, Energy Ratio: N/R
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Samples & In Situ Testing				Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation	
0.00 - 1.00	U					Greyish brown very gravelly slightly silty SAND. Gravel is fine to medium sub-angular to sub-rounded concrete, brick and limestone (MADE GROUND)			
0.40	ES	HVP=80	28.88	0.30		Brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to medium sub-angular sandstone			
				28.73	0.45	Medium dense reddish brown silty gravelly fine to coarse SAND. Gravel is fine to medium subrounded sandstone			
1.00 - 2.00	U	SPT(S)N=23 (5,3/2,10,3,8)		(1.45)			1		
		SPT(S)50 (25 for 85mm/50 for 5mm)	27.28	1.90		Reddish brown SANDSTONE	2		
			27.18	2.00		End of Borehole at 2.00m			
							3		
							4		
							5		

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

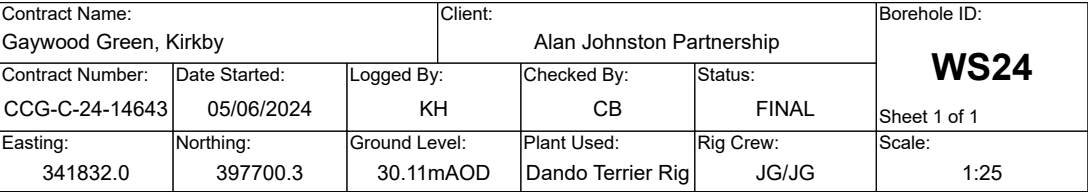
Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														



Weather: Dry	Termination: ROCKHEAD (SANDSTONE)	SPT Hammer: N/R, Energy Ratio: N/R
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[illegible]

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
					0.00	0.50	PLAIN							
					0.50	2.00	SLOTTED							
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														



Weather: Dry

Termination: ROCKHEAD (SANDSTONE)

SPT Hammer: N/R, Energy Ratio: N/R

Samples & In Situ Testing			Strata Details				Groundwater	
Depth	Sample ID	Test Result	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description	Water Strike	Backfill/ Installation
0.00 - 1.00	U		29.91	0.20		Grey very sandy slightly silty GRAVEL. Gravel is fine to coarse angular to sub-angular limestone (MADE GROUND)		
				(0.50)		Brown very sandy slightly silty GRAVEL. Gravel is fine to coarse angular to sub-angular concrete, cinders, brick and limestone (MADE GROUND)		
				29.41	0.70			
1.00 - 2.00	U	SPT(S)N=17 (2,3/3,4,4,6)		(1.20)			1	
			28.21	1.90		Reddish brown SANDSTONE	2	
		SPT(S)50 (11,13/50 for 135mm)	28.11	2.00		End of Borehole at 2.00m		
							3	
							4	
							5	

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)	Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
												0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														

Start & End of Shift Observations					Borehole Diameter		Casing Diameter		Remarks:					
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)						
Chiselling					Installation				Water Strikes					
									Strike (m)	Casing (m)	Sealed (m)	Time (mins)	Rose to (m)	Remarks
From (m)	To (m)	Duration	Remarks		Top (m)	Base (m)	Type	Dia (mm)				0		Dry
CC GEOTECHNICAL LTD 0151 545 2750 www.ccgeotechnical.com														



APPENDIX D

FALLING HEAD TEST RESULTS

Client:	Alan Johnston Partnership	Calcs by:	Checked by:
		KH	CB

Client:	Alan Johnston Partnership	Calcs by:	Checked by:
		KH	CB

Test Details	
Test ID	TEST-001
Test Name	Unit Test for Login Function
Test Case	TC-001: Successful Login
Test Data	Username: admin, Password: 123456
Test Environment	Development Environment
Test Status	Passed
Test Date	2023-10-27
Test By	QA Team
Test Results	Test passed successfully. All assertions met.

Test calculations	Time Elapsed t (s)	Depth at Time t from GL (mbgl)	Head at Time t from GL (m)	Head Ratio (H/Ho)

Notes:	Test carried out during fieldworks
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Calcs by:	Checked by:
KH	CB

Client:	Alan Johnston Partnership	Calcs by:	Checked by:
		KH	CB



APPENDIX E

GAS MONITORING

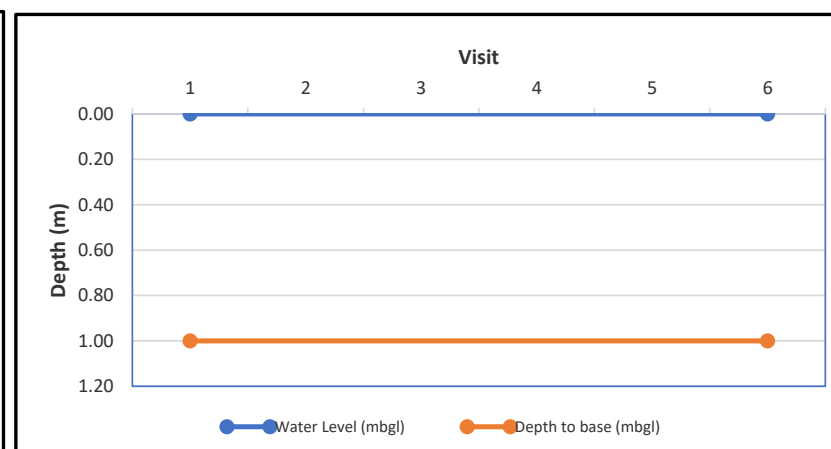
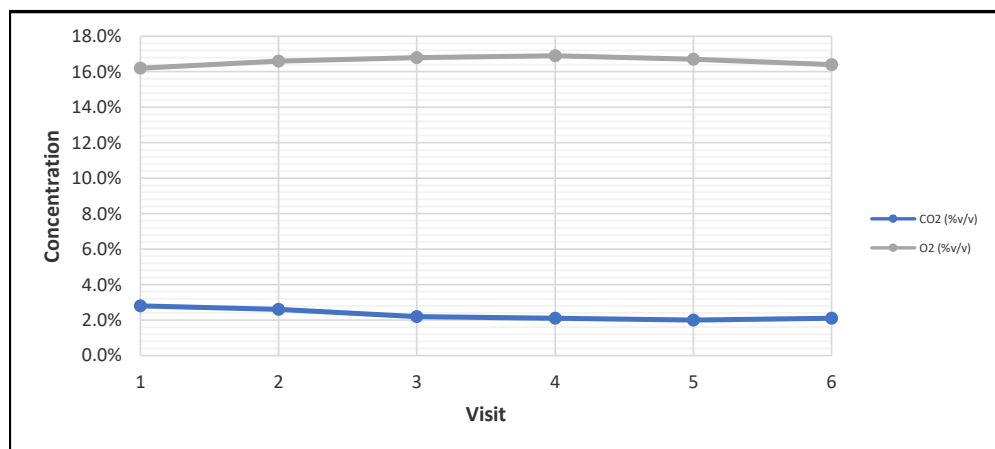
GROUND GAS AND GROUNDWATER MONITORING DATA

CC GEOTECHNICAL LIMITED
Consulting Geotechnical and Geoenvironmental Engineers



Job Number:	CCG-C-24-14643	Date of Installation:	07/06/2024
Site:	Gaywood Green, Kirkby	Monitoring programme:	6 Visits
Client:	Alan Johnston Partnership	Instrument used:	GFM
Location Reference:	WS01	Logged by:	KH
Installation Depth (mbgl):	1.00	Approved by:	CB

Visit	Monitoring date	Weather Conditions					Monitoring Data							
		Cloud Cover	Wind Velocity	Precipitation	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	CH ₄ (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)	H ₂ S (ppm)	CO (ppm)	Water Level (mbgl)	Depth to base (mbgl)
1	21/06/2024	HIGH WHITE CLOUD	LIGHT	DRY	1008	Steady	0.0%	2.8%	16.2%	<0.01	0.0	0.0	0.00	1.00
2	10/07/2024	CLOUDY	STRONG	DRY	1010	Steady	0.0%	2.6%	16.6%	<0.01	0.0	0.0	0.00	1.00
3	23/07/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	2.2%	16.8%	<0.01	0.0	0.0	0.00	1.00
4	01/08/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	2.1%	16.9%	<0.01	0.0	0.0	0.00	1.00
5	17/08/2024	CLEAR	LIGHT	DRY	1014	Steady	0.0%	2.0%	16.7%	<0.01	0.0	0.0	0.00	1.00
6	04/09/2024	HIGH WHITE CLOUD	LIGHT	DRY	1016	Steady	0.0%	2.1%	16.4%	<0.01	0.0	0.0	0.00	1.00



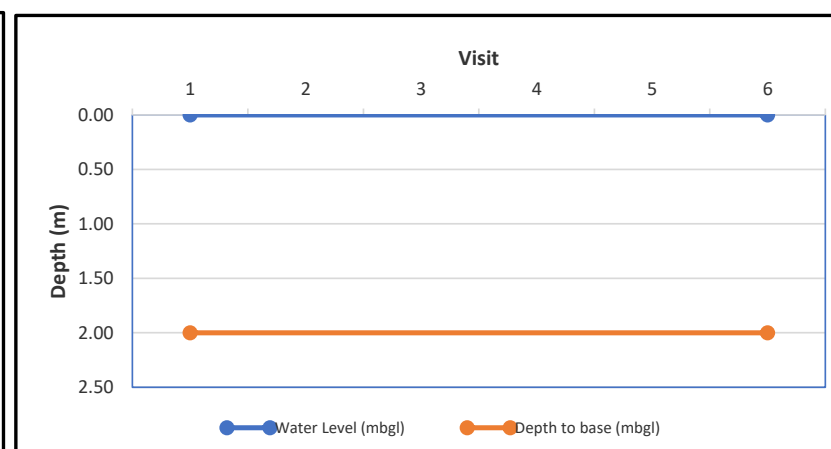
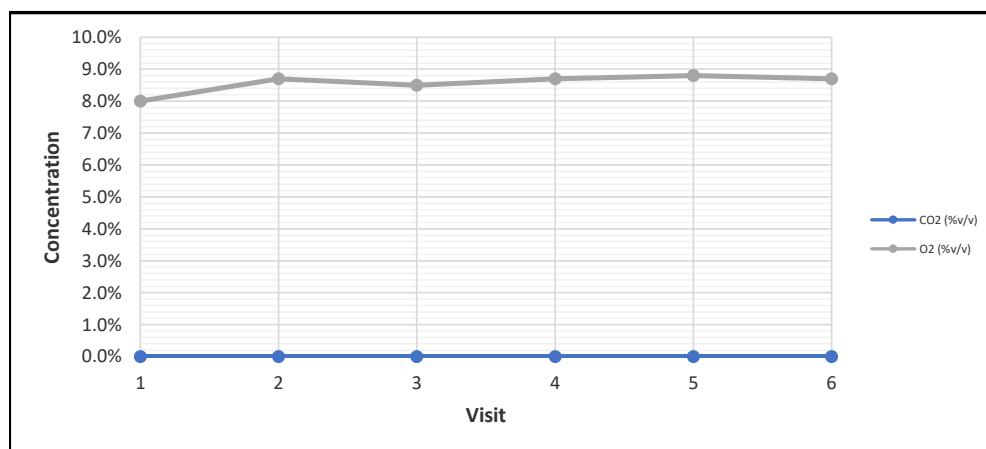
GROUND GAS AND GROUNDWATER MONITORING DATA

CC GEOTECHNICAL LIMITED
Consulting Geotechnical and Geoenvironmental Engineers



Job Number:	CCG-C-24-14643	Date of Installation:	07/06/2024
Site:	Gaywood Green, Kirkby	Monitoring programme:	6 Visits
Client:	Alan Johnston Partnership	Instrument used:	GFM
Location Reference:	WS08	Logged by:	KH
Installation Depth (mbgl):	2.00	Approved by:	CB

Visit	Monitoring date	Weather Conditions					Monitoring Data							
		Cloud Cover	Wind Velocity	Precipitation	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	CH ₄ (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)	H ₂ S (ppm)	CO (ppm)	Water Level (mbgl)	Depth to base (mbgl)
1	21/06/2024	HIGH WHITE CLOUD	LIGHT	DRY	1008	Steady	0.0%	0.0%	8.0%	<0.01	0.0	0.0	0.00	2.00
2	10/07/2024	CLOUDY	STRONG	DRY	1010	Steady	0.0%	0.0%	8.7%	<0.01	0.0	0.0	0.00	2.00
3	23/07/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	8.5%	<0.01	0.0	0.0	0.00	2.00
4	01/08/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	8.7%	<0.01	0.0	0.0	0.00	2.00
5	17/08/2024	CLEAR	LIGHT	DRY	1014	Steady	0.0%	0.0%	8.8%	<0.01	0.0	0.0	0.00	2.00
6	04/09/2024	HIGH WHITE CLOUD	LIGHT	DRY	1016	Steady	0.0%	0.0%	8.7%	<0.01	0.0	0.0	0.00	2.00



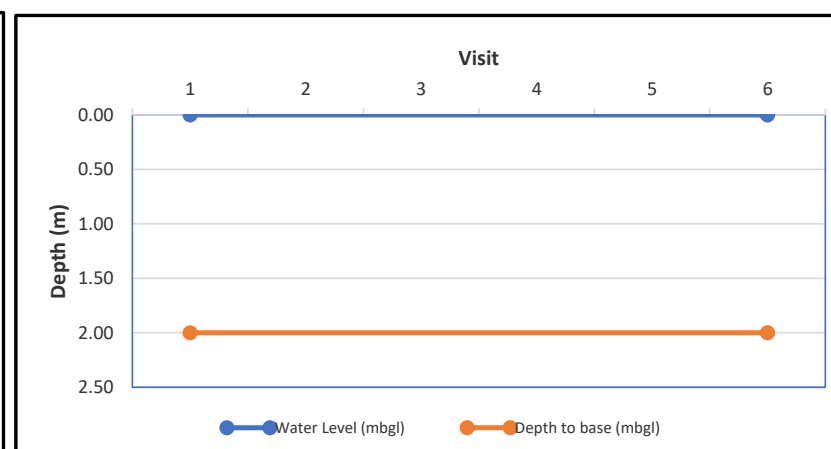
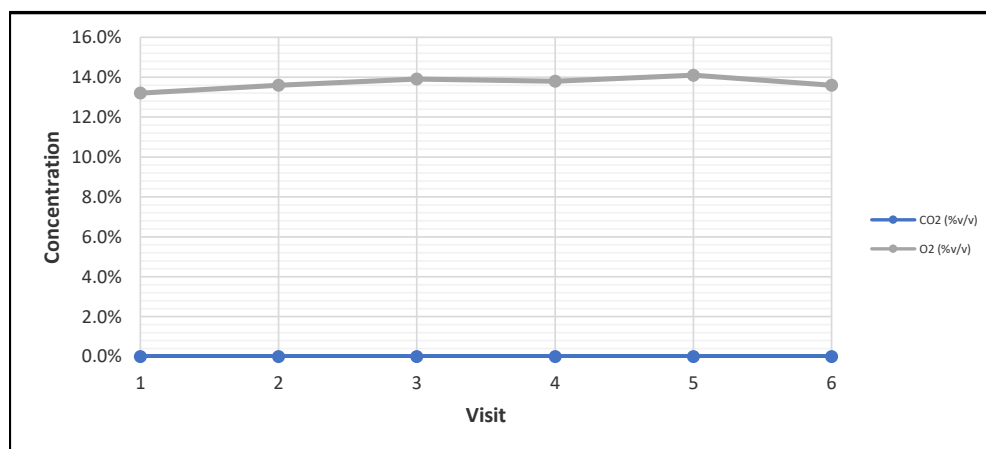
GROUND GAS AND GROUNDWATER MONITORING DATA

CC GEOTECHNICAL LIMITED
Consulting Geotechnical and Geoenvironmental Engineers



Job Number:	CCG-C-24-14643	Date of Installation:	07/06/2024
Site:	Gaywood Green, Kirkby	Monitoring programme:	6 Visits
Client:	Alan Johnston Partnership	Instrument used:	GFM
Location Reference:	WS12	Logged by:	KH
Installation Depth (mbgl):	2.00	Approved by:	CB

Visit	Monitoring date	Weather Conditions					Monitoring Data							
		Cloud Cover	Wind Velocity	Precipitation	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	CH ₄ (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)	H ₂ S (ppm)	CO (ppm)	Water Level (mbgl)	Depth to base (mbgl)
1	21/06/2024	HIGH WHITE CLOUD	LIGHT	DRY	1008	Steady	0.0%	0.0%	13.2%	<0.01	0.0	0.0	0.00	2.00
2	10/07/2024	CLOUDY	STRONG	DRY	1010	Steady	0.0%	0.0%	13.6%	<0.01	0.0	0.0	0.00	2.00
3	23/07/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	13.9%	<0.01	0.0	0.0	0.00	2.00
4	01/08/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	13.8%	<0.01	0.0	0.0	0.00	2.00
5	17/08/2024	CLEAR	LIGHT	DRY	1014	Steady	0.0%	0.0%	14.1%	<0.01	0.0	0.0	0.00	2.00
6	04/09/2024	HIGH WHITE CLOUD	LIGHT	DRY	1016	Steady	0.0%	0.0%	13.6%	<0.01	0.0	0.0	0.00	2.00



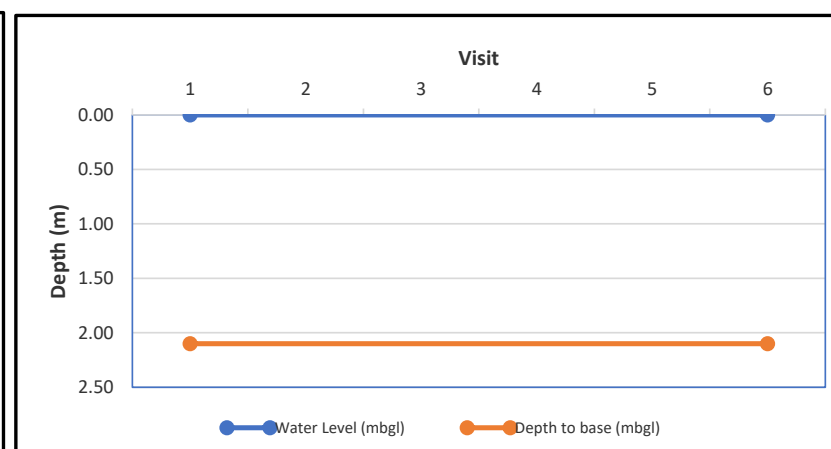
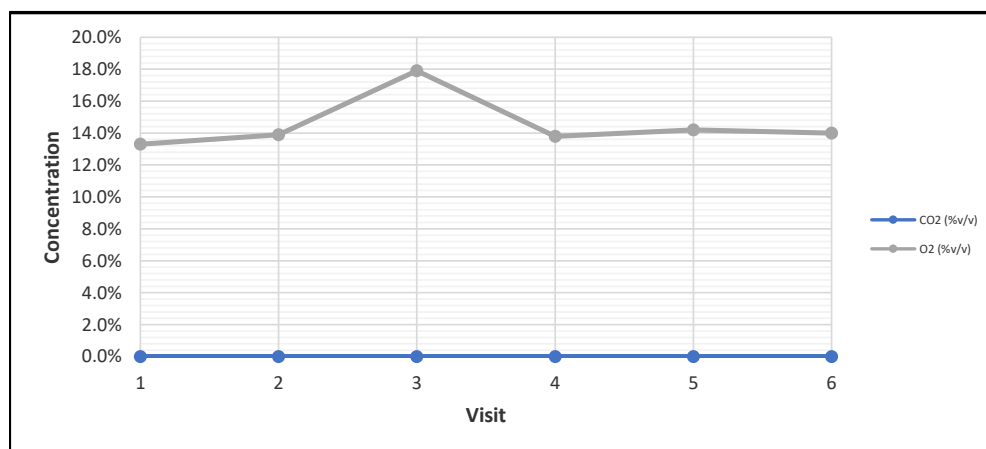
GROUND GAS AND GROUNDWATER MONITORING DATA

CC GEOTECHNICAL LIMITED
Consulting Geotechnical and Geoenvironmental Engineers



Job Number:	CCG-C-24-14643	Date of Installation:	07/06/2024
Site:	Gaywood Green, Kirkby	Monitoring programme:	6 Visits
Client:	Alan Johnston Partnership	Instrument used:	GFM
Location Reference:	WS16	Logged by:	KH
Installation Depth (mbgl):	2.50	Approved by:	CB

Visit	Monitoring date	Weather Conditions					Monitoring Data							
		Cloud Cover	Wind Velocity	Precipitation	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	CH ₄ (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)	H ₂ S (ppm)	CO (ppm)	Water Level (mbgl)	Depth to base (mbgl)
1	21/06/2024	HIGH WHITE CLOUD	LIGHT	DRY	1008	Steady	0.0%	0.0%	13.3%	<0.01	0.0	0.0	0.00	2.10
2	10/07/2024	CLOUDY	STRONG	DRY	1010	Steady	0.0%	0.0%	13.9%	<0.01	0.0	0.0	0.00	2.10
3	23/07/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	17.9%	<0.01	0.0	0.0	0.00	2.10
4	01/08/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	13.8%	<0.01	0.0	0.0	0.00	2.10
5	17/08/2024	CLEAR	LIGHT	DRY	1014	Steady	0.0%	0.0%	14.2%	<0.01	0.0	0.0	0.00	2.10
6	04/09/2024	HIGH WHITE CLOUD	LIGHT	DRY	1016	Steady	0.0%	0.0%	14.0%	<0.01	0.0	0.0	0.00	2.10



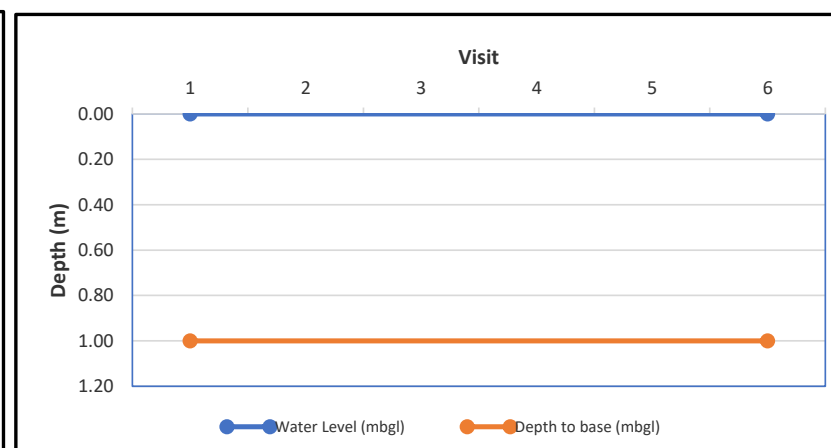
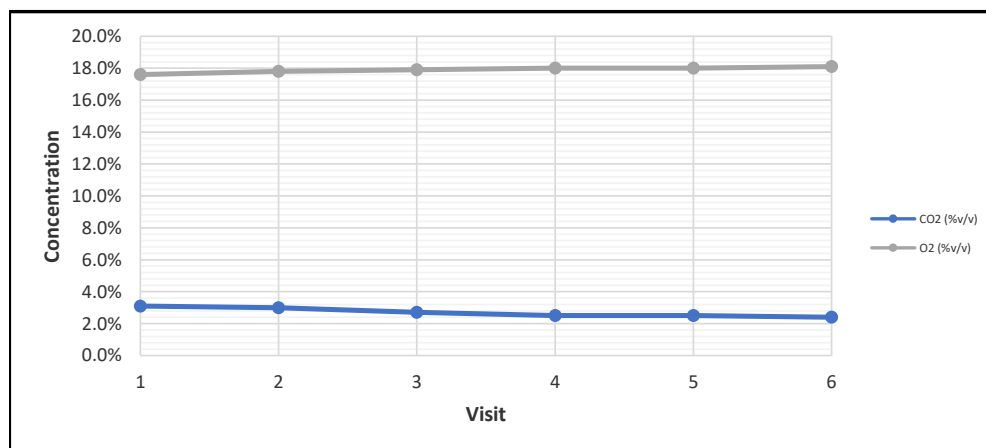
GROUND GAS AND GROUNDWATER MONITORING DATA

CC GEOTECHNICAL LIMITED
Consulting Geotechnical and Geoenvironmental Engineers



Job Number:	CCG-C-24-14643	Date of Installation:	07/06/2024
Site:	Gaywood Green, Kirkby	Monitoring programme:	6 Visits
Client:	Alan Johnston Partnership	Instrument used:	GFM
Location Reference:	WS18	Logged by:	KH
Installation Depth (mbgl):	1.00	Approved by:	CB

Visit	Monitoring date	Weather Conditions					Monitoring Data							
		Cloud Cover	Wind Velocity	Precipitation	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	CH ₄ (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)	H ₂ S (ppm)	CO (ppm)	Water Level (mbgl)	Depth to base (mbgl)
1	21/06/2024	HIGH WHITE CLOUD	LIGHT	DRY	1008	Steady	0.0%	3.1%	17.6%	<0.01	0.0	0.0	0.00	1.00
2	10/07/2024	CLOUDY	STRONG	DRY	1010	Steady	0.0%	3.0%	17.8%	<0.01	0.0	0.0	0.00	1.00
3	23/07/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	2.7%	17.9%	<0.01	0.0	0.0	0.00	1.00
4	01/08/2026	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	2.5%	18.0%	<0.01	0.0	0.0	0.00	1.00
5	17/08/2024	CLEAR	LIGHT	DRY	1014	Steady	0.0%	2.5%	18.0%	<0.01	0.0	0.0	0.00	1.00
6	04/09/2024	HIGH WHITE CLOUD	LIGHT	DRY	1016	Steady	0.0%	2.4%	18.1%	<0.01	0.0	0.0	0.00	1.00



