



**PHASE 2 GEO-ENVIRONMENTAL SITE
ASSESSMENT REPORT**

**VARLEY STREET
MANCHESTER
M40 8EF**

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Executive Summary

The recent intrusive ground investigation has proven that Made Ground is present beneath the site with a variable thickness of between 0.50m and 3.30m.

A total of 29 no. soil samples were taken and tested for a range of chemical parameters. Several substances have been detected in the Made Ground beneath the site at concentrations in excess of the residential GAC and commercial GAC. These include heavy metals, total petroleum hydrocarbons and semi volatile organic compounds. Chrysotile asbestos was identified in a single sample (TP19 at 0.30m) at the site. If the location of the positive asbestos identification is located beneath the proposed areas of soft landscaping, it could present a long-term risk of exposure to future site users.

Qualitative risk assessment has shown that these substances could present a long-term exposure risk to human health of future site users if they remain present in the shallow soils within the areas of soft landscaping following redevelopment. Therefore, remedial measures will be required in areas of proposed soft landscaping in order to eliminate exposure risks (e.g. clean topsoil cover system).

Risks to controlled waters (i.e. groundwater aquifer) have been assessed to be low. However, the risk from the contaminants of concern to the identified receptors is considered to be negligible due to the presence of impermeable diamicton deposits which underlie the site.

The site can be classified as Characteristic Situation 2 (CS2; low risk) in terms of ground gases and therefore, ground gas protection measures need to be installed.

A remediation strategy should be prepared prior to redevelopment to detail the remediation and validation requirements. This document should be submitted to planning for approval prior to commencing any groundworks on the site.

If new water supply pipes are to be installed for the proposed development, then it is recommended that discussions are undertaken with the local water supply company to confirm their requirements.

The Made Ground material would not be suitable for the construction of traditional shallow spread foundations due to the risk of unacceptable total and differential settlement occurring. Given the variable thickness of Made Ground at the site, it is deemed appropriate to zone the site with foundation solution options. These include piles in the south-western portion of the site, and trench fill foundations in the north-eastern portion.

Area 1 (southwest) – Piles

Given the variable thickness of Made Ground encountered beneath this area (up to 3.30m), it is recommended that a piled foundation solution is used. The ground would be suitable for driven or bored cast in-situ piled foundations. It is recommended that initial designs should incorporate the use of a suspended floor slab with a ring beam spanning the pile layout. Appropriate test pile and works pile testing procedures will need to be established.

Area 2 – (northeast) Trench Fill

The underlying diamicton deposits would be suitable for the construction of trench fill foundations with an allowable bearing pressure of 150kN/m². This is based on a characteristic undrained shear strength of 100kN/m² and a maximum foundation width of 1m for strip footings. Foundations should be set at a minimum of 1.50m bgl, allowing for limited tree planting.

Foundation excavations should be checked by an experienced ground worker prior to placing concrete. Any soft spots or unsuitable founding materials should be removed if encountered and replaced with compacted granular fill or lean mix concrete.

A variable thickness of Made Ground was noted in the boreholes. It is therefore considered that initial designs consider the use of suspended (block and beam) floor slabs.

Heave precautions should be incorporated into the foundation solution in accordance with NHBC Chapter 4.2.10.

The results from the chemical laboratory sulphate and pH analysis for the site indicate a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) class of AC-1.

It is recommended that further study is undertaken into the risk that historic coal mining poses to the development, relating to the recorded mine shaft and unrecorded and recorded workings.

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1 Introduction

1.1 Background

EnviroSolution Ltd was commissioned to undertake a Phase 2 Geo-Environmental Site Assessment at a site located at Varley Street in Manchester. This work was required to investigate the feasibility of an educational development at the site which will include the construction of two schools.

A Phase 1 Environmental Site Assessment has previously been completed for this site:

- EnviroSolution Ltd, Varley Street Phase 1 Environmental Site Assessment Report, Ref: CL101, 12th February 2022.

The Phase 1 report should be read in conjunction with this report as this will form the basis for the conceptual understanding of the site.

1.2 Objectives

The objectives of the ground investigation were:

1. To obtain information on the ground conditions beneath the site.
2. To obtain information to inform foundation design.
3. To confirm the contamination status of the ground beneath the site.
4. To identify any environmental risks and liabilities associated with ground conditions at the site.
5. To identify the requirements for any additional works prior to site development (e.g. further ground investigation or remedial works).

1.3 Scope of Work

- An intrusive ground investigation.
- Generic quantitative risk assessments utilising the ground investigation data in line with industry approved guidelines.
- A Ground Gas Risk Assessment
- A geotechnical appraisal of the ground conditions to inform foundation design.

The scope of work was developed in accordance with the Environment Agency of England and Wales and Department for Environment Food and Rural Affairs (DEFRA) document Environment Agency (2020) Land Contamination Risk Management Report LCRM “How to assess and manage the risks from land contamination” and BS10175:2011+A2:2017 ‘Investigation of Potentially Contaminated Sites – Code of Practice’.

1.4 Site Location

The site is located at Varley Street, Manchester, M40 8EF. The British National Grid Reference for the approximate site centre is GR: 386125 399605.

The site location is shown on **Figure 1** in **Appendix A**.

1.5 Site Description

The site is irregular in shape and covers an approximate area of 16,000 square metres. The site is currently a vacant plot of waste land formerly used as a school playing field. A tarmac games court is located in the western extent of the site. The rest of the site is rough grassland.

Sporadic trees are present along the perimeter of the site but are more clustered along the eastern and southern boundaries.

The proposed development area is generally flat with little change in topographic level. Vehicle access is gained from Sawley Street.

The site boundaries consist of metal fencing and chain link fencing on all sides.

The site is rectangular in shape and has an approximate area of 450 square meters. The site is currently a vacant plot of wasteland.

The site is bounded by residential properties to the north and commercial properties to the west, south and east.

There are no active petrol filling stations within a 250m radius of the site.

The existing site plan is shown on **Figure 2** which is included in **Appendix A**.

1.6 Development Proposals

It is understood that the development plans could include the construction of up to two schools with associated vehicle parking, play areas and playing fields.

Currently, no formal development plans have been provided.

2 Ground Investigation Methodology

2.1 Intrusive Field Works

The intrusive investigation works were undertaken by EnviroSolution Ltd on the of 17th and 18th of January and the 24th to 25th of February 2022. The work comprised the following:

- The drilling of 10 no. window sample boreholes (designated as WS1 – WS10) to depths of up to 5.0m below ground level (bgl).
- The drilling of 2 no. rotary boreholes (designated as RT1 – RT2) to depths of up to 35m bgl.
- The excavation of 19 no. trial pits (designated as TP1 – TP19) to depths of up to 2.10m bgl.
- The installation of 6 no. gas and groundwater monitoring wells.
- Geotechnical logging of ground conditions at each location.
- In-situ geotechnical testing within boreholes.
- Collection of representative soil samples from boreholes for subsequent chemical and geotechnical laboratory analysis.

The deep rotary borehole works were undertaken following the receipt of a permit to drill from the CA and were supervised by a qualified EnviroSolution Engineer. Gas returns from the boreholes were monitored and water flush was used.

The exploratory hole locations are shown on **Figure 4** in **Appendix A**. The boreholes were located on an evenly spaced grid (where access allowed) to ensure full site coverage. Areas along the northern boundary were inaccessible due to vegetation.

2.2 Soil Sampling Methodology

The exploratory holes were logged in accordance with the requirements of BS 5930: 2015 and BS EN 14688 Pts 1&2. Visual and olfactory evidence of contamination was noted if encountered. These observations were used to aid scheduling of samples for chemical laboratory analysis. Soil samples were collected at distinct changes in lithology, or on the basis of field observations.

Samples were collected with a clean trowel or by hand (using dedicated nitrile gloves for each sampling location). Samples were placed immediately 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.

2.3 Gas and Groundwater Monitoring

A total of 6 no. combined gas and groundwater monitoring standpipes (WS1, WS2, WS3, WS6, WS7, WS10) were installed during the intrusive ground investigation. Three rounds of gas and groundwater monitoring were completed between the 24th of January and the 7th of February.

The following parameters were measured during each visit:

- Methane % (v/v)
- Carbon dioxide % (v/v)
- Oxygen % (v/v),
- Hydrogen sulphide (ppm)
- Flow rate (l/hr).
- Atmospheric pressure (mbar)
- Groundwater level and borehole depth (m bgl)

During the second monitoring visit, a representative groundwater sample was collected from each borehole.

2.4 Laboratory Analysis

2.4.1 Chemical Analysis

All soil samples were transported in cool boxes at the end of the day under a chain of custody regime to Chemtest, who are a UKAS accredited laboratory. Analysis was conducted to MCerts standards where applicable.

Chemical analysis was scheduled on a total of 29 no. soil samples (23 no. Made Ground and 6 no. natural ground) for a range of chemical parameters including: Toxic 9 metals, pH, asbestos ID, asbestos quantification, volatile and semi-volatile organic compounds (VOCs and SVOCs) and TPH criteria working group. Chemical analysis was scheduled on a total of 3 no. groundwater samples for a range of chemical parameters including: Toxic 9 metals, VOCs, SVOCs, TPH CWG, sulphates, hardness and pH.

2.4.2 QA/QC

Field methods and procedures complied with accepted industry standards (BS10175:2011). These standards include the use of specified sample container types and agreed sampling decontamination procedures.

All samples were transported from the site to the analytical laboratory under a chain of custody regime within cool boxes containing ice packs. All analytical results were subjected to a QA/QC validation check to ensure they met the Laboratory's target criteria.

