



Phase II Site Investigation Report

at

**Capital Hair & Beauty,
Consort Way, Burgess Hill,
West Sussex
RH15 9TJ**

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Please see Appendix A for limitations to the current investigation and report.

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1 INTRODUCTION & BACKGROUND

1.1 INSTRUCTION & APPOINTMENT

Onyx Geo Consulting Ltd (referred to as Onyx Geo) was commissioned by our client, PGQ Property Consulting Ltd to carry out a Phase II Site Investigation at the Capital Hair & Beauty site, Consort Way, Burgess Hill, RH15 9TJ.

The appointment was confirmed on the 14th of January 2025 via email signed by Peter Quincy of PGQ Property Consulting Ltd.

The work was carried out based on Onyx Geo's fee proposal letter dated 8th January 2025, Quote Ref: ON251002, including the outlined terms and conditions and subsequent email correspondence. The quotation and correspondence serve as the formal agreement between Onyx Geo and the Client.

1.2 SITE LOCATION

The site is located within Victoria Business Park, an industrial estate located in the southeastern part of Burgess Hill, West Sussex. The site comprises a 0.3Ha commercial land parcel on the southern side of Consort Way and is centred on the approximate grid reference 530200, 118750.

A site location plan is included as Figure 1 (ON251002-ON-ZZ-XX-DR-X-111) within Appendix B.

1.3 PROPOSED DEVELOPMENT

The former industrial unit on site comprised a warehouse which burnt down in 2023. It is proposed to construct a replacement 1,408 sqm, double height, commercial/light industrial property split into three units, falling under use classes E(g), B2, and B8. It is understood that an internal mezzanine floor is being considered. A proposed layout is given as ON251002-ON-XX-XX-DR-X-224 (Figure 2) within Appendix B.

To establish the minimum requirements for the scope and content of geotechnical investigations, BS EN 1997-1:2004+A1:2013 (Eurocode 7) requires the complexity of each geotechnical design, along with the associated risks, to be identified. The geotechnical design categories range between 1 to 3 with increasing complexity.

The proposal for the site would be considered as Geotechnical Category 2 (GC2) structure, based on the proposed development plans and the anticipated ground conditions. Development under a GC2 category generally comprises conventional structures with normal risks, such as commercial buildings, medium-sized bridges, retaining walls, and deep excavations in moderately complex ground conditions.

1.4 AIMS & OBJECTIVES

The purpose of this investigation is to identify and where possible quantify any risks associated with the ground on site which may impact the proposed development. The specific objectives are:

- Assess the geology, hydrogeology, hydrology conditions of the site and their potential impact on the proposed development;

- Conduct an intrusive investigation of the underlying ground and groundwater conditions including field and laboratory testing to quantify the risks highlighted within the preliminary conceptual model (desk study undertaken by others);
- Refine the conceptual model based on the ground investigation and analysis undertaken;
- Provide guidance on the potential geotechnical and contaminative risks present on site to aid the design process; and
- Address the recommendations for planning conditions to be imposed on the redevelopment of the site with particular reference to concerns raised by the contaminated land officer at Mid Sussex District Council.

1.5 REGULATORY FRAMEWORK, GUIDANCE AND BEST PRACTICE

The investigation of the site has been undertaken in line following guidance and British Standards:

- BS 5930:2015+A1:2020 Code of Practice for Ground Investigations
- BS EN ISO 14688 (2018) Geotechnical investigation and testing - Identification and classification of soil. Parts 1-2
- BS 8004:2015+A1:2020 Code of Practice for foundations
- BS EN 1997-1:2004+A1:2013 (Eurocode 7)
- BS10175:2011+A2:2017 Investigation of potentially contaminated sites.
- Land Contamination Risk Management (LCRM)
(<https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>)

With respect to contaminated land the guidance outlines a systematic approach whereby the need to evaluate risks from site is understood, and potential contaminant linkages between sources of contamination, pathways, and receptors are first identified and then quantified, followed by an assessment on whether any risks are unacceptable.

A tiered approach is adopted, namely:

- Preliminary Risk Assessment (PRA);
- Generic Quantitative Risk Assessment (GQRA); and,
- Detailed Quantitative Risk Assessment (DQRA).

The PRA has been undertaken by others. A GQRA is included within this report and depending on the findings will recommend whether further site investigation is required to refine the CSM; or whether a DQRA and/or remediation is needed to address relevant contaminant linkages identified.

1.5.1 Preliminary Risk Assessment

The PRA combines the findings of a walkover and review of previous site reports (where available), historical maps and accessible data from the following sources, including but not restricted to information from the British Geological Survey (BGS), Zetica unexploded bomb (UXB) regional risk maps, Internet searches and planning records. This has been undertaken by others for the current site.

1.5.2 Intrusive Investigation

This part of the works has been undertaken in general accordance with BS EN 1997-2:2007 and BS 5930 Code of Practice for Ground Investigations. Whilst this report would comply with the requirements of a Ground Investigation Report it does not comply with the requirements of a Geotechnical Design Report as set out within BS EN 1997 Eurocode 7. The recommendations are provided to aid preliminary design, detailed design must consider both ultimate and serviceability limit state scenarios.

To achieve the aims outlined in section 1.4 above, the proposed intrusive site works comprised the following activities:

- Ground Penetrating Radar (GPR) utility service clearance and surveying each exploratory position using GPS.
- 8 No. windowless sampler boreholes drilled with a tracked rig to various depths of up to 4 m
- *In-situ* geotechnical testing comprising Standard Penetration Tests and Hand Penetrometer tests.
- Installation of 3 No. groundwater level and ground gas monitoring standpipes and three return visits to monitor ground gas concentrations and groundwater levels.
- One round of groundwater sampling and laboratory testing.
- Laboratory geotechnical classification testing including particle size distribution (PSD), Atterberg limits, moisture content, and BRE SD1 suite tests.
- Chemical laboratory testing of soils and groundwater samples including heavy metals, PAHS, asbestos and petroleum hydrocarbons and VOCs.

1.6 PREVIOUS STUDIES

A phase 1 desk study and PRA has been undertaken at the site by others and been made available to Onyx Geo. A short summary of the findings and pertinent points to the current assessment is included below.

1.6.1 Phase 1 Contamination Risk Assessment by Land Science Ltd. Capital Warehouse Consort Way, Burgess Hill RH15 9TJ. Report reference LS7961, dated 17th October 2024

The Land Science PRA report detailed the site's history, tracing its development from open fields with a stream in 1878 to a boating lake with a dam by 1910. The site remained unchanged until 1974. By 1981, a warehouse was established, later becoming part of the "Victoria Industrial Estate" in 1991. The site remained unchanged until a significant fire in June 2023 led to the demolition and clearance of the warehouse.

The report highlighted the fire incident on the 19th June 2023 as a Category 2 incident with a significant water impact from contaminated water and firefighting runoff. The report used published maps to derive a predicted ground model for the site, which comprised made ground soils associated with the backfilling of the historical boating lake, overlying the Weald Clay. Reference was also made to the potential presence of alluvial soils associated with the historic course of the stream.

The report stated that the Weald Clay Formation is classified as unproductive strata with low permeability and negligible water significance for water supply or base river flow. The site was

reported to lie outside any groundwater Source Protection Zone (SPZ) and within a Flood Zone 1 (low probability), but nearby Zones 2 and 3 indicated higher flood risks due to an adjacent stream. Surface water flooding risk was reported as medium (1–3.3% annual probability), and groundwater flooding was also considered possible.

The report specified no radon risk, as less than 1% of homes were estimated by PHE to exceed the threshold for radon gas.

The report stated that the risks determined by online mapping from unexploded ordnance (UXO) might be low and as such no further assessment was considered necessary.

The preliminary conceptual model (pCSM) outlined in the report summarised the following potential risks:

- Made ground soils from historical infilling of the boating lake. Potential contaminants of concern included metals, non-metals, organic contaminants and asbestos. The risk of soils contamination was reported to be high. The risk to groundwater from contaminants leaching was rated as moderate. Ground gas generation potential was considered to be high given an assumed depth of made ground soil and the risk to end users from organic vapours was rated as moderate.
- The former use of the site as commercial unit for hair and beauty product storage was considered as a potential source of metals, non-metals, organic contaminants and asbestos, with risks being rated as high for soil contamination, moderate for groundwater and moderate for vapours. The report also highlighted an electrical substation on site. (It is likely that this refers to the existing off-site electrical substation located immediately off the southwestern site boundary).
- The fire in June 2023 has a substantiated pollution incident record. The report states that contaminated water contained a wide range of potential contaminants including metals, non-metals and organic contaminants. Risks to soils, and groundwater were reported to be high with moderate risks from vapours.
- Numerous off site commercial and industrial units were identified as a low risk for soil contamination.

An overall high risk was reported for the site with respect to its redevelopment and recommendations for a ground investigation and testing were made.

1.7 SITE DESCRIPTION

At the time of the site works (29th of January 2025) the site comprised a vacant plot of land. The northern most extent of the site was defined by a grass verge fronting onto the pavement of Consort Way together with an asphalt surfaced car park. The verge and road were approximately 0.5-1.0m higher than the remainder of the site, which was generally flat and level.

Heras fencing separated the carpark from the footprint of the former warehouse. Site surfacing outside the car park area comprised clay-like-soil with gravel and occasional broken tiles, concrete and mortar. The ground was soft under foot and surface water had pooled in several places after recent heavy rain.

A small concrete plinth with a water pump was located on the eastern side of the former warehouse and a corroded metal electronics box on the western part of the site. Blocks and

fibrous pads were present within the metal box and were noted to be fully intact and not damaged by the fire suggesting that these may contain asbestos.

No evidence of the fire was noted during the walkover and no building rubble or evidence of footings or foundations were visible (e.g. turned over ground).

The site was surrounded by commercial and light industrial units.

An off-site electrical substation together with a mature tree was present immediately west of the site and this may in fact be the historical substation referred to in the desk study.

1.8 PLANNING CONDITIONS

The PRA risk assessment by Land Science was submitted for comment to Mid Sussex District Council and recommendations for planning conditions were made by Mr Oliver Benson on behalf of the Contaminated Land department. A copy of the correspondence is included within Appendix C. To summarise, a detailed intrusive ground investigation was required to assess site contamination, focusing on fire-affected areas and the former electrical substation (although this may still be present off site). To include soil sampling, groundwater monitoring, and installing wells in deeper made ground to evaluate hydrocarbon impacts and ground gas risks. Conditions for remediation and validation should they be required were also made. A discovery strategy to halt work should further contamination be encountered was also recommended.

1.9 FIRE

The fire on 19th June 2023 caused significant structural damage to the warehouse and the building was subsequently demolished and the site cleared with the exception of the carpark and concrete plinths and metal electronics box.

Correspondence provided by West Sussex Fire & Rescue Service confirmed that no foams including per and polyfluoroalkyl substances (PFAS) were used in extinguishing the fire. A copy of this is included in Appendix C. Whilst PFAS compounds are not anticipated other contaminants associated with the site and the fire such as heavy metals, polycyclic aromatic hydrocarbons (PAH's) and volatile organic compounds (VOC's) may have affected controlled water receptors by surface water run-off and infiltration. It is crucial to acknowledge that following the fire, the building was demolished and all the foundations and hardstanding, with the exception of the carpark and concrete plinths were removed from site

At the time of writing the Environment Agency had not yet responded to a request for information on the fire incident.

2 REVISED CONCEPTUAL SITE MODEL

2.1 REVISED GEO-ENVIRONMENTAL & GEOTECHNICAL CONCEPTUAL SITE MODEL

The purpose of this section is to summarise and update the potential contaminant linkages and geotechnical hazards identified within the desk study following and recent enquiries undertaken by Onyx Geo.

2.1.1 Anticipated ground model

Based on the PRA report the ground conditions beneath the site are anticipated to comprise:

Table 1: Anticipated ground conditions from desk based data review and geotechnical hazards

Geological Strata		Notes on associated geotechnical hazards
Made Ground		Historical mapping shows the site within the western end of a historical boating lake. The British Geological Survey (BGS) mapping records the former boating lake boundaries as 'Potentially Infilled Land (Water)'. If the lake was backfilled, made ground can be variable in composition and strength and if present to a significant depth can be a hazard for development design.
Superficial Deposits	Alluvium	Off site alluvial soils are recorded and it is possible that these extend onto site along the historical course of the stream before it was culverted. The historical boating lake may also have cause alluvial soils to be present. Alluvium can be soft, variable and organic in nature. The shallow superficial alluvial deposits, if present, maybe unstable even in the short term
Bedrock Geology	Weald Clay Formation	The Weald Clay Formation is subject to shrink-swell ground hazards, and it is susceptible to weathering. Its high clay content makes it prone to volumetric changes, leading to ground movement and differential settlement. The Weald Clay often exhibits elevated concentrations of sulphides and near surface their weathering products sulphates.

2.1.2 Anticipated hydrogeology

Given the anticipated Weald Clay bedrock geology (low to very low permeability), shallow groundwater (or perched water) is likely to be present at shallow depths within the made ground and/or alluvial soils.

2.1.3 Anticipated hydrology

The site lies within the drainage catchment of the Herrings Stream Watercourse (waterbody ID GB107041012150), which flows in a northwest direction as an open channel west of the site. It has been classified as having a poor ecological status.

A culverted section of the stream is present on site and it outfalls approximately 15 m to the west of the site boundary. The watercourse is at approximately 1.0 to 1.5 m below the existing ground levels in the vicinity of the culvert headwall.

We understand that culverted section is comprised of twin 1500mm diameter pipes and designated an 'Ordinary Watercourse' under the authority of West Sussex Flood Risk

Management Team, whilst the open channel section is designated a 'Main River' and therefore under the jurisdiction of the Environment Agency (EA).

2.1.4 Below ground structures

Onyx Geo understands that no basement levels were present in the former warehouse and from visual inspections of the ground surface during the site work, it did not appear that any foundations remained. However historical footings / below ground obstructions cannot be discounted at this stage.

It was understood that the stream was culverted within the site boundaries and utility mapping illustrates the route to extend across the northern boundaries in an east to west direction.

The exact location, depth and make up of the culvert should be confirmed at an early stage with the Environment Agency and West Sussex Flood Risk Management Team, as they may need to be consulted about construction works in the vicinity of their pipe.

2.1.5 Geoenvironmental conceptual site model

As outlined within LCRM, a risk-based approach is applied to assess contaminated or potentially contaminated land. For a risk to exist, a contaminant linkage must be present, meaning a source of contamination, a potential receptor, and a pathway connecting the two must be present in order for that risk to be realised. A site is considered suitable for use if no complete pollutant linkages can be envisaged following completion of the development.

2.1.6 Potential contaminant sources

The following potential sources of onsite contamination:

Onsite:

- Made ground soil from the possible backfilling of a historical lake with unknown materials. Potential for elevated concentrations of heavy metals, polycyclic aromatic hydrocarbons (PAH's); petroleum hydrocarbons and asbestos, ground gas generation (secondary source).
- Potential ground gas generation from alluvial soils if present.
Commercial use: potential for heavy metals, polycyclic aromatic hydrocarbons (PAH) volatile compounds and asbestos.
- Fire incident: potential PAH contamination, although it is noted that no visual evidence of the fire remains, and all impacted buildings and hardstanding have been removed, firefighting with water may have caused the spread of PAH or other contaminants.

Offsite:

- Adjacent electrical substation to the southwest; potential hydrocarbons and polychlorinated biphenyl (PCB's).
- Adjacent and nearby commercial units/industrial estate: potential heavy metals, PAH's, volatile compounds and petroleum hydrocarbons.

As described above PFAS including firefighting foams were reported by the West Sussex Fire Service to not have been used during onsite fire, so have been excluded from the revised CSM.

2.1.7 Potential Receptors

The following potential receptors of ground contamination were identified:

- Human health:
 - Future end users of the site - commercial workers.
 - Construction workers.
- Controlled waters:
 - A culverted section of the Herrings Stream is present in the northern part of the site. The culvert's outfall is located approximately 15 m offsite from the western site boundary.
- Construction material
 - Concrete foundations and infrastructure including potable water pipes and utility trenches.
 - Groundwater is not considered a critical receptor and is excluded from the revised CSM, on the basis that the underlying Weald Clay is recorded as an unproductive strata and the site is outside of a source protection zone. It is feasible that the groundwater exists as a discontinuous body of water present as a perched layer at the base of made ground fill or within sandy / granular horizons of remnant alluvial deposits if present. Site and local ground levels are reasonably flat and it is feasible that the hydraulic gradient is also flat and conductivity is low.