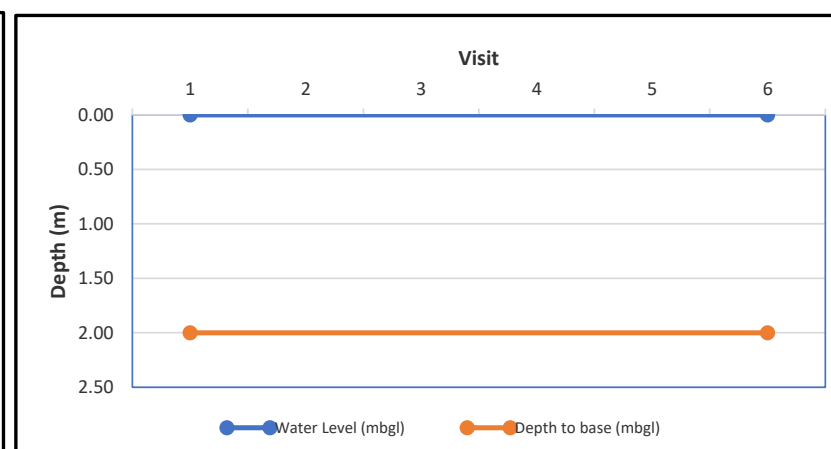
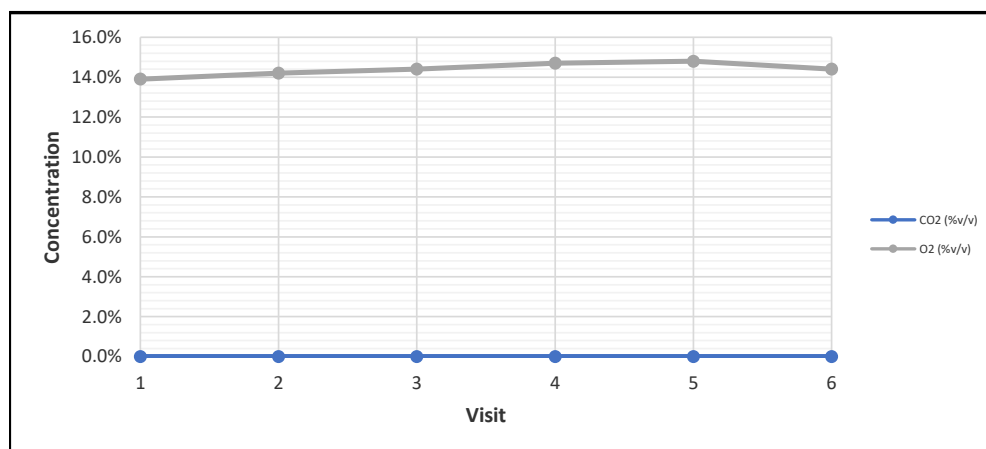
GROUND GAS AND GROUNDWATER MONITORING DATA

CC GEOTECHNICAL LIMITED
Consulting Geotechnical and Geoenvironmental Engineers



Job Number:	CCG-C-24-14643	Date of Installation:	07/06/2024
Site:	Gaywood Green, Kirkby	Monitoring programme:	6 Visits
Client:	Alan Johnston Partnership	Instrument used:	GFM
Location Reference:	WS23	Logged by:	KH
Installation Depth (mbgl):	2.00	Approved by:	CB

Visit	Monitoring date	Weather Conditions					Monitoring Data							
		Cloud Cover	Wind Velocity	Precipitation	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	CH ₄ (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)	H ₂ S (ppm)	CO (ppm)	Water Level (mbgl)	Depth to base (mbgl)
1	21/06/2024	HIGH WHITE CLOUD	LIGHT	DRY	1008	Steady	0.0%	0.0%	13.9%	<0.01	0.0	0.0	0.00	2.00
2	10/07/2024	CLOUDY	STRONG	DRY	1010	Steady	0.0%	0.0%	14.2%	<0.01	0.0	0.0	0.00	2.00
3	23/07/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	14.4%	<0.01	0.0	0.0	0.00	2.00
4	01/08/2024	HIGH WHITE CLOUD	LIGHT	DRY	1014	Steady	0.0%	0.0%	14.7%	<0.01	0.0	0.0	0.00	2.00
5	17/08/2024	CLEAR	LIGHT	DRY	1014	Steady	0.0%	0.0%	14.8%	<0.01	0.0	0.0	0.00	2.00
6	04/09/2024	HIGH WHITE CLOUD	LIGHT	DRY	1016	Steady	0.0%	0.0%	14.4%	<0.01	0.0	0.0	0.00	2.00





APPENDIX F

LAB TEST DATA

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LABORATORY REPORT

CONTRACT NUMBER: CCG-C-24-14643

CONTRACT TITLE: GAYWOOD GREEN

CLIENT: ALAN JOHNSTON PARTNERSHIP

DATE RECEIVED: 13/06/24
DATE COMMENCED: 13/06/24
DATE COMPLETED: 17/06/24
REPORT DATE: 18/06/24

Test Description	Qty
Particle Size Distribution BS 1377-2:1990 (a)	12

Notes: Observations and interpretations are not accredited by UKAS
All testing undertaken at laboratory permanent facilities
denotes non-accredited test
a denotes UKAS accredited test
s denotes test undertaken by approved subcontractor
Test results only relate to the samples tested

This report is issued in accordance with the requirements of the United Kingdom Accreditation Services and EN ISO/IEC 17025:2017. The results reported herein relate only to the material supplied to the laboratory. This report shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved Signatories: Chris Bolan (Managing Director) – Daniel Kerfoot (Laboratory Manager)

SUMMARY OF LABORATORY SOIL TEST RESULTS

BH / TP / WS Number	Sample Type	Depth From (m)	Depth To (m)	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Shear Strength (kN/m ²)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 0.425mm (%)	Soil Classification	UKAS accredited test (Y/N)	Description / Test Method Samples described in accordance with BS EN ISO 14688-2 2004
WS01	WS	0.80	0.80	-	-	-	-	-	-	-	-	-	Y	Reddish brown silty fine to medium SAND. (BS1377Pt2:9.2)
WS02	WS	0.90	0.90	-	-	-	-	-	-	-	-	-	Y	Reddish brown silty gravelly fine to coarse SAND. Gravel is fine to medium subrounded sandstone. (BS1377Pt2:9.2)
WS05	WS	0.70	0.70	-	-	-	-	-	-	-	-	-	Y	Reddish brown very gravelly silty fine to medium SAND. Gravel is fine to coarse subrounded sandstone. (BS1377Pt2:9.2)
WS10	WS	1.70	1.70	-	-	-	-	-	-	-	-	-	Y	Reddish brown gravelly slightly silty fine to coarse SAND. Gravel is fine to coarse subrounded sandstone. (BS1377Pt2:9.2)
WS13	WS	0.50	0.50	-	-	-	-	-	-	-	-	-	Y	Brown silty gravelly fine to medium SAND. Gravel is fine to coarse subrounded sandstone and quartz. (BS1377Pt2:9.2)
WS18	WS	0.90	0.90	-	-	-	-	-	-	-	-	-	Y	Reddish brown very sandy slightly silty GRAVEL. Gravel is fine to coarse subrounded sandstone. (BS1377Pt2:9.2)
WS20	WS	1.00	1.00	-	-	-	-	-	-	-	-	-	Y	Reddish brown silty gravelly fine to coarse SAND. Gravel is fine to medium subrounded sandstone. (BS1377Pt2:9.2)
WS22	WS	0.80	0.80	-	-	-	-	-	-	-	-	-	Y	Reddish brown silty SAND & GRAVEL. Gravel is fine to coarse subrounded sandstone. (BS1377Pt2:9.2)

SITE: GAYWOOD GREEN (CCG-C-24-14643)
CLIENT: ALAN JONES PARTNERSHIP

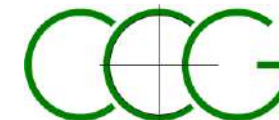
DATE: 18.06.24

Key:- BD = Bulk Disturbed; SD = Small Disturbed; U100 = Undisturbed 100mm; WS = Window Sample

CL = Low Plasticity; CI = Intermediate; CH = High; CV = Very high; CE = Extremely high; NP = Non-plastic

(* Denotes Hand Shear Vane test result)

Sample description not accredited by UKAS



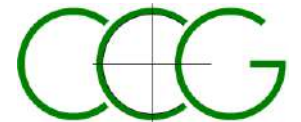
SUMMARY OF LABORATORY SOIL TEST RESULTS

BH / TP / WS Number	Sample Type	Depth From (m)	Depth To (m)	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Shear Strength (kN/m ²)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 0.425mm (%)	Soil Classification	UKAS accredited test (Y/N)	Description / Test Method Samples described in accordance with BS EN ISO 14688-2 2004
TP04	B	2.20	2.20	-	-	-	-	-	-	-	-	-	Y	Reddish brown silty SAND & GRAVEL. Gravel is fine to coarse subrounded sandstone. (BS1377Pt2:9.2)
TP09	B	1.00	1.00	-	-	-	-	-	-	-	-	-	Y	Brown silty gravelly fine to medium SAND. Gravel is fine to coarse subrounded sandstone, limestone, cinders. (MADE GROUND) (BS1377Pt2:9.2)
TP12	B	1.50	1.50	-	-	-	-	-	-	-	-	-	Y	Brown slightly silty SAND & GRAVEL. Gravel is fine to coarse subrounded sandstone. (BS1377Pt2:9.2)
TP15	B	1.70	1.70	-	-	-	-	-	-	-	-	-	Y	Reddish brown very sandy slightly silty GRAVEL with medium cobble content. Gravel and cobbles are subrounded sandstone and limestone. (MADE GROUND) (BS1377Pt2:9.2)

SITE: GAYWOOD GREEN (CCG-C-24-14643)
 CLIENT: ALAN JONES PARTNERSHIP

DATE: 18.06.24

Key:- BD = Bulk Disturbed; SD = Small Disturbed; U100 = Undisturbed 100mm; WS = Window Sample
 CL = Low Plasticity; CI = Intermediate; CH = High; CV = Very high; CE = Extremely high; NP = Non-plastic
 (* Denotes Hand Shear Vane test result)
 Sample description not accredited by UKAS





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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS01

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown silty fine to medium SAND

Depth, m

0.80

Specimen
Reference

Specimen
Depth

m

Sample Type

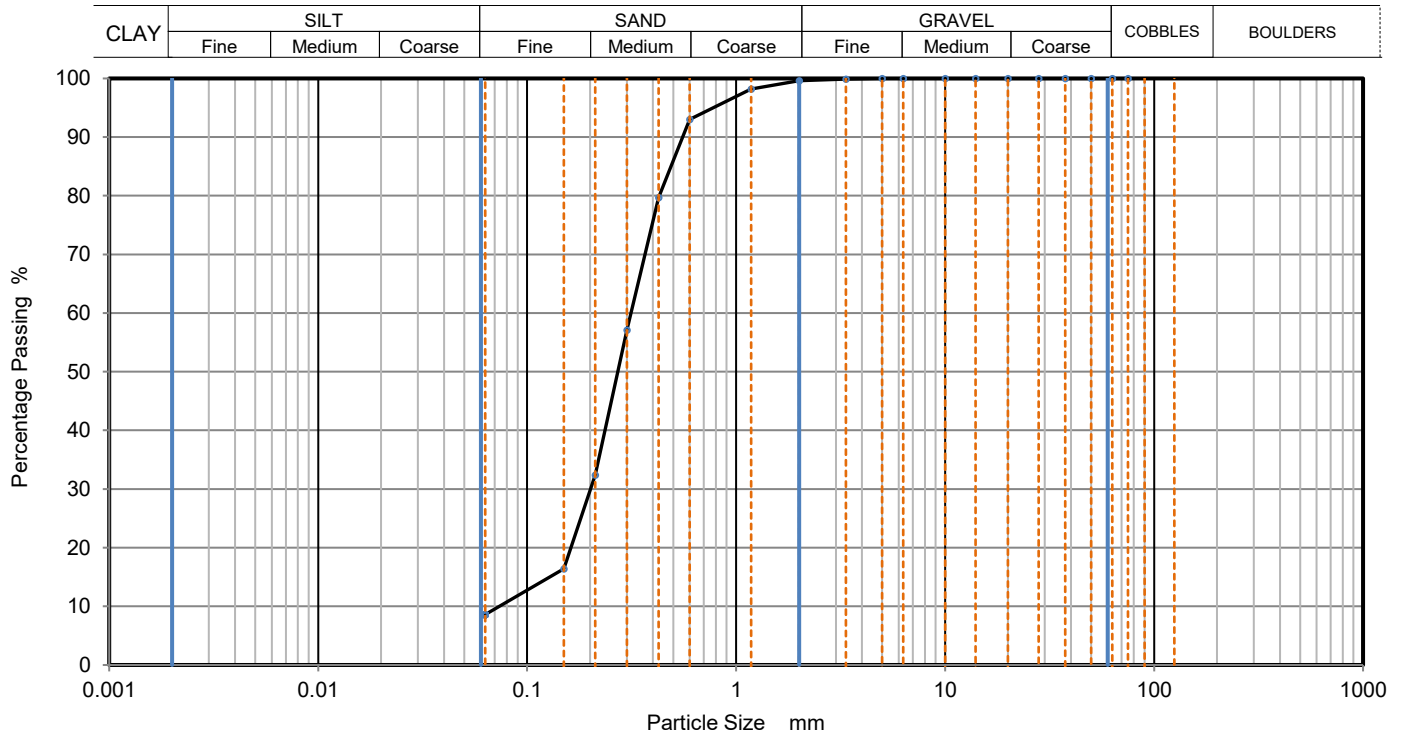
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406180



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	98		
0.6	93		
0.425	80		
0.3	57		
0.212	32		
0.15	16		
0.063	9		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	0
Sand	91
Fines <0.063mm	9

Grading Analysis		
D100	mm	
D60	mm	0.314
D30	mm	0.201
D10	mm	0.0737
Uniformity Coefficient		4.3
Curvature Coefficient		1.8

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator

Checked

Approved

Sheet printed

Fig 1

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Sheet



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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS02

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown silty gravelly fine to coarse SAND

Depth, m

0.90

Specimen
Reference

Specimen
Depth

m

Sample Type

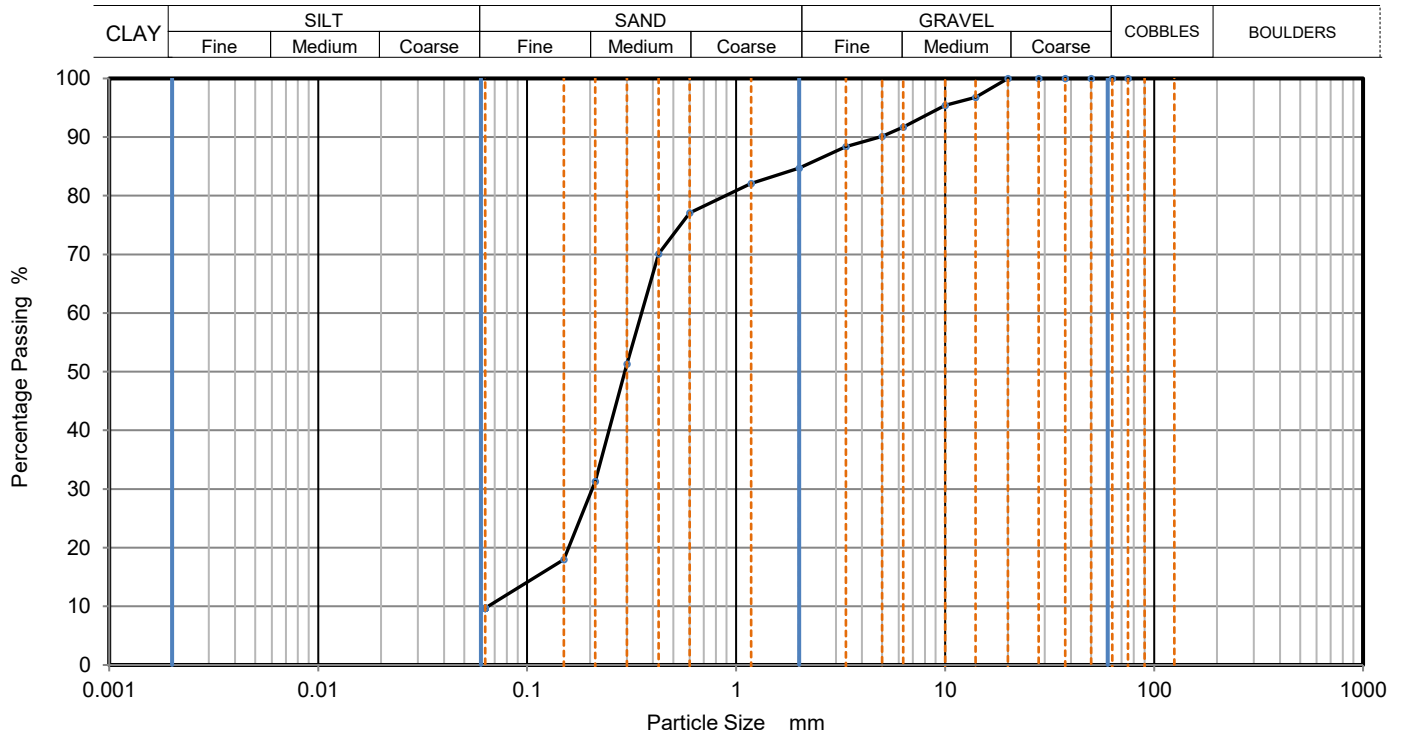
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406181



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	95		
6.3	92		
5	90		
3.35	88		
2	85		
1.18	82		
0.6	77		
0.425	70		
0.3	51		
0.212	31		
0.15	18		
0.063	10		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	15
Sand	75
Fines <0.063mm	10

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	Fig 1 Sheet
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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS05

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown very gravelly silty fine to medium SAND

Depth, m

0.70

Specimen
Reference

Specimen
Depth

m

Sample Type

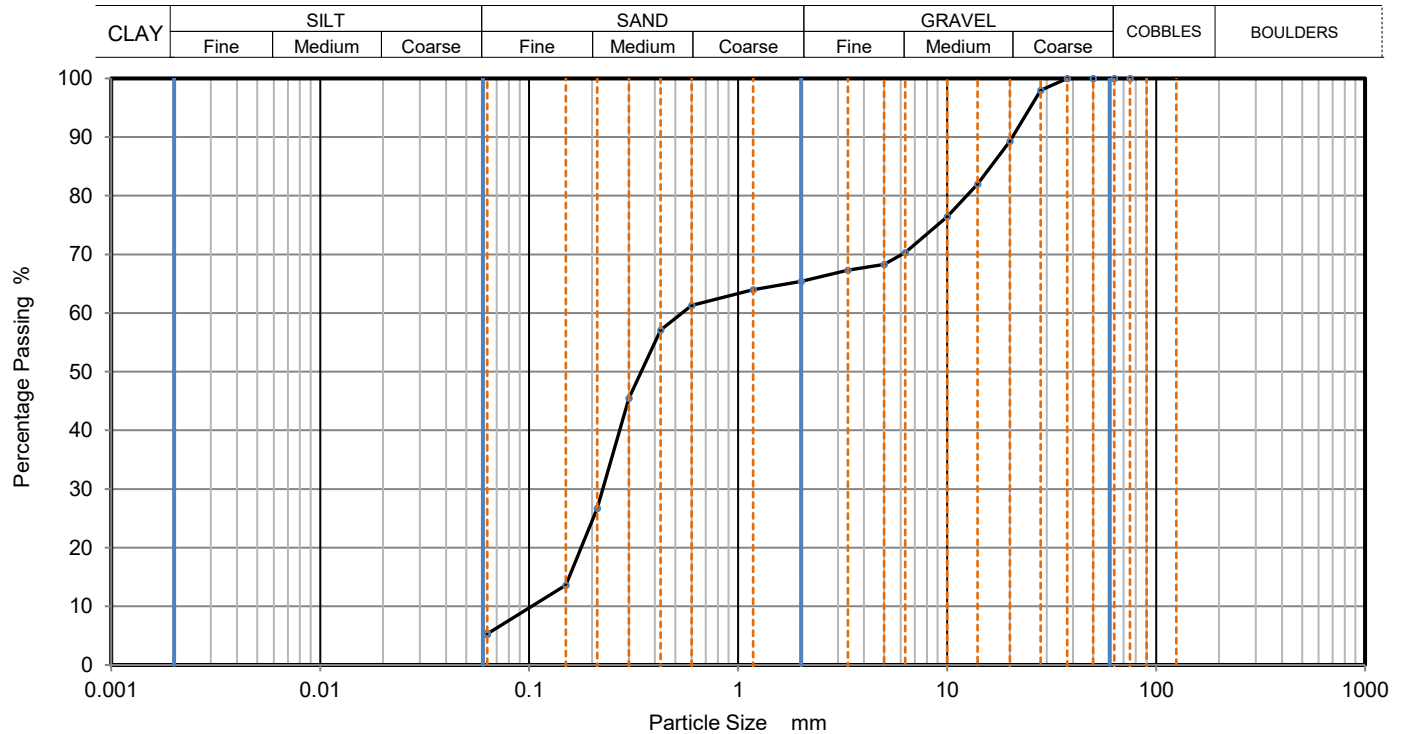
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406182



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	98		
20	89		
14	82		
10	76		
6.3	70		
5	68		
3.35	67		
2	65		
1.18	64		
0.6	61		
0.425	57		
0.3	46		
0.212	27		
0.15	14		
0.063	5		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	35
Sand	60
Fines <0.063mm	5

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	5.2
Curvature Coefficient	0.91

Remarks

Preparation and testing in accordance with BS1377 unless noted below

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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS10

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown gravelly slightly silty fine to coarse SAND

Depth, m

1.70

Specimen
Reference

Specimen
Depth

m

Sample Type

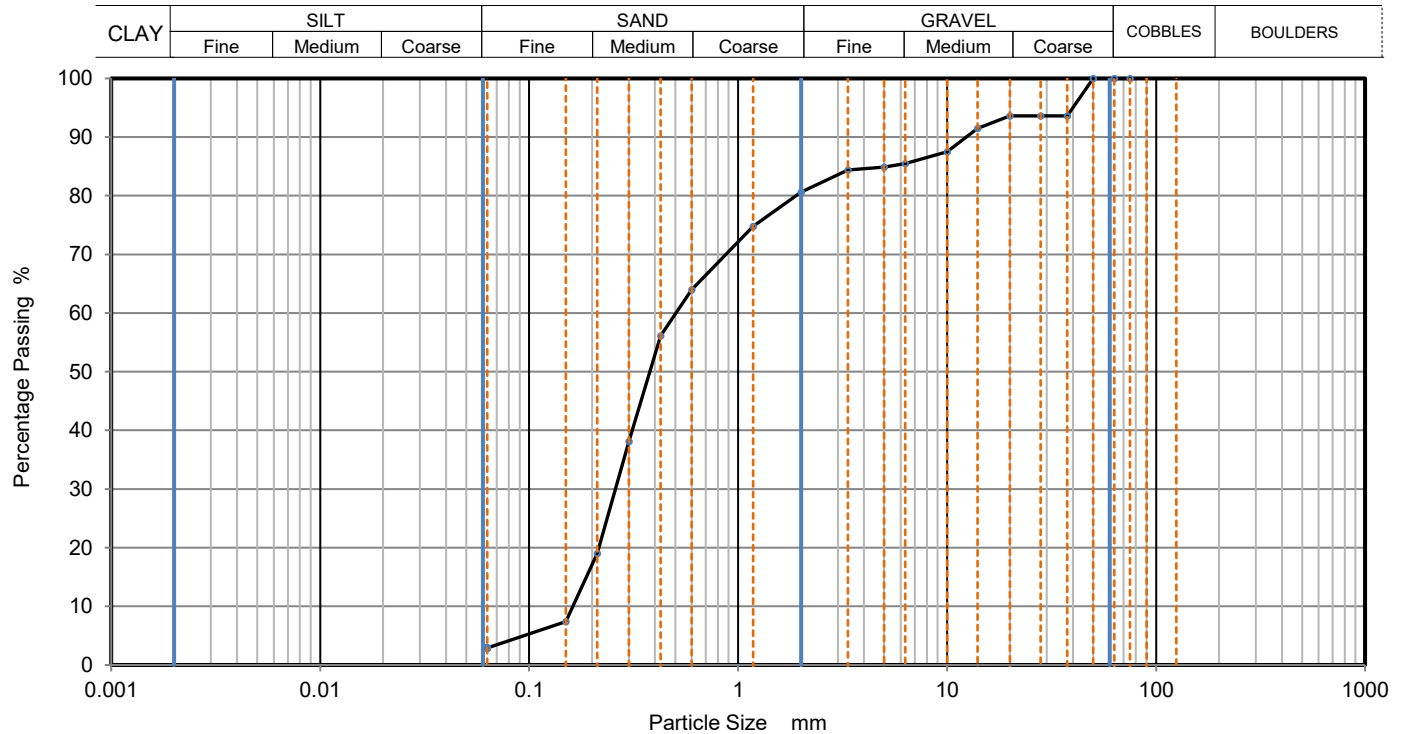
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406183



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	94		
28	94		
20	94		
14	92		
10	88		
6.3	86		
5	85		
3.35	84		
2	81		
1.18	75		
0.6	64		
0.425	56		
0.3	38		
0.212	19		
0.15	7		
0.063	3		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	19
Sand	78
Fines <0.063mm	3

Grading Analysis		
D100	mm	
D60	mm	0.504
D30	mm	0.259
D10	mm	0.162
Uniformity Coefficient		3.1
Curvature Coefficient		0.82