2.4.3 Geotechnical Analysis

A programme of laboratory testing was undertaken in accordance with BS:1377 (1990) 'Methods of Test for Soils for Civil Engineering Purposes'. The following tests being carried out:

Table 1: BS:1377 Testing

BS Test No.	Description
Part 2: 3.2.3.3	Moisture Content
Part 3: 5.2	Sulphate Content, pH Value
Part 2: 5.4	Plasticity

The following in-situ and laboratory testing outside the scope of BS:1377 was also undertaken:

Table 2: Non-BS:1377 Testing

Standard or Methodology	Test Description
BRE Special Digest 1	Total Sulphate, Aqueous Extract Sulphate, Total Sulphur, pH

3 Ground Conditions

3.1 Made Ground

Made Ground was encountered in all of the exploratory boreholes typically beneath a 0.30m layer of topsoil. The Made Ground ranged in thickness between 0.50m and 3.30m and was generally thickest in the south-western half of the site thinning to the northeast.

The Made Ground can be described as reworked fill. It generally consists of a brown/ grey gravelly sandy reworked clays and grey/brown/black clayey sandy gravel with variable amounts of brick, tile, glass, concrete, sandstone fragments, slag and timber.

Evidence of hydrocarbon contamination was noted in TP1, WS7, TP7, TP13, TP14 and TP16.

A buried obstruction was encountered in TP19 at 0.70m bgl.

3.2 Diamicton

Diamicton deposits were encountered in 26 no. exploratory holes at the site. The diamicton generally consists of soft to stiff brown/ orange/ grey mottled clay. A thick (4.5m to 5.5m) band of fine sand was recorded in RT2 and RT1 respectively at depth of 10.0m and 11.0m bgl.

Uncorrected SPT N values recorded in the diamicton ranged between 8 and 32 which indicates a medium, becoming very high strength clay with an approximate undrained shear strength range of between 40kN/m² and 160kN/m² using the general approximation of:

Undrained shear strength = $N \times 5$ (after Stroud, 1974).

The diamicton shows an increasing strength with depth. Based on these results, then it is considered that a Characteristic Shear Strength of 100kN/m² can be adopted for foundation design.

3.3 Bedrock

Bedrock of the Pennine Upper Coal Measures was encountered in 2 no. of the exploratory boreholes at depths of between 23.5m and 26.5m bgl. The depth to bedrock is shown to increase towards the north.

The Coal Measures consist of grey mudstone with minor sandstone bands. Minimal flakes of coal were noted in RT1 at 32.0m bgl.

The recorded borehole logs are shown in **Appendix C**. The recorded trial pit logs are included in **Appendix D**.

3.4 Groundwater

Groundwater inflows were recorded during the investigation in TP3 at 2.0m, TP7 at 1.70m, TP8 at 1.20m, TP16 at 1.50m, TP17 at 1.40m. In all cases, seepage into the trial pits was slow.

Groundwater was recorded in the monitoring wells (WS2, WS3, WS6 and WS7) at depths of between 0.85 and 4.95m bgl. It is considered that these strikes represent a perched water table.

Evidence of hydrocarbon contamination was noted in WS7 and TP14.

3.5 Ground Gas

Ground gases such as methane and carbon dioxide have been detected in both the Made Ground and natural ground deposits beneath the site. Monitoring records are included in **Appendix G** and the data is summarised in Table 3 below.

Table 3: Monitoring Summary

Borehole ID	Response Zone	Highest Detected Flow Rate (l/hr)	CH4 Range (%v/v)	CO2 Range (%v/v)	O2 Range (%v/v)
WS1	Made Ground	0.3	0	0.2 – 6.1	10.7 – 19.8
WS2	Made Ground	0.2	0	1.3 – 3.0	14.5 – 17.4
WS3	Made Ground and Natural Ground	0.2	0	0.2 – 0.4	17.1 – 19.5
WS6	Natural Ground	0.2	0	6.0 – 8.3	8.0 – 15.6
WS7	Made Ground and Natural Ground	0.2	0	2.4 – 4.2	2.6 – 16.1
WS10	Natural Ground	0	0	2.0 – 2.2	17.2 – 19.4

An assessment of the ground gases monitoring results is provided in Section 6.

3.6 Chemical Analysis

The results of the chemical analysis are assessed in Section 6. A copy of the laboratory test certificates is included in **Appendix E**.

3.7 Geotechnical Model

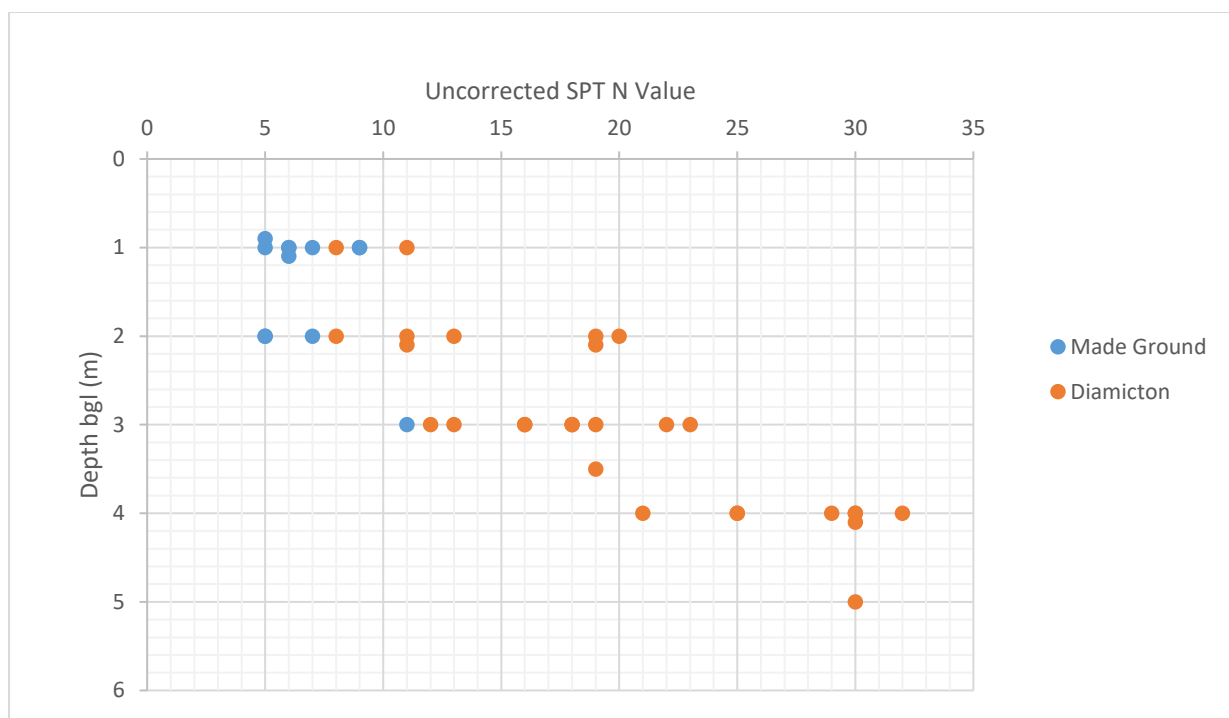
Table 4: Geotechnical Model

Stratum	Depth to Base (m bgl)	Parameters/ Comments	
		Strength Parameters	Other Parameters/ Notes
Made Ground	0.40m – 2.5m	SPT N values 5 – 11	Brown/ grey gravelly sandy reworked clays and grey/ brown/ black clayey sandy gravel with variable amounts of brick, tile, glass, concrete, sandstone fragments, slag and timber. Hydrocarbons noted in 6 no. locations
Diamicton/ Glaciofluvial Deposits	23.5 – 26.5m	SPT N values 8 – 32	Soft to stiff brown/ orange/ grey mottled clay, becoming stiff with depth. 4.5m to 5.5m thick sand layer at 10m to 11m bgl.

Stratum	Depth to Base (m bgl)	Parameters/ Comments	
		Strength Parameters	Other Parameters/ Notes
Pennine Upper Coal Measures	Not Proven	None recorded	Grey mudstones with subordinate sandstone bands. Occasional fragments of coal at 32m depth.

A total of 39 no. Standard Penetration Tests (SPTs) were performed during the drilling works. The results are recorded on the borehole logs at the appropriate depths and are displayed on the graph below.

SPT – Depth Plot



3.8 Geotechnical Laboratory Results

3.8.1 Sulphate Testing

The results of chemical testing carried out in accordance with BRE Special Digest 1:2005 Concrete in Aggressive Ground are summarised as follows (See **Appendix E**):

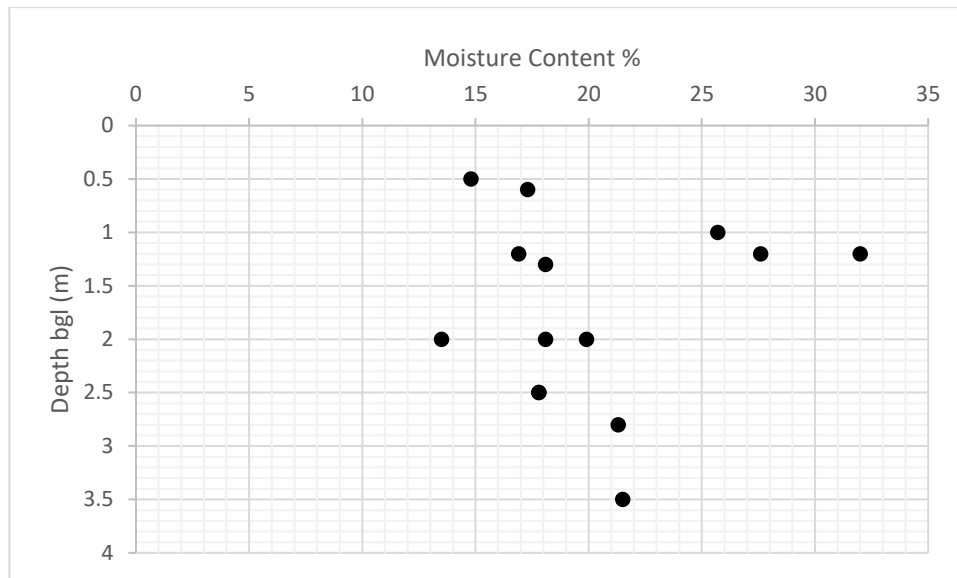
Table 5: BRE Special Digest 1:2005 Test Results

Material	Property	No. of Tests	Range of Results	Characteristic Values (BRE Special Digest 1)	Design Sulphate Class and ACEC Class
Made Ground	Sulphate (SO ₄) by 2:1 water soil extract (mg/l)	6	13 – 325	325	DS-1 AC-1
	pH	6	6.8 – 8.0	6.8	
	Total Sulphur %	6	0.0 – 0.76	0.76	
	Chloride by 2:1 water soil extract (mg/l)	6	2.5 – 6.9	N/a	N/a
	Nitrate by 2:1 water soil extract (mg/l)	6	<1.5	N/a	N/a
Natural Ground	Sulphate (SO ₄) by 2:1 water soil extract (mg/l)	1	54 – 261	261	DS-1 AC-1
	pH	1	7.2 – 7.9	7.2	
	Total Sulphur %	1	<0.02 – 0.03	0.03	
	Chloride by 2:1 water soil extract (mg/l)	1	13.1 – 14	N/a	N/a
	Nitrate by 2:1 water soil extract (mg/l)	1	<1.5	N/a	N/a

3.8.2 Natural Moisture Content

Natural moisture content testing was carried out on a total of 14 no. soil samples. The results of the natural moisture content testing are shown in **Appendix E**.