2.1.8 Potential Contaminant Linkages

A risk is only considered to be present where a contaminant linkage between a source and receptor exists. The proposed commercial development comprises a totally hardcovered development with only the existing grassed verge remaining as soft landscaping.

Preliminary risk levels for each contaminant linkage are assessed considering the likelihood of exposure occurring and the severity of the impact that exposure could cause.

2.1.8.1 Human Health

All the exposure linkages between humans and potential contaminants that are considered within the Contaminated Land Exposure Assessment (CLEA) would be expected to be present within the proposed development. The CLEA model considers the following pathways for commercial use:

- Direct soil and dust ingestion from limited soft landscaped areas
- Direct dust ingestion
- Dermal Indoor and outdoor uptake
- Indoor dust inhalation & outdoor dust inhalation
- Indoor vapour inhalation & outdoor vapour inhalation

2.1.8.2 Ground gases

Ground gas and vapours generation from potential backfill material and from volatile contaminants or alluvial soils could potentially enter the new development and build up to levels that may be detrimental to health.

Outdoor inhalation is not considered any further due to dilution of source gasses with open air.

2.1.8.3 Surface waters

The site is located in an area where surface water flooding could occur as well as groundwater flooding. The hydraulic connectivity between the stream and potential onsite groundwater is uncertain. The groundwater could act as a contaminant pathway to offsite receptors either via:

- preferential pathways around granular backfill to the culverted pipe sections; and
- where granular made ground and / or granular natural horizons extend offsite the connecting onsite groundwater to the offsite stream.

It is considered the offsite Herrings Stream is at a low to moderate risk from mobile contaminants in onsite groundwater.

2.1.9 Level of Risk

The identified potential contaminant sources are considered to pose a low/moderate risk to the identified human health and surface water receptors.

3 INTRUSIVE INVESTIGATION

3.1 BASIS OF INTRUSIVE INVESTIGATION

The aims of the intrusive investigation are set out in Section 1.4 as well as to assess the potential contaminant linkages identified in the conceptual site model.

3.2 HEALTH & SAFETY

The site works were undertaken in line with a site-specific Risk Assessment and Method Statement (RAMS) prepared for the site. The RAMS was sent to the client and subcontractors prior to site attendance. A site induction and any relevant toolbox talks were given to site attendees who were also signed in to site and onto the RAMS.

3.3 WORKS UNDERTAKEN

The intrusive works were carried out on January 29th 2025 with post investigation monitoring undertaken between the 2nd and 25th February 2025.

The investigation comprised excavation of eight windowless sampler boreholes with groundwater and gas monitoring standpipes installed within three of the boreholes, namely WS1, WS2, and WS7. These were monitored on three occasions, with groundwater samples obtained during the second visit, which were then subject to laboratory testing.

A summary of the works and depths achieved together with any variation from the proposed scope is presented in Table 2 below. Further details on the investigation methodologies can be found in Appendix D. Details on the individual exploratory holes are provided on the logs given in Appendix E.

Table 2: Summary of intrusive investigations

Method and Number	Depths achieved m (m A.O.D)	Date Started (Ended)	Notes
GPR, and GPS positioning	n/a	29/01/2025 (29/01/2025)	The proposed borehole locations and the area of at least 5 m ² surrounding them were scanned and cleared of underground services and surveyed using GPS. It was not possible to determine the depth of the culverted stream below the northern part of the site, but the manhole covers relating to the culvert were identified and borehole positions adjusted accordingly.

Method and Number	Depths achieved m (m A.O.D)	Date Started (Ended)	Notes
Windowless Sampler Borehole WS1, WS2 WS5	4.0 (24.56-24.63)	29/01/2025 (29/01/2025)	Instability and borehole collapse was noted within the sandy silt of the alluvial silt at most positions.
Windowless Sampler Borehole WS3	n/a	n/a	Not excavated due to time constraints having drilled WS4 twice.
Windowless Sampler Borehole WS4A and WS4	3.0 (25.54)	29/01/2025 (29/01/2025)	WS4A was excavated however following drilling of the first 1 m the cutting shoe was lost, the first 1m was then over drilled. No material recovery was obtained between 2 and 3m bgl and the drilling rod was then pushed to 3m. Given the recovery and limited data obtained WS4 was redrilled from ground level, less than 1 m to the east of WS4A.

Method and Number	Depths achieved m (m A.O.D)	Date Started (Ended)	Notes
Windowless Sampler Borehole WS6 and WS8	1.0 (27.63-28.07)	29/01/2025 (29/01/2025)	These boreholes were excavated by hand to shallow depths to provide contamination assessment samples and sufficient site coverage.

Table 3: Installation and groundwater monitoring details.

Borehole Reference	Depth to base of plain standpipe (m)	Depth to base of slotted standpipe (m)	Stratum targeted by slotted pipe	Gas and Groundwater Monitoring Visit Dates		
WS1	1	3	Alluvial silt	06/02/25	17/02/25*	25/02/25
WS2	1	2				
WS7	0.5	1				

*Groundwater sample taken for chemical testing at laboratory

3.4 EXPLORATORY HOLE DISTRIBUTION

The borehole location was determined based the proposed scope, and the presence of below ground services. The windowless sampler borehole locations are shown in Figure 3, Appendix B.

3.5 LOGGING, SAMPLING AND IN SITU TESTING

3.5.1 Soil logging and sampling

Soil samples were recovered from the trial holes and inspected for detailed logging and sampling. Soils were logged in general accordance with BS 5930 and ISO 14688.

3.5.2 In situ testing

The soils encountered were subject to in-situ geotechnical tests to determine their physical characteristic. The investigation utilised:

- Standard penetration tests (SPTs)
- Hand Penetrometer

Full detail on how the soils were logged, samples taken, and testing protocols are included in Appendix D Site Investigation Methods. Test results are shown on the logs in Appendix E, at the relevant depths.

3.5.3 Groundwater sampling

During the second groundwater and gas monitoring visit grab samples of groundwater were taken from each of the three standpipes installed within WS1, WS2 and WS7. Unpurged samples were taken using single use biodegradable bailers.

3.6 SOIL LABORATORY ANALYSIS

3.6.1 Chemical Analysis

Samples of soil and groundwater were selected for testing based on the findings of the conceptual site model in the preliminary contamination risk assessment and from visual and olfactory evidence noted during the intrusive investigation stage.

The laboratory testing was carried out by i2 Analytical. Details of the UKAS and MCERTS accreditation for the individual laboratory test results are shown on the certificates included in Appendix F.

A summary of the analytical chemical testing undertaken is presented in Table 4.

Table 4: Summary of chemical laboratory testing.

Contaminant or contaminant suite	Number of Samples per Soil Type		
	Alluvial sandy silt	Weald Clay	Groundwater
Onyx Standard Suite (As, Cd, Cr, CrVI, Cu, Pb, Hg, Ni, Se, Zn, USEPA 16 PAHs pH TOC Asbestos Screen)	11	1	-
Speciated petroleum hydrocarbons (TPH CWG method)	4	1	-
Poly-chlorinated Biphenyls	2	-	
Onyx Water Suite (As, Cd, Cr, Cr, Cu, Pb, Hg, Ni, Se, Zn, USEPA 16 PAHs, Boron, sulphides, sulphates TPH, pH, Phenols)	-	-	3
Volatile Organic Compounds (VOCs)	-	-	3
Semi-Volatile Organic Compounds (SVOCs)	-	-	3

Benzene, Toluene, Ethylbenzene & Xylene (BTEX)	-	-	3
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In addition to the above a discrete piece of tile suspected to contain cement bonded asbestos was also tested for the presence of asbestos.

3.6.2 Geotechnical Laboratory Testing

To provide information to aid the geotechnical assessment the following laboratory testing has been carried out by Geolabs Ltd.

The following laboratory tests have been undertaken and the full results presented in Appendix G:

Table 5: Summary of geotechnical laboratory testing

Laboratory Test	Samples per soil type tested	
	Alluvium	Weald Clay
Moisture Content	2	4
Atterberg Limit Test	2	4
Particle Size Distribution Test	1	-
BRE SD1 Suite (A)	1	-
BRE SD1 Suite (B)	-	2
Loss on Ignition	2	-

3.7 GROUND CONDITIONS

The ground conditions encountered within the exploratory holes, is presented in Table 6 below. The borehole logs are included in Appendix E.

Table 6: Summary of ground conditions

Soil Type	Depth encountered m	Depth to base m	Typical Description	Interpreted State
Gravel	0.0	0.15 / 0.20	Thin layer of flint gravel. Topsoil at WS8 or asphalt at WS7.	Surfacing
Gravel	0.0 / 0.20	0.30 / 0.40	Dark blue grey silt with fine to coarse gravel of flint and mortar at WS8 only. Flint gravel subbase was recorded at WS7	Subbase/ reworked/made ground
Sandy SILT	0.10 / 0.60	1.5 / 3.6	Soft to firm dark blue grey very Sandy SILT.	Alluvial SILT
CLAY	1.80	3.7	Soft to firm pale grey to grey green silty CLAY (at WS2 and WS5)	Alluvial CLAY
CLAY	1.80-3.7	4.00*	Firm/stiff and hard brown grey and orange grey silty CLAY with fine to coarse gravel of thinly laminated weakly cemented mudstone and ironstone.	Weald Clay Formation

*Full depth of investigation

3.7.1 Trends and observations

The anticipated made ground soils from backfilling of the historical boating lake were not identified. Most of the site was approximately 1 m lower than the adjacent road and verge with a shallow slope down from the north, suggesting that the former industrial units were built directly on to the base of the former lake, rather than on infill. However alluvial deposits were encountered at all locations investigated and were present to depths of up to 3.7 m bgl.

No visual or olfactory signs of contamination were noted at any of the locations investigated.

3.7.2 Groundwater

Groundwater was encountered in every position at the time of the intrusive works, as well as during the subsequent monitoring. Groundwater monitoring levels are recorded in Table 7, below.

Table 7: Summary of groundwater strikes and levels

Exploratory Hole	Depth to Groundwater strike m bgl (mAOD)	Water level m bgl (mAOD)		
	29.02.25 (during drilling)	02.02.25	17.02.25	25.02.25
WS1	1.00 (27.56)	0.70 (27.86)	1.16 (27.40)	0.20 (28.36)
WS2	1.00 (27.63)	0.91 (27.72)	1.16 (27.47)	0.17 (28.46)
WS7	1.00 (27.53)	1.25 (27.28)	1.21 (27.32)	0.94 (27.59)

The full depth to the base of the installed standpipes were slightly shallower than when installed indicating silt movement. The groundwater levels indicate water to be generally flowing in a northerly direction (varying by a few degrees either side of north between the rounds). Hydraulic gradients are low, ranging from approximately 0.004 to 0.020.

4 GEOTECHNICAL CHARACTERISTICS

4.1 MADE GROUND

Significant depths of made ground soils as a result of potential backfilling activities were anticipated to be present beneath the site. However, the ground investigation did not identify any evidence of deep made ground soils. At WS7 a 0.2 m thickness of gravel comprising the subbase to the car park asphalt was identified, together with a small amount of mortar and flint (0.10m thickness) within the verge at WS8.

Whilst significant depths of made ground were not identified at the positions investigated, there is the potential, albeit low risk, that it may be present at locations away from the boreholes. Any made ground is generally variable and therefore subject to differential settlements when loads are applied so it is unsuitable as a load bearing stratum.

4.2 SUPERFICIAL ALLUVIAL DEPOSITS

The site underlain by alluvial deposits which comprise a very sandy silt that extends to depth of up to 3.7m below ground level. These soils were encountered at every position excavated and likely to represent deposition from the former stream (now culverted) as well as recent material from the former boating lake. Whilst the alluvial soils were classified as a sandy silt in the upper part, at WS2 and WS5 a layer of silty alluvial clay deposits 1.6m to 1.8m in thickness was present between 1.8m and 3.6m and 2.1m and 3.7m bgl. Variability in composition and therefore strength within alluvial soil is not uncommon.

4.2.1 Alluvial Silt Deposits

The results of the in-situ and geotechnical laboratory testing undertaken on the alluvial silt deposits are presented in Tables 8 to 11, below. A full set of laboratory geotechnical results and logs with insitu testing are included in Appendices E and G.

Table 8: In situ test results for the alluvial silt deposits

Test Type	Unit	Test Results Range
Standard Penetration Test	N ₆₀ Value	0 - 39

The alluvial silt soils returned N₆₀ values of between 0 and 39 and highlight the variability associated with the alluvium and the presence of very soft soils.

A sample of the very sandy silt from WS5 at 0.5m was considered representative of the silty alluvial soils across the site and a particle size distribution test was used to confirm its classification, as either a very silty sand or very sandy silt. The table below summarises the results which confirm its classification as a very sandy silt.

Table 9: Particle size distribution results for the alluvial silt superficial deposits

Trial hole Ref.	Sample Depth (m)	Cobbles (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
WS5	0.80m	0.0	19	16.3	61.6	3.1

A sample of the alluvial soil (WS4 at 1.0m) scheduled for Atterberg testing, which confirmed that the upper part of the alluvial soils are non-plastic.

Table 10: Geotechnical laboratory test results for the alluvial silt superficial deposits

Test Type	Unit	Test Results
Water Soluble Sulphate Content	mg/l	800
pH	-	9.2

Two samples, WS2 at 0.5m and WS4 at 0.5 were tested for Loss On Ignition with results of 3.1% and 2.1% respectively recorded. This suggests that the alluvial silts have a low organic content.

4.2.2 Alluvial Clay Deposits

At WS2 and WS5 the silty alluvial deposits transitioned into alluvial clay deposits below depths of b1.8m and 2.1m and the testing at these locations is summarised below:

Table 11: In situ test results for the alluvial clay deposits

Test Type	Unit	Test Results Range
Standard Penetration Test	N ₆₀ Value	6-15

The standard penetration tests returned relatively low blow counts within these deeper alluvial deposits. The silty clay alluvial silts identified in WS2 were subjected to Atterberg testing with results summarised below (WS2 at 3.0m):

Table 12: Atterberg Limits on Alluvial Clay Soils

Test Type	Unit	Test Result
Moisture Content	(%)	25
Liquid Limit	(%)	38
Plastic Limit	(%)	18
Plasticity Index	(%)	20

The testing indicates that the cohesive alluvial clays beneath the non-plastic clayey silt have an intermediate plasticity.

4.3 WEALD CLAY FORMATION

The cohesive soils of the Weald Clay Formation were identified below depths of between 1.85m and 3.70m to the full depth of the investigation (4m+). The upper 2m appeared to be heavily weathered in WS1 and WS4.

The results of the in-situ and geotechnical laboratory testing undertaken on the Weald Clay Formation deposits are presented in Tables 13 to 15 below.

Table 13: In situ test results for the Weald Clay deposits

Test Type	Unit	Test Results Range
Standard Penetration Test	N ₆₀ Value	7-89

The lower range of the N₆₀ values, 7, 9, and 10 correspond with the weathered top of the Weald Clay found in WS1 and WS4 which in some cases extended to beyond 3.0m depth, whilst values of 21-89 were recorded within the formation where mudstone and ironstone were encountered.

Table 14: Atterberg Limits on Weald Clay Soils

Test Type	Unit	Test Range
Moisture Content	(%)	18.8-33
Liquid Limit	(%)	46-57
Plastic Limit	(%)	21-35
Plasticity Index	(%)	25-32

The testing indicates that the cohesive Weald Clay soils are intermediate to high plasticity.

Table 15: Geotechnical laboratory test results for the Weald Clay Deposits

Test Type	Unit	Test Results
Water Soluble Sulphate Content	mg/l	120-190
Acid Soluble Sulphate	%	0.026-0.061
Total Sulphur	%	0.015-0.026
pH	-	7.3-8.8

5 GEOTECHNICAL ASSESSMENT

The following assessment provides recommendations and guidance to aid the geotechnical design of the proposed structure(s). It is not a geotechnical design report (GDR), the final design should consider both the immediate and long-term design scenarios as well as both ultimate (ULS) and serviceability limit state (SLS) conditions.

5.1 SOIL AGGRESSIVITY / CONCRETE DURABILITY

A total of three soil samples were tested for their sulphate content and pH, these comprised one from the alluvial deposits tested for Suite A and two from the Weald Clay tested for Suite B. In addition, three samples of the groundwater were tested for the presence of sulphates.

As set out in BRE Special Digest 1 where a small number of soil samples have been tested (<5) the characteristic value for the soils has been based on the highest measured sulphate content. The characteristic value for the groundwater is taken as the highest measured sulphate concentration rounded to the nearest 100 mg/l.