Remarks

Preparation and testing in accordance with BS1377 unless noted below

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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS13

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Brown silty gravelly fine to medium SAND

Depth, m

0.50

Specimen
Reference

Specimen
Depth

m

Sample Type

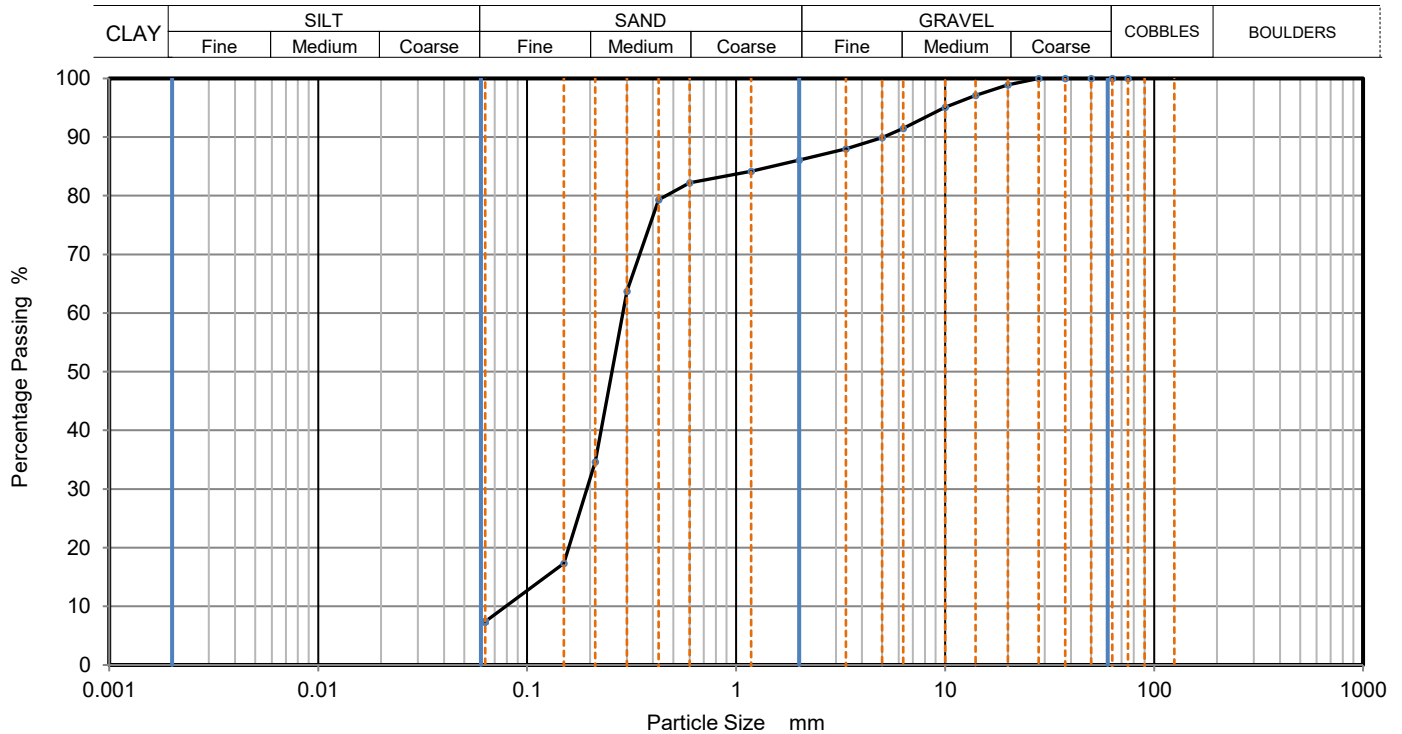
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406184



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	99		
14	97		
10	95		
6.3	92		
5	90		
3.35	88		
2	86		
1.18	84		
0.6	82		
0.425	79		
0.3	64		
0.212	35		
0.15	17		
0.063	7		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	14
Sand	79
Fines <0.063mm	7

Grading Analysis		
D100	mm	
D60	mm	0.287
D30	mm	0.193
D10	mm	0.0791
Uniformity Coefficient		3.6
Curvature Coefficient		1.6

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	Fig 1 Sheet
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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS18

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown very sandy slightly silty GRAVEL

Depth, m

0.90

Specimen
Reference

Specimen
Depth

m

Sample Type

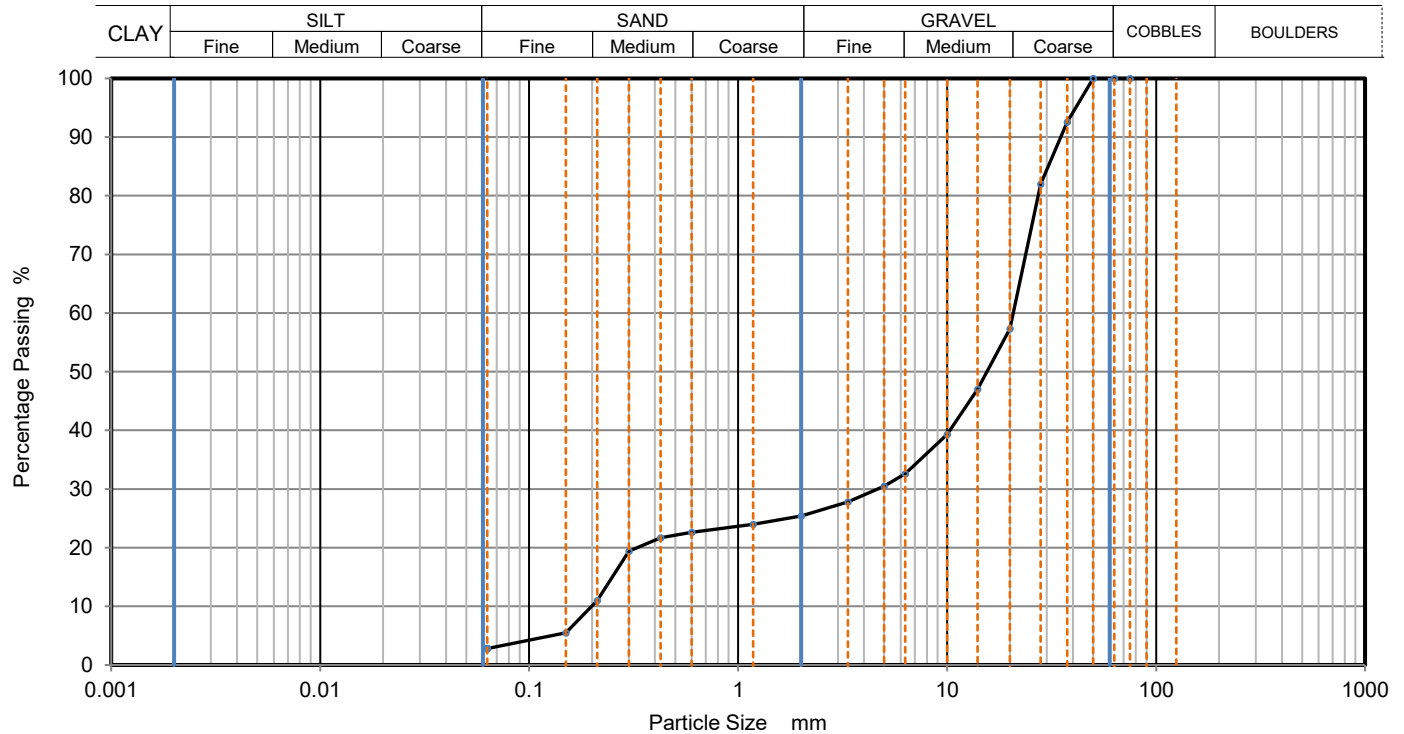
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406185



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	93		
28	82		
20	57		
14	47		
10	39		
6.3	33		
5	31		
3.35	28		
2	25		
1.18	24		
0.6	23		
0.425	22		
0.3	19		
0.212	11		
0.15	6		
0.063	3		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	75
Sand	22
Fines <0.063mm	3

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	100
Curvature Coefficient	5.2

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	Fig 1 Sheet
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e: lab@ccgeotechnical.com

PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS20

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown silty gravelly fine to coarse SAND

Depth, m

1.00

Specimen
Reference

Specimen
Depth

m

Sample Type

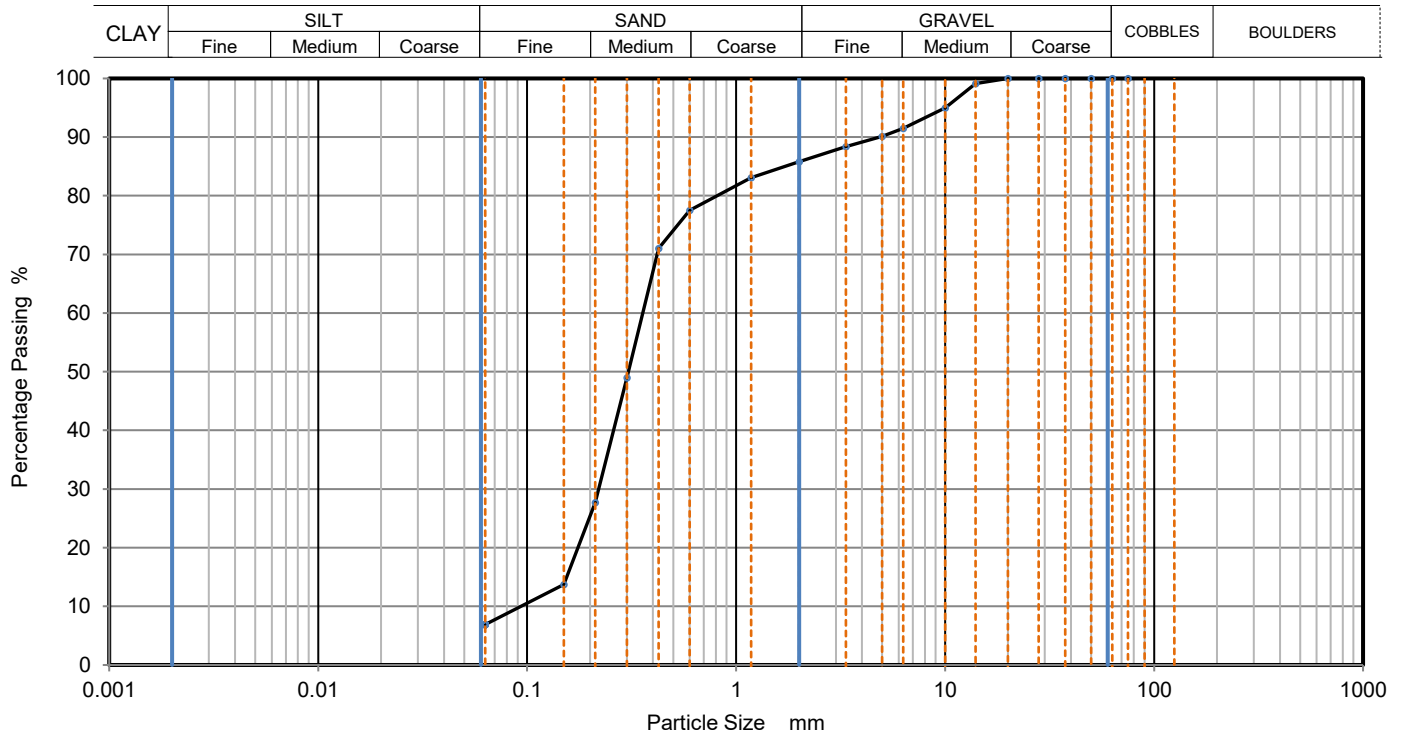
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406186



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	99		
10	95		
6.3	92		
5	90		
3.35	88		
2	86		
1.18	83		
0.6	78		
0.425	71		
0.3	49		
0.212	28		
0.15	14		
0.063	7		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	14
Sand	79
Fines <0.063mm	7

Grading Analysis		
D100	mm	
D60	mm	0.357
D30	mm	0.22
D10	mm	0.0933
Uniformity Coefficient		3.8
Curvature Coefficient		1.5

Remarks

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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

WS22

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown silty SAND & GRAVEL

Depth, m

0.80

Specimen
Reference

Specimen
Depth

m

Sample Type

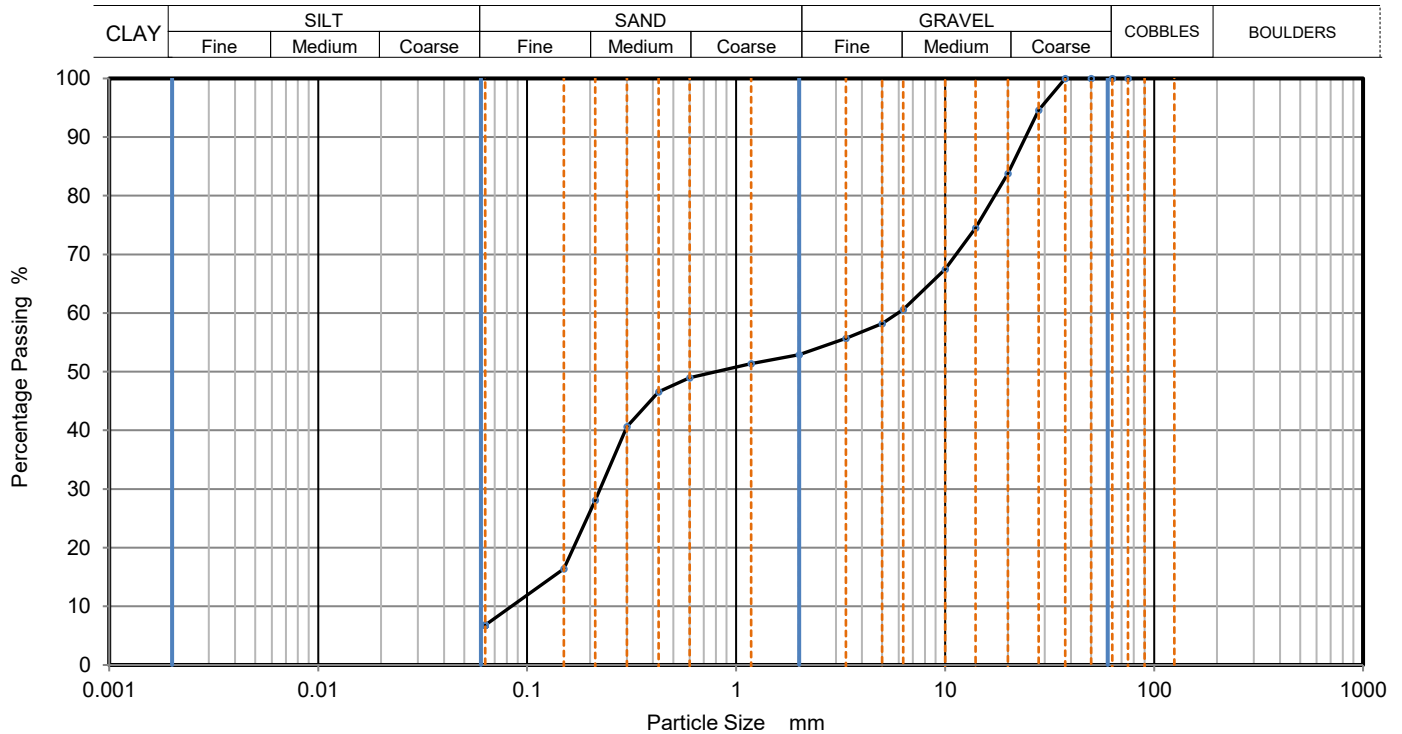
WS

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406187



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	95		
20	84		
14	75		
10	68		
6.3	61		
5	58		
3.35	56		
2	53		
1.18	51		
0.6	49		
0.425	47		
0.3	41		
0.212	28		
0.15	16		
0.063	7		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	47
Sand	46
Fines <0.063mm	7

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	71
Curvature Coefficient	0.1

Remarks

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Job Ref

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Borehole/Pit No.

TP04

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown silty SAND & GRAVEL

Depth, m

2.20

Specimen
Reference

Specimen
Depth

m

Sample Type

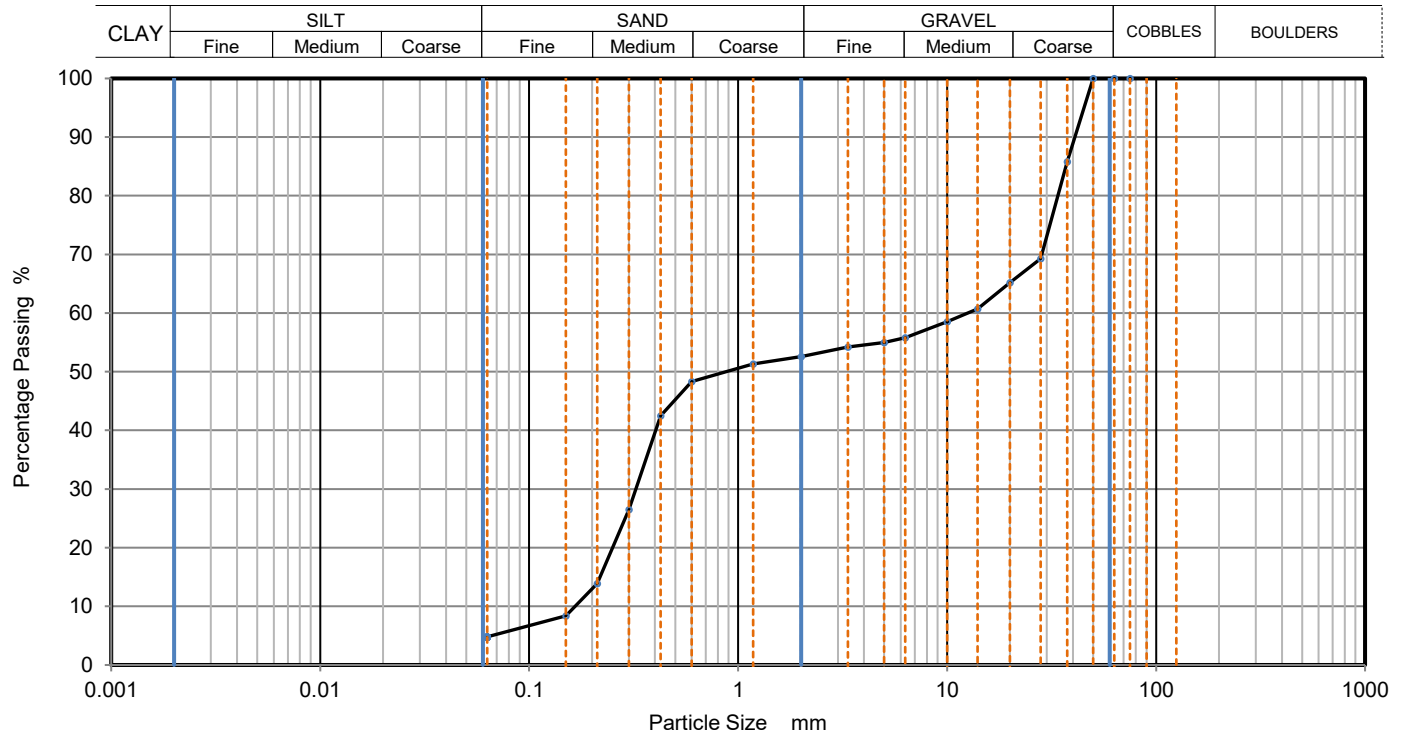
B

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406188



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	86		
28	69		
20	65		
14	61		
10	59		
6.3	56		
5	55		
3.35	54		
2	53		
1.18	51		
0.6	48		
0.425	43		
0.3	27		
0.212	14		
0.15	8		
0.063	5		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	47
Sand	48
Fines <0.063mm	5

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	76
Curvature Coefficient	0.05

Remarks

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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

TP09

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Brown silty gravelly fine to medium SAND

Depth, m

1.00

Specimen
Reference

Specimen
Depth

m

Sample Type

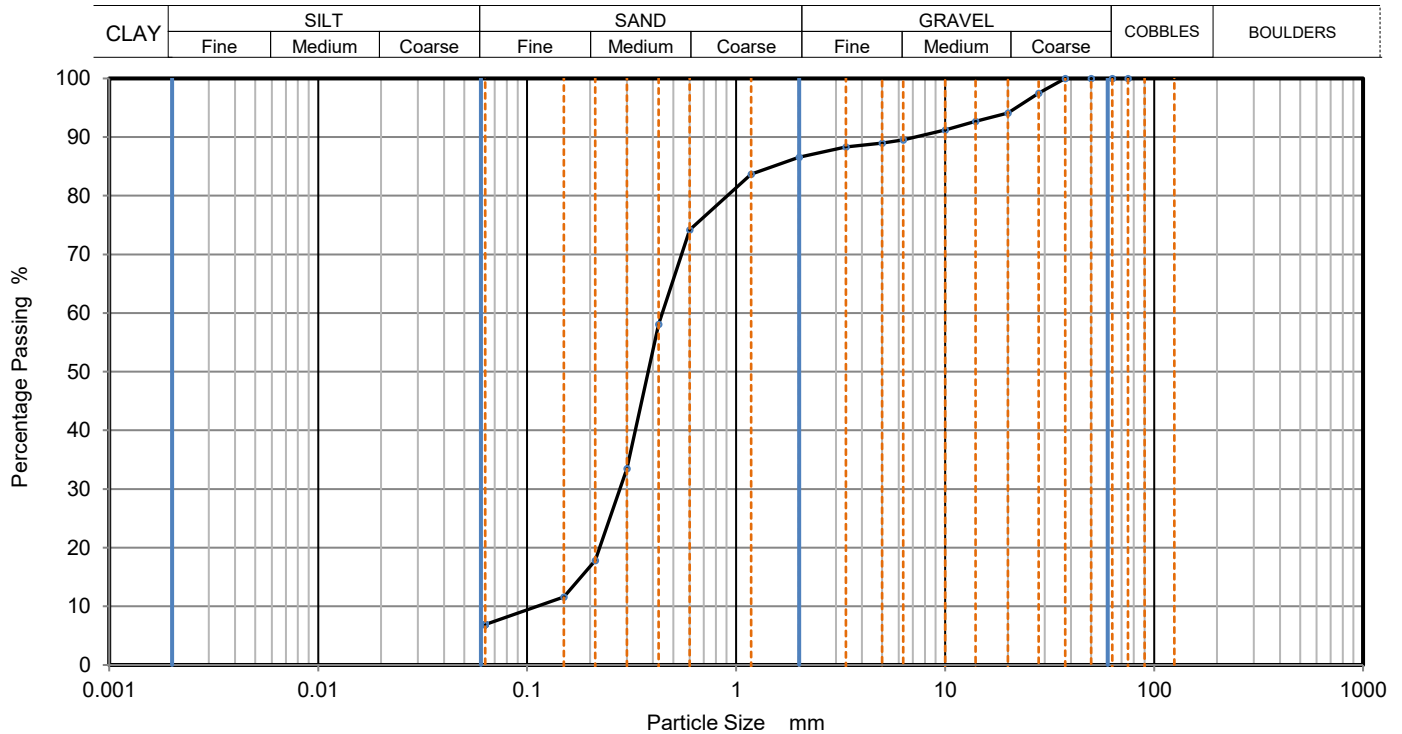
B

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL202406189



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	98		
20	94		
14	93		
10	91		
6.3	90		
5	89		
3.35	88		
2	87		
1.18	84		
0.6	74		
0.425	58		
0.3	34		
0.212	18		
0.15	12		
0.063	7		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	13
Sand	80
Fines <0.063mm	7

Grading Analysis		
D100	mm	
D60	mm	0.443
D30	mm	0.278
D10	mm	0.111
Uniformity Coefficient		4
Curvature Coefficient		1.6

Remarks

Preparation and testing in accordance with BS1377 unless noted below

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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

TP12

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Brown slightly silty SAND & GRAVEL

Depth, m

1.50

Specimen
Reference

Specimen
Depth

m

Sample Type

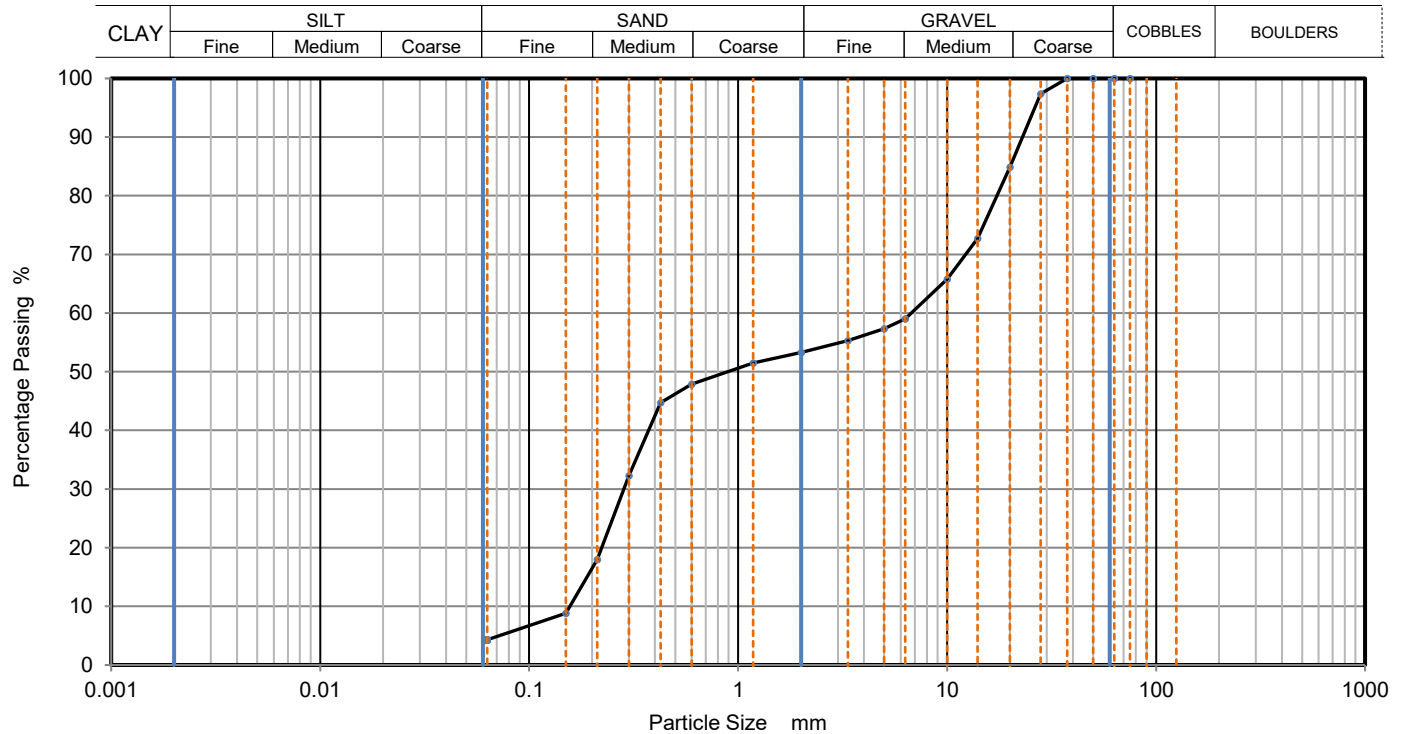
B

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL2024061810



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	100		
50	100		
37.5	100		
28	97		
20	85		
14	73		
10	66		
6.3	59		
5	57		
3.35	55		
2	53		
1.18	52		
0.6	48		
0.425	45		
0.3	32		
0.212	18		
0.15	9		
0.063	4		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	0
Gravel	47
Sand	49
Fines <0.063mm	4

Grading Analysis		
D100	mm	
D60	mm	6.74
D30	mm	0.283
D10	mm	0.157
Uniformity Coefficient		43
Curvature Coefficient		0.076

Remarks

Preparation and testing in accordance with BS1377 unless noted below

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PARTICLE SIZE DISTRIBUTION

Job Ref

CCG-C-24-14643

Borehole/Pit No.