The results show a range in natural moisture content of between 13.5% and 32.0%.



3.8.3 Plasticity Testing

The results of the plasticity testing are summarised below. A copy of the laboratory testing results is included in **Appendix H**.

Table 6: Plasticity Results

Sample	Plasticity Index	Modified Plasticity Index	Volume Change Potential
TP4 at 1.20m	34	34	High
TP13 at 1.2m	34	34	High
WS1 at 3.50m	28	28	Medium
WS3 at 2.80m	26	25	Medium
WS7 at 2.50m	27	26	Medium
WS10 at 2.50m	28	28	Medium

* Modified Plasticity Index for % passing 425µm sieve in accordance with NHBC Standards Chapter 4.2

The results show a medium to high plasticity clay soil with a high volume change potential.

4 Geotechnical Appraisal

Desk-based studies have indicated that the site lies within a Development High Risk Area for coal mining. This assessment relates solely to foundation design and does not take into account the influence of shallow mine workings. It is recommended that further study is undertaken into the risk that historic coal mining poses to the development.

4.1 Foundations

The Made Ground material would not be suitable for the construction of traditional shallow spread foundations due to the risk of unacceptable total and differential settlement occurring. This is due to the variable nature of the material and the lack of controlled compaction when the material was placed. The underlying glacial diamicton deposits are considered to be suitable bearing strata.

Given the variable thickness of Made Ground at the site, it is deemed appropriate to zone the site with foundation solution options. The foundations zones are shown in **Figure 4** in **Appendix A**.

Area 1 (southwest) – Piles

Given the variable thickness of Made Ground encountered beneath this area (up to 3.30m), it is recommended that a piled foundation solution is used. The ground would be suitable for driven or bored cast in-situ piled foundations. It is recommended that initial designs should incorporate the use of a suspended floor slab with a ring beam spanning the pile layout. Appropriate test pile and works pile testing procedures will need to be established.

Specialist structural engineers will be required to prepare schedules for column loads. This information, together with these geotechnical design data, should then be sent to a specialist ground improvement and/or piling contractor to enable them to derive suitable proprietary designs.

Area 2 – (northeast) Trench Fill

The underlying diamicton deposits would be suitable for the construction of trench fill foundations with an allowable bearing pressure of 150kN/m². This is based on a characteristic undrained shear strength of 100kN/m² and a maximum foundation width of 1m for strip footings. Further assessment would be required for larger foundations. Foundations should be set at a minimum of 1.50m bgl, allowing for limited tree planting.

Foundation excavations should be checked by an experienced ground worker prior to placing concrete. Any soft spots or unsuitable founding materials should be removed if encountered and replaced with compacted granular fill or lean mix concrete.

A variable thickness of Made Ground was noted in the boreholes. It is therefore considered that initial designs consider the use of suspended (block and beam) floor slabs.

Heave precautions should be incorporated into the foundation solution in accordance with NHBC Chapter 4.2.10.

4.2 Excavations and Groundwater

Groundwater inflows were recorded during the investigation in TP3 at 2.0m, TP7 at 1.70m, TP8 at 1.20m, TP16 at 1.50m, TP17 at 1.40m. In all cases, seepage into the trial pits was slow.

Groundwater was recorded in the monitoring wells (WS2, WS3, WS6 and WS7) at depths of between 0.85 and 4.95m bgl.

It is considered that these strikes represent a perched water table.

Sump pumps should be adequate for dewatering shallow service excavations if required. Advice on groundwater control in construction is given in CIRIA Report C515: Groundwater Control Design and Practice.

Shallow excavations within the Made Ground could be relied upon to stand unsupported in the short term only. Larger excavations should be supported or battered back to a safe angle of repose. Further advice on excavation support is given in CIRIA Document 97: Trenching Practice. It is recommended that an adequate drainage system for surface water be installed by a competent contractor in order to prevent surface water ponding or collecting during and post construction which may lead to a deterioration of the founding strata. Where trench bottoms become excessively dried or softened due to rain or ground water, the excavation should be re-bottomed prior to concreting.

Provision should be made for the breaking out of relic structures encountered in the location of TP19.

4.3 Concrete Design

The results from the chemical laboratory sulphate and pH analysis for the site indicate a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) class of AC-1.

4.4 Mine Workings

The two deep rotary boreholes encountered intact Coal Measures at depths of between 23.5m and 26.5m bgl. No voids or loss of flush was recorded. There was no evidence of shallow unrecorded mine workings. Further investigation should be carried out across the site.

5 Generic Quantitative Risk Assessment

5.1 Introduction

The quantitative risk assessment has been undertaken in general accordance with guidance issued by the Environment Agency and comprises a Generic Quantitative Risk Assessment (GQRA) which screens site concentrations against Generic Assessment Criteria (GAC) based on the Preliminary Risk Assessment (PRA) and associated Preliminary Conceptual Site Model. Where a concentration exceeds the GAC, the substance is confirmed as a Contaminant of Concern (CoC).

5.2 Human Health

5.2.1 Long Term Risks to Human Health

Taking into account the proposed land use at the site (i.e. academic school) GAC for residential land use without plant uptake has been adopted as the GAC for this assessment as it is considered feasible that the dermal contact exposure pathway may be feasible in the areas of soft landscaping (i.e. playing fields). This, however, is expected to be an extremely conservative approach as the actual exposure durations will be limited in an academic setting as opposed to residential. To provide a further assessment, GAC for commercial land use has also been adopted for comparative purposes.

The source of the GAC utilised for this assessment comprise the CLEA Soil Guideline Values (SGVs) and LQM 'Suitable 4 Use Levels' and Category 4 Screening Levels'.

A number of substances have been detected in the Made Ground beneath the site at concentrations in excess of the residential GAC (see **Appendix F**). Such substances include:

Contaminant of Concern	Samples
Arsenic	- TP1, TP7, TP9, TP10, TP14, TP15, TP16, TP17, TP18 at 0.30m - TP8 at 1.50m - TP13 at 0.80m - TP14 at 1.0m - TP18 at 1.30m - WS6 at 0.60m
Lead	- TP1, TP7, TP9, TP10, TP15, TP16, TP17, TP18, TP19 at 0.30m - TP8 at 1.50m - TP14 at 1.0m
Aromatic TPH C10-C12	TP14 at 1.0m
Aromatic TPH C12-C16	TP14 at 1.0m
Aromatic TPH C16-C21	- TP4, TP7 at 0.30m - TP14 at 1.0m
Aromatic TPH C21-C35	- TP4, TP7, TP8, TP14 at 0.30m - TP14 at 1.0m
Benzo(a)anthracene	- TP1, TP5, TP13, TP14, TP15, TP16, TP17, TP18 at 0.30m - TP14 at 1.0m
Benzo(b)fluoranthene	TP1, TP2, TP3, TP4, TP5, TP7, TP8, TP9, TP10, TP13, TP14, TP15, TP16, TP17, TP18, TP19 at 0.30m

Contaminant of Concern	Samples
	- TP12 at 0.50m - TP14 at 1.0m
Benzo(a)pyrene	- TP1, TP2, TP3, TP4, TP5, TP7, TP8, TP9, TP10, TP13, TP14, TP15, TP16 TP17, TP18 TP19 at 0.30m - TP12 at 0.50m - TP14 at 1.0m
Dibenzo(a,h)anthracene	- TP1, TP2, TP3, TP4, TP5, TP7, TP8, TP9, TP10, TP13, TP14, TP15, TP16 TP17, TP18 TP19 at 0.30m - TP12 at 0.50m - TP14 at 1.0m
Chrysene	TP14, TP17, TP18 at 0.30m
Benzene	TP14 at 1.0m
m & p-Xylene	TP14 at 1.0m
1,2,4-Trimethylbenzene	- TP12, TP13, TP17 at 0.30m - TP14 at 1.0m
1,2,3-Trichlorobenzene	TP11 at 0.30m
Naphthalene	- TP14, TP15, TP16, TP17, TP18 at 0.30m - TP14 at 1.0m

In addition to the above exceedances to the residential GAC, the following substances have also been detected in the Made Ground beneath the site at concentrations in excess of the commercial GAC (see **Appendix F**). Such substances include:

Contaminant of Concern	Samples
Lead	TP8 at 0.30m
Arsenic	TP14 at 1.0m
Dibenzo(a,h)anthracene	TP5, TP7, TP14, TP17 at 0.30m
Benzene	TP14 at 1.0m
1,2,4-Trimethylbenzene	TP14 at 1.0m
Naphthalene	TP14 at 1.0m

The identified contaminants of concern could potentially present a long-term exposure risk to human health of future site users if they remain present in the shallow soils following redevelopment. Therefore, remedial measures will potentially be required, particularly in areas of soft landscaping in order to eliminate exposure risks.