The alluvial deposits fall within BRE as design sulphate class DS-2, and, assuming a mobile groundwater table, the ACEC class is AC-2. The Weald Clay deposits would be classed as design sulphate class DS-1, and AC-1. The sulphate concentrations recorded within the groundwater samples indicated DS-2 classification as appropriate.

The laboratory testing results indicate that oxidisable sulphides are generally present at concentrations in below 0.3%, indicating that large volumes of pyrite aren't present at the positions tested. However further testing of Weald Clay at depth should be considered.

Using highest sulphate class calculated from the water-soluble sulphate, Total potential sulphate and groundwater testing, the soils are classified as **Design Sulphate Class DS-2** and **AC-2**. However, should piled foundations be proposed confirmatory testing of the Weald Clay at depth is recommended.

5.2 VOLUME CHANGE POTENTIAL

The NHBC¹ provides guidance for the construction of foundations on soils subject to shrinkage and swelling due to their volume change potential (VCP) and the impact of trees and other vegetation. Based on the results of Atterberg limit testing, both the alluvial clays and the Weald Clay soils on site are classified as **Medium VCP**. (The overlying alluvial sandy silts are non-plastic). It is noted that a mature tree is located immediately west of the site adjacent to the electrical substation and that deepening of foundations in accordance with NHBC recommendations of medium VCP soils will be required.

The British Geological Survey (BGS) GeoClimate study, using UK Climate Projections (UKCP18)², assesses the impact of climate change on ground stability in the UK, with a focus on the shrink-swell behaviour of clay-rich soils. This phenomenon, driven by moisture fluctuations, can cause

¹ NHBC Standards 2024 Chapter 4.2 Building near trees.

ground movement, leading to subsidence or heave in buildings and infrastructure. The study projects a rise in the percentage of properties affected by shrink–swell subsidence from 3% in 1990 to 10% by 2030 and 11% by 2070, highlighting an increasing risk due to climate change. The Southeast of England is especially vulnerable due to the prevalence of clay formations that are more prone to moisture-induced volume changes.

5.3 FROST SUSCEPTIBILITY

The shallow soils across the site are alluvial silts and as outlined within LR1132³ these soils have high frost susceptibility.

Due to their fine particle size and ability to retain water they provide the ideal conditions for frost heave. Given the shallow water depth on site, the soils will be affected by high capillary action and freeze and thaw action.

The alluvial clays were identified at depths of over 1.8 m bgl and these soils would be considered moderately susceptible to frost.

5.4 GROUNDWATER

Groundwater strikes and seepages were recorded in all the borehole completed on site at approximately 1 m during the intrusive investigation. Subsequent groundwater level monitoring recorded groundwater levels at between 0.17 m and 1.25 m bgl across the site. Given that groundwater flood risks together with surface water flood risks have been identified within the desk study, it should be assumed that water levels and current ground levels could coincide. This will impact on foundation and drainage design and service run or any other excavations stability and groundwater may exert upward pressure. If deep excavations were proposed dewatering would likely be required to enable their construction.

5.5 SOAKAGE POTENTIAL

Whilst the soakage potential of the soils under the site was not tested, given the underlying clay geology and the results of the groundwater level monitoring, the site is considered unsuitable for any type of soakaway, including permeable paving. The unsaturated zone is not considered to be sufficiently deep enough to allow for any storage. The high groundwater levels would also adversely impact the ability to create open excavations.

5.6 FOUNDATIONS

The proposed commercial unit comprises a 1,408 sqm, double height, property with an internal mezzanine floor.

Foundations should extend below any soft, loose or disturbed ground. If foundations are anticipated to span different soil types e.g. between silts and clays, then allowance should be made for nominal reinforcement of the foundation to accommodate differential movements.

³ TRRL Laboratory Report 1132 The structural design of bituminous roads. Powell, Potter Mayhew and Nunn (1984)

The bearing capacity is dependent on proposed foundation dimensions and depth as well as the buildings settlement tolerance.

5.6.1 Shallow Foundations

Based on the encountered ground condition shallow foundations are not likely to be a viable option at the site. Soft alluvial silt extends to depth of up to 3.7 m bgl on site, with variable N_{60} values. The underlying Weald Clay soils have a weathered horizon of varying thickness where SPTs recorded N_{60} values of 7 - 10. Non weathered clays with values of between 21 and 89 were encountered from depth in excess of 3.6 m bgl.

In addition to low soil strength within shallow soils and unstable boreholes, which collapsed during drilling, groundwater levels ranging between 0.12 m bgl and 1.2 m bgl have been recorded. Forming shallow foundations such as strips, rafts or pads would be made very difficult by the presence of high groundwater and may require dewatering.

5.6.2 Piled Foundations

Piled foundations through the alluvial silt and weathered clay, into the unweathered Weald Clay Formation could provide an ideal foundation solution for the proposed development.

Given the proximity to adjacent structures driven piles may not be appropriate due to the induced vibrations during installation, as such continuous flight auger (CFA) piles may be a more appropriate option.

Due to the soft and waterlogged nature of the alluvial deposits pile necking may be anticipated as the auger is retracted. This should be discussed with the piling contractor and pile integrity testing may be required.

In order to provide sufficient ground condition information to allow a pile design, and to be compliant with the Eurocode 7 requirements on borehole depths for pile design, it is recommended that a single 20m borehole be excavated on site with SPT and sulphate testing at regular intervals. Consideration should be given to the use of a rotatory cored borehole given that an SPT N_{60} value of 89 was recorded within the Weald Clay at WS5 at 4m.

The final pile design should be undertaken by the chosen piling contractor based on their proposed method of pile installation, which will directly impact the pile capacity. The piling contractor should be consulted on the most technically appropriate and cost-effective solution for the ground conditions, working area and required pile capacities.

5.7 EXCAVATIONS

Excavations in the alluvial soils which were found extending to depths of up to 3.6m will be unstable and subject to collapse. Collapsing soils hazards would be exacerbated by the shallow groundwater present on site and its movement.

Close lateral support together with active groundwater control measures including groundwater control walls and or dewatering are likely to be required within any deep excavation at the site. If any inground structures were able to be built using groundwater control measures during construction, the effect of upward water pressures on any such structures would need to be considered in their design and construction.

Appropriate precautions must be in place to ensure the health and safety of all operatives where entry into excavations is required. Alternative foundation methods may need to be adopted where footing excavations cannot be safely constructed.

5.8 FLOOR SLABS

Suspended floor slabs are usually more applicable where piled foundations are proposed and should be adopted. However, we note that the proposed structures are warehouses and therefore, there is the potential that the floor slab may be subject to relatively large loadings for which a suspended slab may be less appropriate.

If a ground bearing floor slab is adopted loading of the slab should be kept to a minimum and nominal reinforcement of the slab is recommended given the VCP and variable nature of the site. Prior to construction the subgrade should be proof rolled and particularly soft areas should be excavated and replaced with compacted granular fill. Any load bearing internal/partition walls should be supported by a foundation and not the floor slab. The design should allow for potential future movements of the floor slab.

5.9 PAVEMENTS AND CARRIAGE WAYS

It is understood that the proposed development includes an access road and areas of carpark hardstanding. The investigation scope did not include allowance for California bearing ratio (CBR) testing. However, LR1132⁴ indicates that for non-cohesive alluvial silts such as those present on site, with a high water table a preliminary CBR value of 1% would be considered appropriate.

5.10 SLOPE INSTABILITY

The site and surrounding area are relatively level. Assuming that no significant cut and fill activities, which will result in a steepening of the site topography are proposed then no slope stability issues are anticipated. However, if such works are proposed, then additional investigation and stability assessment may be required.

⁴ TRRL Laboratory Report 1132 The structural design of bituminous roads. Powell, Potter Mayhew and Nunn (1984)

6 GEO-ENVIRONMENTAL RISK ASSESSMENT

6.1 UPDATED CONCEPTUAL SITE MODEL

The conceptual site model presented in the desk study identified potential onsite risks from:

- Potential ground gas generation from alluvial soils.
- Potential metals, PAH, volatile compounds and asbestos from commercial use of site.
- Potential PAH and heavy metal contamination as a result of the fire incident.

And offsite risks from:

- Adjacent electrical substation to the southwest; potential petroleum hydrocarbons and polychlorinated biphenyl (PCB's).
- Adjacent and nearby commercial units/industrial estate: potential heavy metals, PAH's, volatile compounds and petroleum hydrocarbons.

Following the intrusive investigation, and prior to undertaking the Generic Quantitative Risk Assessment (GQRA) it is necessary to update the conceptual model to account for the findings of the works to date.

With the exception of minor flint and mortar horizons (in the grass verge and as subbase beneath the asphalt), no other made ground soils were identified at the locations investigated. As such the anticipated deep made ground is no longer taken forward for assessment.

6.2 HUMAN HEALTH RISK ASSESSMENT

The GQRA for human health has been undertaken in accordance with the LCRM and CLEA methodology. Concentration of contaminants of concern within soils have been compared directly to Generic Assessment Criteria (GAC) derived by the CLEA model for a Commercial end use. A full break down of the assessment criteria used and the modelling assumptions made is included within Appendix H.

Eleven samples of the alluvial silt soils tested were considered to be representative of the soils across the site as a whole and have therefore been considered as a single dataset. A single sample of the underlying Weald Clay was also tested and considered separately.

For some contaminants the assessment criteria varies depending on soil organic matter (SOM). GACs are available for soil SOM contents of 1%, 2.5% and 6%. The laboratory analysis includes total organic carbon (TOC). To convert the TOC into SOM a conversion factor of 1.72 is applied. The lab testing indicates TOC ranging between 0.6% and 1.7% which equates to a SOM range of between 1% and 2.9%.

The most conservative generic assessment criteria are for lower SOM soils therefore the use of the GAC for a 1% SOM is considered safest and most appropriate.

The risk assessment does not include statistical analysis. CL:AIRE 2020 provides guidance on the appropriate sample sizes required for statistical analysis and the current testing regime does not comply with the minimum number of samples required therefore direct comparisons of recorded concentrations and GAC have been made.

6.3 RISK ASSESSMENT

In a commercial setting, the Contaminated Land Exposure Assessment (CLEA) model identifies adult commercial workers as the most critical human receptor. The model assumes that the following pathways are active: dermal contact (indoor/outdoor), inhalation of dust and vapours (indoor/outdoor), and incidental ingestion of soil and dust. A limited amount of soft landscaping e.g. verges is modelled. Unlike a residential setting, where exposure duration is longer, commercial workers are assumed to spend a standard working day (9 hours) over a 5-day period for a typical working lifetime (49 years for adult female) at the site. The table below (Table 15) compares the recorded concentrations within the soils tested against the commercial generic assessment criteria (GAC). A full set of results is presented in Appendix F.

Table 15: Human Health Risk Assessment Commercial Setting

Contaminant	Alluvial Soil Conc. Range (mg/kg)	Weald Clay Conc. (mg/kg)	Commercial Generic Assessment Criteria (mg/kg)	GAC Used C4SL ⁵ Or S4UL ⁶	Exceedances
Arsenic	7.2 - 77	9.3	640	C4SL	None
Cadmium	<0.2 - 0.9	0.3	410	C4SL	None
Chromium	37- 60	33	8600	S4UL	None
Hexavalent Chromium	<1.8	<1.8	49	C4SL	None
Copper	25 - 120	28	68000	S4UL	None
Lead	23-55	24	2300	C4SL	None
Mercury (Methyl)	<0.3	<0.3	320	S4UL	None
Nickel	37 -91	38	980	S4UL	None
Selenium	<1 – 4.1	<1	12000	S4UL	None
Zinc	46 – 140	47	730000	S4UL	None
Asbestos	Not detected in any sample including tile suspected to contain ACM		n/a	N/A	None
Benzo(a)pyrene	<0.05	<0.05	77	C4SL	None
Naphthalene	<0.05 – 0.01	<0.05	1600 (VAP SAT 76)	C4SL	None

It should be noted that no visual or olfactory evidence of any contamination was recorded at any exploratory hole location.

⁵ Environment Agency, 2014. *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination: Policy Companion Document*. Bristol: Environment Agency

⁶ LQM/CIEH, 2015. *The LQM/CIEH S4ULs for Human Health Risk Assessment*. Land Quality Press, Nottingham

None of the heavy metals or PAH compounds tested were recorded at concentrations above the commercial GAC.

Each sample was screened for the presence of asbestos and none was detected. A suspected piece of cement bonded asbestos tile was found not to contain asbestos. It was noted that an electrical metal box onsite may contain asbestos. It is recommended that this box is assessed and removed from site by a fully qualified asbestos contractor in line with the current guidance.

No visual or olfactory evidence of hydrocarbons or volatile compounds were noted in any of the soils investigated on site. Four samples of alluvial soils and one of the Weald Clay were tested for speciated petroleum hydrocarbons, split by carbon chain and aromatic and aliphatic compounds. No TPH bands were reported at concentrations above the analytical limit of detection.

Two samples taken from WS1 and WS5 were tested for 7 PCB congeners and no concentrations were reported above the analytical limit of detection.

6.3.1 Acute Risk Assessment

The CLEA model has been designed to assess chronic exposure and risk and is therefore not suitable for assessing the acute exposure that a construction or maintenance worker may be exposed to. Employers have a legal duty to ensure that suitable health and safety procedure are in place to protect construction workers from the risk posed by working in close proximity to potentially contaminated soils.

6.4 CONTROLLED WATERS RISK ASSESSMENT

6.4.1 Method

The risk assessment for controlled waters also follows the LCRM guidance with a tiered approach taken, but additionally follows the principles of the EU water Framework Directive (WFD). The WFD aims to protect and improve the quality of all water bodies within the European Union, including groundwater. One of its primary objectives is to prevent further deterioration of water bodies and promote sustainable water use. It has a requirement for coordinated efforts to reduce pollution and protect and secure clean water supplies for human and environmental needs.

The GQRA completed below directly compares measured concentrations of contaminants tested in groundwater samples against Water Quality Standards (WQS). The receptor identified by the conceptual model, is the Herrings Stream (groundwater receptors have been discounted as the critical receptor), as such Environmental Quality Standard (EQS) freshwater are used in this case.

6.4.2 Results and Assessment

Groundwater levels at the site were recorded on three occasions between the 2nd and 25th of February with grab samples taken from each borehole with a bailer on the 17th February 2025.

Whilst it is appreciated that this methodology has its limitations over other methods such as borehole purging and low flow sampling, it does provide a valuable initial approach that is likely to represent a worse-case scenario. For example, certain contaminants may become

concentrated within the water in the borehole space, therefore the sample obtained may show higher contaminant concentrations compared with actual groundwater.

Three samples WS1 GW, WS2 GW and WS7 GW were collected and sent for laboratory analysis. and the results summarised in Table 16 below where concentrations above the detection limit have been reported.

Table 16: Determinants reported above detection limits compared to EQS

Contaminant	Water Concentration (µg/l)			Annual average environmental quality standard (EQS) (µg/l)
	WS1	WS2	WS7	
Arsenic	16.4	9.43	19.2	50
Cadmium	0.11	0.1	0.06	0.08
Chromium	0.4	< 0.2	150	4.7
Copper	0.8	< 0.5	21	1
Lead	< 0.2	< 0.2	19	1.2 *
Mercury	0.16	0.14	0.13	0.01 ^{\$}
Nickel	3.7	6.5	71	4
Zinc	1.1	0.5	92	10.9*
Boron	7600	4900	730	2000
PAH- Fluoranthene	<0.01	0.09	<0.01	0.0063
PAH-Pyrene	<0.01	0.06	<0.01	0.01 [^]

*based on bio accessibility;

[^] analytical limit of detection; **bold** values are above the EQS;

^{\$} minimum reporting value

No concentrations of cyanides, phenols, petroleum hydrocarbons, VOCs, SVOCs, or most individual and total PAH compounds exceeded their respective detection limits. However, some heavy metals in groundwater samples exceeded the Environmental Quality Standards (EQS) for freshwater. Minor exceedances of cadmium were recorded, though the detection limit for this test is 0.02 µg/L. Concentrations of chromium, copper, and nickel were reported at orders magnitudes above EQS in WS7 (located in the car park/driveway). Elevated lead and zinc concentrations exceed the published EQS values.

6.4.2.1 Discussion

EQS values define contaminant limits for the receiving water bodies to protect aquatic life and human health. These standards were used for direct comparison against groundwater 'grab' samples. This method of sampling typically yields conservative 'worst-case' results that may not accurately represent overall risk posed to the critical receptor.