TP15

Site Name

GAYWOOD GREEN

Sample No.

1

Specimen
Description

Reddish brown very sandy slightly silty GRAVEL with medium cobble content

Depth, m

1.70

Specimen
Reference

Specimen
Depth

m

Sample Type

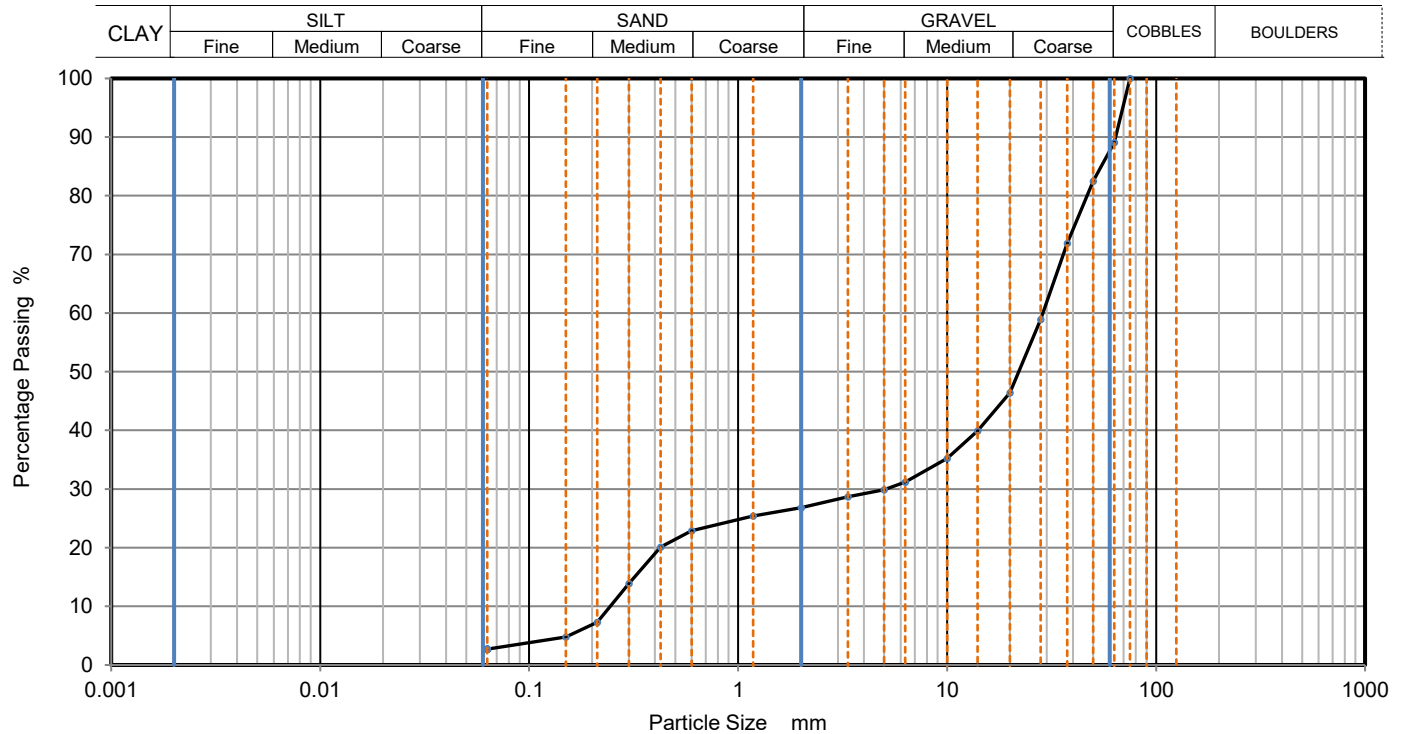
B

Test Method

BS1377:Part 2:1990, clause 9.2

KeyLAB ID

CCGL2024061811



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
75	100		
63	89		
50	83		
37.5	72		
28	59		
20	46		
14	40		
10	35		
6.3	31		
5	30		
3.35	29		
2	27		
1.18	25		
0.6	23		
0.425	20		
0.3	14		
0.212	7		
0.15	5		
0.063	3		

Dry Mass of sample, g

Sample Proportions	% dry mass
Very coarse	11
Gravel	62
Sand	24
Fines <0.063mm	3

Grading Analysis		
D100	mm	75
D60	mm	28.7
D30	mm	5.05
D10	mm	0.245
Uniformity Coefficient		120
Curvature Coefficient		3.6

Remarks

Preparation and testing in accordance with BS1377 unless noted below

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APPENDIX G

CHEMICAL DATA

CC Geotechnical
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WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 24-023642

Project / Site name:	Gaywood Green	Samples received on:	06/06/2024
Your job number:	CCG C 24 14643	Samples instructed on/ Analysis started on:	06/06/2024
Your order number:	CCG PO 14643	Analysis completed by:	13/06/2024
Report Issue Number:	1	Report issued on:	13/06/2024
Samples Analysed:	3 soil samples		

Signed: _____

Joanna Szwagrzak
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: 24-023642

Project / Site name: Gaywood Green

Your Order No: CCG PO 14643

Lab Sample Number				219685	219686	219687
Sample Reference				WS06	WS09	WS12
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.80	0.30
Date Sampled				03/06/2024	03/06/2024	03/06/2024
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			

Stone Content	%	0.1	NONE	68.8	< 0.1	70.5
Moisture Content	%	0.01	NONE	7.5	12	8.9
Total mass of sample received	kg	0.1	NONE	1.3	1.3	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO	DSO

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.2	9	11.4
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.012	0.021	1.46
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	30	110	470
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	14.8	56.5	236
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	19
Organic Matter (automated)	%	0.1	MCERTS	0.5	0.2	1.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.1
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.4
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.39
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.8
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.3
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.4
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	1.5
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.63
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.66
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.21
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.74

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	14.9
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Analytical Report Number: 24-023642
Project / Site name: Gaywood Green
Your Order No: CCG PO 14643

Lab Sample Number	219685	219686	219687
Sample Reference	WS06	WS09	WS12
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	0.80	0.30
Date Sampled	03/06/2024	03/06/2024	03/06/2024
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	< 1.0	3	2.7
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.9	7.1	10
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.3	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	27	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.1	6	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	7.9	9.1	38
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	< 0.25	0.41	1.1
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	31	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.6	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	54	37	130

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	3.5
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	19
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	160
TPHCWG - Aliphatic >C35 - C40 EH_CU_1D_AL	mg/kg	10	NONE	< 10	< 10	73
TPHCWG - Aliphatic >C5 - C40 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	< 10	250

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	18
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	120
TPHCWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	< 10	< 10	45
TPHCWG - Aromatic >EC5 - EC40 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	180

TPH Total >C5 - C40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	< 10	< 10	430
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VOCs

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

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

Analytical Report Number : 24-023642

Project / Site name: Gaywood Green

* 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 *
219685	WS06	None Supplied	0.5	Brown sandy clay with gravel and stones
219686	WS09	None Supplied	0.8	Brown sandy clay with gravel
219687	WS12	None Supplied	0.3	Brown sand with gravel and stones

Analytical Report Number : 24-023642

Project / Site name: Gaywood Green

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
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	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	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
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	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	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	W	MCERTS

Analytical Report Number : 24-023642

Project / Site name: Gaywood Green

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
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	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	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.

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



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Analytical Report Number : 24-023885

Project / Site name:	Gaywood Green	Samples received on:	10/06/2024
Your job number:	CCG-C-24-14643	Samples instructed on/ Analysis started on:	10/06/2024
Your order number:	CCG-PO-14643	Analysis completed by:	13/06/2024
Report Issue Number:	1	Report issued on:	13/06/2024
Samples Analysed:	13 soil samples		

Signed: _____

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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: 24-023885

Project / Site name: Gaywood Green

Your Order No: CCG-PO-14643

Lab Sample Number				221069	221070	221071	221072	221073
Sample Reference				WS01	WS03	WS07	WS11	WS13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.40	0.30	0.50	0.80
Date Sampled				05/06/2024	05/06/2024	06/06/2024	06/06/2024	06/06/2024
Time Taken				1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	31.4	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.6	11	14	8.9	8
Total mass of sample received	kg	0.1	NONE	1.2	1.1	1.2	1.1	1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO	PDO	PDO	PDO

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3	8.3	8.7	8.2	7.7
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.019	0.013	0.277	< 0.005	0.007
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	32	9.1	150	8.9	13
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	15.9	4.54	72.5	4.45	6.37
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	120	< 1.0	< 1.0
Organic Matter (automated)	%	0.1	MCERTS	1.5	0.7	0.7	0.3	0.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.11	< 0.05	0.06	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.16	0.08	0.06	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.14	0.09	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.08	0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.12	0.06	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.13	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.07	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	0.81	< 0.80	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 24-023885

Project / Site name: Gaywood Green

Your Order No: CCG-PO-14643

Lab Sample Number				221069	221070	221071	221072	221073
Sample Reference				WS01	WS03	WS07	WS11	WS13
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.40	0.30	0.50	0.80
Date Sampled				05/06/2024	05/06/2024	06/06/2024	06/06/2024	06/06/2024
Time Taken				1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2	3.1	1.6	< 1.0	1.8
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.2	94	8.3	1.2	3
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.4	0.3	0.4	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.4	< 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	11	9.8	26	3.4	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	16	16	6.1	15
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	45	23	2.7	7.1
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	0.49	0.36	0.71	< 0.25	< 0.25
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.4	7.7	15	1.7	33
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	24	99	51	5.5	40

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	1.6	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	8.2	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	45	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	11	69	< 8.0	< 8.0
TPHCWG - Aliphatic >C35 - C40 EH_CU_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aliphatic >C5 - C40 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	11	120	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	< 2.0	4.1	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	15	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	38	< 10	< 10
TPHCWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	< 10	57	< 10	< 10

TPH Total >C5 - C40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	< 10	11	180	< 10	< 10
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	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
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

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

Analytical Report Number: 24-023885

Project / Site name: Gaywood Green

Your Order No: CCG-PO-14643

Lab Sample Number				221074	221075	221076	221077	221078
Sample Reference				WS15	WS16	WS18	WS19	WS20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	1.30	0.60	0.70	0.40
Date Sampled				05/06/2024	05/06/2024	05/06/2024	05/06/2024	05/06/2024
Time Taken				1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	11	8.8	9.4	6.4
Total mass of sample received	kg	0.1	NONE	1.2	2	2	2	1.1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO	PDO	PDO	PDO

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	9.4	9.2	7.4	7.2	7.6
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.183	0.177	0.017	0.011	0.012
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	730	790	7.9	9.4	90
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	366	393	3.96	4.69	44.9
Sulphide	mg/kg	1	MCERTS	2.3	1.7	< 1.0	< 1.0	< 1.0
Organic Matter (automated)	%	0.1	MCERTS	1	1.1	1	1.2	0.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.28	0.26	< 0.05	0.11	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.37	0.52	< 0.05	0.08	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.36	0.49	0.05	0.08	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.2	0.28	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.25	0.32	< 0.05	0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.24	0.35	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.13	0.15	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.21	0.3	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.11	0.16	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.13	0.18	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.33	3.01	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 24-023885
Project / Site name: Gaywood Green
Your Order No: CCG-PO-14643

Lab Sample Number				221074	221075	221076	221077	221078
Sample Reference				WS15	WS16	WS18	WS19	WS20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	1.30	0.60	0.70	0.40
Date Sampled				05/06/2024	05/06/2024	05/06/2024	05/06/2024	05/06/2024
Time Taken				1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3	2.2	2.4	1.4	1.4
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8	8.2	5.7	5.1	2.6
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.8	0.4	0.4	0.4
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	56	13	12	11	6
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	20	13	12	4.1
Lead (aqua regia extractable)	mg/kg	1	MCERTS	25	26	19	15	2.1
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	0.97	1	0.57	0.44	< 0.25
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	11	9.4	9.1	3.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	53	50	58	19	8.4

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	27	18	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C35 - C40 EH_CU_1D_AL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aliphatic >C5 - C40 EH_CU+HS_1D_AL	mg/kg	10	NONE	27	18	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	4.3	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	14	< 10	< 10	< 10
TPHCWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	14	< 10	< 10	< 10

TPH Total >C5 - C40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	32	32	< 10	< 10	< 10
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	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
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

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

Analytical Report Number: 24-023885

Project / Site name: Gaywood Green

Your Order No: CCG-PO-14643

Lab Sample Number				221079	221080	221081
Sample Reference				WS22	WS23	WS25
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.80	1.10	0.20
Date Sampled				05/06/2024	06/06/2024	06/06/2024
Time Taken				1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			

Stone Content	%	0.1	NONE	< 0.1	26.5	< 0.1
Moisture Content	%	0.01	NONE	8.2	9.6	5.5
Total mass of sample received	kg	0.1	NONE	1.8	1.8	1.2

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	MWI	MWI	MWI

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.6	11.1	8
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.007	0.367	0.136
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	27	360	160
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	13.6	178	80.6
Sulphide	mg/kg	1	MCERTS	< 1.0	3.4	5.1
Organic Matter (automated)	%	0.1	MCERTS	< 0.1	1.2	3.5

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.06	0.43
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.28	0.07
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.17	0.09
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.5	1.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.28	0.29
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.8	1.9
Pyrene	mg/kg	0.05	MCERTS	< 0.05	1.6	1.8
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.65	1.1
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.78	1.3
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.73	1.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.31	0.6
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.66	0.97
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.33	0.53
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.08	0.16
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.41	0.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	9.55	12.2
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Analytical Report Number: 24-023885

Project / Site name: Gaywood Green

Your Order No: CCG-PO-14643

Lab Sample Number				221079	221080	221081
Sample Reference				WS22	WS23	WS25
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.80	1.10	0.20
Date Sampled				05/06/2024	06/06/2024	06/06/2024
Time Taken				1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	1.2	3	9.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.3	9.6	39
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.7	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	7.8	23	83
Copper (aqua regia extractable)	mg/kg	1	MCERTS	6.8	23	180
Lead (aqua regia extractable)	mg/kg	1	MCERTS	3	40	87
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	0.31	1.1	6.4
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.5	12	38
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	13	63	100

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0	2.8	4
TPHCWG - Aliphatic >EC16 - C21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	< 8.0	16
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0	30	96
TPHCWG - Aliphatic >C35 - C40 EH_CU_1D_AL	mg/kg	10	NONE	< 10	< 10	24
TPHCWG - Aliphatic >C5 - C40 EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10	33	140

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0	3.4	3.1
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	< 10	10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10	25	31
TPHCWG - Aromatic >EC35 - EC40 EH_CU_1D_AR	mg/kg	10	NONE	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10	29	44

TPH Total >C5 - C40 EH_CU+HS_1D_TOTAL	mg/kg	10	NONE	< 10	61	180
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VOCs

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

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

Analytical Report Number : 24-023885

Project / Site name: Gaywood Green

* 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 *
221069	WS01	None Supplied	0.3	Brown sand with gravel
221070	WS03	None Supplied	0.4	Brown clay and sand with gravel
221071	WS07	None Supplied	0.3	Brown sand with gravel and stones
221072	WS11	None Supplied	0.5	Brown sand with gravel and vegetation
221073	WS13	None Supplied	0.8	Brown clay and sand with gravel
221074	WS15	None Supplied	1.1	Brown sandy clay with gravel
221075	WS16	None Supplied	1.3	Brown clay and sand with gravel and metal
221076	WS18	None Supplied	0.6	Brown sandy clay with vegetation
221077	WS19	None Supplied	0.7	Brown sand
221078	WS20	None Supplied	0.4	Brown sand with gravel
221079	WS22	None Supplied	0.8	Brown sand with gravel
221080	WS23	None Supplied	1.1	Brown sand with stones
221081	WS25	None Supplied	0.2	Brown sand with gravel and plastic

Analytical Report Number : 24-023885

Project / Site name: Gaywood Green

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
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	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	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
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	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazine followed by colorimetry	In-house method	L080	W	MCERTS
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	L080	W	MCERTS

Analytical Report Number : 24-023885

Project / Site name: Gaywood Green

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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	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.

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



4041



Sample Deviation Report



Analytical Report Number : 24-023885

Project / Site name: Gaywood Green

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
WS01	N/A	S	221069	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS01	N/A	S	221069	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS03	N/A	S	221070	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS03	N/A	S	221070	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS07	N/A	S	221071	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS07	N/A	S	221071	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS11	N/A	S	221072	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS11	N/A	S	221072	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS13	N/A	S	221073	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS13	N/A	S	221073	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS15	N/A	S	221074	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS15	N/A	S	221074	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS16	N/A	S	221075	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS16	N/A	S	221075	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS18	N/A	S	221076	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS18	N/A	S	221076	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS19	N/A	S	221077	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS19	N/A	S	221077	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS20	N/A	S	221078	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS20	N/A	S	221078	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS22	N/A	S	221079	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS22	N/A	S	221079	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS23	N/A	S	221080	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS23	N/A	S	221080	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b
WS25	N/A	S	221081	b	BTEX and/or Volatile organic compounds in soil	L073B	b
WS25	N/A	S	221081	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088	b

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Analytical Report Number : 24-025289

Project / Site name:	Gaywood Green	Samples received on:	14/06/2024
Your job number:	CCG-C-24-14643	Samples instructed on/ Analysis started on:	14/06/2024
Your order number:	CCG-PO-14643	Analysis completed by:	20/06/2024
Report Issue Number:	1	Report issued on:	21/06/2024
Samples Analysed:	9 soil samples		

Signed: _____

Joanna Wawrzeczko
Senior 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: 24-025289
Project / Site name: Gaywood Green
Your Order No: CCG-PO-14643

Lab Sample Number	228749	228750	228751	228752	228753
Sample Reference	TP02	TP03	TP05	TP07	TP10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	0.30	0.80	0.90	1.40
Date Sampled	11/06/2024	11/06/2024	11/06/2024	11/06/2024	11/06/2024
Time Taken	1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	1
Moisture Content	%	0.01	NONE	7	9.3	16	14	6.4
Total mass of sample received	kg	0.1	NONE	1.2	1.2	1.2	1.2	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA	DSA

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7	9.3	8.2	10.3	8.3
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.005	0.021	0.068	0.228	0.013
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	15	100	380	590	75
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	7.69	50.5	192	297	37.7
Sulphide	mg/kg	1	MCERTS	< 1.0	1.1	< 1.0	2.8	< 1.0
Organic Matter (automated)	%	0.1	MCERTS	0.3	0.2	0.5	0.8	0.2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.06	0.2	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.08	0.35	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.08	0.31	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.16	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	0.22	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.06	0.25	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.06	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.12	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	1.72	< 0.80
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Analytical Report Number: 24-025289
Project / Site name: Gaywood Green
Your Order No: CCG-PO-14643

Lab Sample Number	228749	228750	228751	228752	228753
Sample Reference	TP02	TP03	TP05	TP07	TP10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	0.30	0.80	0.90	1.40
Date Sampled	11/06/2024	11/06/2024	11/06/2024	11/06/2024	11/06/2024
Time Taken	1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

	mg/kg	1	ISO 17025	2	1.1	2.6	2	1.4
Antimony (aqua regia extractable)	mg/kg	1	MCERTS	3.8	3.8	11	5.9	2.7
Arsenic (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2	0.2	0.2	0.2
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (hexavalent)	mg/kg	1	MCERTS	6.5	7.6	29	10	5.9
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	2.9	3.9	8.6	12	3.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	3.1	5	10	17	2.7
Lead (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Mercury (aqua regia extractable)	mg/kg	0.25	MCERTS	< 0.25	< 0.25	0.39	0.5	< 0.25
Molybdenum (aqua regia extractable)	mg/kg	1	MCERTS	6.8	5.6	16	8	4.6
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	15	13	34	49	9.2
Zinc (aqua regia extractable)	mg/kg	1	MCERTS					

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	1.1	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	2.7	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	24	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 _{EH_CU_1D_AL}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC40 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	27	< 10	< 10	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH Total >EC5 - EC40 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	< 10	27	< 10	< 10	< 10
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VOCs

MTBE (Methyl Tertiary Butyl Ether)	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
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

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

Analytical Report Number: 24-025289
Project / Site name: Gaywood Green
Your Order No: CCG-PO-14643

Lab Sample Number	228754	228755	228756	228757
Sample Reference	TP11	TP13	TP14	TP16
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.70	1.00	0.30	1.00
Date Sampled	13/06/2024	12/06/2024	12/06/2024	12/06/2024
Time Taken	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1	18.1	43.8	< 0.1
Moisture Content	%	0.01	NONE	8.6	15	8.2	10
Total mass of sample received	kg	0.1	NONE	1.2	2	1.3	1.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.9	11	10	10.6
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.012	0.293	0.557	0.241
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	9.2	550	1500	760
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	4.61	277	733	381
Sulphide	mg/kg	1	MCERTS	< 1.0	3	140	3.6
Organic Matter (automated)	%	0.1	MCERTS	1.2	0.9	3.6	1.8

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.06	1.3	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.08	0.78	0.09
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.7	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.48	4.1	0.54
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.11	1.2	0.15
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.7	4.4	1.3
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.65	3.9	1.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.35	2.1	0.65
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.39	2.1	0.64
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.41	1.9	0.84
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.18	0.87	0.26
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.34	1.6	0.68
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.18	0.91	0.33
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.08	0.27	0.07
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.21	1	0.38

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	4.23	27.3	7.16
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Analytical Report Number: 24-025289
Project / Site name: Gaywood Green
Your Order No: CCG-PO-14643

Lab Sample Number	228754	228755	228756	228757
Sample Reference	TP11	TP13	TP14	TP16
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.70	1.00	0.30	1.00
Date Sampled	13/06/2024	12/06/2024	12/06/2024	12/06/2024
Time Taken	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2	2.1	5.1	2.7
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.7	7.3	17	9.3
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2	0.4	0.3	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11	13	24	13
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	22	100	26
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	25	63	47
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	0.54	0.71	1.8	0.9
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	9.4	8.6	21	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	20	48	290	59

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_ID_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS_ID_AL}	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS_ID_AL}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	56	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 _{EH_CU_ID_AL}	mg/kg	10	NONE	< 10	< 10	24	< 10
TPHCWG - Aliphatic >EC5 - EC40 _{EH_CU+HS_ID_AL}	mg/kg	10	NONE	< 10	< 10	79	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	< 2.0	< 2.0	3.4	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10	< 10	12	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10	12	65	25
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_ID_AR}	mg/kg	10	NONE	< 10	< 10	23	< 10
TPHCWG - Aromatic >EC5 - EC40 _{EH_CU+HS_ID_AR}	mg/kg	10	NONE	< 10	12	100	25

TPH Total >EC5 - EC40 _{EH_CU+HS_ID_TOTAL}	mg/kg	10	NONE	< 10	12	180	25
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VOCs

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

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

Analytical Report Number : 24-025289

Project / Site name: Gaywood Green

* 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 *
228749	TP02	None Supplied	0.5	Brown sand
228750	TP03	None Supplied	0.3	Brown sand with gravel
228751	TP05	None Supplied	0.8	Brown clay and sand with gravel
228752	TP07	None Supplied	0.9	Brown sand with gravel
228753	TP10	None Supplied	1.4	Brown sand with gravel and stones
228754	TP11	None Supplied	0.7	Brown loam and sand with gravel and vegetation
228755	TP13	None Supplied	1	Brown sand with gravel and stones
228756	TP14	None Supplied	0.3	Brown sand with vegetation and stones
228757	TP16	None Supplied	1	Brown sand with gravel

Analytical Report Number : 24-025289

Project / Site name: Gaywood Green

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
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	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	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
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	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	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	W	MCERTS
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	L080	W	MCERTS

Analytical Report Number : 24-025289
Project / Site name: Gaywood Green

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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	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 30°C.