Asbestos was detected in a single sample of the Made Ground soil samples that were analysed. It was detected in TP19 at 0.3m. It was identified to be chrysotile in the form of fibres/clumps. Quantification testing identified that the samples contained 0.015% asbestos. UK guidance (ICRCL 64/85 ver2) notes that 0.001% asbestos in soil can exceed occupational exposure limits (0.1 f/ml air). Therefore, there is the potential for human health impacts to occur if the impacted soil remains present in the shallow soils beneath the site if the soil is exposed at the surface and so remedial measures may be required if the location falls within and area of soft landscaping.

5.2.2 Short Term Risks

During the redevelopment of the site, it will be necessary to implement measures to protect construction workers, and adjacent site users from the soil contaminants identified at the site. In addition, to ensure that they do not come into contact with contaminated soils and / or groundwater, construction workers and site visitors should wear appropriate personal protective equipment (PPE). Health and safety procedures would ensure that ingestion of contaminated soils and / or groundwater is avoided (e.g. by washing hands prior to eating, drinking and smoking).

5.3 Controlled Waters

The Phase 1 preliminary assessment concluded that the risks to controlled water receptors to be low. This is because the site is immediately underlain by superficial diamicton deposits which are designated as a Secondary Undifferentiated Aquifer and are of low permeability. The site does not lie within a Source Protection Zone and there is a single record of a groundwater abstraction license held within a 1km radius of the site. The license is not for potable water. The underlying bedrock is designated a Secondary A Aquifer.

The Rochdale Canal is located 110m from the site boundary. It is considered that this can be discounted as a feasible receptor due to the distance and presence of low permeability clay soils and clay lining of the canal.

Groundwater analysis was completed as part of the recent Phase 2 investigation and a copy of the laboratory test certificates are included in **Appendix E**. In order to provide some significance on the groundwater laboratory test results, the data has been compared with GAC comprising the UK Drinking Water Standards as the groundwater abstractions and Secondary A Aquifer are the only identified receptors.

Only 3 no. of the boreholes (WS2, WS3 and WS7) yielded groundwater during the sampling visit. Arsenic was detected in the groundwater samples at concentrations in excess of the UK Drinking Water Standards in WS2 and WS3. A copy of the assessment table is included in **Appendix G**.

Although exceedances of arsenic have been detected, it is considered that the underlying diamicton will act as an impermeable barrier, preventing the migration of any contaminants of concern to the identified receptors. Therefore, the risk from the contaminants of concern to the identified receptors is considered to be negligible.

5.4 Buildings and Buried Services

It is considered that the foundations for the proposed development could be at risk of attack from any aggressive chemicals contained within the ground. In line with the recommendations with BRE Special Digest 1 (2005) "Concrete in Aggressive Ground", the Design Sulphate Class for the site is DS-1 and AC-1 as previously detailed in Section 3.8.1.

Plastic pipe materials are potentially vulnerable to attack from elevated levels of hydrocarbons, which can potentially lead to contamination of potable water supplies. At the time of writing this report, we are aware that the client has contacted the water supply

company and has confirmed the use of MDPE barrier pipe which should mitigate the risk of low-level soil and groundwater contaminants.

6 Ground Gas Risk Assessment

6.1 Introduction

Any material having an organic or biodegradable content e.g. organic clays, peat, coal mine workings and domestic refuse, will have a potential for the generation of the gases methane, carbon dioxide and hydrogen sulphide (H₂S) and for the depletion of oxygen, with associated hazards of explosion or asphyxiation.

The principal hazardous gas associated with the degradation of organic materials is methane. As methane is biochemically reactive it is readily oxidised to carbon dioxide under aerobic conditions, the presence of carbon dioxide is therefore often associated with elevated methane.

The conceptual site model has identified both Made Ground on site, and the potential presence of mine workings at depth beneath the site as the potential for gas generation. The conceptual site model recognises the natural clay deposits will act to mitigate the migration of any ground gases through the site.

6.2 Assessment Guidelines

The gas risk assessment presented below has been undertaken in general accordance with accordance with the British Standard BS8485:2015, *“Code of Practice for the Characterisation and Remediation from Ground Gas in Affected Developments”*. The guidance is written specifically for use by designers of gas protection measures relating to the development of a site. Reference has also been made to the CIRIA document C665:2007: *“Assessing Risks Posed by Hazardous Ground Gases to Buildings”*.

A semi-quantitative assessment method is proposed to include general classifications of risk obtained from a qualitative assessment undertaken for the site in question.

Gas concentrations and borehole flow rates are used to define a characteristic situation for a site based on the Gas Screening Value. The Gas Screening Value (in litres of gas per hour) for both methane and carbon dioxide is calculated as:

$$\text{Gas Screening Value (l/hr)} = \frac{\text{Gas Concentration (\%)} \times \text{Borehole Flow Rate (l/hr)}}{100}$$

These calculations are carried out on the worst-case gas concentrations and flow rates encountered on the site.

The characteristic situation is then determined from Table 8.5 of the CIRIA C665 report. This Characteristic Situation is then used to define the general scope of gas protection measures required. Guidance is given on the number of protective measures required and the scope of the measures for each situation.

6.3 Semi-Quantitative Risk Assessment

The gas screening value has been calculated for the site using the highest detected carbon dioxide concentration for the site of 8.3% in WS6 and highest gas flow reading of 0.3 l/hr in WS1. The gas screening value for the site has been calculated as 0.06 l/hr. This classifies the site as Characteristic Situation 1 (very low risk). However, as stated in CIRIA C665, it would be prudent to increase to Situation 2 (low risk) where carbon dioxide concentrations exceed 5%.

Therefore, CS2 gas protection measures are required for the new development. A typical scope of gas protective measures is listed in Table 8.6 in CIRIA C665.

7 Conclusions and Recommendations

7.1 Contaminated Land

The recent intrusive ground investigation has proven that Made Ground is present beneath the site with a variable thickness of between 0.50m and 3.30m.

A total of 29 no. soil samples were taken and tested for a range of chemical parameters. Several substances have been detected in the Made Ground beneath the site at concentrations in excess of the residential GAC and commercial GAC. These include heavy metals, total petroleum hydrocarbons and semi volatile organic compounds. Risk assessment has shown that these substances could present a long-term exposure risk to human health of future site users if they remain present in the shallow soils within the areas of soft landscaping following redevelopment. Therefore, remedial measures will be required in areas of proposed soft landscaping in order to eliminate exposure risks (e.g. clean topsoil cover system).

In addition, Chrysotile asbestos was identified in a single sample (TP19 at 0.30m) at the site. If the location of the positive asbestos identification is located beneath the proposed areas of soft landscaping, it could present a long-term risk of exposure to future site users.

Risks to controlled waters (i.e. groundwater aquifer) have been assessed to be low. However, the risk from the contaminants of concern to the identified receptors is considered to be negligible due to the presence of impermeable diamicton deposits which underlie the site.

The site can be classified as Characteristic Situation 2 (CS2; low risk) in terms of ground gases and therefore, ground gas protection measures need to be installed.

A remediation strategy should be prepared prior to redevelopment to detail the remediation and validation requirements. This document should be submitted to planning for approval prior to commencing any groundworks on the site.

If new water supply pipes are to be installed for the proposed development, then it is recommended that discussions are undertaken with the local water supply company to confirm their requirements.

7.2 Geotechnical

The Made Ground material would not be suitable for the construction of traditional shallow spread foundations due to the risk of unacceptable total and differential settlement occurring. Given the variable thickness of Made Ground at the site, it is deemed appropriate to zone the site with foundation solution options. These include piles in the south-western portion of the site, and trench fill foundations in the north-eastern portion.

Area 1 (southwest) – Piles

Given the variable thickness of Made Ground encountered beneath this area (up to 3.30m), it is recommended that a piled foundation solution is used. The ground would be suitable for

driven or bored cast in-situ piled foundations. It is recommended that initial designs should incorporate the use of a suspended floor slab with a ring beam spanning the pile layout. Appropriate test pile and works pile testing procedures will need to be established.

Area 2 – (northeast) Trench Fill

The underlying diamicton deposits would be suitable for the construction of trench fill foundations with an allowable bearing pressure of 150kN/m^2 . This is based on a characteristic undrained shear strength of 100kN/m^2 and a maximum foundation width of 1m for strip footings. Foundations should be set at a minimum of 1.50m bgl, allowing for limited tree planting.

Foundation excavations should be checked by an experienced ground worker prior to placing concrete. Any soft spots or unsuitable founding materials should be removed if encountered and replaced with compacted granular fill or lean mix concrete.

A variable thickness of Made Ground was noted in the boreholes. It is therefore considered that initial designs consider the use of suspended (block and beam) floor slabs.

Heave precautions should be incorporated into the foundation solution in accordance with NHBC Chapter 4.2.10.

The results from the chemical laboratory sulphate and pH analysis for the site indicate a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) class of AC-1.

It is recommended that further study is undertaken into the risk that historic coal mining poses to the development, relating to the recorded mine shaft and unrecorded and recorded workings.

REFERENCES

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4. BS EN ISO 14688-1:2002+A1:2013: Geotechnical Investigation and Testing. Identification and Classification of Soil. Identification and Description.
5. BS 1377-2:1990: Methods of Test for Soils for Civil Engineering Purposes. Classification Tests.
6. Bre Special Digest 1: Concrete in Aggressive Ground (2005).
7. NHBC Technical Standards, Part 4 Foundations, Chapter 4.2 Building Near Trees.
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11. Environment Agency: Contaminated Land Exposure Assessment - Soil Guideline Values for Human Health Risk Assessment.
12. LQM/CIEH: S4ULS for Human Health Risk Assessment. Land Quality Press (2015). (Copyright Land Quality Management Limited reproduced with permission, publication number S4UL3505. All rights reserved).
13. SP1010: Category 4 Screening Levels for Assessment of Land Affected by Contamination. DEFRA (2014).
14. CIRIA Report C665:2007: Assessing Risks Posed by Hazardous Ground Gases to Buildings.