The concentrations of metals and PAH compounds in the soils across the site, have not been significantly elevated suggesting those recorded in the samples may be a result of the sampling method or are a result of the general water quality in the ground beneath a wider industrial/commercial area. It must also be acknowledged that the receptor stream runs both culverted as well as open through the wider industrial estate.

The stream itself is culverted through the site and as such the soils on site do not have a direct contact pathway to the stream. However, there is a potential for active pathway linkages either via preferential pathways (granular fill around the culvert or along the historical stream route) or if granular natural soils extend offsite and there is a direct connection with the stream depending on the culvert construction and the outfall abutting the road. Although this is not considered to be a significant pathway for contaminant migration.

Based on the recorded groundwater concentrations, the sampling method, the location of the outfall, the conservatism built into the assessment and the receiving water body (stream in an industrial estate, that does not feed into any sensitive receptor areas). It is considered unlikely that groundwater on site poses a significant risk to surface waters.

However, check sampling of the stream up and down gradient and additional groundwater sampling using low purge methods could confirm that the elevated metal contaminants in the groundwater do not pose a significant risk to the stream.

6.5 GROUND GAS RISK ASSESSMENT

6.5.1 Method

This preliminary ground gas assessment has been undertaken following the approach set out within BS8485:2015+A1:2019 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings and BS8576_2013 Guidance on investigations for ground gas.

The preliminary risk assessment identified the potential for ground gas generation as a result of anticipated deep made ground soils and the large historical lake. The ground investigation has not identified deep made ground but recorded relatively thick alluvial soils albeit with a high-water table. The loss on ignition testing together with the environmental contamination testing has identified organic matter within these alluvial soils at <3%. The gas generation potential for the onsite soils is therefore considered to be low. Monitoring wells were installed within the superficial soils only, as no significant depth of made ground was identified.

The three rounds of initial gas monitoring were undertaken at broadly weekly intervals, with a subsequent assessment made on whether further monitoring would be required.

Using gas concentrations and flow rates from monitoring standpipes, hazardous gas flow rates per well per round have been calculated to determine the site characteristic situation and necessary protective measures. A worst-case check is also undertaken to test the validity of the assessment.

6.5.2 Monitoring Results

Three rounds of ground gas monitoring were conducted, with visits completed on the 2nd, 17th and 25th February 2025. Methane, carbon dioxide, oxygen, hydrogen sulphide, and carbon monoxide levels were measured using a GFM 436 portable gas analyser.

Atmospheric gas pressures ranged from 1008mb to 1041mb over the course of the monitoring period.

The gas monitoring results are provided in Appendix I with maximum values reported summarised in table below:

Table 17: Ground gas monitoring assessment

Position No.	Date	Max gas conc. (% v/v)		Steady State Flow Rate (l/hr)	Hazardous Gas Flow Rate (l/hr)*		Characteristic Situation
		CO ₂	CH ₄		CO ₂	CH ₄	
WS1	02.02.25	0.10	0.30	0.01	n/a flooded well	n/a flooded well	n/a flooded well
WS2	17.02.25	0.10	0.00	0.01	n/a flooded well	n/a flooded well	n/a flooded well
WS7	06.02.25	0.10	0.00	0.01	0.000010	0.000000	CS1

Key: CS1 (<0.07 l/hr) Very Low Risk; CS2 (0.07 – 0.7 l/hr) Low Risk; CS3 (0.7 – 3.5 l/hr) Moderate Risk; CS4 (3.5 – 15 l/hr) Moderate to High Risk; CS5 (15 – 70 l/hr) High Risk

* Hazardous Gas Flow = $Q_{hg} = q \left(\frac{C_{hg}}{100} \right)$ Where q=measured flow rate and Q_{hg} is the measured hazardous gas concentration %v/v

It should be pointed out that it is only appropriate to calculate Hazardous Gas Flow rates where the response zones in the standpipes are not flooded. This has only been possible in WS7 and even in that borehole the response zones were limited to between 0.40m and 0.75m

As required by the guidance a check for the worse case scenario has been made, utilizing the highest gas concentrations and flow. This a worst-case Q_{hg} was calculated at 0.000010 L/hr for carbon dioxide and 0.000000 L/hr for methane. It should be noted that the steady state flow rate used in the calculation is the limit of detection of the machine and no actual gas flow was recorded at any position during any visit.

No levels of hydrogen sulphide or carbon monoxide we reported at any time and oxygen concentrations were not significantly reduced.

The site would be classed as Characteristic Situation 1- very low risk, with no requirement for gas protection.

6.5.3 Data Review

In the absence of any major gas generating sources, i.e. deep made ground was not identified and the alluvial soils in site are of low organic matter, the number of monitoring visits and assessment undertaken are considered sufficient to allow the site to be determined as Characteristic Situation 1 whereby by gas protection measures is not required. Further gas monitoring is not required.

6.6 REVISED CONCEPTUAL SITE MODEL

Following the quantitative risk assessment, it is necessary to revise the site conceptual model based on its findings.

No deep made ground soils were encountered at the positions investigated and shallow soils comprising alluvial silt did not contain any elevated concentrations of metals, PAHs or petroleum hydrocarbons above assessment criteria applicable in a commercial development. No asbestos was identified in the soil samples and no PCBs or VOCs were recorded in the samples tested.

Groundwater sampling detected exceedances of certain heavy metals, including chromium, copper, nickel, cadmium, lead, and zinc, as well as boron and fluoranthene, against freshwater EQS. However, the assessment is conservative due to the sampling method and the use of EQS values intended for water bodies rather than borehole samples. Groundwater flow appears to be generally to the north, with limited potential for direct interaction with the culverted stream or the open stream to the west. Soil sampling did not indicate significant contamination, suggesting localized factors or regional industrial influences for the water.

6.7 WATCHING BRIEF AND DISCOVERY STRATEGY

During construction activities, there is a risk of encountering previously unidentified contaminated soils or materials. To mitigate potential risks to human health including groundworkers and to the environment, a **watching brief** must be maintained throughout groundworks.

A **watching brief** involves monitoring excavation and soils to identify any visual or olfactory signs of contamination, such as unusual discoloration, strong odours, or unexpected waste materials and material suspected of being contaminated. If contamination is suspected, work in the affected area should be temporarily halted, and a **discovery strategy** should be implemented.

The **discovery strategy** will outline the necessary steps to assess and manage the suspected contamination, including:

- **Immediate Containment Measures** – Preventing the spread of contaminants by isolating affected areas.
- **Sampling and Testing**- by appropriately trained personnel– Conducting laboratory analysis to confirm the nature and extent of contamination.
- **Remediation and Disposal** – Implementing appropriate remediation measures or arranging for safe disposal of contaminated materials in line with regulatory requirements.

7 GEOTECHNICAL & GEOENVIRONMENTAL CONCLUSIONS & RECOMMENDATIONS

7.1 GROUND CONDITIONS

The ground conditions consist of a thin surface layer of flint gravel or asphalt (0.00–0.20 m), underlain by a subbase of dark blue-grey silt with fine to coarse flint gravel and mortar (0.0–0.40 m) in localized areas.

Below this, soft to firm dark blue-grey very sandy silt representing alluvial deposits, were encountered to depth of up to 3.6 m. At some locations the alluvium transitioned into soft to firm pale grey to grey-green silty clay.

The cohesive soils of the Weald Clay Formation were identified from depth of between 1.85 m and 3.70 m to the full depth of the investigation (4 m+). A weathered horizon was noted at some positions. The Weald Clay comprised firm to stiff brown-grey and orange-grey silty clay with fine to coarse gravel, laminated weakly cemented mudstone and ironstone.

7.2 GEOTECHNICAL

Laboratory testing has indicated that the alluvial silt is non plastic and that the alluvial clays and the Weald Clay would be classified as **Medium** VCP. The shallow alluvial silts across the site are frost susceptible.

Groundwater level monitoring recorded very shallow groundwater levels at between 0.17 m and 1.25 m bgl. The site is considered unsuitable for any type of soakaway drainage, including permeable paving due to the high groundwater table and absence of an unsaturated zone.

Based on the encountered ground conditions shallow foundations are not considered a viable option and any excavations are likely to be unstable. Piled foundations through the alluvial soils and weathered clays, bearing into the unweathered Weald Clay Formation could provide an ideal foundation solution for the proposed commercial development and a deep borehole in order to enable pile design is recommended.

7.3 GEO-ENVIRONMENTAL

None of the contaminants tested for in soils exceeded the assessment criteria for a commercial development. No visual or olfactory evidence of contamination was identified in any of the soils investigated. There is the potential for the electrical box present on site to contain asbestos and it is recommended that this is assessed and removed from site by appropriately trained personnel in line with current asbestos guidance.

Groundwater sampling detected concentrations of chromium, copper, nickel, cadmium, lead, and zinc, as well as boron and fluoranthene, above freshwater EQS. However, the assessment is conservative due to the sampling method. Overall, the site's groundwater is unlikely to pose a significant risk to surface waters.

No elevated concentrations of ground gas were identified, and ground gas generation is not considered to be a risk at this site.

In the absence of any significant contamination no pollutant linkages and therefore, no associated risks are considered to be present.

Should the proposals for the site differ from those set out within this report, a revised risk assessment may be required.

During construction, there remains a possibility of encountering previously unidentified contaminated soils or materials. To mitigate potential risks to human health, including groundworkers, and to protect the environment, a **watching brief** must be maintained throughout all groundworks.

APPENDIX A – LIMITATIONS

This report, including any related study, inspection, testing, sampling, or interpretation (collectively referred to as "deliverables"), was prepared by Onyx Geo Consulting Limited (Onyx Geo), for the client specified in the first paragraph, following the terms outlined in Onyx Geo's fee proposal and standard terms (the "Appointment"). Onyx Geo delivered the Services with the level of expertise typical of geo-environmental consultants at the time. The report does not imply any specific fitness for purpose. The Services were completed within the limitations of scope, timing, and resources as agreed between Onyx Geo and the Client.

Except as specified above, Onyx Geo makes no further representations or warranties, either express or implied, concerning the Services. Liability for any actions related to this report expires six years from the report date or as legally specified, unless altered within the Appointment terms.

Onyx Geo conducted the Services exclusively for the Client's intended purpose. If this report or its contents are used by any third party without explicit written consent from Onyx Geo, any risk or liability lies solely with that party. It is recommended that third parties seek their own independent geo-environmental consultation.

The Client may not transfer or assign the benefits of this report to any third party without written permission from Onyx Geo. Should an assignment be agreed upon, any third-party rights provided will require a fee and will not extend beyond the terms initially agreed with the Client.

Onyx Geo understands this report is intended for the purpose outlined in its introduction. Any alterations in the site's intended use may invalidate the report. Onyx Geo is not liable for any use of this report outside its original purpose without a formal review.

Over time, changes in site conditions, regulations, technology, or economic circumstances may affect the accuracy or relevance of this report. For future reliance, written confirmation from Onyx Geo is advised.

The conclusions in this report are based on the specific Services provided as outlined in the Appointment. Onyx Geo holds no responsibility for undiscovered conditions that fall outside the scope of services originally agreed upon.

The Services were based on visible site conditions, historical site data, and publicly available information, relying on third-party data where applicable. Onyx Geo is not liable for inaccuracies in this information or for failing to independently verify third-party data.

Drawings included in this report are illustrative and may not be suitable for precise measurements. Marked features are approximate and for reference only.

Any subsequent review or update of this report may require additional fees at the agreed rates.

The conclusions from ground investigations rely on samples taken from specific site locations and represent only a limited area around these points.

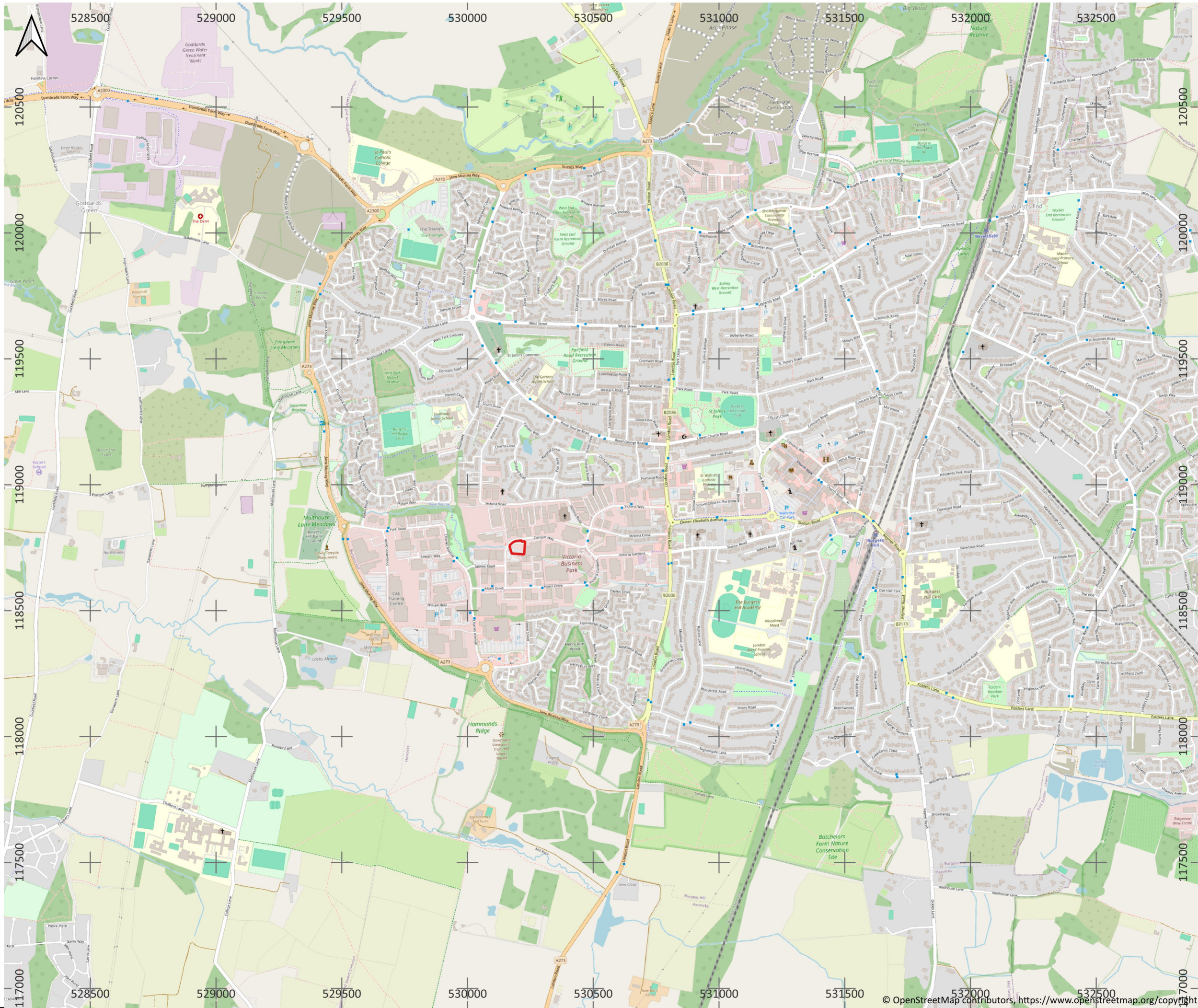


Site conditions, particularly ground and groundwater variables, may change seasonally, and additional variation beyond that reported here cannot be ruled out.

The presence of asbestos, if any, is not fully assessed within this report. A comprehensive asbestos survey is recommended for any thorough evaluation.

Preliminary geotechnical recommendations are provided and should be validated in a final Geotechnical Design Report once structural design plans are confirmed.