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

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 - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

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Analytical Report Number : 24-025293

Project / Site name:	Gaywood Green	Samples received on:	14/06/2024
Your job number:	CCG C 24 14643	Samples instructed on/ Analysis started on:	14/06/2024
Your order number:	CCG PO 14643	Analysis completed by:	20/06/2024
Report Issue Number:	1	Report issued on:	24/06/2024
Samples Analysed:	1 soil sample - 2 water samples - 1 leachate sample		

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

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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: 24-025293
Project / Site name: Gaywood Green
Your Order No: CCG PO 14643

Lab Sample Number				228783
Sample Reference				TP11
Sample Number				None Supplied
Depth (m)				1.20
Date Sampled				12/06/2024
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	4.9
Total mass of sample received	kg	0.1	NONE	0.3

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.4
Free Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO ₄	%	0.005	MCERTS	0.006
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	16
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	8.02
Sulphide	mg/kg	1	MCERTS	< 1.0
Organic Matter (automated)	%	0.1	MCERTS	< 0.1

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80
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Analytical Report Number: 24-025293
 Project / Site name: Gaywood Green
 Your Order No: CCG PO 14643

Lab Sample Number	228783			
Sample Reference	TP11			
Sample Number	None Supplied			
Depth (m)	1.20			
Date Sampled	12/06/2024			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Heavy Metals / Metalloids

Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	1.2
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3.2
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	6
Copper (aqua regia extractable)	mg/kg	1	MCERTS	6.2
Lead (aqua regia extractable)	mg/kg	1	MCERTS	2.8
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	< 0.25
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	4.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	14

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.02	NONE	< 0.020
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	5.4
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 _{EH_CU_1D_AL}	mg/kg	10	NONE	< 10
TPHCWG - Aliphatic >EC5 - EC40 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	NONE	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.05	NONE	< 0.050
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10
TPHCWG - Aromatic >EC5 - EC40 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10

TPH Total >EC5 - EC40 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	< 10
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VOCs

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

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

Analytical Report Number: 24-025293
Project / Site name: Gaywood Green

Your Order No: CCG PO 14643

Lab Sample Number	228781	228782
Sample Reference	TP07	TP13
Sample Number	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied
Date Sampled	11/06/2024	12/06/2024
Time Taken	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection
		Accreditation Status

General Inorganics

pH (L099)	pH Units	N/A	ISO 17025	11.8	10.9
Free Cyanide	µg/l	10	ISO 17025	< 10	-
Free Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	-	< 1.0
Sulphate as SO ₄	mg/l	0.045	ISO 17025	460	310
Sulphide	µg/l	5	NONE	< 5.0	< 5.0
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	205	13.5
Hardness - Total	mgCaCO ₃ /l	1	ISO 17025	215	364

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	0.96	0.84
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	0.54	0.45
Fluorene	µg/l	0.01	ISO 17025	0.23	0.24
Phenanthrene	µg/l	0.01	ISO 17025	1.1	1.1
Anthracene	µg/l	0.01	ISO 17025	0.22	0.27
Fluoranthene	µg/l	0.01	ISO 17025	0.9	0.91
Pyrene	µg/l	0.01	ISO 17025	0.79	0.78
Benzo(a)anthracene	µg/l	0.01	ISO 17025	0.35	0.38
Chrysene	µg/l	0.01	ISO 17025	0.31	0.39
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	0.32	0.39
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.13	0.18
Benzo(a)pyrene	µg/l	0.01	ISO 17025	0.22	0.34
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	0.16
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	0.19

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	6.02	6.58
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	9.53	4.01
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.05	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	3.9	0.3
Copper (dissolved)	µg/l	0.5	ISO 17025	570	8.4
Lead (dissolved)	µg/l	0.2	ISO 17025	0.8	0.5
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	320	5
Selenium (dissolved)	µg/l	0.6	ISO 17025	16	3.5
Zinc (dissolved)	µg/l	0.5	ISO 17025	12	2.5

Boron (dissolved)	µg/l	10	ISO 17025	< 10	< 10
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0 th	< 5.0

Analytical Report Number: 24-025293
Project / Site name: Gaywood Green

Your Order No: CCG PO 14643

Lab Sample Number	228781	228782
Sample Reference	TP07	TP13
Sample Number	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied
Date Sampled	11/06/2024	12/06/2024
Time Taken	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection
		Accreditation Status

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 _{HS_1D_AL}	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS_1D_AL}	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS_1D_AL}	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH_1D_AL_MS}	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC12 - EC16 _{EH_1D_AL_MS}	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC16 - EC21 _{EH_1D_AL_MS}	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC21 - EC35 _{EH_1D_AL_MS}	µg/l	10	NONE	< 10	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH_1D_AL_MS}	µg/l	10	NONE	< 10	< 10

TPH - Aromatic >EC5 - EC7 _{HS_1D_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS_1D_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 _{HS_1D_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH_1D_AR_MS}	µg/l	10	NONE	< 10	30
TPH - Aromatic >EC12 - EC16 _{EH_1D_AR_MS}	µg/l	10	NONE	150	49
TPH - Aromatic >EC16 - EC21 _{EH_1D_AR_MS}	µg/l	10	NONE	50	30
TPH - Aromatic >EC21 - EC35 _{EH_1D_AR_MS}	µg/l	10	NONE	< 10	< 10
TPH - Aromatic >EC5 - EC35 _{HS+EH_1D_AR_MS}	µg/l	10	NONE	200	110

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0

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

Analytical Report Number: 24-025293
Project / Site name: Gaywood Green

Your Order No: CCG PO 14643

Lab Sample Number	228783			
Sample Reference	TP11			
Sample Number	None Supplied			
Depth (m)	1.20			
Date Sampled	12/06/2024			
Time Taken	None Supplied			
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status	

General Inorganics

pH (automated)	pH Units	N/A	ISO 17025	7.3
Free Cyanide (Low Level 1 µg/l)	µg/l	1	NONE	< 1
Sulphate as SO ₄	mg/l	0.045	ISO 17025	0.841
Sulphide	µg/l	5	NONE	< 5.0
Hardness - Total	mgCaCO ₃ /l	1	ISO 17025	5.5

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	NONE	< 0.16
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1	ISO 17025	< 1.0
Boron (dissolved)	µg/l	10	ISO 17025	< 10
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	< 0.4
Copper (dissolved)	µg/l	0.7	ISO 17025	3
Lead (dissolved)	µg/l	1	ISO 17025	< 1.0
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	< 0.3
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	1.3

Analytical Report Number: 24-025293
Project / Site name: Gaywood Green

Your Order No: CCG PO 14643

Lab Sample Number				228783
Sample Reference				TP11
Sample Number				None Supplied
Depth (m)				1.20
Date Sampled				12/06/2024
Time Taken				None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status	

Petroleum Hydrocarbons

TPH - Aliphatic >EC5 - EC6 _{HS,1D,AL}	µg/l	1	NONE	< 1.0
TPH - Aliphatic >EC6 - EC8 _{HS,1D,AL}	µg/l	1	NONE	< 1.0
TPH - Aliphatic >EC8 - EC10 _{HS,1D,AL}	µg/l	1	NONE	< 1.0
TPH - Aliphatic >EC10 - EC12 _{EH,1D,AL,MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC12 - EC16 _{EH,1D,AL,MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC16 - EC21 _{EH,1D,AL,MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC21 - EC35 _{EH,1D,AL,MS}	µg/l	10	NONE	< 10
TPH - Aliphatic >EC5 - EC35 _{HS+EH,1D,AL,MS}	µg/l	10	NONE	< 10

TPH - Aromatic >EC5 - EC7 _{HS,1D,AR}	µg/l	1	NONE	< 1.0
TPH - Aromatic >EC7 - EC8 _{HS,1D,AR}	µg/l	1	NONE	< 1.0
TPH - Aromatic >EC8 - EC10 _{EH,1D,AR,MS}	µg/l	1	NONE	< 1.0
TPH - Aromatic >EC10 - EC12 _{EH,1D,AR,MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC12 - EC16 _{EH,1D,AR,MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC16 - EC21 _{EH,1D,AR,MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC21 - EC35 _{EH,1D,AR,MS}	µg/l	10	NONE	< 10
TPH - Aromatic >EC6 - EC35 _{HS+EH,1D,AR,MS}	µg/l	10	NONE	< 10

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	NONE	< 3.0
Benzene	µg/l	3	NONE	< 3.0
Toluene	µg/l	3	NONE	< 3.0
Ethylbenzene	µg/l	3	NONE	< 3.0
p & m-xylene	µg/l	3	NONE	< 3.0
o-xylene	µg/l	3	NONE	< 3.0

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

Analytical Report Number : 24-025293

Project / Site name: Gaywood Green

* 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 *
228783	TP11	None Supplied	1.2	Brown loam and sand with gravel

Analytical Report Number : 24-025293

Project / Site name: Gaywood Green

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
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	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	D	MCERTS
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW	In-house method based on USEPA Method 6020 & 200.8 for the determination of trace elements in water by ICP-MS	L012B	W	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
Sulphide in leachate	Determination of sulphide in leachate by ion selective electrode	In-house method	L029	W	NONE
Sulphide in water	Determination of sulphide in water by ion selective electrode	In-house method	L029	W	NONE
Total organic carbon in water	Determination of total organic carbon in water by TOC/DOC NDIR analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	ISO 17025
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	L038B	D	MCERTS
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	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices: SW, GW, PW, PrW (Al, Cu, Fe, Zn)	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Total Hardness of leachates	Determination of hardness in leachates by calculation from calcium and magnesium	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045B	W	ISO 17025

Analytical Report Number : 24-025293

Project / Site name: Gaywood Green

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
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045B	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-MS/GC-MS HS in leachate	Determination of total petroleum hydrocarbons in leachate by GC-MS/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L070B/L088	W	NONE
Total petroleum hydrocarbons with carbon banding by GC-MS in water	Determination of total petroleum hydrocarbons in water by GC-MS/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L070B	W	NONE
BTEX and/or Volatile organic compounds in leachate	Determination of volatile organic compounds in leachate by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
BTEX and/or Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA 8260	L073B	W	ISO 17025
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080	W	ISO 17025
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	W	MCERTS
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW	L080	W	ISO 17025
Free cyanide (low level) in leachate	Determination of free cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	NONE
Free cyanide (low level) in water	Determination of free cyanide by distillation followed by colorimetry. Accredited matrices SW, GW, PW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	NONE
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	L080	W	MCERTS
Free cyanide in water	Determination of free cyanide by distillation followed by colorimetry. Accredited matrices SW, GW, PW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025
Total petroleum hydrocarbons by GC-MS HS in water	Determination of total petroleum hydrocarbons in water by GC-MS HS	In-house method	L088B	W	ISO 17025

Analytical Report Number : 24-025293
Project / Site name: Gaywood Green

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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	MCERTS
pH at 20°C in leachate (automated)	Determination of pH in leachate by electrometric measurement	In-house method	L099	W	ISO 17025
pH at 20°C in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method	L099	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in leachate	SVOCs and PAHs in leachate	In-house method	L102B		ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAH) in leachate by extraction in dichloromethane followed by GC-MS	In-house method based on USEPA 8270	L102B	W	ISO 17025
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW, LL	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025

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 30°C.

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

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 - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

*h - Due to methods difference, results for Hexavalent Chromium and Total Chromium do not agree, results should be interpreted with caution.

Analytical Report Number : 24-025293

Project / Site name: Gaywood Green

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
TP07	N/A	W	228781	c	pH at 20°C in water (automated)	L099	c

CC Geotechnical
Unit 1-2 Deltic Place
Deltic Way
Knowsley Industrial Estate
Liverpool
L33 7BU

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS
t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 24-025294

Project / Site name:	Gaywood Green	Samples received on:	14/06/2024
Your job number:	CCG C 24 14643	Samples instructed on/ Analysis started on:	14/06/2024
Your order number:	CCG PO 14643	Analysis completed by:	20/06/2024
Report Issue Number:	1	Report issued on:	20/06/2024
Samples Analysed:	10 soil samples		

Signed: _____
Dominika Liana
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

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: 24-025294
 Project / Site name: Gaywood Green
 Your Order No: CCG PO 14643

Lab Sample Number	228784	228785	228786	228787	228788
Sample Reference	WS03	TP04	WS10	TP09	TP10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	2.20	1.80	1.50	0.90
Date Sampled	12/06/2024	12/06/2024	12/06/2024	12/06/2024	12/06/2024
Time Taken	1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	67.5	< 0.1	78.4	< 0.1
Moisture Content	%	0.01	NONE	4.9	5.1	5.4	8.7	5.2
Total mass of sample received	kg	0.1	NONE	1.1	1.1	1	1.1	1

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.3	8.3	8	8.3	7.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	11	14	30	39	67
Water Soluble SO ₄ 16hr extraction (2:1)	mg/l	1.25	MCERTS	5.49	7.22	15.1	19.4	33.7

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

Analytical Report Number: 24-025294
Project / Site name: Gaywood Green
Your Order No: CCG PO 14643

Lab Sample Number				228789	228790	228791	228792	228793
Sample Reference				WS19	TP13	TP14	TP15	WS21
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	1.00	0.70	1.40	2.30
Date Sampled				12/06/2024	12/06/2024	12/06/2024	12/06/2024	12/06/2024
Time Taken				1600	1600	1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	18.1	1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	4.3	15	8.1	11	4.6
Total mass of sample received	kg	0.1	NONE	1	2	0.9	0.9	1

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8	11	8.9	9.6	8.6
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	17	630	280	1400	14
Water Soluble SO ₄ 16hr extraction (2:1)	mg/l	1.25	MCERTS	8.64	314	140	714	6.73

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

Analytical Report Number : 24-025294

Project / Site name: Gaywood Green

* 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 *
228784	WS03	None Supplied	0.8	Brown sand with gravel and vegetation
228785	TP04	None Supplied	2.2	Brown sand with stones
228786	WS10	None Supplied	1.8	Brown loam and sand with gravel
228787	TP09	None Supplied	1.5	Brown sand with stones
228788	TP10	None Supplied	0.9	Brown loam and sand with gravel
228789	WS19	None Supplied	1.1	Brown loam and sand with gravel
228790	TP13	None Supplied	1	Brown sand with gravel and stones
228791	TP14	None Supplied	0.7	Brown sand with stones
228792	TP15	None Supplied	1.4	Brown sand with gravel
228793	WS21	None Supplied	2.3	Brown sand with gravel

Analytical Report Number : 24-025294

Project / Site name: Gaywood Green

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
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	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 30°C.

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

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution



APPENDIX H

HUMAN HEALTH ASSESSMENT



METALS DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: 24-14643

Site name: Gaywood Green, Kirkby

Prepared by: KH

Authorised by: CB

Proposed land use: Residential with plant uptake

SOM % used: 1.0

= Threshold exceeded

= Below Limit of detection

n/t = Not tested

Contaminants			Metals							
			Cadmium	Chromium III	Chromium VI	Copper	Lead	Mercury (elemental)	Nickel	Zinc
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.5	5.0	0.8	5.0	5.0	0.5	5.0	5.0
Human Health Risk Assessment (GAC)			11	910	6	240	200	1.2	130	3700
Sample Location	Sample Depth (m)	Sample type								
WS01	0.3	S	< 0.2	11	< 1.8	19	17	< 0.3	8.4	24
WS03	0.4	S	< 0.2	9.8	< 1.8	16	45	< 0.3	7.7	99
WS06	0.5	S	< 0.2	32	< 1.8	9.1	7.9	< 0.3	21	54
WS07	0.3	S	0.4	26	< 1.8	16	23	< 0.3	15	51
WS09	0.8	S	< 0.2	27	< 1.8	6	9.1	< 0.3	31	37
WS11	0.5	S	< 0.2	3.4	< 1.8	6.1	2.7	< 0.3	1.7	5.5
WS12	0.3	S	< 0.2	19	< 1.8	23	38	< 0.3	12	130
WS13	0.8	S	< 0.2	34	< 1.8	15	7.1	< 0.3	33	40
WS15	1.1	S	< 0.2	56	< 1.8	19	25	< 0.3	12	53
WS16	1.3	S	< 0.2	13	< 1.8	20	26	< 0.3	11	50
WS18	0.6	S	< 0.2	12	< 1.8	13	19	< 0.3	9.4	58
WS19	0.7	S	< 0.2	11	< 1.8	12	15	< 0.3	9.1	19
WS20	0.4	S	< 0.2	6	< 1.8	4.1	2.1	< 0.3	3.7	8.4
WS22	0.8	S	< 0.2	7.8	< 1.8	6.8	3	< 0.3	6.5	13
WS23	1.1	S	< 0.2	23	< 1.8	23	40	< 0.3	12	63
WS25	0.2	S	< 0.2	83	< 1.8	180	87	< 0.3	38	100
Human Health Risk Assessment (GAC)			11	910	6	240	200	1.2	130	3700

METALS DATA SUMMARY AND RISK ASSESSMENT SHEET

Site name: **Gaywood Green, Kirkby**

Authorised by: CB

SOM % used: 1.0

= Below Limit of detection

n/t = Not tested

			Metals								
Contaminants											
			Cadmium	Chromium III	Chromium VI	Copper	Lead	Mercury (elemental)	Nickel	Zinc	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			Limit of Detection	0.5	5.0	0.8	5.0	5.0	0.5	5.0	5.0
			Human Health Risk Assessment (GAC)	11	910	6	240	200	1.2	130	3700
Sample Location	Sample Depth (m)	Sample type									
TP02	0.5	S	< 0.2	6.5	< 1.8	2.9	3.1	< 0.3	6.8	15	
TP03	0.3	S	< 0.2	7.6	< 1.8	3.9	5	< 0.3	5.6	13	
TP05	0.8	S	< 0.2	29	< 1.8	8.6	10	< 0.3	16	34	
TP07	0.9	S	< 0.2	10	< 1.8	12	17	< 0.3	8	49	
TP10	1.4	S	< 0.2	5.9	< 1.8	3.7	2.7	< 0.3	4.6	9.2	
TP11	0.7	S	< 0.2	11	< 1.8	12	16	< 0.3	9.4	20	
TP13	1	S	< 0.2	13	< 1.8	22	25	< 0.3	8.6	48	
TP14	0.3	S	< 0.2	24	< 1.8	100	63	< 0.3	21	290	
TP16	1	S	< 0.2	13	< 1.8	26	47	< 0.3	11	59	
Human Health Risk Assessment (GAC)			11	910	6	240	200	1.2	130	3700	



SEMI-METALS, NON-METALS, INORGANICS AND OTHER DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: **24-14643**

Site name: **Gaywood Green, Kirkby**

Prepared by: **KH**

Authorised by: **CB**

Proposed land use: **Residential with plant uptake**

SOM % used: **1.0**

 = **Threshold exceeded**

 = **Below Limit of detection**

n/t = **Not tested**

			Semi/non-metals		Inorganics			Other		
Contaminants			Arsenic	Boron	Selenium	Cyanide (free)	Sulphate (water soluble)	Sulphate (water soluble)	pH (units)	Soil Organic Matter %
Units			mg/kg	mg/kg	mg/kg	mg/kg	g/l	mg/l	units	units
Limit of Detection			1.0	0.5	1.0	1.0	0.02	20.0	0.1	0.1
Human Health Risk Assessment (GAC)			37	290	250	22	NA	NA	NA	NA
Sample Location	Sample Depth (m)	Sample type								
WS01	0.3	S	6.2	0.5	< 1.0	< 1.0	n/t	15.9	8.3	1.5
WS03	0.4	S	94	0.4	< 1.0	< 1.0	n/t	4.54	8.3	0.7
WS06	0.5	S	2.9	< 0.2	< 1.0	< 1.0	n/t	14.8	8.2	0.5
WS07	0.3	S	8.3	0.3	< 1.0	< 1.0	n/t	72.5	8.7	0.7
WS09	0.8	S	7.1	0.3	1.6	< 1.0	n/t	56.5	9	0.2
WS11	0.5	S	1.2	0.4	< 1.0	< 1.0	n/t	4.45	8.2	0.3
WS12	0.3	S	10	0.7	< 1.0	< 1.0	n/t	236	11.4	1.3
WS13	0.8	S	3	0.4	< 1.0	< 1.0	n/t	6.37	7.7	0.4
WS15	1.1	S	8	0.4	< 1.0	< 1.0	n/t	366	9.4	1
WS16	1.3	S	8.2	0.8	< 1.0	< 1.0	n/t	393	9.2	1.1
WS18	0.6	S	5.7	0.4	< 1.0	< 1.0	n/t	3.96	7.4	1
WS19	0.7	S	5.1	0.4	< 1.0	< 1.0	n/t	4.69	7.2	1.2
WS20	0.4	S	2.6	0.4	< 1.0	< 1.0	n/t	44.9	7.6	0.4
WS22	0.8	S	6.3	0.4	< 1.0	< 1.0	n/t	13.6	7.6	< 0.1
WS23	1.1	S	9.6	0.7	< 1.0	< 1.0	n/t	178	11.1	1.2
WS25	0.2	S	39	0.4	< 1.0	< 1.0	n/t	80.6	8	3.5
Human Health Risk Assessment (GAC)			37	290	250	22	NA	NA	NA	NA

Job number: 24-14643		=	Threshold exceeded
Site name: Gaywood Green, Kirkby		=	Below Limit of detection
Prepared by: KH			
Authorised by: CB	n/t	=	Not tested
Proposed land use: Residential with plant uptake			
SOM % used: 1.0			

			Semi/non-metals			Inorganics		Other		
Contaminants			Arsenic	Boron	Selenium	Cyanide (free)	Sulphate (water soluble)	Sulphate (water soluble)	pH (units)	Soil Organic Matter %
Units			mg/kg	mg/kg	mg/kg	mg/kg	g/l	mg/l	units	units
Limit of Detection			1.0	0.5	1.0	1.0	0.02	20.0	0.1	0.1
Human Health Risk Assessment (GAC)			37	290	250	22	NA	NA	NA	NA
Sample Location	Sample Depth (m)	Sample type								
TP02	0.5	S	3.8	< 0.2	< 1.0	< 1.0	n/t	7.69	7	0.3
TP03	0.3	S	3.8	0.2	< 1.0	< 1.0	n/t	50.5	9.3	0.2
TP05	0.8	S	11	0.2	< 1.0	< 1.0	n/t	192	8.2	0.5
TP07	0.9	S	5.9	0.2	< 1.0	< 1.0	n/t	297	10.3	0.8
TP10	1.4	S	2.7	0.2	< 1.0	< 1.0	n/t	37.7	8.3	0.2
TP11	0.7	S	5.7	0.2	< 1.0	< 1.0	n/t	4.61	7.9	1.2
TP13	1	S	7.3	0.4	< 1.0	< 1.0	n/t	277	11	0.9
TP14	0.3	S	17	0.3	< 1.0	< 1.0	n/t	733	10	3.6
TP16	1	S	9.3	0.7	< 1.0	< 1.0	n/t	381	10.6	1.8
Human Health Risk Assessment (GAC)			37	290	250	22	NA	NA	NA	NA



SPECIATED PAH'S DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: 24-14643

Site name: Gaywood Green, Kirkby

Prepared by: KH

Authorised by: CB

Proposed land use: Residential with plant uptake

SOM % used: 1.0

 = Threshold exceeded = Below Limit of detection n/t = Not tested

			PAH's																
Contaminants			Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[ghi]perylene	Benzo[k]fluoranthene	Chrysene	Dibenzo[ah]anthracene	Flouranthene	Flourene	Indeno[123-cd]pyrene	Napthalene	Phenanthrene	Pyrene	Total PAH's
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Human Health Risk Assessment (GAC)			210	170	2400	7.2	2.2	2.6	320	77	15	0.24	280	170	27	2.3	95	620	NA
Sample Location	Sample Depth (m)	Sample type																	
WS01	0.3	S	< 0.05	< 0.05	< 0.05	0.08	< 0.05	0.13	0.07	< 0.05	0.12	< 0.05	0.16	< 0.05	< 0.05	< 0.05	0.11	0.14	0.81
WS03	0.4	S	< 0.05	< 0.05	< 0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06	< 0.05	0.08	< 0.05	< 0.05	< 0.05	< 0.05	0.09	< 0.80
WS06	0.5	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
WS07	0.3	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06	< 0.05	< 0.05	< 0.05	0.06	< 0.05	< 0.80
WS09	0.8	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
WS11	0.5	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
WS12	0.3	S	0.1	< 0.05	0.39	1.3	1.3	1.5	0.74	0.63	1.4	0.21	2.8	0.09	0.66	0.07	1.4	2.3	14.9
WS13	0.8	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
WS15	1.1	S	< 0.05	< 0.05	0.05	0.2	0.21	0.24	0.13	0.13	0.25	< 0.05	0.37	< 0.05	0.11	< 0.05	0.28	0.36	2.33
WS16	1.3	S	< 0.05	< 0.05	< 0.05	0.28	0.3	0.35	0.18	0.15	0.32	< 0.05	0.52	< 0.05	0.16	< 0.05	0.26	0.49	3.01
WS18	0.6	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	< 0.80
WS19	0.7	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	< 0.05	0.08	< 0.05	< 0.05	< 0.05	0.11	0.08	< 0.80
WS20	0.4	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
WS22	0.8	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
WS23	1.1	S	0.28	< 0.05	0.28	0.65	0.66	0.73	0.41	0.31	0.78	0.08	1.8	0.17	0.33	0.06	1.5	1.6	9.55
WS25	0.2	S	0.07	0.07	0.29	1.1	0.97	1.3	0.6	0.6	1.3	0.16	1.9	0.09	0.53	0.43	1.1	1.8	12.2
Human Health Risk Assessment (GAC)			210	170	2400	7.2	2.2	2.6	320	77	15	0.24	280	170	27	2.3	95	620	NA