APPENDICES

Appendix A – Site Location and Site Plan



enviro|solution

Site Location Map

Figure 1



enviro|solution

Existing Site Plan

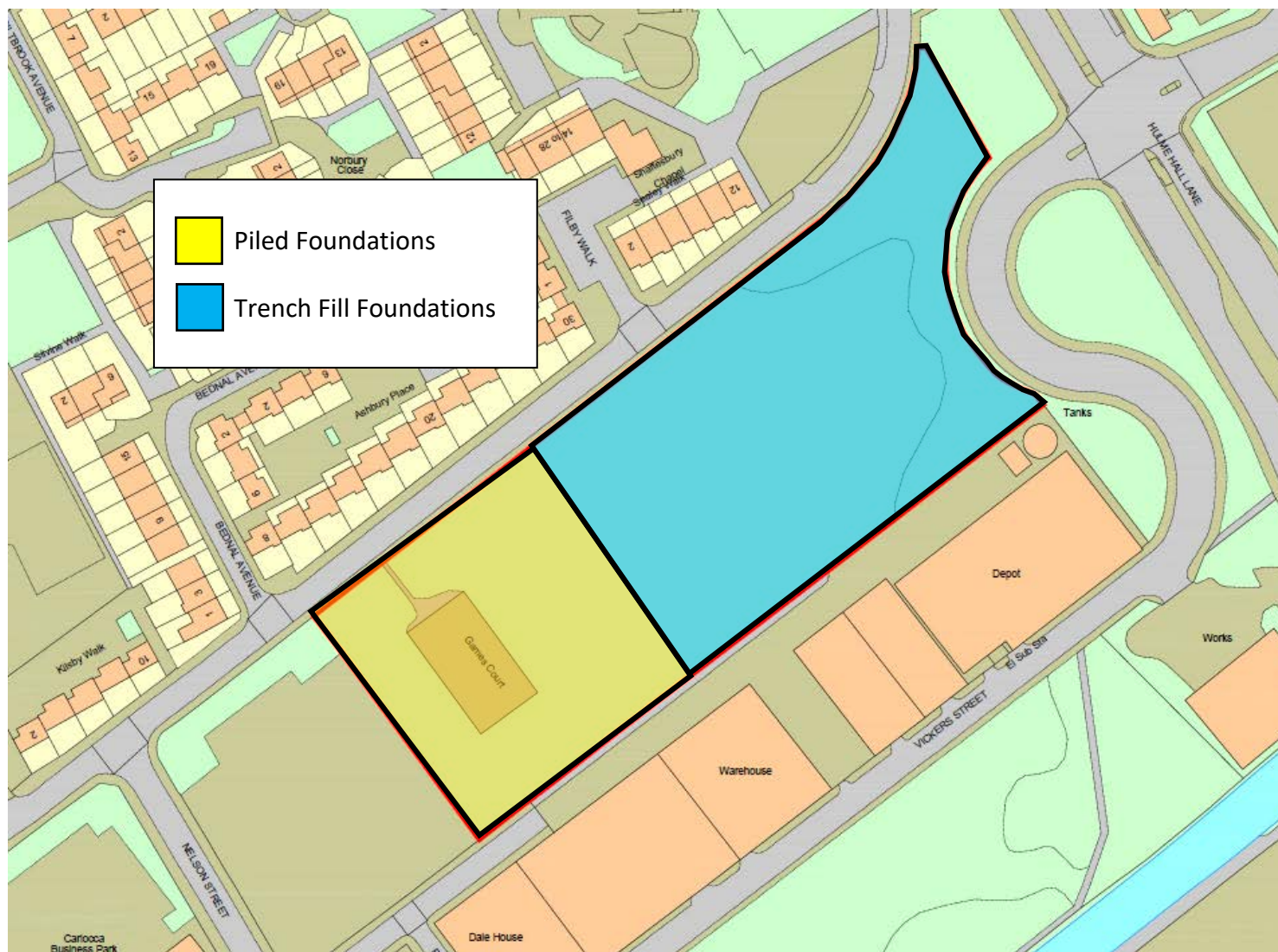
Figure 2



enviro|solution

Exploratory Hole Location Plan

Figure 3



enviro|solution

Foundation Zone Plan

Figure 4

Appendix B – Site Photographs



enviro|solution

View of site looking north



enviro|solution

View of northern site boundary and entrance

Appendix C – Borehole Logs

Job Title: Varley Street					Client: Mace Group					Borehole No: WS1				
Location: Varley Street, Manchester										Page 1 of 10				
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22				Drilling Method: Window Sampler			
							Drilling Contractor: EnviroSolution Ltd				Borehole Diameter: 87mm			
	Number	Type					Logged by: Tom Craig				Screen Type & Diameter: n/a			
							Checked by: Gemma Lucas				Screen Slot Size: n/a			
					0		Description					Comments		0
							Made Ground: Grass on black sandy CLAY with brick fragments and slate FILL							
					1	9	Made Ground: Firm brown reworked gravelly CLAY						1	
					2	5	Made Ground: Black sandy medium GRAVEL FILL						2	
					3	11	Stiff brown/ grey CLAY						3	
					4	32							4	
					5								5	
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve							
Slotted Install							Surrounded by 10mm gravel and installed with end cap							
Legend:														
◆ Disturbed Sample					† Down Borehole Analysis									
∪ Undisturbed Sample					∇ Groundwater Table									
∅ Headspace Analysis					△ Perched Water Table									

Job Title: Varley Street						Client: Mace Group				Borehole No: WS2				
Location: Varley Street, Manchester										Page 2 of 10				
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22				Drilling Method: Window Sampler			
							Drilling Contractor: EnviroSolution Ltd				Borehole Diameter: 87mm			
	Number	Type					Logged by: Tom Craig				Screen Type & Diameter: n/a			
							Checked by: Gemma Lucas				Screen Slot Size: n/a			
						0		Description				Comments		0
								Grass on brown clayey TOPSOIL with brick fragments						
								Made Ground: Brown/ grey reworked gravelly CLAY with coal and brick fragments						
						1	6							1
						2	7							2
						3	13	Firm brown CLAY						3
						4	30							4
						5								5
Non-slotted Install								Surrounded by bentonite seal, capped with flush cover and gas valve						
Slotted Install								Surrounded by 10mm gravel and installed with end cap						
Legend:														
◆ Disturbed Sample † Down Borehole Analysis														
○ Undisturbed Sample ▽ Groundwater Table														
⊘ Headspace Analysis Δ Perched Water Table														

Job Title: Varley Street										Client: Mace Group										Borehole No: WS3												
Location: Varley Street, Manchester																				Page 3 of 10												
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22										Drilling Method: Window Sampler															
							Drilling Contractor: EnviroSolution Ltd										Borehole Diameter: 87mm															
	Number	Type					Logged by: Tom Craig										Screen Type & Diameter: n/a															
							Checked by: Gemma Lucas										Screen Slot Size: n/a															
					0		Description										Comments										0					
							Grass on brown TOPSOIL																									
							Made Ground: Firm brown/ grey reworked gravelly CLAY with brick fragments																									
					1	6																					1					
							Soft grey CLAY																									
					2	5	No recovery																				2					
							Stiff brown/ grey CLAY																									
					3	12																					3					
					4	30																					4					
					5																						5					
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve																									
Slotted Install							Surrounded by 10mm gravel and installed with end cap																									
Legend: ♦ Disturbed Sample † Down Borehole Analysis ∪ Undisturbed Sample ∇ Groundwater Table ∅ Headspace Analysis Δ Perched Water Table																																

[illegible]

Job Title: Varley Street										Client: Mace Group					Borehole No: WS5					
Location: Varley Street, Manchester															Page 5 of 10					
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22					Drilling Method: Window Sampler								
	Number	Type					Drilling Contractor: EnviroSolution Ltd					Borehole Diameter: 87mm								
							Logged by: Tom Craig					Screen Type & Diameter: n/a								
							Checked by: Gemma Lucas					Screen Slot Size: n/a								
					0		Description					Comments					0			
								Grass on clayey TOPSOIL												
								Made Ground: Brown reworked gravelly CLAY with concrete fragments												
							1	7											1	
								Firm grey/ brown mottled slightly gravelly CLAY												
								Stiff brown/ grey mottled CLAY with occasional coal fragments												
							2	11											2	
							3	16											3	
							4	25											4	
							5												5	
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve													
Slotted Install							Surrounded by 10mm gravel and installed with end cap													
Legend: ♦ Disturbed Sample † Down Borehole Analysis ∪ Undisturbed Sample ∇ Groundwater Table ∅ Headspace Analysis Δ Perched Water Table																				

Job Title: Varley Street						Client: Mace Group				Borehole No: WS6					
Location: Varley Street, Manchester										Page 6 of 10					
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22				Drilling Method: Window Sampler				
							Drilling Contractor: EnviroSolution Ltd				Borehole Diameter: 87mm				
	Number	Type					Logged by: Tom Craig				Screen Type & Diameter: n/a				
							Checked by: Gemma Lucas				Screen Slot Size: n/a				
						0		Description				Comments		0	
0.3m ◆								Made Ground: Grass on brown sandy TOPSOIL with brick fragments and glass							
						1	9	Made Ground: Firm grey/ brown mottled reworked slightly gravelly CLAY with occasional coal fragments and glass						1	
2.0m ◆						2	19	Stiff grey/ brown mottled slightly gravelly CLAY						2	
						3	22	Stiff brown sandy CLAY						3	
						4	21							4	
						5	30							5	
Non-slotted Install								Surrounded by bentonite seal, capped with flush cover and gas valve							
Slotted Install								Surrounded by 10mm gravel and installed with end cap							
Legend: ◆ Disturbed Sample † Down Borehole Analysis ○ Undisturbed Sample ▽ Groundwater Table ⊘ Headspace Analysis Δ Perched Water Table															