APPENDIX B – FIGURES AND DRAWINGS



- Notes:
1. Do not scale drawings
 2. All dimensions are in meters unless stated otherwise
 3. The drawing is the property of Onyx Geo Consulting Ltd and is not to be used or the drawing copied, communicated or disclosed in whole or in part, except in accordance with a contract, license or agreement in writing with Onyx Geo Consulting Ltd

50 m



46 Victoria Road, Burgess Hill, RH15 9LR
e: info@onyxgeo.co.uk
w: www.onyxgeo.co.uk

Project name:
Consort Way

Client:
PGQ Property Consulting Ltd

Drawing No:
ON251002-ON-ZZ-XX-DR-X-111-

Description:
Figure 1 Site Location

Project no:
ON251002

Rev:
P01

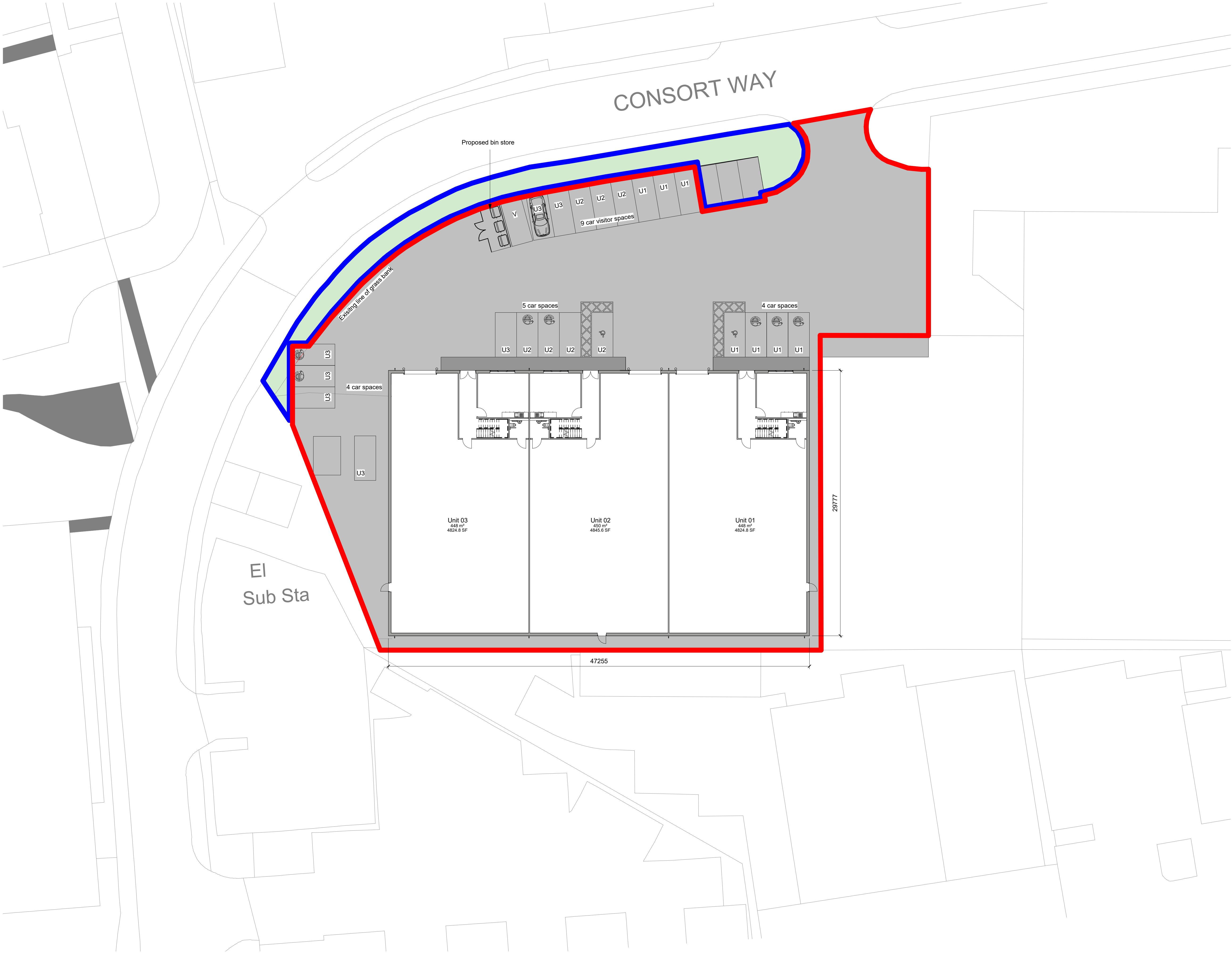
Date:
28/02/2025

Scale:
1:14,400

Drawn
SSC

Checked

Approved



Contractors to check all dimensions on drawings.
Any discrepancies must be reported to KTA Architects Ltd or the contract administrator before proceeding.
Do not scale except for planning purposes, work to figured dimensions.
A Fire Consultant must be appointed for this project. KTA drawings & schedules to be read in conjunction with the Fire Consultant Fire Strategy Report.
The Fire Strategy Report takes precedence over any KTA drawing or schedule & any discrepancy should be brought to KTA's attention.
This drawing must be read in conjunction with all relevant consultants drawings.
This drawing is © KTA Architects Ltd.

Revision Schedule			
Revision Number	Revision Date	Revision Description	Issued/ Authorised by
P1	NOV 2024	Planning Issue	RN

V

Visitor Parking Space

Site Boundary

Site Ownership

Existing grass areas

New tarmac to footpath

Existing concrete yard

KTA

Architects | Urban Designers

Winslade House, Winslade Park, Manor Drive,
Clyst St. Mary, Exeter, EX5 1FY
Tel: 01392 360338
Email: kt@kta.uk.com
Web: www.kta.uk.com

Project

UNIT A, CONSORT WAY,
BURGESS HILL

Title

Proposed Site Plan

Author

DD

Chkd by

RN

Scale

1 : 200 @ A1

Project

2387

Status

Planning

Drawing number

2387-KTA-XX-00-DR-A-0003

P1

ELECTRIC VEHICLE
CHARGING BAY

0

5

10 m

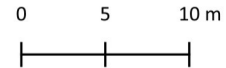
20 m

N

0MP 128 v1.0 - 24/11/2022



- Notes:
- 1. Do not scale drawings
 - 2. All dimensions are in meters unless stated otherwise
 - 3. The drawing is the property of Onyx Geo Consulting Ltd and is not to be used or the drawing copied, communicated or disclosed in whole or in part, except in accordance with a contract, license or agreement in writing with Onyx Geo Consulting Ltd



46 Victoria Road, Burgess Hill, RH15 9LR
e: info@onyxgeo.co.uk
w: www.onyxgeo.co.uk

Project name:
Consort Way

Client:
PGQ Property Consulting Ltd

Drawing No:
ON251002-ON-ZZ-XX-DR-X-274-p01

Description:
Figure 3 Exploratory Hole Locations

Project no:
ON251002

Rev:
P01

Date:
03/03/2025

Scale:
1:450

Drawn
SSC

Checked
SC

Approved

APPENDIX C – CORRESPONDENCE

From: planninginfo@midsussex.gov.uk <planninginfo@midsussex.gov.uk>
Sent: 12 December 2024 11:04:25 UTC+00:00
To: "Joanne Fisher" <joanne.fisher@midsussex.gov.uk>
Subject: Mid Sussex DC - Online Register - Consultee Comments for Planning Application
DM/24/2970

Consultee comments

Dear Sir/Madam,

A consultee has commented on a Planning Application. A summary of the comments is provided below.

Comments were submitted at 12/12/2024 11:04 AM from Oliver Benson on behalf of Contaminated Land.

Application Summary

Reference:	DM/24/2970
Address:	Capital Hair And Beauty Unit A Consort Way Burgess Hill West Sussex RH15 9TJ
Proposal:	Construction of new commercial building within classes E(g), B2 and B8.
Case Officer:	Joanne Fisher

[Click for further information](#)

Comments Details

I have reviewed the Phase 1 Contamination Assessment prepared by Land Science, reference LS7961, dated 17th of October 2024.

Comments: The report identifies a high level of risk associated with the proposed development, stemming from several significant contamination sources. The widespread presence of Made Ground exceeding 1 metre in depth is concerning, as it may contain various contaminants such as metals, non-metals, organic compounds, and asbestos. Additionally, the site's previous use for manufacturing hair and beauty products, combined with the presence of an electrical substation, increases the likelihood of hydrocarbon and heavy metal contamination. The 2023 fire incident has further exacerbated contamination risks, with firefighting runoff likely introducing a range of pollutants into the soil and groundwater. Offsite commercial activities are also noted as contributing to potential groundwater contamination, though these risks are

generally less severe.

The assessment highlights the need to address contamination risks from soil, groundwater, vapours, and ground gases. The report suggests that the depth and composition of the Made Ground may generate ground gases and leach contaminants into groundwater. Furthermore, the fire damage and associated firefighting runoff represent a significant source of contamination that requires thorough investigation and mitigation.

As such, a detailed intrusive ground investigation will be required to evaluate the nature and extent of contamination across the site. The report notes that this should include soil sampling to assess the composition and depth of the Made Ground, with particular focus on areas impacted by the fire and the former electrical substation. Groundwater monitoring should also be conducted to determine the potential migration of contaminants. Additionally, monitoring wells should be installed, especially in areas where Made Ground exceeds 1 metre in depth, to assess hydrocarbon impacts and ground gas risks.

I concur with the assessment that, based on these findings, further investigation of the site is necessary to ensure it is safe for its intended end use. This requirement should be conditioned, along with the requirement that, if necessary, based on the findings of the intrusive investigation, a remediation strategy should be completed, and a further validation report submitted once the works are done.

Furthermore, I recommend the conditioning of a discovery strategy, ensuring that if yet unidentified contamination is encountered during groundworks, operations cease until a thorough assessment is conducted, and the Local Planning Authority (LPA) is promptly informed.

Recommendation: Approve with the following conditions.

1) The development hereby permitted shall not be occupied/brought into use until the following components of a scheme to deal with the risks associated with contamination of the site, including the identification and removal of asbestos containing materials, have each been submitted to and approved, in writing, by the local planning authority:

a) A site investigation report, based on the Phase 1 Contamination Assessment prepared by Land Science, reference LS7961, dated 17th of October 2024, to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site;

and, unless otherwise agreed in writing by the LPA,

b) Based on the site investigation results and the detailed risk

assessment (a) an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

2) The development hereby permitted shall not be occupied/brought into use until there has been submitted to and approved in writing by the Local Planning Authority a verification plan by a competent person showing that the remediation scheme required and approved has been implemented fully and in accordance with the approved details (unless varied with the written agreement of the LPA in advance of implementation). Any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action shall be identified within the report, and thereafter maintained.

Reason (common to all): To ensure that the risks from land contamination to the future users of the land are minimised, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

3) If during construction, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing by the LPA), shall be carried out until a method statement identifying, assessing the risk and proposing remediation measures, together with a programme, shall be submitted to and approved in writing by the LPA. The remediation measures shall be carried out as approved and in accordance with the approved programme. If no unexpected contamination is encountered during development works, on completion of works and prior to occupation a letter confirming this should be submitted to the LPA. If unexpected contamination is encountered during development works, on completion of works and prior to occupation, the agreed information, results of investigation and details of any remediation undertaken will be produced to the satisfaction of and approved in writing by the LPA.

Kind regards

Sophie Shafi Cooke

From: Helen Solomons <Helen.Solomons@westsussex.gov.uk> on behalf of FRS DART <frsdart@westsussex.gov.uk>
Sent: 13 February 2025 16:05
To: Sophie Shafi Cooke
Subject: RE: Information request for fire at Consort Way, Burgess Hill on the 19th June 2023

Good Afternoon, Sophie

Foams were not used on the site, only water delivery was used to fight the fire. The incident report contains a list of equipment used; this is a chargeable report. Further information about how to request the report is below and the incident ID is: 030169-19062023.

Thank you for your request for an Incident/Fire report.

Incident/Fire reports are now available for request via our online system (fee of £144, payable by card):

[Request an Incident or Fire Report - West Sussex County Council](#)

Please note: registration is required to process and make payment, as well as being able to track the progress of your request.

In addition, you will be asked to confirm your relationship to the occupier of the property/owner of the vehicle at the time of the incident, to ensure you have a legitimate interest. Reports are supplied with all personal information removed.

If you require to pay by BACS with and invoice, please reply to this email for an alternative process.

Regards

Helen



Helen Solomons

Performance Coordinator – Data, Analytics and Reporting Team:
Service Delivery

West Sussex Fire & Rescue Service

Phone 0330 222 6607

Web www.westsussex.gov.uk/fire

Email helen.solomons@westsussex.gov.uk

West Sussex County Council, Room 214, Second Floor,
County Hall, Chichester PO19 1RQ.

My working days are Tuesday to Friday

From: Sophie Shafi Cooke <sophie.shaficooke@onyxgeo.co.uk>
Sent: 07 February 2025 12:43
To: FRS DART <frsdart@westsussex.gov.uk>
Subject: Re: Information request for fire at Consort Way, Burgess Hill on the 19th June 2023

****EXTERNAL****

Thank you Helen
I look forward to hearing from you
Sophie

Sent from my iPhone

On 6 Feb 2025, at 15:40, FRS DART <frsdart@westsussex.gov.uk> wrote:

Good Afternoon, Sophie

Apologies for the delay, I am checking with my colleagues and will get back to you.

Regards

Helen

<image003.jpg>

Helen Solomons

Performance Coordinator – Data, Analytics and Reporting Team:
Service Delivery

West Sussex Fire & Rescue Service

Phone 0330 222 6607

Web www.westsussex.gov.uk/fire

Email helen.solomons@westsussex.gov.uk

West Sussex County Council, Room 214, Second Floor,
County Hall, Chichester PO19 1RQ.

My working days are Tuesday to Friday

From: Sophie Shafi Cooke <sophie.shaficooke@onyxgeo.co.uk>
Sent: Monday, February 3, 2025 11:18 AM
To: WSFRS <wsfrs@westsussex.gov.uk>
Subject: Information request for fire at Consort Way, Burgess Hill on the 19th June 2023

****EXTERNAL****

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

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This email and any attachments are confidential and intended solely for the persons addressed. If it has come to you in error please reply to advise us but you should not read it, copy it, show it to anyone else nor make any other use of its content. West Sussex County Council takes steps to ensure emails and attachments are virus-free but you should carry out your own checks before opening any attachment.

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear West Sussex Fire Service,

I hope this email finds you well.

We are a geo-environmental consultancy currently involved in a ground investigation for the redevelopment of the site at Consort Way, Burgess Hill, where a fire occurred on the 19th of June 2023. As part of our environmental assessment and for our reporting, we are seeking information regarding the firefighting methods used during this incident.

Specifically, we would like to confirm whether any firefighting foam was used in extinguishing the fire and whether they may have contained PFAS compounds. We understand that the use of PFAS compounds in firefighting foam is being phased out, however, as this fire took place in June 2023, we are keen to determine whether foams containing PFAS may have been used at the site.

Any information you can provide on these matters would be greatly appreciated. Please let us know if you require any further details from our side.

We look forward to your response.

Best regards,

Sophie Shafi-Cooke MSci MSc CGeol FGS

Director- Environmental Geologist

M:07799088985

<image001.jpg>

www.onyxgeo.co.uk

<https://www.linkedin.com/company/105245311>

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Registered at 46 Victoria Road, Burgess Hill, West Sussex , RH15 9LR

APPENDIX D – SITE INVESTIGATION METHOD DETAILS

Intrusive Investigation Methods, Sampling and In situ Testing

Cable Percussion Drilling

Cable percussion drilling is undertaken using an “A” frame drilling rig. The cutting tools are repeatedly hoisted and dropped to percussively drive the borehole to the desired depth. Where ground conditions are unstable or where groundwater ingress must be controlled the boreholes are cased with steel casing with diameters generally ranging from 12” to 6” in diameter. Casings diameters generally reduce with increased depth to prevent friction between the casing and the ground. The borehole arisings or collected within the cutting tools and returned to the surface for logging and sampling.

Hand pitting / hand auguring

Hand digging is undertaken using insulated hand tools such as a posting spades or hand augers. The auger comprises a spiral cutter attached to a pole that is twisted by hand into the ground. Excavated soils are placed on the ground adjacent to the hole in the order they came out, for detailed examination and sampling.

Soil logging and sampling

The soil recovered from the borehole was logged and sampled. Logging was undertaken in broad accordance with BS 5930:⁷ and BS EN ISO 14688⁸ and the are included in Appendix E.

Samples were collected by hand (using dedicated nitrile gloves for each sampling location). Samples were placed into laboratory supplied sampling containers, specific to the type of analyses required.

All sample containers were sealed and labelled with a unique location identity, depth and date of sampling.

Soil sampling

Geotechnical soil samples were targeted to interpret the geological sequence, and to obtain characteristic soils properties and specific geotechnical design parameters, as per the proposed development.

Standard penetration tests

Standard penetration tests were undertaken in the borehole at 1m centres to 5m below ground level and 1.5m centres thereafter, in accordance with BS EN ISO 22476-3;2005. Uncorrected blow counts, ‘N values’, are recorded on the borehole logs in Appendix E. Standard penetration tests involve dropping a 63.5kg weight over a distance of 75cm to

⁷ BS 5930:2015+A1:2020 Code of Practice for Ground Investigation

⁸ BS EN ISO 14688 Parts 1-2 (2018) Geotechnical Investigation and Testing. Identification and classification of soil



drive either a sampling spoon or cone a total of 450mm into the strata with the number of blow counts required to drive the apparatus recorded.