SPECIATED PAH'S DATA SUMMARY AND RISK ASSESSMENT SHEET

Site name: **Gaywood Green, Kirkby**

Authorised by: **CB**

SOM % used: 1.0

 = Threshold exceeded
 = Below Limit of detection
 n/t = Not tested

			PAH's																
Contaminants			Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[ghi]perylene	Benzo[k]fluoranthene	Chrysene	Dibenzo[ah]anthracene	Fluoranthene	Fluorene	Indeno[123-cd]pyrene	Napthalene	Phenanthrene	Pyrene	Total PAH's
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Human Health Risk Assessment (GAC)			210	170	2400	7.2	2.2	2.6	320	77	15	0.24	280	170	27	2.3	95	620	NA
Sample Location	Sample Depth (m)	Sample type																	
TP02	0.5	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
TP03	0.3	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
TP05	0.8	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06	< 0.05	< 0.05	0.07	< 0.05	0.08	< 0.05	< 0.05	0.05	0.06	0.08	< 0.80
TP07	0.9	S	< 0.05	< 0.05	0.05	0.16	< 0.05	0.25	0.12	0.06	0.22	< 0.05	0.35	< 0.05	< 0.05	< 0.05	0.2	0.31	1.72
TP10	1.4	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
TP11	0.7	S	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.80
TP13	1	S	0.08	< 0.05	0.11	0.35	0.34	0.41	0.21	0.18	0.39	0.08	0.7	< 0.05	0.18	0.06	0.48	0.65	4.23
TP14	0.3	S	0.78	0.09	1.2	2.1	1.6	1.9	1	0.87	2.1	0.27	4.4	0.7	0.91	1.3	4.1	3.9	27.3
TP16	1	S	0.09	< 0.05	0.15	0.65	0.68	0.84	0.38	0.26	0.64	0.07	1.3	< 0.05	0.33	< 0.05	0.54	1.2	7.16
Human Health Risk Assessment (GAC)			210	170	2400	7.2	2.2	2.6	320	77	15	0.24	280	170	27	2.3	95	620	NA



SPECIATED TPH'S DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: **24-14643**

Site name: **Gaywood Green, Kirkby**

Prepared by: **KH**

Authorised by: **CB**

Proposed land use: **Residential with plant uptake**

SOM % used: **1.0**

 = **Threshold exceeded**

 = **Below Limit of detection**

n/t = **Not tested**

			Speciated TPH's															
			Aromatics							Aliphatics								
Contaminants			EC5-7	EC7-8	EC8-10	EC10-12	EC12-16	EC16-21	EC21-35	EC35-44	EC5-6	EC6-8	EC8-10	EC10-12	EC12-16	EC16-35	EC35-44	TOTAL TPH'S
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.01	0.01	1.0	1.0	1.0	1.0	1.0	1.0	0.01	0.01	1.0	1.0	1.0	1.0	1.0	1.0
Human Health Risk Assessment (GAC)			70	130	34	74	140	260	1100	1100	42	100	27	130	1100	65000	65000	NA
Sample Location	Sample Depth (m)	Sample type																
WS01	0.3	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS03	0.4	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	11
WS06	0.5	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS07	0.3	S	< 0.010	< 0.010	< 0.050	< 1.0	4.1	15	38	< 10	< 0.020	< 0.020	< 0.050	1.6	8.2	114	< 10	180
WS09	0.8	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS11	0.5	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS12	0.3	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	18	120	45	< 0.020	< 0.020	< 0.050	< 1.0	3.5	179	73	430
WS13	0.8	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS15	1.1	S	< 0.010	< 0.010	< 0.050	< 1.0	4.3	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	32
WS16	1.3	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	14	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	32
WS18	0.6	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS19	0.7	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS20	0.4	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS22	0.8	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
WS23	1.1	S	< 0.010	< 0.010	< 0.050	< 1.0	3.4	< 10	25	< 10	< 0.020	< 0.020	< 0.050	< 1.0	2.8	n/t	< 10	61
WS25	0.2	S	< 0.010	< 0.010	< 0.050	< 1.0	3.1	10	31	< 10	< 0.020	< 0.020	< 0.050	< 1.0	4	112	24	180
Human Health Risk Assessment (GAC)			70	130	34	74	140	260	1100	1100	42	100	27	130	1100	65000	65000	NA

SPECIATED TPH'S DATA SUMMARY AND RISK ASSESSMENT SHEET

Site name: **Gaywood Green, Kirkby**

Authorised by: CB

SOM % used: 1.0

 = Below Limit of detection

n/t = Not tested

			Speciated TPH's															
			Aromatics							Aliphatics								
Contaminants			EC5-7	EC7-8	EC8-10	EC10-12	EC12-16	EC16-21	EC21-35	EC35-44	EC5-6	EC6-8	EC8-10	EC10-12	EC12-16	EC16-35	EC35-44	TOTAL TPH'S
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.01	0.01	1.0	1.0	1.0	1.0	1.0	1.0	0.01	0.01	1.0	1.0	1.0	1.0	1.0	1.0
Human Health Risk Assessment (GAC)			70	130	34	74	140	260	1100	1100	42	100	27	130	1100	65000	65000	NA
Sample Location	Sample Depth (m)	Sample type																
TP02	0.5	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
TP03	0.3	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	1.1	2.7	n/t	< 10	27
TP05	0.8	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
TP07	0.9	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
TP10	1.4	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
TP11	0.7	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
TP13	1	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	12	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	12
TP14	0.3	S	< 0.010	< 0.010	< 0.050	< 1.0	3.4	12	65	23	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	24	180
TP16	1	S	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	25	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	25
Human Health Risk Assessment (GAC)			70	130	34	74	140	260	1100	1100	42	100	27	130	1100	65000	65000	NA



BTEX DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: 24-14643

Site name: Gaywood Green, Kirkby

Prepared by: KH

Authorised by: CB

Proposed land use: Residential with plant uptake

SOM % used: 1.0

 = Threshold exceeded

 = Below Limit of detection

 = Not tested

Contaminants			BTEX			
			Benzene	Toluene	Ethylbenzene	Total Xylenes
Units			µg/kg	µg/kg	µg/kg	µg/kg
Limit of Detection			10	10	10	10
Human Health Risk Assessment (GAC)			0.33	610	350	NA
Sample Location	Sample Depth (m)	Sample type				
WS01	0.3	S	< 5.0	< 5.0	< 5.0	< 5.0
WS03	0.4	S	< 5.0	< 5.0	< 5.0	< 5.0
WS06	0.5	S	< 5.0	< 5.0	< 5.0	< 5.0
WS07	0.3	S	< 5.0	< 5.0	< 5.0	< 5.0
WS09	0.8	S	< 5.0	< 5.0	< 5.0	< 5.0
WS11	0.5	S	< 5.0	< 5.0	< 5.0	< 5.0
WS12	0.3	S	< 5.0	< 5.0	< 5.0	< 5.0
WS13	0.8	S	< 5.0	< 5.0	< 5.0	< 5.0
WS15	1.1	S	< 5.0	< 5.0	< 5.0	< 5.0
WS16	1.3	S	< 5.0	< 5.0	< 5.0	< 5.0
WS18	0.6	S	< 5.0	< 5.0	< 5.0	< 5.0
WS19	0.7	S	< 5.0	< 5.0	< 5.0	< 5.0
WS20	0.4	S	< 5.0	< 5.0	< 5.0	< 5.0
WS22	0.8	S	< 5.0	< 5.0	< 5.0	< 5.0
WS23	1.1	S	< 5.0	< 5.0	< 5.0	< 5.0
WS25	0.2	S	< 5.0	< 5.0	< 5.0	< 5.0
Human Health Risk Assessment (GAC)			0.33	610	350	NA

Job number: 24-14643			= Threshold exceeded			
Site name: Gaywood Green, Kirkby			= Below Limit of detection			
Prepared by: KH			n/t = Not tested			
Authorised by: CB						
Proposed land use: Residential with plant uptake						
SOM % used: 1.0						
			BTEX			
Contaminants			Benzene	Toluene	Ethylbenzene	Total Xylenes
Units			µg/kg	µg/kg	µg/kg	µg/kg
Limit of Detection			10	10	10	10
Human Health Risk Assessment (GAC)			0.33	610	350	NA
Sample Location	Sample Depth (m)	Sample type				
TP02	0.5	S	< 5.0	< 5.0	< 5.0	< 5.0
TP03	0.3	S	< 5.0	< 5.0	< 5.0	< 5.0
TP05	0.8	S	< 5.0	< 5.0	< 5.0	< 5.0
TP07	0.9	S	< 5.0	< 5.0	< 5.0	< 5.0
TP10	1.4	S	< 5.0	< 5.0	< 5.0	< 5.0
TP11	0.7	S	< 5.0	< 5.0	< 5.0	< 5.0
TP13	1	S	< 5.0	< 5.0	< 5.0	< 5.0
TP14	0.3	S	< 5.0	< 5.0	< 5.0	< 5.0
TP16	1	S	< 5.0	< 5.0	< 5.0	< 5.0
Human Health Risk Assessment (GAC)			0.33	610	350	NA



APPENDIX I

WASTE ACCEPTANCE CRITERIA



Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



45NKG-CY6EL-5T3EC

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

GAYWOOD GREEN

Description/Comments

Project

CCG-C-24-14643

Site

GAYWOOD GREEN

Classified by

Name:

Michael Hartley

Date:

29 Jul 2024 10:44 GMT

Telephone:

0151 545 2750

Company:

CC Geotechnical Ltd**Units 1 & 2 Deltic Way****Knowsley Industrial Estate****Kirkby****L33 7BU**

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:**CERTIFIED****Course****Hazardous Waste Classification****Date****06 Apr 2023**

Next 3 year Refresher due by Apr 2026

Purpose of classification

7 - Disposal of Waste

Address of the waste

GAYWOOD GREEN

Post Code **L32 6QT**

SIC for the process giving rise to the waste

41100 Development of building projects

Description of industry/producer giving rise to the waste

Redevelopment of land for industrial building

Description of the specific process, sub-process and/or activity that created the waste

Waste created during construction preparation

Description of the waste

Made ground soils



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	WAC Results			Page
					Inert	SNRHW	Hazardous	
1	WS01	0.3	Non Hazardous		-	-	-	3
2	WS03	0.4	Non Hazardous		-	-	-	6
3	WS07	0.3	Non Hazardous		-	-	-	9
4	WS11	0.5	Non Hazardous		-	-	-	12
5	WS13	0.8	Non Hazardous		-	-	-	15
6	WS15	1.1	Non Hazardous		-	-	-	18
7	WS16	1.3	Non Hazardous		Pass	Pass	N/A	21
8	WS18	0.6	Non Hazardous		-	-	-	25
9	WS19	0.7	Non Hazardous		-	-	-	28
10	WS20	0.4	Non Hazardous		-	-	-	31
11	WS22	0.8	Non Hazardous		-	-	-	34
12	WS23	1.1	Non Hazardous		Pass	Pass	N/A	37
13	WS25	0.2	Non Hazardous		-	-	-	41
14	TP02	0.5	Non Hazardous		-	-	-	44
15	TP03	0.3	Non Hazardous		-	-	-	47
16	TP05	0.8	Non Hazardous		Pass	Pass	N/A	50
17	TP07	0.9	Non Hazardous		Pass	Pass	N/A	54
18	TP10	1.4	Non Hazardous		-	-	-	58
19	TP11	0.7	Non Hazardous		Pass	Pass	N/A	61
20	TP13	1.0	Non Hazardous		-	-	-	65
21	TP14	0.3	Non Hazardous		-	-	-	68
22	TP16	1.0	Non Hazardous		-	-	-	71
23	WS06	0.5	Non Hazardous		-	-	-	74
24	WS09	0.8	Non Hazardous		-	-	-	77
25	WS12	0.3	Non Hazardous		-	-	-	80

Related documents

#	Name	Description
1	24-023642_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	24-023885_batch.batch	i2 Analytical .batch file used to populate the Job
3	24-023885_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
4	24-023888_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
5	24-025289_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
6	24-025291_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
7	CCG SOIL A I2	waste stream template used to create this Job

WAC results

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate the samples in this Job: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

Report

Created by: Michael Hartley

Created date: 29 Jul 2024 10:44 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	83
Appendix B: Rationale for selection of metal species	84
Appendix C: Version	85



Classification of sample: WS01

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS01	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.3 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.6%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				8.3 pH		8.3 pH	8.3 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.11 mg/kg		0.101 mg/kg	0.0000101 %	✓	
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				0.16 mg/kg		0.146 mg/kg	0.0000146 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.14 mg/kg		0.128 mg/kg	0.0000128 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.08 mg/kg		0.0731 mg/kg	0.00000731 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.12 mg/kg		0.11 mg/kg	0.000011 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.13 mg/kg		0.119 mg/kg	0.0000119 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		0.07 mg/kg		0.064 mg/kg	0.0000064 %	✓		
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2 mg/kg	1.197	2.188 mg/kg	0.000219 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	6.2 mg/kg	1.32	7.482 mg/kg	0.000748 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.5 mg/kg	3.22	1.471 mg/kg	0.000147 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	11 mg/kg	1.462	16.077 mg/kg	0.00161 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	19 mg/kg	1.126	19.552 mg/kg	0.00196 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			17 mg/kg		15.538 mg/kg	0.00155 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.49 mg/kg	1.5	0.672 mg/kg	0.0000672 %	✓		
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	8.4 mg/kg	2.806	21.54 mg/kg	0.00215 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	24 mg/kg	4.398	96.473 mg/kg	0.00965 %	✓		
Total:									0.02 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS03

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS03	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.4 m	
Moisture content:	
11%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		8.3 pH		8.3 pH	8.3 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				0.08 mg/kg		0.0712 mg/kg	0.00000712 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.09 mg/kg		0.0801 mg/kg	0.00000801 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.05 mg/kg		0.0445 mg/kg	0.00000445 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.06 mg/kg		0.0534 mg/kg	0.00000534 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5								
17	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-041-00-2	200-181-8	53-70-3								
18	benzo[ghi]perylene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-883-8	191-24-2								
19	TPH (C6 to C40) petroleum group				11 mg/kg		9.79	mg/kg	0.000979 %	✓	
			TPH								
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
21	benzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
22	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
23	ethylbenzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
24	xylene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
25	antimony { antimony trioxide }				3.1 mg/kg	1.197	3.303	mg/kg	0.00033 %	✓	
	051-005-00-X	215-175-0	1309-64-4								
26	arsenic { arsenic trioxide }				94 mg/kg	1.32	110.458	mg/kg	0.011 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
27	boron { diboron trioxide }				0.4 mg/kg	3.22	1.146	mg/kg	0.000115 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
28	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
29	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.8 mg/kg	1.923	<3.462	mg/kg	<0.000346 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				9.8 mg/kg	1.462	14.323	mg/kg	0.00143 %		
		215-160-9	1308-38-9								
31	copper { dicopper oxide; copper (I) oxide }				16 mg/kg	1.126	16.033	mg/kg	0.0016 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	45 mg/kg		40.05	mg/kg	0.004 %	✓	
	082-001-00-6										
33	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
34	molybdenum { molybdenum(VI) oxide }				0.36 mg/kg	1.5	0.481	mg/kg	0.0000481 %	✓	
	042-001-00-9	215-204-7	1313-27-5								
35	nickel { dinickel hexacyanoferrate }				7.7 mg/kg	2.806	19.227	mg/kg	0.00192 %	✓	
	028-037-00-8	238-946-3	14874-78-3								
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8										
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				99 mg/kg	4.398	387.501	mg/kg	0.0388 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
Total:									0.0611 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00097%)



Classification of sample: WS07

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS07	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.3 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
14%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				8.7 pH		8.7 pH	8.7 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.06 mg/kg		0.0516 mg/kg	0.00000516 %	✓	
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				0.06 mg/kg		0.0516 mg/kg	0.00000516 %	✓	
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	TPH (C6 to C40) petroleum group		TPH		180.9 mg/kg		155.574 mg/kg	0.0156 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	1.6 mg/kg	1.197	1.647 mg/kg	0.000165 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	8.3 mg/kg	1.32	9.424 mg/kg	0.000942 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.3 mg/kg	3.22	0.831 mg/kg	0.0000831 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	0.4 mg/kg	1.142	0.393 mg/kg	0.0000393 %	✓	
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	26 mg/kg	1.462	38 mg/kg	0.0038 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	16 mg/kg	1.126	15.492 mg/kg	0.00155 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			23 mg/kg		19.78 mg/kg	0.00198 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.71 mg/kg	1.5	0.916 mg/kg	0.0000916 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	15 mg/kg	2.806	36.192 mg/kg	0.00362 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	51 mg/kg	4.398	192.893 mg/kg	0.0193 %	✓	
Total:								0.0479 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0156%)



Classification of sample: WS11

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS11	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Moisture content:	
8.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		8.2 pH		8.2 pH	8.2 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5								
17	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-041-00-2	200-181-8	53-70-3								
18	benzo[ghi]perylene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-883-8	191-24-2								
19	TPH (C6 to C40) petroleum group				<10 mg/kg		<10	mg/kg	<0.001 %		<LOD
			TPH								
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
21	benzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
22	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
23	ethylbenzene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-023-00-4	202-849-4	100-41-4								
24	xylene				<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
25	antimony { antimony trioxide }				<1 mg/kg	1.197	<1.197	mg/kg	<0.00012 %		<LOD
	051-005-00-X	215-175-0	1309-64-4								
26	arsenic { arsenic trioxide }				1.2 mg/kg	1.32	1.443	mg/kg	0.000144 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
27	boron { diboron trioxide }				0.4 mg/kg	3.22	1.173	mg/kg	0.000117 %	✓	
	005-008-00-8	215-125-8	1303-86-2								
28	cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
	048-002-00-0	215-146-2	1306-19-0								
29	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.8 mg/kg	1.923	<3.462	mg/kg	<0.000346 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				3.4 mg/kg	1.462	4.969	mg/kg	0.000497 %		
		215-160-9	1308-38-9								
31	copper { dicopper oxide; copper (I) oxide }				6.1 mg/kg	1.126	6.257	mg/kg	0.000626 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	2.7 mg/kg		2.46	mg/kg	0.000246 %	✓	
	082-001-00-6										
33	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
34	molybdenum { molybdenum(VI) oxide }				<0.25 mg/kg	1.5	<0.375	mg/kg	<0.0000375 %		<LOD
	042-001-00-9	215-204-7	1313-27-5								
35	nickel { dinickel hexacyanoferrate }				1.7 mg/kg	2.806	4.345	mg/kg	0.000434 %	✓	
	028-037-00-8	238-946-3	14874-78-3								
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8										
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				5.5 mg/kg	4.398	22.036	mg/kg	0.0022 %	✓	
	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]								
Total:									0.00625 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS13

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS13	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.8 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		7.7 pH		7.7 pH	7.7 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10	mg/kg	<0.001 %		<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	1.8 mg/kg	1.197	1.982	mg/kg	0.000198 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	3 mg/kg	1.32	3.644	mg/kg	0.000364 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.185	mg/kg	0.000118 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462	mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	34 mg/kg	1.462	49.693	mg/kg	0.00497 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	15 mg/kg	1.126	15.537	mg/kg	0.00155 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			7.1 mg/kg		6.532	mg/kg	0.000653 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	<0.25 mg/kg	1.5	<0.375	mg/kg	<0.0000375 %		<LOD
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	33 mg/kg	2.806	85.177	mg/kg	0.00852 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	40 mg/kg	4.398	161.844	mg/kg	0.0162 %	✓	
Total:									0.0344 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS15

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS15	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
1.1 m	
Moisture content:	
13%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		9.4 pH		9.4 pH	9.4 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.28 mg/kg		0.244 mg/kg	0.0000244 %	✓	
		201-581-5	85-01-8							
8	anthracene				0.05 mg/kg		0.0435 mg/kg	0.00000435 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				0.37 mg/kg		0.322 mg/kg	0.0000322 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.36 mg/kg		0.313 mg/kg	0.0000313 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.2 mg/kg		0.174 mg/kg	0.0000174 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.25 mg/kg		0.218 mg/kg	0.0000218 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.24 mg/kg		0.209 mg/kg	0.0000209 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.13 mg/kg		0.113 mg/kg	0.0000113 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.21 mg/kg		0.183 mg/kg	0.0000183 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.11 mg/kg		0.0957 mg/kg	0.00000957 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		0.13 mg/kg		0.113 mg/kg	0.0000113 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		31.3 mg/kg		27.231 mg/kg	0.00272 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	3 mg/kg	1.197	3.124 mg/kg	0.000312 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	8 mg/kg	1.32	9.189 mg/kg	0.000919 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.121 mg/kg	0.000112 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	56 mg/kg	1.462	81.847 mg/kg	0.00818 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	19 mg/kg	1.126	18.611 mg/kg	0.00186 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			25 mg/kg		21.75 mg/kg	0.00217 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.97 mg/kg	1.5	1.266 mg/kg	0.000127 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	12 mg/kg	2.806	29.29 mg/kg	0.00293 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	53 mg/kg	4.398	202.788 mg/kg	0.0203 %	✓	
Total:								0.0406 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00272%)



Classification of sample: WS16

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS16	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.3 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
11%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				9.8 pH		9.8 pH	9.8 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.27 mg/kg		0.24 mg/kg	0.000024 %	✓	
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				0.52 mg/kg		0.463 mg/kg	0.0000463 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.49 mg/kg		0.436 mg/kg	0.0000436 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.29 mg/kg		0.258 mg/kg	0.0000258 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.32 mg/kg		0.285 mg/kg	0.0000285 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.35 mg/kg		0.312 mg/kg	0.0000311 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.15 mg/kg		0.134 mg/kg	0.0000134 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.31 mg/kg		0.276 mg/kg	0.0000276 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
16		indeno[123-cd]pyrene				0.17 mg/kg		0.151 mg/kg	0.0000151 %	✓	
			205-893-2	193-39-5							
17		dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
18		benzo[ghi]perylene				0.19 mg/kg		0.169 mg/kg	0.0000169 %	✓	
			205-883-8	191-24-2							
19		TPH (C6 to C40) petroleum group				32 mg/kg		28.48 mg/kg	0.00285 %	✓	
				TPH							
20		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4							
21		benzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
22		toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
23		ethylbenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
24		xylene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1]	95-47-6 [1]							
			203-396-5 [2]	106-42-3 [2]							
			203-576-3 [3]	108-38-3 [3]							
			215-535-7 [4]	1330-20-7 [4]							
25		antimony { antimony trioxide }				2.2 mg/kg	1.197	2.344 mg/kg	0.000234 %	✓	
		051-005-00-X	215-175-0	1309-64-4							
26		arsenic { arsenic trioxide }				8.2 mg/kg	1.32	9.636 mg/kg	0.000964 %	✓	
		033-003-00-0	215-481-4	1327-53-3							
27		boron { diboron trioxide }				0.8 mg/kg	3.22	2.293 mg/kg	0.000229 %	✓	
		005-008-00-8	215-125-8	1303-86-2							
28		cadmium { cadmium oxide }				<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
		048-002-00-0	215-146-2	1306-19-0							
29		chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
		024-001-00-0	215-607-8	1333-82-0							
30		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }				13 mg/kg	1.462	19 mg/kg	0.0019 %		
			215-160-9	1308-38-9							
31		copper { dicopper oxide; copper (I) oxide }				20 mg/kg	1.126	20.041 mg/kg	0.002 %	✓	
		029-002-00-X	215-270-7	1317-39-1							
32		lead {  lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	26 mg/kg		23.14 mg/kg	0.00231 %	✓	
		082-001-00-6									
33		mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
		080-010-00-X	231-299-8	7487-94-7							
34		molybdenum { molybdenum(VI) oxide }				1 mg/kg	1.5	1.335 mg/kg	0.000134 %	✓	
		042-001-00-9	215-204-7	1313-27-5							
35		nickel { dinickel hexacyanoferrate }				11 mg/kg	2.806	27.466 mg/kg	0.00275 %	✓	
		028-037-00-8	238-946-3	14874-78-3							
36		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
		034-002-00-8									
37		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				50 mg/kg	4.398	195.708 mg/kg	0.0196 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]							
38		polychlorobiphenyls; PCB				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		602-039-00-4	215-648-1	1336-36-3							
39		coronene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-881-7	191-07-1							
Total:									0.034 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00285%)



WAC results for sample: WS16

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample PASSES the Inert (Inert waste landfill) criteria.