Job Title: Varley Street										Client: Mace Group					Borehole No: WS7				
Location: Varley Street, Manchester															Page 7 of 10				
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22					Drilling Method: Window Sampler							
							Drilling Contractor: EnviroSolution Ltd					Borehole Diameter: 87mm							
	Number	Type					Logged by: Tom Craig					Screen Type & Diameter: n/a							
							Checked by: Gemma Lucas					Screen Slot Size: n/a							
					0		Description					Comments					0		
							Grass on brown clayey TOPSOIL												
							Made Ground: Black clayey GRAVEL heavily stained black with oily sheen					Strong hydrocarbon odour							
1.0m					1	6	Soft to firm dark grey reworked sandy gravelly CLAY										1		
					2	19	Firm to stiff brown/ grey mottled CLAY										2		
							Soft grey CLAY												
2.5m							Stiff brown CLAY												
					3	16											3		
					4												4		
					5												5		
Non-slotted Install						Surrounded by bentonite seal, capped with flush cover and gas valve													
Slotted Install						Surrounded by 10mm gravel and installed with end cap													
Legend: ♦ Disturbed Sample † Down Borehole Analysis ∪ Undisturbed Sample ∇ Groundwater Table ∅ Headspace Analysis Δ Perched Water Table																			

[illegible]

[illegible]

Job Title: Varley Street					Client: Mace Group					Borehole No: WS10				
Location: Varley Street, Manchester										Page 10 of 10				
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22				Drilling Method: Window Sampler			
							Drilling Contractor: EnviroSolution Ltd				Borehole Diameter: 87mm			
	Number	Type					Logged by: Tom Craig				Screen Type & Diameter: n/a			
							Checked by: Gemma Lucas				Screen Slot Size: n/a			
					0		Description				Comments		0	
							Made Ground: Brown/ grey clayey gravelly FILL with brick fragments							
							Firm brown/ grey mottled CLAY							
							Very stiff brown CLAY							
					1	11							1	
					2	20							2	
					3	18							3	
					4	25							4	
					5								5	
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve							
Slotted Install							Surrounded by 10mm gravel and installed with end cap							
Legend: ♦ Disturbed Sample † Down Borehole Analysis ∪ Undisturbed Sample ∇ Groundwater Table ∅ Headspace Analysis Δ Perched Water Table														

DAY/DATE: THURSDAY 24th 2 20 22

SHEET 1 OF 2

CONTRACT No.	CLIENT	SITE NAME	RIG No.	DRILLER	DRILL ASSISTANTS
		SAWLEY ROAD		DAVID GEINDT	DAVID BUTA

BOREHOLE No	1	FLUSHING MEDIUM	WATER PUSH	WATER HORIZONS	1)	m	2)	m	3)	m
INCLINATION	FLAT	HOURS ON SITE	FROM	TO					CASING AT	m
WEATHER	WINTERLY	DAY/NIGHT SHIFT		TOTAL HRS					CASING AT	m

DRILLING RECORD							CASINO			FLUSH RETURN
RUN No.	TIME	SIZE	FROM	TO	DH	CORE	REC	SIZE	DEPTH	STRATA DESCRIPTION
			CL	1S						TOP SOIL
			1S	1.2						loose clayey fill
			1.2	1.6M						concrete.
			1.6m	11m						Stiff brown clay with occasional gravel's
			11m	16.5m						Sand's
			16.5	26.5					18m	stiff brown clay with gravel
			26.5							
			26.5m	32m						grey mudstone + sandstone bands with small flakes of Coal at 32m (very minimal)
			TOTALS							

Installations	

[illegible]

MATERIALS USED (Cement, Coreboxes etc)

2 Bags of Banta. p'

OPERATIONS		HRS	COMMENTS - OPERATIONS	IN-SITU TESTS, STANDPIPE, PIEZOMETER INSTALLATIONS, INSPECTION PITS ETC.
TRAVELLING		1		
WATERING MOVE	DST			
BILLING				
ENDING/DAYWORKS		91	Fetching Water	
DAYS		1	TOWING VEHICLES AROUND SITE	
TOTAL				

DRILLER SIGNATURE _____

DRILLER SIGNATURE _____

CLIENT SIGNATURE _____

Appendix D – Trial Pit Logs

[illegible]

Job Title: Varley Street										Client: Mace Group										Borehole No: TP2																		
Location: Varley Street, Manchester																				Page 2 of 20																		
Borehole Construction		Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22										Drilling Method: Machine Excavator																				
								Drilling Contractor: EnviroSolution Ltd										Borehole Diameter: n/a																				
		Number	Type					Logged by: Tom Craig										Screen Type & Diameter: n/a																				
								Checked by: Gemma Lucas										Screen Slot Size: n/a																				
						0		Description																				Comments										0
								Made Ground: Grass on brown clayey gravelly TOPSOIL with occasional fragments of brick																														
								Made Ground: Large cobbles of concrete																														
			0.3m	◆				Made Ground: Firm brown slightly gravelly CLAY																														
						0.5		Made Ground: Black sandy ashy GRAVEL with fragments of slate and tile																														1
						1		Made Ground: Black sandy GRAVEL with fragments of brick																				Drain encountered at 1.50m										2
						1.5																																3
						2																																4
						2.5																																5
Non-slotted Install								Surrounded by bentonite seal, capped with flush cover and gas valve																														
Slotted Install								Surrounded by 10mm gravel and installed with end cap																														
Legend:																																						
◆ Disturbed Sample										† Down Borehole Analysis																												
○ Undisturbed Sample										∇ Groundwater Table																												
⊘ Headspace Analysis										△ Perched Water Table																												

[illegible]

[illegible]

Job Title: Varley Street										Client: Mace Group					Borehole No: TP5				
Location: Varley Street, Manchester															Page 5 of 20				
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22					Drilling Method: Machine Excavator							
							Drilling Contractor: EnviroSolution Ltd					Borehole Diameter: n/a							
	Number	Type					Logged by: Tom Craig					Screen Type & Diameter: n/a							
							Checked by: Gemma Lucas					Screen Slot Size: n/a							
					0		Description					Comments		0					
							Grass on brown TOPSOIL												
							Black sandy GRAVEL with bricks and slag												
		0.3m	◆																
					0.5		Made Ground: Grey/ brown gravelly reworked CLAY with bricks, tile and concrete							1					
					1									2					
							Made Ground: Firm brown/ grey reworked CLAY												
		1.5m	◆		1.5									3					
							Black ashy GRAVEL												
					2									4					
					2.5									5					
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve												
Slotted Install							Surrounded by 10mm gravel and installed with end cap												
Legend: ◆ Disturbed Sample † Down Borehole Analysis ∪ Undisturbed Sample ∇ Groundwater Table ∅ Headspace Analysis Δ Perched Water Table																			

[illegible]

Job Title: Varley Street										Client: Mace Group										Borehole No: TP7									
Location: Varley Street, Manchester																				Page 7 of 20									
Borehole Construction		Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22										Drilling Method: Machine Excavator											
								Drilling Contractor: EnviroSolution Ltd										Borehole Diameter: n/a											
		Number	Type					Logged by: Tom Craig										Screen Type & Diameter: n/a											
								Checked by: Gemma Lucas										Screen Slot Size: n/a											
						0		Description															Comments					0	
								Made Ground: Grass on brown clayey TOPSOIL																					

Job Title: Varley Street								Client: Mace Group				Borehole No: TP8				
Location: Varley Street, Manchester												Page 8 of 20				
Borehole Construction		Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22				Drilling Method: Machine Excavator				
								Drilling Contractor: EnviroSolution Ltd				Borehole Diameter: n/a				
		Number	Type					Logged by: Tom Craig				Screen Type & Diameter: n/a				
								Checked by: Gemma Lucas				Screen Slot Size: n/a				
						0		Description				Comments		0		
								Made Ground: Grass on brown loamy TOPSOIL								
			0.3m	◆												
			0.5m	◆		0.5		Made Ground: Brown/ black ashy gravelly SAND FILL with brick, tile and glass						1		
						1		Made Ground: Soft grey/ black ashy CLAY with metallic ash						2		
			1.5m	◆		1.5		Made Ground: Black/ grey reworked CLAY with slag fragments				Slight seepage at 1.20m		3		
						2								4		
						2.5								5		
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve									
Slotted Install							Surrounded by 10mm gravel and installed with end cap									
Legend:																
◆ Disturbed Sample		† Down Borehole Analysis														
○ Undisturbed Sample		▽ Groundwater Table														
⊘ Headspace Analysis		△ Perched Water Table														

[illegible]

[illegible]

[illegible]

Job Title: Varley Street										Client: Mace Group					Borehole No: TP12				
Location: Varley Street, Manchester															Page 12 of 20				
Borehole Construction	Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22					Drilling Method: Machine Excavator							
							Drilling Contractor: EnviroSolution Ltd					Borehole Diameter: n/a							
	Number	Type					Logged by: Tom Craig					Screen Type & Diameter: n/a							
							Checked by: Gemma Lucas					Screen Slot Size: n/a							
					0		Description					Comments		0					
							Made Ground: Black/ grey sandy GRAVEL FILL with brick, tile, coal and roots												
		0.5m	◆			0.5	Made Ground: Dark grey gravelly reworked clay with brick							1					
						1	Brown/ orange clayey SAND							2					
						1.5	Stiff brown/ grey mottled slightly gravelly CLAY							3					
						2								4					
						2.5								5					
Non-slotted Install							Surrounded by bentonite seal, capped with flush cover and gas valve												
Slotted Install							Surrounded by 10mm gravel and installed with end cap												
Legend: ◆ Disturbed Sample † Down Borehole Analysis ∪ Undisturbed Sample ∇ Groundwater Table ∅ Headspace Analysis Δ Perched Water Table																			