APPENDIX E – EXPLORATORY LOGS & IN SITU GEOTECHNICAL TESTING



Borehole Log

WS1

Sheet 1 of 1

Hole Type WLS	Easting 530184.04	Northing 118731.29	Ground Level (m) 28.56	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.20	ES				x x	Soft grey to dark grey sandy SILT with rare fine to medium subrounded flint. Sand is fine. (Alluvium)
		0.70	ES				x x	
		1.00	SPT	N=6 (1,1/2,1,2,1)		(1.85)	x x	
		1.30	D				x x	
		1.95	PP	140 (kPa)	26.71	1.85	x x	Faint organic odour (1.80m)
		2.00	SPT	N=6 (0,1/1,2,1,2)			x x	Firm green and orange brown slightly silty slightly sandy CLAY. (weathered Weald Clay Formation)
		2.40	PP	130 (kPa)			x x	Becoming grey mottled orange below (2.30m)
		2.50	D				x x	
		3.00	SPT	N=5 (1,1/1,1,1,2)		(1.85)	x x	
		3.80	D		24.86	3.70	x x	Stiff orange brown and grey thinly laminated silty slightly gravelly CLAY. Gravel is fine to medium slightly silty extremely weak mudstone. (Weald Clay Formation)
		4.00	SPT	N=31 (3,5/5,6,9,11)	24.56	4.00	x x	End of Borehole at 4.00m

Remarks Borehole collapsing within alluvium and collapsed to ~3.0m bgl. Monitoring well installed comprising 1m of plain pipe over 2m of slotted pipe and finished at surface with a flush steel cover. The plain pipe was surrounded with benonite to form a seal and the slotted pipe was surrounded with 10mm gravel. SPT hammer energy ratio 87.78%.	Method, Plant, Stability, Dimensions 0.00 - 4.00m WLS Unstable		Logger ADC

Checked By: ADC Approved By: SSC Status: FINAL



Borehole Log

WS1
SUPPLEMENTARY INFO

Hole Type WLS	Easting 530184.04	Northing 118731.29	Ground Level (m) 28.56	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
1.00				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
1.00			

SPT - Details

Top Depth (m)	Type	Results	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio
1.00	S	N=6 (1,1/2,1,2,1)	0.00	1.00		87
2.00	S	N=6 (0,1/1,2,1,2)	0.00	1.00		87
3.00	S	N=5 (1,1/1,1,1,2)	0.00	1.00		87
4.00	S	N=31 (3,5/5,6,9,11)	0.00	1.00		87

Remarks Borehole collapsing within alluvium and collapsed to ~3.0m bgl. Monitoring well installed comprising 1m of plain pipe over 2m of slotted pipe and finished at surface with a flush steel cover. The plain pipe was surrounded with benonite to form a seal and the slotted pipe was surrounded with 10mm gravel. SPT hammer energy ratio 87.78%.	Method, Plant, Stability, Dimensions 0.00 - 4.00m WLS Unstable	Logger ADC
--	---	----------------------

Checked By: ADC Approved By: SSC Status: FINAL



Borehole Log

WS2

Sheet 1 of 1

Hole Type WLS	Easting 530217.24	Northing 118729.34	Ground Level (m) 28.63	Scale 1:25
Project Name Consort Way	Project No. ON251002	Start Date 2025-01-29	End Date 2025-01-29	

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.50	ES		28.62	0.01	x x x	Hard surfacing
		0.50	D				x x x	soft to firm grey to black slightly clayey very sandy SILT. (Alluvium)
		1.00	SPT	N=19 (2,3/3,5,5,6)		(1.79)	x x x	
		1.20	ES				x x x	
		1.50	D				x x x	
		1.50					x x x	
		2.00	SPT	N=4 (0,0/1,1,1,1) 40 (kPa)	26.83	1.80	x x x	Soft dark blue grey sandy silty CLAY with occasional organic fragments including wood and leaves. (Alluvium)
		2.00	PP				x x x	
		2.50	PP	50 (kPa)		(1.80)	x x x	
		2.50					x x x	
		3.00	SPT	N=5 (0,1/1,1,2,1) 100 (kPa)			x x x	
		3.00	PP				x x x	
		3.50	PP	100 (kPa)	25.03	3.60	x x x	Stiff orange brown and grey silty CLAY with fine to coarse ironstone and mudstone gravel. (Weald Clay Formation)
		3.50				(0.40)	x x x	
		4.00	SPT	N=47 (4,5/9,11,12,15)	24.63	4.00	x x x	End of Borehole at 4.00m
		4.00	D					

Remarks Borehole collapsed to 2.0m bgl. Monitoring well installed to 2.0m bgl comprising 1m of plain pipe over 1m of slotted pipe and finished with a flushed steel cover at surface. Plain pipe was surrounded with bentonite to form a seal and the slotted pipe was surrounded with 10mm gravel. SPT hammer energy ratio 87.78%.	Method, Plant, Stability, Dimensions 0.00 - 4.00m WLS Unstable	Logger SSC
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Checked By: ADC Approved By: SSC Status: FINAL



Borehole Log

WS2
SUPPLEMENTARY INFO

Hole Type WLS	Easting 530217.24	Northing 118729.34	Ground Level (m) 28.63	Scale 1:25
Project Name Consort Way		Project No. ON251002	Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
1.00				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
1.00			

SPT - Details

Top Depth (m)	Type	Results	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio
1.00	S	N=19 (2,3/3,5,5,6)	0.00	1.00		87
2.00	S	N=4 (0,0/1,1,1,1)	0.00	1.00		87
3.00	S	N=5 (0,1/1,1,2,1)	0.00	1.00		87
4.00	S	N=47 (4,5/9,11,12,15)	0.00	1.00		87

Remarks Borehole collapsed to 2.0m bgl. Monitoring well installed to 2.0m bgl comprising 1m of plain pipe over 1m of slotted pipe and finished with a flushed steel cover at surface. Plain pipe was surrounded with bentonite to form a seal and the slotted pipe was surrounded with 10mm gravel. SPT hammer energy ratio 87.78%.	Method, Plant, Stability, Dimensions 0.00 - 4.00m WLS Unstable	Logger SSC
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Checked By: ADC Approved By: SSC Status: FINAL



Borehole Log

WS4A

Sheet 1 of 1

Hole Type WLS	Easting 530186.25	Northing 118753.53	Ground Level (m) 28.54	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
					28.53	(0.01) 0.01		GRAVEL	
								Soft brownish black to grey sandy SILT. (Alluvium).	
					27.54	1.00		No recovery (Alluvium). Cutting shoe lost at 1m, overdrilled to 2m then pushed to 3m. Borehole abandoned, backfilled with arisings and WS4 drilled 1m to the east. (1.00m)	
					26.54	2.00		Soft brownish black to grey sandy SILT. (Alluvium).	
					25.54	3.00		End of Borehole at 3.00m	

Remarks Cutting shoe lost at 1.0m bgl over drilled but no recovery between 1.0m and 2.0m bgl. Backfilled with arisings on completion. Borehole was unstable.	Method, Plant, Stability, Dimensions 0.00 - 3.00m WLS		Logger SSC
	Checked By: ADC Approved By: SSC Status: FINAL		



Borehole Log

WS4A

SUPPLEMENTARY INFO

Hole Type WLS	Easting 530186.25	Northing 118753.53	Ground Level (m) 28.54	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
1.00				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
1.00			

Remarks Cutting shoe lost at 1.0m bgl over drilled but no recovery between 1.0m and 2.0m bgl. Backfilled with arisings on completion. Borehole was unstable.	Method, Plant, Stability, Dimensions 0.00 - 3.00m WLS	Logger SSC
Checked By: ADC Approved By: SSC Status: FINAL		



Borehole Log

WS4

Sheet 1 of 1

Hole Type WLS	Easting 530187.23	Northing 118753.40	Ground Level (m) 28.54	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50 0.50	ES D	N=14 (2,3/3,4,4,3)	28.53	(0.01) 0.01	x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x x	GRAVEL Soft brownish black to grey sandy SILT. (Alluvium)	</

Remarks Borehole backfilled with arisins on completion. SPT hammer energy ratio 87.78%. Borehole was unstable.	Method, Plant, Stability, Dimensions 0.00 - 3.00m WLS	Logger SSC
Checked By: ADC Approved By: SSC Status: FINAL		



Borehole Log

WS4

SUPPLEMENTARY INFO

Hole Type WLS	Easting 530187.23	Northing 118753.40	Ground Level (m) 28.54	Scale 1:25
Project Name Consort Way	Project No. ON251002	Start Date 2025-01-29	End Date 2025-01-29	

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
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Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
1.00				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
1.00			

SPT - Details

Top Depth (m)	Type	Results	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio
1.00	S	N=14 (2,3/3,4,4,3)	0.00			87
2.00	S	N=0 (0,0/0,0,0,0)	0.00			87
3.00	S	N=7 (1,1/2,2,1,2)	0.00			87

Remarks Borehole backfilled with arisins on completion. SPT hammer energy ratio 87.78%. Borehole was unstable.	Method, Plant, Stability, Dimensions 0.00 - 3.00m WLS	Logger SSC
Checked By: ADC Approved By: SSC Status: FINAL		



Borehole Log

WS5

SUPPLEMENTARY INFO

Hole Type WLS	Easting 530204.15	Northing 118741.46	Ground Level (m) 28.60	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
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Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
1.00				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
1.00			

SPT - Details

Top Depth (m)	Type	Results	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio
1.00	S	N=27 (3,4/5,6,8,8)	0.00	1.00		87
2.00	S	N=6 (2,1/2,1,2,1)	0.00	1.00		87
3.00	S	N=10 (1,2/1,2,1,6)	0.00	1.00		87
4.00	S	N=61 (5,8/8,12,17,24)	0.00	1.00		87

Remarks Borehole refused at 4.0m bgl and was backfilled with arisings on completion. SPT hammer energy ratio 87.78%. Borehole was unstable in the alluvium.	Method, Plant, Stability, Dimensions 0.00 - 4.00m WLS	Logger SSC
Checked By: ADC Approved By: SSC Status: FINAL		



Borehole Log

WS7
Sheet 1 of 1

Hole Type WLS	Easting 530217.05	Northing 118767.03	Ground Level (m) 28.53	Scale 1:25
Project Name Consort Way	Project No. ON251002	Start Date 2025-01-29	End Date 2025-01-29	

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50	ES		28.33	(0.20)		Ashphalt hardstanding	
						0.20		MADE GROUND comprising coarse rounded flint gravel sub base.	
		1.00	SPT D	N=14 (2,3/3,4,4,3)	28.13	(0.20)		Firm blue grey sandy SILT. (Alluvium)	0.5
						0.40			
		1.60	PP ES	230 (kPa)	27.03	(1.10)		Firm to stiff grey brown to orange grey silty slightly sandy CLAY with much fine to coarse ironstone gravel. (Weald Clay Formation)	1.0
						1.50			
		2.00	SPT D	N=14 (2,2/3,3,4,4)		(1.50)			2.0
		2.50	PP	300 (kPa)					2.5
		3.00	SPT PP	N=30 (3,4/6,6,8,10) 350 (kPa)	25.53	3.00		End of Borehole at 3.00m	3.0
									3.5
									4.0
									4.5
									5.0

Remarks Monitoring well installation comprising 0.5m of plain pipe over 1.0m of slotted pipe and finished at surface with a flush steel cover. The plain pipe was surrounded by bentonite to form a seal, the slotted pipe was surrounded by gravel. beneath the installation the borehole was backfilled with bentonite. SPT hammer energy ratio 87.78%.	Method, Plant, Stability, Dimensions 0.00 - 3.00m WLS Unstable	Logger SSC
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Checked By: ADC Approved By: SSC Status: FINAL



Borehole Log

WS7

SUPPLEMENTARY INFO

Hole Type WLS	Easting 530217.05	Northing 118767.03	Ground Level (m) 28.53	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
1.00				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
1.00			

SPT - Details

Top Depth (m)	Type	Results	Casing Depth (m)	Water Depth (m)	Hammer Serial No.	Energy Ratio
1.00	S	N=14 (2,3/3,4,4,3)	0.00			87
2.00	S	N=14 (2,2/3,3,4,4)	0.00			87
3.00	S	N=30 (3,4/6,6,8,10)	0.00			87

Remarks Monitoring well installation comprising 0.5m of plain pipe over 1.0m of slotted pipe and finished at surface with a flush steel cover. The plain pipe was surrounded by bentonite to form a seal, the slotted pipe was surrounded by gravel. beneath the installation the borehole was backfilled with bentonite. SPT hammer energy ratio 87.78%.	Method, Plant, Stability, Dimensions 0.00 - 3.00m WLS Unstable	Logger SSC
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Checked By: ADC Approved By: SSC Status: FINAL



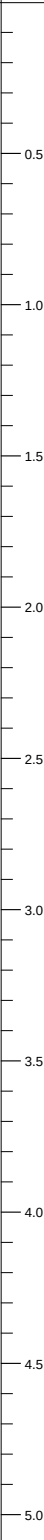
Hand Pit

WS8

Sheet 1 of 1

Hole Type HP	Easting 530188.88	Northing 118773.84	Ground Level (m) 29.07	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50	ES			(1.00)		Grass over MADE GROUND comprising dark blue grey silt.	
								Gravel of flint and mortar between 0.2m and 0.3m (0.20 - 0.30m)	
End of Trial Pit at 1.00m									

Remarks Trial hole was backfilled with arisings on completion. Water encountered at 0.8m bgl.	Method, Plant, Stability, Dimensions 0.00 - 1.00m HP	Logger SSC
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Checked By: ADC Approved By: SSC Status: FINAL



Hand Pit

WS8

SUPPLEMENTARY INFO

Hole Type HP	Easting 530188.88	Northing 118773.84	Ground Level (m) 29.07	Scale 1:25
Project Name Consort Way	Project No. ON251002		Start Date 2025-01-29	End Date 2025-01-29

Client PGQ Property Consulting Ltd	Contractor Oakland SI	Consultant Onyx Geo Consulting Ltd
---------------------------------------	--------------------------	---------------------------------------

Water Strike - General

Struck (m)	Seal Depth (m)	Casing Depth (m)	Date and Time	Remarks
0.80				

Water Strike - Details

Struck (m)	Rose To (m)	Time (mins)	Remarks
0.80			

Remarks Trial hole was backfilled with arisings on completion. Water encountered at 0.8m bgl.	Method, Plant, Stability, Dimensions 0.00 - 1.00m HP	Logger SSC
Checked By: ADC Approved By: SSC Status: FINAL		

APPENDIX F – GEO-ENVIRONMENTAL LABORATORY TEST RESULTS



Onyx Geo Consulting Ltd
46 Victoria Road
RH159LR

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

t: 07708988584

e: sophie.shafi@onyxgeo.co.uk

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

Analytical Report Number : 25-004536

Project / Site name:	Consort Way Burgess Hill	Samples received on:	31/01/2025
Your job number:	ON241002	Samples instructed on/ Analysis started on:	31/01/2025
Your order number:	PO1002-001	Analysis completed by:	11/02/2025
Report Issue Number:	1	Report issued on:	11/02/2025
Samples Analysed:	12 soil samples - 1 bulk sample		

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
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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: 25-004536
 Project / Site name: Consort Way Burgess Hill
 Your Order No: PO1002-001

Lab Sample Number				439722	439723	439724	439725	439726
Sample Reference				WS1	WS1	WS2	WS2	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.70	0.50	1.20	0.50
Date Sampled				29/01/2025	29/01/2025	29/01/2025	29/01/2025	29/01/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	24	29	25	37	30
Total mass of sample received	kg	0.1	NONE	0.6	0.7	0.8	0.9	0.1

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	DOC	DOC	DOC	DOC	KMC

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.6	8.4	8	8.7	8.9
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.5	1.3	1.7	1.3	1.7

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.07	0.11	0.08	0.14	0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 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	0.07	0.06	< 0.05	0.08	< 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	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	60	57	65	60	75
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	42	44	46	42	60
Copper (aqua regia extractable)	mg/kg	1	MCERTS	100	91	110	99	120
Lead (aqua regia extractable)	mg/kg	1	MCERTS	38	32	43	35	55
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	76	77	79	82	91
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	3.3	3.2	3	3.4	3.6
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	64	54	71	57	83