The sample PASSES the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.6	3	5	6
2	LOI (loss on ignition)	%	1.8	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.005	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.007	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	28	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	3.04	100	-	-
7	pH	pH	9.8	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	31	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	0.0992	0.5	2	25
10	barium	mg/kg	0.173	20	100	300
11	cadmium	mg/kg	<0.001	0.04	1	5
12	chromium	mg/kg	0.026	0.5	10	70
13	copper	mg/kg	0.37	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	0.0596	0.5	10	30
16	nickel	mg/kg	0.017	0.4	10	40
17	lead	mg/kg	0.02	0.5	10	50
18	antimony	mg/kg	0.02	0.06	0.7	5
19	selenium	mg/kg	<0.04	0.1	0.5	7
20	zinc	mg/kg	0.12	4	50	200
21	chloride	mg/kg	32	800	15,000	25,000
22	fluoride	mg/kg	4.5	10	150	500
23	sulphate	mg/kg	730	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	151	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	1400	4,000	60,000	100,000

Key

	User supplied data
	Not applicable



Classification of sample: WS18

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS18	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.6 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.8%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				7.4 pH		7.4 pH	7.4 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				0.05 mg/kg		0.0456 mg/kg	0.00000456 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2.4 mg/kg	1.197	2.62 mg/kg	0.000262 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.7 mg/kg	1.32	6.864 mg/kg	0.000686 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.175 mg/kg	0.000117 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		12 mg/kg	1.462	17.539 mg/kg	0.00175 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	13 mg/kg	1.126	13.349 mg/kg	0.00133 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			19 mg/kg		17.328 mg/kg	0.00173 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.57 mg/kg	1.5	0.78 mg/kg	0.000078 %	✓		
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	9.4 mg/kg	2.806	24.052 mg/kg	0.00241 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	58 mg/kg	4.398	232.633 mg/kg	0.0233 %	✓		
Total:									0.0335 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS19

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS19	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.7 m	
Moisture content:	
9.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		7.2 pH		7.2 pH	7.2 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.11 mg/kg		0.0997 mg/kg	0.00000997 %	✓	
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				0.08 mg/kg		0.0725 mg/kg	0.00000725 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.08 mg/kg		0.0725 mg/kg	0.00000725 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.05 mg/kg		0.0453 mg/kg	0.00000453 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	1.4 mg/kg	1.197	1.518 mg/kg	0.000152 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.1 mg/kg	1.32	6.101 mg/kg	0.00061 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.167 mg/kg	0.000117 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	11 mg/kg	1.462	16.077 mg/kg	0.00161 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	12 mg/kg	1.126	12.241 mg/kg	0.00122 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			15 mg/kg		13.59 mg/kg	0.00136 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.44 mg/kg	1.5	0.598 mg/kg	0.0000598 %	✓		
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	9.1 mg/kg	2.806	23.131 mg/kg	0.00231 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	19 mg/kg	4.398	75.706 mg/kg	0.00757 %	✓		
Total:									0.0168 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS20

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS20	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.4 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
6.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 6.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		7.6 pH		7.6 pH	7.6 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	1.4 mg/kg	1.197	1.569 mg/kg	0.000157 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	2.6 mg/kg	1.32	3.213 mg/kg	0.000321 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.206 mg/kg	0.000121 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		6 mg/kg	1.462	8.769 mg/kg	0.000877 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	4.1 mg/kg	1.126	4.321 mg/kg	0.000432 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			2.1 mg/kg		1.966 mg/kg	0.000197 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	<0.25 mg/kg	1.5	<0.375 mg/kg	<0.0000375 %			<LOD
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	3.7 mg/kg	2.806	9.716 mg/kg	0.000972 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	8.4 mg/kg	4.398	34.578 mg/kg	0.00346 %	✓		
Total:									0.00839 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS22

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS22	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Moisture content:	
8.2%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		7.6 pH		7.6 pH	7.6 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value		MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number										
16		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD	
			205-893-2	193-39-5										
17		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD	
		601-041-00-2	200-181-8	53-70-3										
18		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD	
			205-883-8	191-24-2										
19		TPH (C6 to C40) petroleum group				<10	mg/kg		<10	mg/kg	<0.001 %		<LOD	
				TPH										
20		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		603-181-00-X	216-653-1	1634-04-4										
21		benzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		601-020-00-8	200-753-7	71-43-2										
22		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		601-021-00-3	203-625-9	108-88-3										
23		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD	
		601-023-00-4	202-849-4	100-41-4										
24		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD	
		601-022-00-9	202-422-2 [1]	95-47-6 [1]										
			203-396-5 [2]	106-42-3 [2]										
			203-576-3 [3]	108-38-3 [3]										
			215-535-7 [4]	1330-20-7 [4]										
25		antimony { antimony trioxide }				1.2	mg/kg	1.197	1.319	mg/kg	0.000132 %	✓		
		051-005-00-X	215-175-0	1309-64-4										
26		arsenic { arsenic trioxide }				6.3	mg/kg	1.32	7.636	mg/kg	0.000764 %	✓		
		033-003-00-0	215-481-4	1327-53-3										
27		boron { diboron trioxide }				0.4	mg/kg	3.22	1.182	mg/kg	0.000118 %	✓		
		005-008-00-8	215-125-8	1303-86-2										
28		cadmium { cadmium oxide }				<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD	
		048-002-00-0	215-146-2	1306-19-0										
29		chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.8	mg/kg	1.923	<3.462	mg/kg	<0.000346 %		<LOD	
		024-001-00-0	215-607-8	1333-82-0										
30		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }				7.8	mg/kg	1.462	11.4	mg/kg	0.00114 %			
			215-160-9	1308-38-9										
31		copper { dicopper oxide; copper (I) oxide }				6.8	mg/kg	1.126	7.028	mg/kg	0.000703 %	✓		
		029-002-00-X	215-270-7	1317-39-1										
32		lead {  lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	3	mg/kg		2.754	mg/kg	0.000275 %	✓		
		082-001-00-6												
33		mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD	
		080-010-00-X	231-299-8	7487-94-7										
34		molybdenum { molybdenum(VI) oxide }				0.31	mg/kg	1.5	0.427	mg/kg	0.0000427 %	✓		
		042-001-00-9	215-204-7	1313-27-5										
35		nickel { dinickel hexacyanoferrate }				6.5	mg/kg	2.806	16.741	mg/kg	0.00167 %	✓		
		028-037-00-8	238-946-3	14874-78-3										
36		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD	
		034-002-00-8												
37		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				13	mg/kg	4.398	52.485	mg/kg	0.00525 %	✓		
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]										
Total:												0.0119 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS23

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS23	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.1 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.6%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		11.1 pH		11.1 pH	11.1 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				0.06 mg/kg		0.0542 mg/kg	0.00000542 %	✓	
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				0.28 mg/kg		0.253 mg/kg	0.0000253 %	✓	
		201-469-6	83-32-9							
6	fluorene				0.17 mg/kg		0.154 mg/kg	0.0000154 %	✓	
		201-695-5	86-73-7							
7	phenanthrene				1.5 mg/kg		1.356 mg/kg	0.000136 %	✓	
		201-581-5	85-01-8							
8	anthracene				0.29 mg/kg		0.262 mg/kg	0.0000262 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				1.8 mg/kg		1.627 mg/kg	0.000163 %	✓	
		205-912-4	206-44-0							
10	pyrene				1.6 mg/kg		1.446 mg/kg	0.000145 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.66 mg/kg		0.597 mg/kg	0.0000597 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.78 mg/kg		0.705 mg/kg	0.0000705 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.76 mg/kg		0.687 mg/kg	0.0000687 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.32 mg/kg		0.289 mg/kg	0.0000289 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.69 mg/kg		0.624 mg/kg	0.0000624 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.33 mg/kg		0.298 mg/kg	0.0000298 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.08 mg/kg		0.0723 mg/kg	0.00000723 %	✓	
18	benzo[ghi]perylene	205-883-8	191-24-2		0.41 mg/kg		0.371 mg/kg	0.0000371 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		61.2 mg/kg		55.325 mg/kg	0.00553 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	3 mg/kg	1.197	3.247 mg/kg	0.000325 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	9.6 mg/kg	1.32	11.458 mg/kg	0.00115 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.7 mg/kg	3.22	2.038 mg/kg	0.000204 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	23 mg/kg	1.462	33.616 mg/kg	0.00336 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	23 mg/kg	1.126	23.409 mg/kg	0.00234 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			40 mg/kg		36.16 mg/kg	0.00362 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	1.1 mg/kg	1.5	1.492 mg/kg	0.000149 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	12 mg/kg	2.806	30.435 mg/kg	0.00304 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	63 mg/kg	4.398	250.471 mg/kg	0.025 %	✓	
38	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	0.39 mg/kg		0.353 mg/kg	0.0000353 %	✓	
39	coronene		205-881-7	191-07-1	0.21 mg/kg		0.19 mg/kg	0.000019 %	✓	
Total:								0.0464 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00553%)



WAC results for sample: WS23

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.7	3	5	6
2	LOI (loss on ignition)	%	2.1	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.005	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	0.39	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	43	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	9.8	100	-	-
7	pH	pH	10.9	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	130	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	0.113	0.5	2	25
10	barium	mg/kg	0.0761	20	100	300
11	cadmium	mg/kg	<0.001	0.04	1	5
12	chromium	mg/kg	0.015	0.5	10	70
13	copper	mg/kg	0.22	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	0.0467	0.5	10	30
16	nickel	mg/kg	0.027	0.4	10	40
17	lead	mg/kg	<0.01	0.5	10	50
18	antimony	mg/kg	<0.017	0.06	0.7	5
19	selenium	mg/kg	<0.04	0.1	0.5	7
20	zinc	mg/kg	0.016	4	50	200
21	chloride	mg/kg	69	800	15,000	25,000
22	fluoride	mg/kg	2.9	10	150	500
23	sulphate	mg/kg	480	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	147	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	1400	4,000	60,000	100,000

Key

	User supplied data
	Not applicable



Classification of sample: WS25

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS25	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.2 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
5.5%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 5.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				8 pH		8 pH	8pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				0.43 mg/kg		0.406 mg/kg	0.0000406 %	✓	
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				0.07 mg/kg		0.0662 mg/kg	0.00000662 %	✓	
		205-917-1	208-96-8							
5	acenaphthene				0.07 mg/kg		0.0662 mg/kg	0.00000662 %	✓	
		201-469-6	83-32-9							
6	fluorene				0.09 mg/kg		0.085 mg/kg	0.0000085 %	✓	
		201-695-5	86-73-7							
7	phenanthrene				1.1 mg/kg		1.04 mg/kg	0.000104 %	✓	
		201-581-5	85-01-8							
8	anthracene				0.29 mg/kg		0.274 mg/kg	0.0000274 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				1.9 mg/kg		1.795 mg/kg	0.00018 %	✓	
		205-912-4	206-44-0							
10	pyrene				1.8 mg/kg		1.701 mg/kg	0.00017 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				1.1 mg/kg		1.04 mg/kg	0.000104 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				1.3 mg/kg		1.229 mg/kg	0.000123 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				1.3 mg/kg		1.229 mg/kg	0.000123 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.6 mg/kg		0.567 mg/kg	0.0000567 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.97 mg/kg		0.917 mg/kg	0.0000917 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.53 mg/kg		0.501 mg/kg	0.0000501 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.16 mg/kg		0.151 mg/kg	0.0000151 %	✓	
18	benzo[ghi]perylene	205-883-8	191-24-2		0.6 mg/kg		0.567 mg/kg	0.0000567 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		184.1 mg/kg		173.975 mg/kg	0.0174 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	9.3 mg/kg	1.197	10.521 mg/kg	0.00105 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	39 mg/kg	1.32	48.661 mg/kg	0.00487 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.217 mg/kg	0.000122 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	83 mg/kg	1.462	121.309 mg/kg	0.0121 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	180 mg/kg	1.126	191.514 mg/kg	0.0192 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			87 mg/kg		82.215 mg/kg	0.00822 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	6.4 mg/kg	1.5	9.073 mg/kg	0.000907 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	38 mg/kg	2.806	100.748 mg/kg	0.0101 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	100 mg/kg	4.398	415.604 mg/kg	0.0416 %	✓	
Total:								0.117 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0174%)



Classification of sample: TP02

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP02	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Moisture content:	
7%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		7 pH		7 pH	7pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2 mg/kg	1.197	2.227 mg/kg	0.000223 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	3.8 mg/kg	1.32	4.666 mg/kg	0.000467 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %			<LOD
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	6.5 mg/kg	1.462	9.5 mg/kg	0.00095 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	2.9 mg/kg	1.126	3.037 mg/kg	0.000304 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			3.1 mg/kg		2.883 mg/kg	0.000288 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	<0.25 mg/kg	1.5	<0.375 mg/kg	<0.0000375 %			<LOD
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	6.8 mg/kg	2.806	17.742 mg/kg	0.00177 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	15 mg/kg	4.398	61.351 mg/kg	0.00614 %	✓		
Total:									0.0121 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: TP03

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP03	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.3 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
9.3%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 9.3% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				9.3 pH		9.3 pH	9.3 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		27.8 mg/kg		25.215 mg/kg	0.00252 %	✓		
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	1.1 mg/kg	1.197	1.194 mg/kg	0.000119 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	3.8 mg/kg	1.32	4.551 mg/kg	0.000455 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.2 mg/kg	3.22	0.584 mg/kg	0.0000584 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		7.6 mg/kg	1.462	11.108 mg/kg	0.00111 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	3.9 mg/kg	1.126	3.983 mg/kg	0.000398 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			5 mg/kg		4.535 mg/kg	0.000454 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	<0.25 mg/kg	1.5	<0.375 mg/kg	<0.0000375 %			<LOD
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	5.6 mg/kg	2.806	14.25 mg/kg	0.00143 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	13 mg/kg	4.398	51.856 mg/kg	0.00519 %	✓		
Total:									0.0126 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00252%)



Classification of sample: TP05

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP05	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Moisture content:	
16%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		8.8 pH		8.8 pH	8.8 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				0.06 mg/kg		0.0504 mg/kg	0.00000504 %	✓	
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.06 mg/kg		0.0504 mg/kg	0.00000504 %	✓	
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				0.09 mg/kg		0.0756 mg/kg	0.00000756 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.08 mg/kg		0.0672 mg/kg	0.00000672 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.07 mg/kg		0.0588 mg/kg	0.00000588 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.06 mg/kg		0.0504 mg/kg	0.00000504 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2.6 mg/kg	1.197	2.614 mg/kg	0.000261 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	11 mg/kg	1.32	12.2 mg/kg	0.00122 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.2 mg/kg	3.22	0.541 mg/kg	0.0000541 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	29 mg/kg	1.462	42.385 mg/kg	0.00424 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	8.6 mg/kg	1.126	8.133 mg/kg	0.000813 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			10 mg/kg		8.4 mg/kg	0.00084 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.39 mg/kg	1.5	0.491 mg/kg	0.0000491 %	✓		
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	16 mg/kg	2.806	37.707 mg/kg	0.00377 %	✓		
36	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	34 mg/kg	4.398	125.605 mg/kg	0.0126 %	✓		
38	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %			<LOD
39	coronene	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
Total:									0.0256 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



WAC results for sample: TP05

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.3	3	5	6
2	LOI (loss on ignition)	%	1.6	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.005	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.007	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<0.85	100	-	-
7	pH	pH	8.8	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	9.6	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.01	0.5	2	25
10	barium	mg/kg	0.396	20	100	300
11	cadmium	mg/kg	<0.001	0.04	1	5
12	chromium	mg/kg	<0.004	0.5	10	70
13	copper	mg/kg	0.12	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	0.0288	0.5	10	30
16	nickel	mg/kg	0.0077	0.4	10	40
17	lead	mg/kg	<0.01	0.5	10	50
18	antimony	mg/kg	0.029	0.06	0.7	5
19	selenium	mg/kg	<0.04	0.1	0.5	7
20	zinc	mg/kg	0.059	4	50	200
21	chloride	mg/kg	64	800	15,000	25,000
22	fluoride	mg/kg	9.9	10	150	500
23	sulphate	mg/kg	420	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	167	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	1100	4,000	60,000	100,000

Key

	User supplied data
	Not applicable



Classification of sample: TP07

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP07	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.9 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
14%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		10.3 pH		10.3 pH	10.3 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.2 mg/kg		0.172 mg/kg	0.0000172 %	✔	
		201-581-5	85-01-8							
8	anthracene				0.05 mg/kg		0.043 mg/kg	0.0000043 %	✔	
		204-371-1	120-12-7							
9	fluoranthene				0.35 mg/kg		0.301 mg/kg	0.0000301 %	✔	
		205-912-4	206-44-0							
10	pyrene				0.31 mg/kg		0.267 mg/kg	0.0000267 %	✔	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.16 mg/kg		0.138 mg/kg	0.0000138 %	✔	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.22 mg/kg		0.189 mg/kg	0.0000189 %	✔	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.25 mg/kg		0.215 mg/kg	0.0000215 %	✔	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.07 mg/kg		0.0602 mg/kg	0.00000602 %	✔	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.19 mg/kg		0.163 mg/kg	0.0000163 %	✔	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.09 mg/kg		0.0774 mg/kg	0.00000774 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		0.12 mg/kg		0.103 mg/kg	0.0000103 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2 mg/kg	1.197	2.059 mg/kg	0.000206 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.9 mg/kg	1.32	6.699 mg/kg	0.00067 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.2 mg/kg	3.22	0.554 mg/kg	0.0000554 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	10 mg/kg	1.462	14.616 mg/kg	0.00146 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	12 mg/kg	1.126	11.619 mg/kg	0.00116 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			17 mg/kg		14.62 mg/kg	0.00146 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.5 mg/kg	1.5	0.645 mg/kg	0.0000645 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	8 mg/kg	2.806	19.302 mg/kg	0.00193 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	49 mg/kg	4.398	185.329 mg/kg	0.0185 %	✓	
38	polychlorobiphenyls; PCB	602-039-00-4	215-648-1	1336-36-3	0.014 mg/kg		0.012 mg/kg	0.0000012 %	✓	
39	coronene	205-881-7	191-07-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0275 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



WAC results for sample: TP07

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.5	3	5	6
2	LOI (loss on ignition)	%	1	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.005	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	0.014	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	1.89	100	-	-
7	pH	pH	9.4	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	30	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	0.0331	0.5	2	25
10	barium	mg/kg	0.141	20	100	300
11	cadmium	mg/kg	<0.001	0.04	1	5
12	chromium	mg/kg	0.021	0.5	10	70
13	copper	mg/kg	0.24	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	0.0299	0.5	10	30
16	nickel	mg/kg	0.05	0.4	10	40
17	lead	mg/kg	0.021	0.5	10	50
18	antimony	mg/kg	0.036	0.06	0.7	5
19	selenium	mg/kg	<0.04	0.1	0.5	7
20	zinc	mg/kg	0.032	4	50	200
21	chloride	mg/kg	64	800	15,000	25,000
22	fluoride	mg/kg	1.8	10	150	500
23	sulphate	mg/kg	980	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	127	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	2400	4,000	60,000	100,000

Key

	User supplied data
	Not applicable



Classification of sample: TP10



Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP10	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
1.4 m	
Moisture content:	
6.4%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 6.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		8.3 pH		8.3 pH	8.3 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10	mg/kg	<0.001 %		<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1		<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7		<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9		<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4		<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]		<0.01 mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0		1.4 mg/kg	1.197	1.569	mg/kg	0.000157 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		2.7 mg/kg	1.32	3.337	mg/kg	0.000334 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8		0.2 mg/kg	3.22	0.603	mg/kg	0.0000603 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2		<0.2 mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.8 mg/kg	1.923	<3.462	mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		5.9 mg/kg	1.462	8.623	mg/kg	0.000862 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		3.7 mg/kg	1.126	3.899	mg/kg	0.00039 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6		1	2.7 mg/kg		2.527	mg/kg	0.000253 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7		<0.25 mg/kg	1.5	<0.375	mg/kg	<0.0000375 %		<LOD
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3		4.6 mg/kg	2.806	12.08	mg/kg	0.00121 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]		9.2 mg/kg	4.398	37.871	mg/kg	0.00379 %	✓	
Total:									0.00891 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: TP11

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP11	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.7 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.6%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		7.9 pH		7.9 pH	7.9 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2 mg/kg	1.197	2.188 mg/kg	0.000219 %	✓		
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.7 mg/kg	1.32	6.879 mg/kg	0.000688 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.2 mg/kg	3.22	0.589 mg/kg	0.0000589 %	✓		
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	11 mg/kg	1.462	16.077 mg/kg	0.00161 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	12 mg/kg	1.126	12.349 mg/kg	0.00123 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			16 mg/kg		14.624 mg/kg	0.00146 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.54 mg/kg	1.5	0.74 mg/kg	0.000074 %	✓		
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	9.4 mg/kg	2.806	24.104 mg/kg	0.00241 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	20 mg/kg	4.398	80.394 mg/kg	0.00804 %	✓		
Total:									0.0176 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



WAC results for sample: TP11

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.6	3	5	6
2	LOI (loss on ignition)	%	1.8	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.005	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.007	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<0.85	100	-	-
7	pH	pH	7.8	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	1.9	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	<0.01	0.5	2	25
10	barium	mg/kg	0.0175	20	100	300
11	cadmium	mg/kg	<0.001	0.04	1	5
12	chromium	mg/kg	<0.004	0.5	10	70
13	copper	mg/kg	0.057	2	50	100
14	mercury	mg/kg	<0.005	0.01	0.2	2
15	molybdenum	mg/kg	0.0125	0.5	10	30
16	nickel	mg/kg	0.018	0.4	10	40
17	lead	mg/kg	<0.01	0.5	10	50
18	antimony	mg/kg	<0.017	0.06	0.7	5
19	selenium	mg/kg	<0.04	0.1	0.5	7
20	zinc	mg/kg	0.021	4	50	200
21	chloride	mg/kg	20	800	15,000	25,000
22	fluoride	mg/kg	6.2	10	150	500
23	sulphate	mg/kg	13	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	187	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	140	4,000	60,000	100,000

Key

	User supplied data
	Not applicable



Classification of sample: TP13

✓ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP13	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.0 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
15%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		11 pH		11 pH	11pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				0.06 mg/kg		0.051 mg/kg	0.0000051 %	✓	
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				0.08 mg/kg		0.068 mg/kg	0.0000068 %	✓	
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.48 mg/kg		0.408 mg/kg	0.0000408 %	✓	
		201-581-5	85-01-8							
8	anthracene				0.11 mg/kg		0.0935 mg/kg	0.00000935 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				0.7 mg/kg		0.595 mg/kg	0.0000595 %	✓	
		205-912-4	206-44-0							
10	pyrene				0.65 mg/kg		0.553 mg/kg	0.0000553 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.35 mg/kg		0.298 mg/kg	0.0000298 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.39 mg/kg		0.331 mg/kg	0.0000331 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.41 mg/kg		0.349 mg/kg	0.0000349 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.18 mg/kg		0.153 mg/kg	0.0000153 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.34 mg/kg		0.289 mg/kg	0.0000289 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.18 mg/kg		0.153 mg/kg	0.0000153 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.08 mg/kg		0.068 mg/kg	0.0000068 %	✓	
18	benzo[ghi]perylene	205-883-8	191-24-2		0.21 mg/kg		0.179 mg/kg	0.0000179 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		12 mg/kg		10.2 mg/kg	0.00102 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2.1 mg/kg	1.197	2.137 mg/kg	0.000214 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	7.3 mg/kg	1.32	8.193 mg/kg	0.000819 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.4 mg/kg	3.22	1.095 mg/kg	0.000109 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	13 mg/kg	1.462	19 mg/kg	0.0019 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	22 mg/kg	1.126	21.054 mg/kg	0.00211 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			25 mg/kg		21.25 mg/kg	0.00213 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.71 mg/kg	1.5	0.905 mg/kg	0.0000905 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	8.6 mg/kg	2.806	20.509 mg/kg	0.00205 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	48 mg/kg	4.398	179.435 mg/kg	0.0179 %	✓	
Total:								0.0295 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00102%)



Classification of sample: TP14

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP14	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.3 m	
Moisture content:	
8.2%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		10 pH		10 pH	10pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				1.3 mg/kg		1.193 mg/kg	0.000119 %	✓	
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				0.09 mg/kg		0.0826 mg/kg	0.0000826 %	✓	
		205-917-1	208-96-8							
5	acenaphthene				0.78 mg/kg		0.716 mg/kg	0.0000716 %	✓	
		201-469-6	83-32-9							
6	fluorene				0.7 mg/kg		0.643 mg/kg	0.0000643 %	✓	
		201-695-5	86-73-7							
7	phenanthrene				4.1 mg/kg		3.764 mg/kg	0.000376 %	✓	
		201-581-5	85-01-8							
8	anthracene				1.2 mg/kg		1.102 mg/kg	0.00011 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				4.4 mg/kg		4.039 mg/kg	0.000404 %	✓	
		205-912-4	206-44-0							
10	pyrene				3.9 mg/kg		3.58 mg/kg	0.000358 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				2.1 mg/kg		1.928 mg/kg	0.000193 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				2.1 mg/kg		1.928 mg/kg	0.000193 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				1.9 mg/kg		1.744 mg/kg	0.000174 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.87 mg/kg		0.799 mg/kg	0.0000799 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				1.6 mg/kg		1.469 mg/kg	0.000147 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.91 mg/kg		0.835 mg/kg	0.0000835 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.27 mg/kg		0.248 mg/kg	0.0000248 %	✓	
18	benzo[ghi]perylene	205-883-8	191-24-2		1 mg/kg		0.918 mg/kg	0.0000918 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		183.4 mg/kg		168.361 mg/kg	0.0168 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	5.1 mg/kg	1.197	5.605 mg/kg	0.00056 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17 mg/kg	1.32	20.605 mg/kg	0.00206 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.3 mg/kg	3.22	0.887 mg/kg	0.0000887 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	24 mg/kg	1.462	35.077 mg/kg	0.00351 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	100 mg/kg	1.126	103.357 mg/kg	0.0103 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			63 mg/kg		57.834 mg/kg	0.00578 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	1.8 mg/kg	1.5	2.479 mg/kg	0.000248 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	21 mg/kg	2.806	54.086 mg/kg	0.00541 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	290 mg/kg	4.398	1170.816 mg/kg	0.117 %	✓	
Total:								0.165 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0168%)