Job Title: Varley Street								Client: Mace Group				Borehole No: TP13			
Location: Varley Street, Manchester												Page 13 of 20			
Borehole Construction		Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22				Drilling Method: Machine Excavator			
								Drilling Contractor: EnviroSolution Ltd				Borehole Diameter: n/a			
		Number	Type					Logged by: Tom Craig				Screen Type & Diameter: n/a			
								Checked by: Gemma Lucas				Screen Slot Size: n/a			
						0		Description				Comments		0	
								Made Ground: rass on dark brown sandy TOPSOIL with bricks, sandstone fragments and roots							
			0.3m	◆											
								Made Ground: Black gravelly SAND with coal fragments and sandstone cobbles							
					0.5									1	
								Made Ground: Firm dark grey CLAY with coal				Slight hydrocarbon odour noted			
			0.8m	◆											
					1									2	
								Firm brown/ grey CLAY							
			1.2m	◆											
					1.5									3	

[illegible]

[illegible]

Job Title: Varley Street										Client: Mace Group										Borehole No: TP16													
Location: Varley Street, Manchester																				Page 16 of 20													
Borehole Construction		Sample		Soil Vapour (ppm)	Groundwater	Depth (m)	SPT	Drilling Dates: 17.01.22										Drilling Method: Machine Excavator															
								Drilling Contractor: EnviroSolution Ltd										Borehole Diameter: n/a															
		Number	Type					Logged by: Tom Craig										Screen Type & Diameter: n/a															
								Checked by: Gemma Lucas										Screen Slot Size: n/a															
						0		Description																				Comments					0
								Grass on brown sandy TOPSOIL																									

Job Title: Varley Street										Client: Mace Group										Borehole No: TP17															
Location: Varley Street, Manchester																				Page 17 of 20															
Borehole Construction				Sample		Soil Vapour (ppm)		Groundwater		Depth (m)		SPT		Drilling Dates: 17.01.22										Drilling Method: Machine Excavator											
														Drilling Contractor: EnviroSolution Ltd										Borehole Diameter: n/a											
				Number										Type		Logged by: Tom Craig										Screen Type & Diameter: n/a									
																Checked by: Gemma Lucas										Screen Slot Size: n/a									
										0		Description										Comments										0			
												Grass on brown loamy TOPSOIL with rootlets																							
										0.3m		▲																							
												Made Ground: Black/ grey sandy GRAVEL FILL with brick, clay, timber and slag																							
										0.5																						1			
										1																						2			
												Concrete slab																							
												Natural grey/ brown CLAY																							
										1.5												Groundwater inflow at 1.40m										3			
										2																						4			
										2.5																						5			
Non-slotted Install												Surrounded by bentonite seal, capped with flush cover and gas valve																							
Slotted Install												Surrounded by 10mm gravel and installed with end cap																							
Legend:																																			
◆ Disturbed Sample										† Down Borehole Analysis																									
○ Undisturbed Sample										▽ Groundwater Table																									
∅ Headspace Analysis										△ Perched Water Table																									

[illegible]

[illegible]

Appendix D – Monitoring Results



Project:	Varley Street				Weather:	Dry, overcast	
Project Number:	D0108	Date:	24/01/2022		Engineer:	IP	

Monitoring Point Reference	Date / Time	Atmos. Pressure (mbar)	Temp. (°C)	Flow Rate (l/h)	Time (sec)	CH ₄ (% v/v)	LEL (%)	CO ₂ (% v/v)	O ₂ (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Depth to Water (m bgl)	Depth to base (m bgl)	Comments
WS1	24/01/2022 14:00:00	1005	5	Peak: 0.3	Initial	0	0.0	0.2	18.9	0	0		Dry	2.50	
					30	0	0.0	6.0	0.9	0	0				
					60	0	0.0	6.0	0.4	0	0				
					90	0	0.0	6.1	0.3	0	0				
				Steady: 0.1	120	0	0.0	6.1	0.2	0	0				
					150	0	0.0	6.1	0.2	0	0				
					180	0	0.0	6.1	0.2	0	0				
WS2	24/01/2022 14:10:00	1005	5	Peak: 0.2	Initial	0	0.0	1.3	17.4	0	0		1.18	3.00	
					30	0	0.0	3.0	14.6	0	0				
					60	0	0.0	3.0	14.5	0	0				
					90	0	0.0	3.0	14.5	0	0				
				Steady: 0.1	120	0	0.0	3.0	14.5	0	0				
					150	0	0.0	3.0	14.5	0	0				
					180	0	0.0	3.0	14.5	0	0				
WS3	24/01/2022 14:20:00	1005	5	Peak: 0.2	Initial	0	0.0	2.0	14.8	0	0		1.45	2.80	
					30	0	0.0	0.3	19.5	0	0				
					60	0	0.0	0.2	20.0	0	0				
					90	0	0.0	0.2	20.0	0	0				
				Steady: 0.1	120	0	0.0	0.2	20.0	0	0				
					150	0	0.0	0.2	20.0	0	0				
					180	0	0.0	0.2	20.0	0	0				
WS6	24/01/2022 14:30:00	1005	5	Peak: 0.2	Initial	0	0.0	2.4	15.6	0	0		4.95	5.00	
					30	0	0.0	7.4	11.1	0	0				
					60	0	0.0	7.4	10.4	0	0				
					90	0	0.0	7.5	10.2	0	0				
				Steady: -0.1	120	0	0.0	7.6	10.2	0	0				
					150	0	0.0	7.6	10.1	0	0				
					180	0	0.0	7.6	10.1	0	0				
WS7	24/01/2022 14:40:00	1005	5		Initial								0.95	3.00	No gas bung in place, gas bung added during visit. Strong hydrocarbon odour noted from well.
					30										
					60										
					90										
					120										
					150										
					180										
WS10	24/01/2022 14:50:00	1005	5	Peak: -0.2	Initial	0	0.0	0.0	19.4	0	0		Dry	4.00	
					30	0	0.0	2.0	17.5	0	0				
					60	0	0.0	2.0	17.3	0	0				
					90	0	0.0	2.0	17.3	0	0				
				Steady: -0.1	120	0	0.0	2.0	17.3	0	0				
					150	0	0.0	2.0	17.3	0	0				
					180	0	0.0	2.0	17.3	0	0				

Notes:

Ambient Concentration	
CH ₄	0
CO ₂	0.1
O ₂	20.6
H ₂ S	0
CO	0

QA Checklist:			
QA Checklist:		Instrument Details:	Serial No.
Gas monitor calibrated	y	Landfill Gas Analyser	G507192
All filters in place	y	PID	
Flow reading stable and zeroed	y	Dip meter/ interface probe	





Project:	Varley Street				Weather:	Dry, overcast	
Project Number:	D0108	Date:	31/01/2022		Engineer:	IP	

Monitoring Point Reference	Date / Time	Atmos. Pressure (mbar)	Temp. (°C)	Flow Rate (l/h)	Time (sec)	CH ₄ (% v/v)	LEL (%)	CO ₂ (% v/v)	O ₂ (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Depth to Water (m bgl)	Depth to base (m bgl)	Comments
WS1	31/01/2022 11:00:00	1008	6	Peak:	Initial	0	0.0	4.1	19.8	0	0		Dry	2.50	
					30	0	0.0	3.2	15.0	0	0				
				Steady:	60	0	0.0	3.5	13.1	0	0				
					90	0	0.0	3.4	11.1	0	0				
					120	0	0.0	3.4	10.7	0	0				
					150	0	0.0	3.4	11.1	0	0				
					180	0	0.0	3.4	11.1	0	0				
WS2	31/01/2022 11:10:00	1008	6	Peak:	Initial	0	0.0	3.0	14.6	0	0		1.30	3.00	
					30	0	0.0	2.3	15.5	0	0				
				Steady:	60	0	0.0	2.2	16.8	0	0				
					90	0	0.0	2.3	16.9	0	0				
					120	0	0.0	2.2	16.9	0	0				
					150	0	0.0	2.2	16.9	0	0				
					180	0	0.0	2.2	16.9	0	0				
WS3	31/01/2022 11:20:00	1008	6	Peak:	Initial	0	0.0	0.4	17.0	0	10		1.55	2.80	
					30	0	0.0	0.4	16.1	0	13				
				Steady:	60	0	0.0	0.4	15.7	0	43				
					90	0	0.0	0.4	15.6	0	45				
					120	0	0.0	0.4	15.6	0	51				
					150	0	0.0	0.4	15.6	0	51				
					180	0	0.0	0.4	15.6	0	51				
WS6	31/01/2022 11:30:00	1008	6	Peak:	Initial	0	0.0	6.0	8.0	0	0		Dry	4.70	
					30	0	0.0	8.3	8.8	0	0				
				Steady:	60	0	0.0	8.3	9.1	0	0				
					90	0	0.0	8.3	9.1	0	0				
					120	0	0.0	8.3	9.1	0	0				
					150	0	0.0	8.3	9.1	0	0				
					180	0	0.0	8.3	9.1	0	0				
WS7	31/01/2022 11:40:00	1008	6	Peak:	Initial	0	0.0	2.4	16.1	0	10		0.85	2.90	Hydrocarbon odour noted from well. Slight sheen to water sample.
					30	0	0.0	2.4	4.2	0	11				
				Steady:	60	0	0.0	2.4	3.2	0	10				
					90	0	0.0	2.4	3.0	0	10				
					120	0	0.0	2.4	2.8	0	11				
					150	0	0.0	2.4	2.6	0	10				
					180	0	0.0	2.4	2.6	0	10				
WS10	31/01/2022 11:50:00	1008	6	Peak:	Initial	0	0.0	0.0	19.4	0	0		Dry	4.00	
					30	0	0.0	2.2	17.2	0	0				
				Steady:	60	0	0.0	2.2	17.3	0	0				
					90	0	0.0	2.2	17.2	0	0				
					120	0	0.0	2.2	17.2	0	0				
					150	0	0.0	2.2	17.2	0	0				
					180	0	0.0	2.2	17.2	0	0				