4041



Environmental Science

Analytical Report Number: 25-004536

Project / Site name: Consort Way Burgess Hill

Your Order No: PO1002-001

Lab Sample Number				439722	439723	439724	439725	439726
Sample Reference				WS1	WS1	WS2	WS2	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.20	0.70	0.50	1.20	0.50
Date Sampled				29/01/2025	29/01/2025	29/01/2025	29/01/2025	29/01/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
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	-	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	< 8.0
TPHCWG - Aliphatic >EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	< 8.4	-	< 8.4	-	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-	< 10	-	< 10
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-	< 10	-	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-	< 0.020	-	< 0.020
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	-	< 10
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	< 10	-	< 10
TPHCWG - Aromatic >EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	< 8.4	-	< 8.4	-	< 8.4
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-	< 10	-	< 10
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-	< 10	-	< 10

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-

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

Analytical Report Number: 25-004536
Project / Site name: Consort Way Burgess Hill
Your Order No: PO1002-001

Lab Sample Number				439727	439728	439729	439730	439731
Sample Reference				WS4	WS5	WS5	WS6	WS7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.50	1.50	0.50	0.50
Date Sampled				29/01/2025	29/01/2025	29/01/2025	29/01/2025	29/01/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	27	24	31	30	15
Total mass of sample received	kg	0.1	NONE	0.1	0.8	0.2	0.8	1.2

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	DOC	DKI	DKI	DKI	KMC

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.5	8.8	9	9.2	8.5
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.7	1.1	0.6	0.6	0.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.11	< 0.05	0.09	0.08	< 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	< 0.05	< 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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.1	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	72	61	58	77	7.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.9	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	51	52	53	37
Copper (aqua regia extractable)	mg/kg	1	MCERTS	120	120	120	120	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	49	44	45	49	23
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	84	84	95	81	37
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.1	2.5	2.7	3	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	73	60	69	85	46



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Environmental Science

Analytical Report Number: 25-004536

Project / Site name: Consort Way Burgess Hill

Your Order No: PO1002-001

Lab Sample Number				439727	439728	439729	439730	439731
Sample Reference				WS4	WS5	WS5	WS6	WS7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				1.00	0.50	1.50	0.50	0.50
Date Sampled				29/01/2025	29/01/2025	29/01/2025	29/01/2025	29/01/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
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	-	-	-	-	< 2.0
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 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	-	-	-	-	< 8.4
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-	-	-	-	< 10
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	-	-	-	-	< 10

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	-	-	-	-	< 0.010
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	-	-	-	-	< 0.020
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 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	-	-	-	-	< 8.4
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-	-	-	-	< 10
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	-	-	-	-	< 10

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	< 0.001 ~	-	-

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

Analytical Report Number: 25-004536
 Project / Site name: Consort Way Burgess Hill
 Your Order No: PO1002-001

Lab Sample Number				439732	439733
Sample Reference				WS7	WS8
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				1.60	0.70
Date Sampled				29/01/2025	29/01/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	22
Total mass of sample received	kg	0.1	NONE	0.8	1.4

Asbestos

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

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.2	8.2
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.5	1.7

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.3	49
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	28	89
Lead (aqua regia extractable)	mg/kg	1	MCERTS	24	42
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	38	62
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	4.1
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	47	140

Analytical Report Number: 25-004536
 Project / Site name: Consort Way Burgess Hill
 Your Order No: PO1002-001

Lab Sample Number				439732	439733
Sample Reference				WS7	WS8
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				1.60	0.70
Date Sampled				29/01/2025	29/01/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-
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	< 2.0	-
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 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	< 8.4	-
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-
TPHCWG - Aliphatic >EC5 - EC44 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-
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 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	< 8.4	-
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-
TPHCWG - Aromatic >EC5 - EC44 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-

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

Analytical Report Number: 25-004536
 Project / Site name: Consort Way Burgess Hill
 Your Order No: PO1002-001

Lab Sample Number				439734
Sample Reference				Suspect ACM
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				None Supplied
Date Sampled				29/01/2025
Time Taken				None Supplied
Analytical Parameter (Bulk Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Asbestos

Asbestos in bulks	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KMC

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



Analytical Report Number : 25-004536

Project / Site name: Consort Way Burgess Hill

* 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 *
439722	WS1	None Supplied	0.2	Non Soil. ⁹
439723	WS1	None Supplied	0.7	Non Soil. ⁹
439724	WS2	None Supplied	0.5	Non Soil. ⁹
439725	WS2	None Supplied	1.2	Non Soil. ⁹
439726	WS4	None Supplied	0.5	Non Soil. ⁹
439727	WS4	None Supplied	1	Non Soil. ⁹
439728	WS5	None Supplied	0.5	Non Soil. ⁹
439729	WS5	None Supplied	1.5	Non Soil. ⁹
439730	WS6	None Supplied	0.5	Non Soil. ⁹
439731	WS7	None Supplied	0.5	Brown clay and sand
439732	WS7	None Supplied	1.6	Brown clay and sand
439733	WS8	None Supplied	0.7	Brown loam and clay with gravel and vegetation

Analytical Report Number : 25-004536

Project / Site name: Consort Way Burgess Hill

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI 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 Bults	Asbestos Identification in bulk material with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	W	ISO 17025
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
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
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
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-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-PL	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-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

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

~ - Quality control surrogate recovery outside of limits, other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and may be compromised.

*g - Unaccredited sample matrix.



Sample Deviation Report



Analytical Report Number : 25-004536

Project / Site name: Consort Way Burgess Hill

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
WS1	N/A	S	439722	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088-PL	b
WS2	N/A	S	439724	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088-PL	b
WS4	N/A	S	439726	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088-PL	b
WS7	N/A	S	439731	b	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	b
WS7	N/A	S	439731	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088-PL	b
WS7	N/A	S	439732	b	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088-PL	b



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Analytical Report Number : 25-007785

Project / Site name:	Consort Way Burgess Hill	Samples received on:	18/02/2025
Your job number:	ON251002	Samples instructed on/ Analysis started on:	18/02/2025
Your order number:	ON251002-02	Analysis completed by:	26/02/2025
Report Issue Number:	1	Report issued on:	28/02/2025
Samples Analysed:	3 water 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
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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.



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Analytical Report Number: 25-007785

Project / Site name: Consort Way Burgess Hill

Your Order No: ON251002-02

Lab Sample Number				457061	457062	457063
Sample Reference				WS1 GW	WS2 GW	WS7 GW
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				Ground water	Ground water	Ground water
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				17/02/2025	17/02/2025	17/02/2025
Time Taken				1100	1115	1230
Analytical Parameter (Water Analysis)				Units	Test Limit of detection	Test Accreditation Status

General Inorganics

pH (L099)	pH Units	N/A	ISO 17025	8.8	9.1	9.4
Electrical Conductivity at 20°C	µS/cm	10	ISO 17025	2500	2000	730
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10
Sulphate as SO ₄	mg/l	0.045	ISO 17025	1140	641	164
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	10
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.09	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.06	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01

Total PAH

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

Arsenic (dissolved)	µg/l	0.15	ISO 17025	16.4	9.43	19.2
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.11	0.1	0.06
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.4	< 0.2	150
Copper (dissolved)	µg/l	0.5	ISO 17025	0.8	< 0.5	21
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	19
Mercury (dissolved)	µg/l	0.05	NONE	0.16	0.14	0.13
Nickel (dissolved)	µg/l	0.5	ISO 17025	3.7	6.5	71
Selenium (dissolved)	µg/l	0.6	ISO 17025	22	7.8	30
Zinc (dissolved)	µg/l	0.5	ISO 17025	1.1	0.5	92

Boron (dissolved)	µg/l	10	ISO 17025	7600	4900	730
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Petroleum Hydrocarbons

Petroleum Range Organics (EC6 - EC10) _{HS_ID_TOTAL}	µg/l	10	ISO 17025	< 10	< 10	< 10
TPH (EC10 - EC25) _{EH_ID_TOTAL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH (EC10 - EC40) _{EH_ID_TOTAL_MS}	µg/l	10	NONE	< 10	< 10	< 10

VOCs



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Environmental Science

Analytical Report Number: 25-007785

Project / Site name: Consort Way Burgess Hill

Your Order No: ON251002-02

Lab Sample Number				457061	457062	457063
Sample Reference				WS1 GW	WS2 GW	WS7 GW
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				Ground water	Ground water	Ground water
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				17/02/2025	17/02/2025	17/02/2025
Time Taken				1100	1115	1230
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Chloromethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	NONE	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	NONE	< 3.0	< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3	NONE	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2-Dichloropropane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Cis-1,3-dichloropropene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Trans-1,3-dichloropropene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1,2-Trichloroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,3-Dichloropropane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Tetrachloroethene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2-Dibromoethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Chlorobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1,1,2-Tetrachloroethane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Styrene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Bromoform	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Isopropylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,1,2,2-Tetrachloroethane	µg/l	3	NONE	< 3.0	< 3.0	< 3.0
Bromobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
n-Propylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
2-Chlorotoluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
4-Chlorotoluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,3,5-Trimethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
tert-Butylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2,4-Trimethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
sec-Butylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,3-Dichlorobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
p-Isopropyltoluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,4-Dichlorobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2-Dichlorobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0



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Environmental Science

Analytical Report Number: 25-007785

Project / Site name: Consort Way Burgess Hill

Your Order No: ON251002-02

Lab Sample Number				457061	457062	457063
Sample Reference				WS1 GW	WS2 GW	WS7 GW
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				Ground water	Ground water	Ground water
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				17/02/2025	17/02/2025	17/02/2025
Time Taken				1100	1115	1230
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Butylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2-Dibromo-3-chloropropane	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2,4-Trichlorobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0
1,2,3-Trichlorobenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0

VOCs TICs

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

Aniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Phenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Bis(2-chloroethyl)ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Bis(2-chloroisopropyl)ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Hexachloroethane	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Nitrobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Isophorone	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Bis(2-chloroethoxy)methane	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
4-Chloroaniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2-Chloronaphthalene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2,6-Dinitrotoluene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
2,4-Dinitrotoluene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
4-Chlorophenyl phenyl ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
4-Nitroaniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Azobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Carbazole	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05

3+4-Methylphenol	µg/l	0.1	NONE	< 0.10	< 0.10	< 0.10
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Analytical Report Number: 25-007785

Project / Site name: Consort Way Burgess Hill

Your Order No: ON251002-02

Lab Sample Number				457061	457062	457063
Sample Reference				WS1 GW	WS2 GW	WS7 GW
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				Ground water	Ground water	Ground water
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				17/02/2025	17/02/2025	17/02/2025
Time Taken				1100	1115	1230
Analytical Parameter (Water Analysis)	Units	Test Limit of detection	Test Accreditation Status			

SVOCs TICs

SVOCs TICs Compound Name	N/A	N/A	NONE	ND	ND	ND
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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Environmental Science

Analytical Report Number : 25-007785

Project / Site name: Consort Way Burgess Hill

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited matrices: SW, PW, GW, 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
Sulphide in water	Determination of sulphide in water by ion selective electrode	In-house method	L029-PL	W	NONE
Electrical Conductivity at 20°C in water	Determination of electrical conductivity in water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE	In-house method	L031B	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, FSE, LL; PrW, DI 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 Petroleum Hydrocarbons in water by GC-MS	Determination of total petroleum hydrocarbons in water by GC-MS. Accredited matrices (TPH C12 - C35): SW, PW, GW	In-house method	L070B	W	NONE
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
Tentatively identified compounds (VOC) in water	Determination of volatile organic compounds total ion count in water by headspace GC-MS followed by a full library scan	In-house method based on USEPA 8260	L073B	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide in water by distillation followed by colorimetry. Accredited matrices: SW, PW, GW, FSE, LL	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Total Petroleum Hydrocarbons in water by HS-GC-MS	Determination of total petroleum hydrocarbons in water by headspace GC-MS. Accredited matrices: SW, PW, GW	In-house method	L088-PL	W	ISO 17025
pH of water at 20°C (automated)	Determination of pH of water by electrochemical measurement. Accredited matrices: SW, PW, GW, FSE, LL	In-house method	L099-PL	W	ISO 17025
Speciated PAHs and/or Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds (including PAHs) in water by extraction in dichloromethane followed by GC-MS. Accredited matrices (PAHs): SW, PW, GW	In-house method based on USEPA 8270	L102B	W	ISO 17025
Phenols in water by GC-MS	Determination of phenols in water by GC-MS	In-house method	L102B	W	NONE
Tentatively identified compounds (SVOC) in water	Determination of semi-volatile organic compounds total ion count in water by extraction with dichloromethane followed by GC-MS with a full library scan	In-house method based on USEPA 8270	L102B	W	NONE

Analytical Report Number : 25-007785

Project / Site name: Consort Way Burgess Hill

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited matrices: SW, PW, GW, PrW, DI PrW, FSE, 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 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 - 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 G – GEOTECHNICAL LABORATORY TEST RESULTS

GEOLABS Limited
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 WD25 9XX

Tel: +44(0) 1923 892 190
 Fax: +44(0) 1923 892 191
 email: admin@geolabs.co.uk
 web: www.geolabs.co.uk

Onyx Geo Consulting Ltd
 46 Premier House
 Victoria Road
 Burgess Hill
 West Sussex
 RH15 9LR

17 February 2025

Report No : GEO/41909/01

Page 1 of 1

For the attention of Mr A Carr

Our ref	GEO / 41909	Date samples received	03/02/2025
Your ref	ON251006	Date written instructions received	03/02/2025
Order ref	ON251006	Date testing commenced	04/02/2025
		Date of sample disposal	17/03/2025

Project **CONSORT WAY, BURGESS HILL**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Liquid & Plastic Limits Summary
~	6	Water Content
~	6	Liquid & Plastic Limits
2	~	Geochemical Test Summary
~	1	BRE SD1 Suite A - Natural ground
~	2	BRE SD1 Suite B - Natural ground + pyrite
~	2	Loss On Ignition
3	1	Particle Size Distribution

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
 on behalf of **GEOLABS Limited**



S Burke
 Senior Technician

BS EN ISO 17892-12 : 2018+A2:2022

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

[illegible]

Test Type:	2 - 4 point 80g / 30° fall cone method. 3 - Non plastic determination.
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Sample condition: 1 - As Received
2 - Air Dried
3 - Washed & Air Dried

Checked and Approved by:

S Burke

S Burke - Senior Technician
17/02/2025

Project Number:

GEO / 41909

Project Name:

**CONSORT WAY, BURGESS HILL
ON251006**



SUMMARY OF CHEMICAL TESTS ON SOIL

Location	Depth m	Sample Ref	Sample Type	pH Value	Total Acid Soluble Sulphate as SO ₄ %	Water Soluble Sulphate as SO ₄ 2:1 Water:Soil Extract mg/l	Total Sulphur %	Water Soluble Chloride g/l	Water Soluble Nitrate g/l	Magnesium g/l	Organic Content %	Mass Loss on Ignition %	Carbonate Content %
WS1	3.80		D	7.3	0.061	190	0.026	-	-	-	-	-	-
WS2	0.50		D	-	-	-	-	-	-	-	-	3.1	-
WS2	1.50		D	9.2	-	800	-	-	-	-	-	-	-
WS4	0.50		D	-	-	-	-	-	-	-	-	2.1	-
WS7	2.00		D	8.8	0.026	120	0.015	-	-	-	-	-	-

Tested by i2 Analytical : MCERTS / UKAS No 4041

Checked and Approved by:



S Burke - Senior Technician
17/02/2025

Project Number:

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**CONSORT WAY, BURGESS HILL
ON251006**