Classification of sample: TP16

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
TP16	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
1.0 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
10%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				10.6 pH		10.6 pH	10.6 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				0.09 mg/kg		0.081 mg/kg	0.0000081 %	✓	
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				0.54 mg/kg		0.486 mg/kg	0.0000486 %	✓	
		201-581-5	85-01-8							
8	anthracene				0.15 mg/kg		0.135 mg/kg	0.0000135 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				1.3 mg/kg		1.17 mg/kg	0.000117 %	✓	
		205-912-4	206-44-0							
10	pyrene				1.2 mg/kg		1.08 mg/kg	0.000108 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				0.65 mg/kg		0.585 mg/kg	0.0000585 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				0.64 mg/kg		0.576 mg/kg	0.0000576 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				0.84 mg/kg		0.756 mg/kg	0.0000756 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.26 mg/kg		0.234 mg/kg	0.0000234 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				0.68 mg/kg		0.612 mg/kg	0.0000612 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.33 mg/kg		0.297 mg/kg	0.0000297 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.07 mg/kg		0.063 mg/kg	0.0000063 %	✓	
18	benzo[ghi]perylene	205-883-8	191-24-2		0.38 mg/kg		0.342 mg/kg	0.0000342 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		25 mg/kg		22.5 mg/kg	0.00225 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2.7 mg/kg	1.197	2.909 mg/kg	0.000291 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	9.3 mg/kg	1.32	11.051 mg/kg	0.00111 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.7 mg/kg	3.22	2.029 mg/kg	0.000203 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	13 mg/kg	1.462	19 mg/kg	0.0019 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	26 mg/kg	1.126	26.346 mg/kg	0.00263 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			47 mg/kg		42.3 mg/kg	0.00423 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.9 mg/kg	1.5	1.215 mg/kg	0.000122 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	11 mg/kg	2.806	27.775 mg/kg	0.00278 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	59 mg/kg	4.398	233.53 mg/kg	0.0234 %	✓	
Total:								0.0403 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00225%)



Classification of sample: WS06

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS06	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Moisture content:	
7.5%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 7.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		8.2 pH		8.2 pH	8.2 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %			<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg	<0.001 %			<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
21	benzene	601-020-00-8	200-753-7		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
22	toluene	601-021-00-3	203-625-9		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
23	ethylbenzene	601-023-00-4	202-849-4		<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %			<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %			<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0		<1 mg/kg	1.197	<1.197 mg/kg	<0.00012 %			<LOD
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		2.9 mg/kg	1.32	3.542 mg/kg	0.000354 %	✓		
27	boron { diboron trioxide }	005-008-00-8	215-125-8		<0.2 mg/kg	3.22	<0.644 mg/kg	<0.0000644 %			<LOD
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %			<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %			<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	46.77 mg/kg	0.00468 %			
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		9.1 mg/kg	1.126	9.477 mg/kg	0.000948 %	✓		
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6		1	7.9 mg/kg		7.308 mg/kg	0.000731 %	✓		
33	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %			<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7		<0.25 mg/kg	1.5	<0.375 mg/kg	<0.0000375 %			<LOD
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3		21 mg/kg	2.806	54.498 mg/kg	0.00545 %	✓		
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %			<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]		54 mg/kg	4.398	219.676 mg/kg	0.022 %	✓		
Total:									0.0362 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS09

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS09	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.8 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
12%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

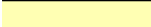
#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH				9 pH		9 pH	9pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
6	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
7	phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
8	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
9	fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
10	pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
11	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
18	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg		<0.000005 %		<LOD
19	TPH (C6 to C40) petroleum group		TPH		<10 mg/kg		<10 mg/kg		<0.001 %		<LOD
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg		<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg		<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg		<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg		<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	3 mg/kg	1.197	3.16 mg/kg		0.000316 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	7.1 mg/kg	1.32	8.249 mg/kg		0.000825 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.3 mg/kg	3.22	0.85 mg/kg		0.000085 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg		<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg		<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	27 mg/kg	1.462	39.462 mg/kg		0.00395 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	6 mg/kg	1.126	5.945 mg/kg		0.000594 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			9.1 mg/kg		8.008 mg/kg		0.000801 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg		<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	0.41 mg/kg	1.5	0.541 mg/kg		0.0000541 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	31 mg/kg	2.806	76.536 mg/kg		0.00765 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenosulfide and those specified elsewhere in this Annex }	034-002-00-8			1.6 mg/kg	1.405	1.978 mg/kg		0.000198 %	✓	
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	37 mg/kg	4.398	143.196 mg/kg		0.0143 %	✓	
Total:									0.0305 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: WS12

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS12	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.3 m	
Moisture content:	
8.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 8.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	pH		PH		11.4 pH		11.4 pH	11.4 pH		
2	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
3	naphthalene				0.07 mg/kg		0.0638 mg/kg	0.00000638 %	✓	
	601-052-00-2	202-049-5	91-20-3							
4	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							
5	acenaphthene				0.1 mg/kg		0.0911 mg/kg	0.00000911 %	✓	
		201-469-6	83-32-9							
6	fluorene				0.09 mg/kg		0.082 mg/kg	0.0000082 %	✓	
		201-695-5	86-73-7							
7	phenanthrene				1.4 mg/kg		1.275 mg/kg	0.000128 %	✓	
		201-581-5	85-01-8							
8	anthracene				0.39 mg/kg		0.355 mg/kg	0.0000355 %	✓	
		204-371-1	120-12-7							
9	fluoranthene				2.8 mg/kg		2.551 mg/kg	0.000255 %	✓	
		205-912-4	206-44-0							
10	pyrene				2.3 mg/kg		2.095 mg/kg	0.00021 %	✓	
		204-927-3	129-00-0							
11	benzo[a]anthracene				1.3 mg/kg		1.184 mg/kg	0.000118 %	✓	
	601-033-00-9	200-280-6	56-55-3							
12	chrysene				1.4 mg/kg		1.275 mg/kg	0.000128 %	✓	
	601-048-00-0	205-923-4	218-01-9							
13	benzo[b]fluoranthene				1.5 mg/kg		1.366 mg/kg	0.000137 %	✓	
	601-034-00-4	205-911-9	205-99-2							
14	benzo[k]fluoranthene				0.63 mg/kg		0.574 mg/kg	0.0000574 %	✓	
	601-036-00-5	205-916-6	207-08-9							
15	benzo[a]pyrene; benzo[def]chrysene				1.3 mg/kg		1.184 mg/kg	0.000118 %	✓	
	601-032-00-3	200-028-5	50-32-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	indeno[123-cd]pyrene	205-893-2	193-39-5		0.66 mg/kg		0.601 mg/kg	0.0000601 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.21 mg/kg		0.191 mg/kg	0.0000191 %	✓	
18	benzo[ghi]perylene	205-883-8	191-24-2		0.74 mg/kg		0.674 mg/kg	0.0000674 %	✓	
19	TPH (C6 to C40) petroleum group		TPH		438.5 mg/kg		399.474 mg/kg	0.0399 %	✓	
20	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
21	benzene	601-020-00-8	200-753-7	71-43-2	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
22	toluene	601-021-00-3	203-625-9	108-88-3	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
23	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
24	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.01 mg/kg		<0.01 mg/kg	<0.0000001 %		<LOD
25	antimony { antimony trioxide }	051-005-00-X	215-175-0	1309-64-4	2.7 mg/kg	1.197	2.945 mg/kg	0.000294 %	✓	
26	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	10 mg/kg	1.32	12.028 mg/kg	0.0012 %	✓	
27	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2	0.7 mg/kg	3.22	2.053 mg/kg	0.000205 %	✓	
28	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0	<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
29	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.8 mg/kg	1.923	<3.462 mg/kg	<0.000346 %		<LOD
30	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	19 mg/kg	1.462	27.77 mg/kg	0.00278 %		
31	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	23 mg/kg	1.126	23.591 mg/kg	0.00236 %	✓	
32	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			38 mg/kg		34.618 mg/kg	0.00346 %	✓	
33	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
34	molybdenum { molybdenum(VI) oxide }	042-001-00-9	215-204-7	1313-27-5	1.1 mg/kg	1.5	1.503 mg/kg	0.00015 %	✓	
35	nickel { dinickel hexacyanoferrate }	028-037-00-8	238-946-3	14874-78-3	12 mg/kg	2.806	30.67 mg/kg	0.00307 %	✓	
36	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	1.405	<1.405 mg/kg	<0.000141 %		<LOD
37	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	130 mg/kg	4.398	520.846 mg/kg	0.0521 %	✓	
Total:								0.108 %		



Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Insufficient concentration to be considered flammable risk. No liquid free phase.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0399%)



Appendix A: Classifier defined and non GB MCL determinands

• pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

• salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

• acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

• acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

• fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

• anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351



■ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

■ **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

■ **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ **lead compounds with the exception of those specified elsewhere in this Annex (worst case)**

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

■ **polychlorobiphenyls; PCB** (EC Number: 215-648-1, CAS Number: 1336-36-3)

GB MCL index number: 602-039-00-4
Description/Comments: Worst Case: IARC considers PCB Group 1; Carcinogenic to humans;

POP specific threshold from ATP1 (Regulation 756/2010/EU) to POPs Regulation (Regulation 850/2004/EC). Where applicable, the calculation method laid down in European standards EN 12766-1 and EN 12766-2 shall be applied.

Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 1 (23, Sup 7, 100C) 2012

■ **coronene** (EC Number: 205-881-7, CAS Number: 191-07-1)

Description/Comments: Data from C&L Inventory Database; no entries in Registered Substances or Pesticides Properties databases; SDS: Sigma Aldrich, 1907/2006 compliant, dated 2012 - no entries; IARC – Group 3, not carcinogenic.
Data source: <http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=17010&HarmOnly=no?fc=true&lang=en>
Data source date: 16 Jun 2014
Hazard Statements: STOT SE 2; H371

Appendix B: Rationale for selection of metal species

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

antimony {antimony trioxide}

Worst case CLP species based on hazard statements/molecular weight and low solubility. Industrial sources include: flame retardants in electrical apparatus, textiles and coatings

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds



boron {diboron trioxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worst case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Insufficient concentration of chromium(VI) to be present.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight

nickel {dinickel hexacyanoferrate}

Insufficient concentration of chromium(VI) to be present.

selenium {selenium compounds with the exception of cadmium sulposelenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulposelenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil.

zinc {zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

Insufficient concentration of chromium(VI) to be present.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2024.158.6092.11254 (06 Jun 2024)

HazWasteOnline Database: 2024.158.6092.11254 (06 Jun 2024)



This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024



CC Geotechnical
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Analytical Report Number : 24-023888

Project / Site name:	Gaywood Green	Samples received on:	10/06/2024
Your job number:	CCG-C-24-14643	Samples instructed on/ Analysis started on:	10/06/2024
Your order number:	CCG-PO-14643	Analysis completed by:	13/06/2024
Report Issue Number:	1	Report issued on:	13/06/2024
Samples Analysed:	2 10:1 WAC samples		

Signed: _____

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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.

i2 Analytical

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Waste Acceptance Criteria Analytical Results

Report No:	24-023888						
				Client: CCGEO			
Location	Gaywood Green						
Lab Reference (Sample Number)	221097			Landfill Waste Acceptance Criteria			
				Limits			
Sampling Date	05/06/2024			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID	WS16						
Depth (m)	1.30						
Solid Waste Analysis							
TOC (%)**	0.6			3%	5%	6%	
Loss on Ignition (%) **	1.8			--	--	10%	
BTEX (µg/kg) **	< 5.0			6000	--	--	
Sum of PCBs (mg/kg) **	< 0.007			1	--	--	
Mineral Oil (mg/kg) EH, ID, CU, AL	28			500	--	--	
Total PAH (WAC-17) (mg/kg)	3.04			100	--	--	
pH (units)**	9.8			--	>6	--	
Acid Neutralisation Capacity (mmol / kg)	31			--	To be evaluated	To be evaluated	
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)				using BS EN 12457-2 at L/S 10 l/kg (mg/kg)			
	mg/l			mg/kg			
Arsenic *	0.00992			0.0992	0.5	2	25
Barium *	0.0173			0.173	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0026			0.026	0.5	10	70
Copper *	0.037			0.37	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00596			0.0596	0.5	10	30
Nickel *	0.0017			0.017	0.4	10	40
Lead *	0.0020			0.020	0.5	10	50
Antimony *	0.0020			0.020	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.012			0.12	4	50	200
Chloride *	3.2			32	800	15000	25000
Fluoride*	0.45			4.5	10	150	500
Sulphate *	73			730	1000	20000	50000
TDS*	140			1400	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	15.1			151	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	2.0						
Dry Matter (%)	89						
Moisture (%)	11						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)			
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited			

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	24-023888						
				Client: CCGEO			
Location	Gaywood Green						
Lab Reference (Sample Number)	221098			Landfill Waste Acceptance Criteria			
				Limits			
Sampling Date	06/06/2024			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID	WS23						
Depth (m)	1.10						
Solid Waste Analysis							
TOC (%)**	0.7			3%	5%	6%	
Loss on Ignition (%) **	2.1			--	--	10%	
BTEX (µg/kg) **	< 5.0			6000	--	--	
Sum of PCBs (mg/kg) **	0.39			1	--	--	
Mineral Oil (mg/kg) EH, ID, CU, AL	43			500	--	--	
Total PAH (WAC-17) (mg/kg)	9.80			100	--	--	
pH (units)**	10.9			--	>6	--	
Acid Neutralisation Capacity (mmol / kg)	130			--	To be evaluated	To be evaluated	
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)				using BS EN 12457-2 at L/S 10 l/kg (mg/kg)			
	mg/l			mg/kg			
Arsenic *	0.0113			0.113	0.5	2	25
Barium *	0.00761			0.0761	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0015			0.015	0.5	10	70
Copper *	0.022			0.22	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00467			0.0467	0.5	10	30
Nickel *	0.0027			0.027	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0016			0.016	4	50	200
Chloride *	6.9			69	800	15000	25000
Fluoride*	0.29			2.9	10	150	500
Sulphate *	48			480	1000	20000	50000
TDS*	140			1400	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	14.7			147	500	800	1000
Leach Test Information							
Stone Content (%)	26.5						
Sample Mass (kg)	1.5						
Dry Matter (%)	90						
Moisture (%)	9.6						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)			
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited			

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 24-023888

Project / Site name: Gaywood Green

* 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 *
221097	WS16	None Supplied	1.3	Brown clay and sand with gravel and metal
221098	WS23	None Supplied	1.1	Brown sand with stones

Analytical Report Number : 24-023888

Project / Site name: Gaywood Green

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
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	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 (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Sample Preparation		In-house method	L043B	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025

Analytical Report Number : 24-023888

Project / Site name: Gaywood Green

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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025
WAC Leachate 10:1		In-house method	L043B	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

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Analytical Report Number : 24-025291

Project / Site name:	Gaywood Green	Samples received on:	14/06/2024
Your job number:	CCG-C-24-14643	Samples instructed on/ Analysis started on:	14/06/2024
Your order number:	CCG-PO-14643	Analysis completed by:	21/06/2024
Report Issue Number:	1	Report issued on:	21/06/2024
Samples Analysed:	3 10:1 WAC Samples		

Signed: _____

Izabela Wójcik
Senior 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

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: 24-025291
 Project / Site name: Gaywood Green
 Your Order No: CCG-PO-14643

Lab Sample Number				228772	228773	228774
Sample Reference				TP05	TP07	TP11
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.90	0.70
Date Sampled				11/06/2024	11/06/2024	11/06/2024
Time Taken				1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	14	8.6
Total mass of sample received	kg	0.1	NONE	1.2	1.2	1.2

General Inorganics

pH (L005B)	pH Units	N/A	MCERTS	8.8	9.4	7.8
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.3	0.5	0.6
Loss on Ignition @ 450°C	%	0.2	MCERTS	1.6	1	1.8
Acid Neutralisation Capacity	mmol/kg	-9999	NONE	9.6	30	1.9

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	0.2	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.09	0.34	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.3	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.16	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.07	0.21	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.23	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.07	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.19	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.09	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.11	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	1.89	< 0.80
Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.85	1.89	< 0.85

Petroleum Hydrocarbons

Mineral Oil (EC10 - EC40) EH_CU_ID_AL	mg/kg	10	NONE	< 10	< 10	< 10
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VOCs

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

Total BTEX	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
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Analytical Report Number: 24-025291
 Project / Site name: Gaywood Green
 Your Order No: CCG-PO-14643

Lab Sample Number				228772	228773	228774
Sample Reference				TP05	TP07	TP11
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.90	0.70
Date Sampled				11/06/2024	11/06/2024	11/06/2024
Time Taken				1600	1600	1600
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	0.002	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	0.001	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	0.001	0.004	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	0.004	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	0.003	< 0.001

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	0.014	< 0.007
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Waste Acceptance Criteria Analytical Results

Report No:	24-025291						
					Client: CCGEO		
Location	Gaywood Green						
Lab Reference (Sample Number)	228772				Landfill Waste Acceptance Criteria		
Sampling Date	11/06/2024				Limits		
Sample ID	TP05				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.80						
Solid Waste Analysis							
TOC (%)**	0.3				3%	5%	6%
Loss on Ignition (%) **	1.6				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) BH, ID, CU, AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	8.8				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	9.6				--	To be evaluated	To be evaluated
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)		mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.00100			< 0.0100	0.5	2	25
Barium *	0.0396			0.396	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	< 0.00040			< 0.0040	0.5	10	70
Copper *	0.012			0.12	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00288			0.0288	0.5	10	30
Nickel *	0.00077			0.0077	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	0.0029			0.029	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0059			0.059	4	50	200
Chloride *	6.4			64	800	15000	25000
Fluoride*	0.99			9.9	10	150	500
Sulphate *	42			420	1000	20000	50000
TDS*	110			1100	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	16.7			167	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	84						
Moisture (%)	16						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.					* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation					** = MCERTS accredited		

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.



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Waste Acceptance Criteria Analytical Results							
Report No:	24-025291						
					Client: CCGEO		
Location	Gaywood Green				Landfill Waste Acceptance Criteria		
Lab Reference (Sample Number)	228773						
Sampling Date	11/06/2024				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	TP07						
Depth (m)	0.90						
Solid Waste Analysis							
TOC (%)**	0.5				3%	5%	6%
Loss on Ignition (%) **	1.0				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	0.014				1	--	--
Mineral Oil (mg/kg) EH, IO, CU, AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	1.89				100	--	--
pH (units)**	9.4				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	30				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.00331			0.0331	0.5	2	25
Barium *	0.0141			0.141	20	100	300
Cadmium *	< 0.000100			< 0.00100	0.04	1	5
Chromium *	0.0021			0.021	0.5	10	70
Copper *	0.024			0.24	2	50	100
Mercury *	< 0.000500			< 0.00500	0.01	0.2	2
Molybdenum *	0.00299			0.0299	0.5	10	30
Nickel *	0.0050			0.050	0.4	10	40
Lead *	0.0021			0.021	0.5	10	50
Antimony *	0.0036			0.036	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0032			0.032	4	50	200
Chloride *	6.4			64	800	15000	25000
Fluoride*	0.18			1.8	10	150	500
Sulphate *	98			980	1000	20000	50000
TDS*	240			2400	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	12.7			127	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	86						
Moisture (%)	14						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation							
** = UKAS accredited (liquid eluate analysis only)							
** = MCERTS accredited							

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.



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Waste Acceptance Criteria Analytical Results							
Report No:		24-025291					
					Client: CCGEO		
Location		Gaywood Green			Landfill Waste Acceptance Criteria		
Lab Reference (Sample Number)		228774					
Sampling Date		11/06/2024			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID		TP11					
Depth (m)		0.70					
Solid Waste Analysis							
TOC (%)**		0.6			3%	5%	6%
Loss on Ignition (%) **		1.8			--	--	10%
BTEX (µg/kg) **		< 5.0			6000	--	--
Sum of PCBs (mg/kg) **		< 0.007			1	--	--
Mineral Oil (mg/kg) EH, IO, CU, AL		< 10			500	--	--
Total PAH (WAC-17) (mg/kg)		< 0.85			100	--	--
pH (units)**		7.8			--	>6	--
Acid Neutralisation Capacity (mmol / kg)		1.9			--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)		10:1		10:1	Limit values for compliance leaching test		
		mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)	
Arsenic *		< 0.00100		< 0.0100	0.5	2	25
Barium *		0.00175		0.0175	20	100	300
Cadmium *		< 0.000100		< 0.00100	0.04	1	5
Chromium *		< 0.00040		< 0.0040	0.5	10	70
Copper *		0.0057		0.057	2	50	100
Mercury *		< 0.000500		< 0.00500	0.01	0.2	2
Molybdenum *		0.00125		0.0125	0.5	10	30
Nickel *		0.0018		0.018	0.4	10	40
Lead *		< 0.0010		< 0.010	0.5	10	50
Antimony *		< 0.0017		< 0.017	0.06	0.7	5
Selenium *		< 0.0040		< 0.040	0.1	0.5	7
Zinc *		0.0021		0.021	4	50	200
Chloride *		2.0		20	800	15000	25000
Fluoride*		0.62		6.2	10	150	500
Sulphate *		1.3		13	1000	20000	50000
TDS*		14		140	4000	60000	100000
Phenol Index (Monohydric Phenols) *		< 0.010		< 0.10	1	-	-
DOC		18.8		187	500	800	1000
Leach Test Information							
Stone Content (%)		< 0.1					
Sample Mass (kg)		1.2					
Dry Matter (%)		91					
Moisture (%)		8.6					
Results are expressed on a dry weight basis, after correction for moisture content where applicable.							
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation							
** = UKAS accredited (liquid eluate analysis only)							
** = MCERTS accredited							

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 24-025291

Project / Site name: Gaywood Green

* 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 *
228772	TP05	None Supplied	0.8	Brown clay and sand with gravel
228773	TP07	None Supplied	0.9	Brown sand with gravel
228774	TP11	None Supplied	0.7	Brown loam and sand with gravel and vegetation

Analytical Report Number : 24-025291

Project / Site name: Gaywood Green

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
pH at 20°C in soil	Determination of pH in soil by addition of water followed by electrometric measurement	In-house method	L005B	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 (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	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.	L019B	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with hexane followed by GC-MS	In-house method based on USEPA 8082	L027B	D	MCERTS
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031B	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination	L033B	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR Analyser	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037B	W	NONE
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L039B	W	ISO 17025
Sample Preparation		In-house method	L043B	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance	L046B	W	NONE
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	ISO 17025

Analytical Report Number : 24-025291
Project / Site name: Gaywood Green

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
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser	In-house based on MEWAM Method ISBN 0117516260	L082B	W	ISO 17025
WAC Leachate 10:1		In-house method	L043B	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 30°C.

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

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 - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution



APPENDIX J

NOTES ON LIMITATIONS

Notes on Limitations For Geoenvironmental and Geotechnical Consultancy Services

General

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Phase I Environmental Audits / Desk Studies

The work undertaken to provide the basis of a Phase 1 Desk Study report comprises a study of available documented information from a variety of sources (including the client), together with (where appropriate) a brief walk over inspection of the site and meetings and discussions with relevant authorities and other interested parties. The opinions given in a Desk Study report have been dictated by finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in the report, CC GEOTECHNICAL LTD reserves the right to review such information and to modify the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Factual Ground Investigations

The investigation of the site has been carried out in accordance with the scope and specification instructed by the Client. No interpretations of the data generated by the investigation have been provided or implied. The exploratory holes undertaken in this commission, investigate only a small volume of the ground in relation to the size of the site, and can only provide a general indication of site conditions. Conditions may exist on the site which have not been detected by the works undertaken. Furthermore, the number of sampling points and the methods of sampling and testing do not preclude the existence of localised "hotspots" or more widespread contamination where concentrations may be significantly higher than those actually encountered.

Interpretative Phase II Environmental Audits

The investigation of the site has been carried out with the intention of providing sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made. The objectives of the investigation have been limited to establishing the risks associated to potential human targets, building materials, the environment (including adjacent land), and surface and groundwater.

The amount of exploratory work and chemical testing undertaken may have been restricted by factors including inter alia the Clients budget, the available timescale, access to all parts of the site, the existence of buried services etc., and where this is the case, a more comprehensive investigation may be required if the site is to be redeveloped, since a number of important engineering and environmental issues may need further assessment.

For those reasons, if costs have been included in relation to site remediation these must be considered as tentative only and must, in any event, be confirmed by a qualified quantity surveyor.

It must be borne in mind, that the exploratory holes undertaken, investigate only a small volume of the ground in relation to the size of the site, and can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions apparent at the site of each of the exploratory holes. There may be ground conditions present on the site which have not been disclosed by this investigation, and which have therefore not been taken into account in this report. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised "hotspots" or more widespread contamination where concentrations may be significantly higher than those actually encountered. The findings of the investigation are valid for the time of investigation and the passage of time may result in changes to the contamination status of the site, and a reassessment of the site may be required where significant time has elapsed.

Geoenvironmental Ground Investigations

The investigation of the site has been carried out within the constraints of Client budget, available timeframe, access to all parts of the site, the existence of buried services and a more comprehensive investigation may be required to provide sufficient information regarding the type and degree of contamination, geotechnical characteristics, and ground and groundwater conditions, to formulate a reasonable assessment of the environmental risks together with engineering and development implications.

If costs have been included in relation to the site remediation, these must be confirmed by a qualified quantity surveyor.

The exploratory holes undertaken, investigate only a small volume of the ground in relation to the size of the site, and can only provide a general indication of the site conditions. The opinions provided and recommendations given in this report are based on the ground conditions apparent at the site of each of the exploratory holes. There may be ground conditions present on the site which have not been disclosed by this investigation, and which have therefore not been taken into account in this report. The findings of the investigation are valid for the time of investigation and the passage of time may result in changes to the contamination status of the site, and a reassessment of the site may be required where significant time has elapsed.

The comments made on groundwater conditions are based on observations made at the time that site work was carried out. It should be noted that groundwater levels will vary owing to seasonal, tidal, weather, or other effects.

The risk assessment and opinions provided, inter alia, take into consideration currently available guidance relating to acceptable contamination concentrations and no liability can be accepted for the retrospective effects of any future changes or amendments to these values.