PARTICLE SIZE DISTRIBUTION

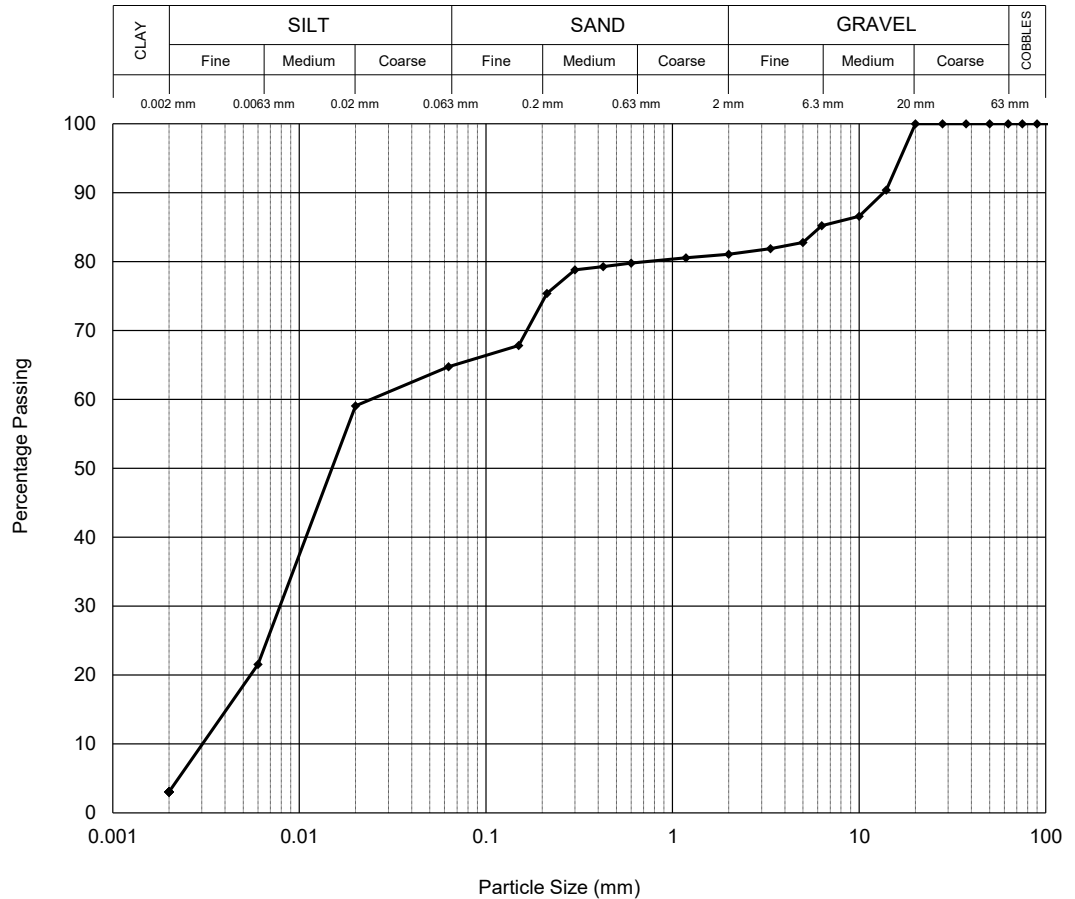
Location WS5
 Sample Depth 0.80 m
 Sample Type D

Description

Dark grey slightly gravelly sandy SILT. Gravel includes siltstone.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve
 BS EN ISO 17892-4 : 2016 : Clause 5.4 - Sedimentation by Pipette

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	90
10.0 mm	87
6.30 mm	85
5.00 mm	83
3.35 mm	82
2.00 mm	81
1.18 mm	81
600 µm	80
425 µm	79
300 µm	79
212 µm	75
150 µm	68
63 µm	65



Sedimentation	
No Pre-treatment used	
Temp (°C)	25.0
Size	% Pass
20 µm	59
6 µm	22
2 µm	3

Particle Density 2.70(A) Mg/m³

Particle Proportions	
Cobbles	0.0
Gravel	19.0
Sand	16.3
Silt	61.6
Clay	3.1

Tested by MJ
 Checked and Approved by

S Burke

S Burke - Senior Technician
 17/02/2025

Project Number:

GEO / 41909

Project Name:

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 ON251006**



APPENDIX H – APPROACH TO THE SELECTION OF GENERIC ASSESSMENT CRITERIA

Chronic Risks to Human Health

Defra and the EA have released a limited number of Soil Guideline Values (SGVs) that indicate minimal long-term risks to human health. Additionally, CL:AIRE has developed a select set of Category Four Screening Levels (C4SLs), which represent a low but still cautious level of chronic risk. Both the SGVs and C4SLs are based on a Soil Organic Matter (SOM) content of 6%, which may not accurately reflect the lower SOM levels commonly found in Made Ground at brownfield locations.

In response to the need for more extensive screening values across different SOM ranges, Land Quality Management Ltd. (LQM) introduced Suitable for Use Levels (S4ULs), which blend elements of both SGVs and C4SLs. These S4ULs have been formally recognized by the Chartered Institute of Environmental Health (CIEH).

A smaller group of 35 Generic Assessment Criteria (GACs) was published by CL:AIRE in collaboration with AGS and EIC in 2010, utilizing the same exposure scenarios as the SGVs. However, these scenarios have since been partially replaced by the introduction of C4SLs and S4ULs, with further C4SLs currently in development.

Onyx Geo employs C4SLs as generic assessment criteria where available, providing a quantitative evaluation of potential chronic risks to human health. In cases where C4SLs are unavailable, Onyx Geo relies on S4ULs or CL:AIRE GACs. It is important to note that while S4ULs share similarities with C4SLs, they differ in exposure assumptions and are generally more conservative. To ensure consistency in Onyx Geo's human health risk assessments, the physicochemical and toxicological parameters used to derive CL:AIRE GACs have been recalculated using LQM's exposure parameters for S4UL derivation.

For organic compounds such as benzene and benzo(a)pyrene, which have C4SLs applicable only to a 6% SOM content, Onyx Geo has generated equivalent C4SLs for 1% and 2.5% SOM. However, SOM does not influence the behaviour of inorganic contaminants.

Following Public Health England (PHE) guidance, Onyx Geo assesses PAHs using a surrogate marker method, wherein benzo(a)pyrene is used as a representative compound for evaluating risks from other carcinogenic PAHs. The alternative Toxic Equivalent Factor (TEF) approach for PAHs is not applied, as it may underestimate the true carcinogenic potential and is not recommended by PHE. Similarly, threshold PAHs are assessed using naphthalene as a marker due to its higher volatility compared to other PAHs.

Total phenols are assessed against the S4UL for phenol, while total chromium is evaluated using the S4UL for trivalent chromium. Onyx Geo does not take theoretical soil saturation levels into account when assessing organic compounds. As a result, some S4ULs for less sensitive exposure scenarios may be lower than their more sensitive counterparts.

To evaluate human health risks from inhalation of vapours derived from groundwater, Onyx Geo utilizes the SoBRA groundwater GAC_{gwwap} .

Acute Risks to Human Health

Cyanide has not been modelled using CLEA due to its high acute toxicity, as CLEA is designed for chronic risk evaluation. Given an assumed acute risk and a single dose of 3 grams of soil, an assessment criterion of 33 mg/kg for free inorganic cyanide and 544 mg/kg for complex cyanide has been calculated by Onyx Geo. However, as a precautionary measure, Onyx Geo applies a conservative screening threshold of 20 mg/kg for total cyanide (including both free and complex cyanides) to flag any potential health hazards.

Risks to Controlled Waters

RTM (2006) mandates the use of receptor-specific Water Quality Standards (WQS) to determine potentially unacceptable risks to water bodies in England and Wales. These standards are drawn from a hierarchical set of sources, including:

UK published values

EU published values

WHO published values

Drinking Water Resources

For groundwater and surface waters intended for potable supply, Onyx Geo follows:

UK Drinking Water Quality Standards (DWS) from The Water Supply (Water Quality) Regulations 2016 (England)

The Water Supply (Water Quality) Regulations 2010 (Wales), as amended in 2016

WHO Guidelines for Drinking Water Quality, Fourth Edition, Volume 1 (2011) If groundwater is not currently used for potable purposes, a precautionary approach is taken to safeguard its potential future use.

Surface Water (Ecological) Receptors

For surface waters serving as ecological receptors, Onyx Geo applies Environmental Quality Standards (EQS) outlined in The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015. No relevant EU or WHO standards are available for this category.

Petroleum Hydrocarbons

The UK currently lacks established standards for petroleum hydrocarbons in groundwater or surface water receptors. Consequently, an initial screening threshold of 10 µg/L is applied, based on the former target concentration for dissolved or emulsified hydrocarbons. This represents a conservative preliminary screening criterion for total petroleum hydrocarbons.

Where appropriate, Onyx Geo follows the guidance in CL:AIRE 2017 for further assessment of petroleum hydrocarbon fractions and their derivatives. For drinking water resources, WHO guidelines are applied. For surface waters as ecological receptors, proxy compounds are used to determine suitable EQS values based on indicator compounds, as follows:

Aromatic EC5-EC7 – benzene

Aromatic >EC7-EC8 – toluene

Aromatic >EC8-EC10 – ethylbenzene

Aromatic >EC10-EC12 – naphthalene

Aromatic >EC12-EC16 – no proxy

Aromatic >EC16-EC21 – anthracene

Aromatic >EC21-EC35 – benzo(a)pyrene

APPENDIX I – GROUNDWATER LEVEL AND GAS MONITORING

Continuous Gas Monitoring Record								
Date	6/02/2025 10am	Engineer	SC					
Project No		Temp °C	7C					
Site	Consort Way	Ambient Pressure		1041				
WS1 Hole ID		Time	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
		00:00	0.6	0.0	0.0	20.3	0	0
		00:15	0.1	0.0	0.0	20.2	0	0
		00:30	0.0	0.0	0.0	20.2	0	0
VOC peak (ppm)	NR	01:00	0.0	0.0	0.0	20.2	0	0
		01:30	0.0	0.0	0.0	20.2	0	0
VOC steady (ppm)	NR	02:00	0.0	0.0	0.0	20.2	0	0
		02:30	0.0	0.0	0.0	20.2	0	0
Borehole Depth (mbgl)	2.15	03:00	0.0	0.0	0.0	20.2	0	0
		03:30	0.0	0.0	0.0	20.2	0	0
Water level (mbgl)	0.7	04:00	0.0	0.0	0.0	20.2	0	0

Continuous Gas Monitoring Record								
Date	6/02/2025 10am	Engineer	SC					
Project No		Temp °C	7C					
Site	Consort Way	Ambient Pressure		1041				
WS2		Time	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
		00:00	0.0	0.0	0.0	20.4	0	0
Hole ID		00:15	0.0	0.0	0.0	20.3	0	0
VOC peak (ppm)	NR	00:30	0.0	0.0	0.0	20.3	0	0
		01:00	0.0	0.0	0.0	20.3	0	0
VOC steady (ppm)	NR	01:30	0.0	0.0	0.0	20.3	0	0
		02:00	0.0	0.0	0.0	20.3	0	0
Borehole Depth (mbgl)	2.1	02:30	0.0	0.0	0.0	20.3	0	0
		03:00	0.0	0.0	0.0	20.3	0	0
Water level (mbgl)	0.91	03:30	0.0	0.0	0.0	20.3	0	0
		04:00	0.0	0.0	0.0	20.3	0	0

Continuous Gas Monitoring Record								
Date	6/02/2025 10:30am	Engineer	SC					
Project No		Temp °C	7C					
Site	Consort Way	Ambient Pressure	1041					
WS7	Time	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)	
	00:00	0.4	0.0	0.0	19.5	0	0	
Hole ID	00:15	0.4	0.0	0.0	19.4	0	0	
VOC peak (ppm)	NR	00:30	0.1	0.0	0.0	19.4	0	0
		01:00	0.1	0.0	0.0	19.4	0	0
VOC steady (ppm)	NR	01:30	0.1	0.0	0.0	19.4	0	0
		02:00	0.1	0.0	0.0	19.4	0	0
Borehole Depth (mbgl)	2.07	02:30	0.1	0.0	0.0	19.4	0	0
		03:00	0.0	0.0	0.0	19.4	0	0
Water level (mbgl)	1.25	03:30	0.0	0.0	0.0	19.4	0	0
		04:00	0.0	0.0	0.0	19.4	0	0

Continuous Gas Monitoring Record								
Date	17/02/2025	Engineer	SSC					
Project No	ON251006	Temp °C	10					
Site	Consort Way	Ambient Pressure	1017					
WS1		Time 11.15	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
Hole ID		00:00	0.0	0.0	0.1	20.6	0	0
		00:15	0.0	0.0	0.0	20.8	0	0
VOC peak (ppm)	NR	00:30	0.0	0.0	0.0	20.8	0	0
		01:00	0.0	0.0	0.0	20.8	0	0
VOC steady (ppm)	NR	01:30	0.0	0.0	0.0	20.8	0	0
		02:00	0.0	0.0	0.0	20.8	0	0
Borehole Depth (mbgl)	1.16	02:30	0.0	0.0	0.0	20.8	0	0
		03:00	0.0	0.0	0.0	20.8	0	0
Water level (mbgl)	0.7	03:30	0.0	0.0	0.0	20.8	0	0
		04:00	0.0	0.0	0.0	20.8	0	0

Continuous Gas Monitoring Record								
Date	17/02/2025	Engineer	SSC					
Project No		Temp °C	10					
Site	Consort Way	Ambient Pressure	1016					
WS2		Time 11.30	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
Hole ID		00:00	0.0	0.3	0.0	17.7	0	0
		00:15	0.0	0.0	0.0	17.6	0	0
VOC peak (ppm)	NR	00:30	0.0	0.0	0.0	17.6	0	0
		01:00	0.0	0.0	0.0	17.6	0	0
VOC steady (ppm)	NR	01:30	0.0	0.0	0.0	17.6	0	0
		02:00	0.0	0.0	0.0	17.6	0	0
Borehole Depth (mbgl)	2	02:30	0.0	0.0	0.0	17.6	0	0
		03:00	0.0	0.0	0.0	17.6	0	0
Water level (mbgl)	1.16	03:30	0.0	0.0	0.0	17.6	0	0
		04:00	0.0	0.0	0.0	17.6	0	0

Continuous Gas Monitoring Record								
Date	6/02/2025 10:30am	Engineer	SSC					
Project No		Temp °C	10					
Site	Consort Way	Ambient Pressure	1016					
WS7		Time 11.45	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
Hole ID		00:00	0.0	0.0	0.1	17.5	0	0
		00:15	0.0	0.0	0.0	17.6	0	0
VOC peak (ppm)	NR	00:30	0.0	0.0	0.0	17.6	0	0
		01:00	0.0	0.0	0.0	17.6	0	0
VOC steady (ppm)	NR	01:30	0.0	0.0	0.0	17.6	0	0
		02:00	0.0	0.0	0.0	17.6	0	0
Borehole Depth (mbgl)	2.1	02:30	0.0	0.0	0.0	17.6	0	0
		03:00	0.0	0.0	0.0	17.6	0	0
Water level (mbgl)	1.21	03:30	0.0	0.0	0.0	17.6	0	0
		04:00	0.0	0.0	0.0	17.6	0	0

Continuous Gas Monitoring Record								
Date	25/02/2025	Engineer	SC					
Project No	ON251006	Temp °C	8					
Site	Consort Way	Ambient Pressure	1008					
WS1		Time 12.30	Flow (f/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
Hole ID		00:00	0.0	0.0	0.0	20.7	0	0
		00:15	0.0	0.0	0.0	20.8	0	0
		00:30	0.0	0.0	0.0	20.8	0	0
VOC peak (ppm)	NR	01:00	Monitoring stopped due to water ingress into analyser					
VOC steady (ppm)	NR	01:30						
		02:00						
Borehole Depth (mbgl)	1.16	02:30						
		03:00						
Water level (mbgl)	0.2	03:30						
		04:00						

Continuous Gas Monitoring Record								
Date	17/02/2025	Engineer	SC					
Project No		Temp °C	10					
Site	Consort Way	Ambient Pressure	1008					
WS2		Time 12.45	Flow (f/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
Hole ID		00:00	0.0	0.0	0.0	18.0	0	0
		00:15	0.0	0.0	0.0	17.6	0	0
		00:30	0.0	0.0	0.0	17.6	0	0
VOC peak (ppm)	NR	01:00	Monitoring stopped due to water ingress into analyser					
VOC steady (ppm)	NR	01:30						
		02:00						
Borehole Depth (mbgl)	2	02:30						
		03:00						
Water level (mbgl)	0.17	03:30						
		04:00						

Continuous Gas Monitoring Record								
Date	6/02/2025 10:30am	Engineer	SC					
Project No		Temp °C	10					
Site	Consort Way	Ambient Pressure	1008					
WS7		Time1PM	Flow (l/h)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
Hole ID		00:00	0.0	0.0	0.0	19.5	0	0
		00:15	0.0	0.0	0.0	19.5	0	0
		00:30	0.0	0.0	0.0	19.5	0	0
VOC peak (ppm)	NR	01:00	0.0	0.0	0.0	19.5	0	0
VOC steady (ppm)	NR	01:30	0.0	0.0	0.0	19.5	0	0
		02:00	0.0	0.0	0.0	19.5	0	0
Borehole Depth (mbgl)	2.1	02:30	0.0	0.0	0.0	19.5	0	0
		03:00	0.0	0.0	0.0	19.5	0	0
Water level (mbgl)	0.94	03:30	0.0	0.0	0.0	19.5	0	0
		04:00	0.0	0.0	0.0	17.6	0	0