Notes:

QA Checklist:				Ambient Concentration	
				CH ₄	0
				CO ₂	0.1
				O ₂	20.6
				H ₂ S	0
QA Checklist:				CO	0
Gas monitor calibrated	y	Instrument Details:	Serial No.		
All filters in place	y	Landfill Gas Analyser	G507192		
Flow reading stable and zeroed	y	PID			
		Dip meter/ interface probe			





Project:	Varley Street				Weather:	Dry, overcast	
Project Number:	D0108	Date:	07/02/2022		Engineer:	IP	

Monitoring Point Reference	Date / Time	Atmos. Pressure (mbar)	Temp. (°C)	Flow Rate (l/h)	Time (sec)	CH ₄ (% v/v)	LEL (%)	CO ₂ (% v/v)	O ₂ (% v/v)	H ₂ S (ppm)	CO (ppm)	VOC (ppm)	Depth to Water (m bgl)	Depth to base (m bgl)	Comments
WS1	07/02/2022 10:00:00	1012	8	<u>Peak:</u>	Initial	0	0.0	3.9	19.8	0	0		Dry	2.50	
				0.1	30	0	0.0	3.8	16.2	0	0				
					60	0	0.0	3.1	14.5	0	0				
					90	0	0.0	3.1	12.2	0	0				
					120	0	0.0	3.1	11.6	0	0				
				<u>Steady:</u> 0.1	150	0	0.0	3.1	11.6	0	0				
					180	0	0.0	3.1	11.6	0	0				
WS2	07/02/2022 10:10:00	1012	8	<u>Peak:</u>	Initial	0	0.0	2.8	16.1	0	0		1.30	3.00	
				0.2	30	0	0.0	2.2	16.5	0	0				
					60	0	0.0	2.2	16.8	0	0				
					90	0	0.0	2.2	17.0	0	0				
					120	0	0.0	2.2	17.0	0	0				
				<u>Steady:</u> 0.1	150	0	0.0	2.2	17.0	0	0				
					180	0	0.0	2.2	17.0	0	0				
WS3	07/02/2022 10:20:00	1012	8	<u>Peak:</u>	Initial	0	0.0	0.4	17.2	0	10		1.55	2.80	
				0.2	30	0	0.0	0.4	16.3	0	11				
					60	0	0.0	0.4	15.8	0	35				
					90	0	0.0	0.4	15.8	0	35				
					120	0	0.0	0.4	15.8	0	35				
				<u>Steady:</u> 0.1	150	0	0.0	0.4	15.8	0	35				
					180	0	0.0	0.4	15.8	0	35				
WS6	07/02/2022 10:30:00	1012	8	<u>Peak:</u>	Initial	0	0.0	6.0	10.5	0	0		Dry	4.70	
				0.2	30	0	0.0	8.3	9.8	0	0				
					60	0	0.0	8.3	9.8	0	0				
					90	0	0.0	8.3	9.8	0	0				
					120	0	0.0	8.3	9.8	0	0				
				<u>Steady:</u> 0.1	150	0	0.0	8.3	9.8	0	0				
					180	0	0.0	8.3	9.8	0	0				
WS7	07/02/2022 10:40:00	1012	8	<u>Peak:</u>	Initial	0	0.0	2.4	9.7	0	10		0.85	2.90	Hydrocarbon odour noted from well. Slight sheen to water sample.
				0.2	30	0	0.0	2.4	6.2	0	11				
					60	0	0.0	2.4	4.5	0	11				
					90	0	0.0	2.4	4.2	0	11				
					120	0	0.0	2.4	3.9	0	11				
				<u>Steady:</u> 0.1	150	0	0.0	2.4	3.9	0	11				
					180	0	0.0	2.4	3.6	0	11				
WS10	07/02/2022 10:50:00	1012	8	<u>Peak:</u>	Initial	0	0.0	2.2	19.2	0	0		Dry	4.00	
				-0.2	30	0	0.0	2.0	17.4	0	0				
					60	0	0.0	2.0	17.4	0	0				
					90	0	0.0	2.0	17.4	0	0				
					120	0	0.0	2.0	17.4	0	0				
				<u>Steady:</u> -0.1	150	0	0.0	2.0	17.4	0	0				
					180	0	0.0	2.0	17.4	0	0				

Notes:

QA Checklist:				Ambient Concentration	
				CH ₄	0
QA Checklist:		Instrument Details:	Serial No.	CO ₂	0.1
Gas monitor calibrated	Y	Landfill Gas Analyser	G507192	O ₂	20.6
All filters in place	Y	PID		H ₂ S	0
Flow reading stable and zeroed	Y	Dip meter/ interface probe		CO	0



Appendix E – Laboratory Data



Final Report

Report No.:	22-04178-1		
Initial Date of Issue:	10-Feb-2022		
Client	EnviroSolution		
Client Address:	Suite 53 3a Bridgewater Street Liverpool L1 0AB		
Contact(s):	Tom Craig		
Project	Varley Street, Manchester		
Quotation No.:		Date Received:	04-Feb-2022
Order No.:	ES040222	Date Instructed:	07-Feb-2022
No. of Samples:	3		
Turnaround (Wkdays):	5	Results Due:	11-Feb-2022
Date Approved:	10-Feb-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Water

Project: Varley Street, Manchester

Client: EnviroSolution	Chemtest Job No.:				22-04178	22-04178	22-04178
Quotation No.:	Chemtest Sample ID.:				1366059	1366060	1366061
Order No.: ES040222	Client Sample Ref.:				1	1	1
	Sample Location:				WS02	WS03	WS07
	Sample Type:				WATER	WATER	WATER
	Top Depth (m):				1.30	1.55	0.85
	Date Sampled:				01-Feb-2022	01-Feb-2022	01-Feb-2022
Determinand	Accred.	SOP	Units	LOD			
pH	U	1010		N/A	8.4	7.9	7.4
Sulphate	U	1220	mg/l	1.0	53	310	65
Total Hardness as CaCO3	U	1270	mg/l	15	380	590	420
Arsenic (Dissolved)	U	1455	µg/l	0.20	40	97	5.6
Cadmium (Dissolved)	U	1455	µg/l	0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	µg/l	0.50	2.3	5.5	2.0
Copper (Dissolved)	U	1455	µg/l	0.50	0.82	1.1	1.1
Mercury (Dissolved)	U	1455	µg/l	0.05	< 0.05	< 0.05	< 0.05
Nickel (Dissolved)	U	1455	µg/l	0.50	3.8	5.5	3.6
Lead (Dissolved)	U	1455	µg/l	0.50	0.69	< 0.50	< 0.50
Selenium (Dissolved)	U	1455	µg/l	0.50	0.54	0.74	< 0.50
Zinc (Dissolved)	U	1455	µg/l	2.5	23	4.6	2.6
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10	< 10
Dichlorodifluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5	< 5	< 5	< 5
Chloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0

Results - Water

Project: Varley Street, Manchester

Client: EnviroSolution	Chemtest Job No.:				22-04178	22-04178	22-04178
Quotation No.:	Chemtest Sample ID.:				1366059	1366060	1366061
Order No.: ES040222	Client Sample Ref.:				1	1	1
	Sample Location:				WS02	WS03	WS07
	Sample Type:				WATER	WATER	WATER
	Top Depth (m):				1.30	1.55	0.85
	Date Sampled:				01-Feb-2022	01-Feb-2022	01-Feb-2022
Determinand	Accred.	SOP	Units	LOD			
1,1-Dichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5	< 5	< 5	< 5
Trichloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0	< 1.0	6.5	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5	< 5	< 5	< 5
cis-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5	< 5	< 5	< 5
Chlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0

Results - Water

Project: Varley Street, Manchester

Client: EnviroSolution	Chemtest Job No.:				22-04178	22-04178	22-04178
Quotation No.:	Chemtest Sample ID.:				1366059	1366060	1366061
Order No.: ES040222	Client Sample Ref.:				1	1	1
	Sample Location:				WS02	WS03	WS07
	Sample Type:				WATER	WATER	WATER
	Top Depth (m):				1.30	1.55	0.85
	Date Sampled:				01-Feb-2022	01-Feb-2022	01-Feb-2022
Determinand	Accred.	SOP	Units	LOD			
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: Varley Street, Manchester

Client: EnviroSolution	Chemtest Job No.:				22-04178	22-04178	22-04178
Quotation No.:	Chemtest Sample ID.:				1366059	1366060	1366061
Order No.: ES040222	Client Sample Ref.:				1	1	1
	Sample Location:				WS02	WS03	WS07
	Sample Type:				WATER	WATER	WATER
	Top Depth (m):				1.30	1.55	0.85
	Date Sampled:				01-Feb-2022	01-Feb-2022	01-Feb-2022
Determinand	Accred.	SOP	Units	LOD			
Dimethylphthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50	< 0.50	11	14
3-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50	< 0.50	2.6	3.6
4-Chlorophenylphenylether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50	< 0.50	2.1	3.0
Diethyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	0.69
Carbazole	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	N	1790	µg/l	0.50	< 0.50	0.74	0.99
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.:	22-02360-1		
Initial Date of Issue:	28-Jan-2022		
Client	EnviroSolution		
Client Address:	Suite 5, The Quay No 12 Princes Dock Liverpool Waters Liverpool L3 1DL		
Contact(s):	Gemma Lucas Tom Craig		
Project	Varley Street		
Quotation No.:		Date Received:	24-Jan-2022
Order No.:	ES210122	Date Instructed:	24-Jan-2022
No. of Samples:	29		
Turnaround (Wkdays):	5	Results Due:	28-Jan-2022
Date Approved:	28-Jan-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357375	1357376	1357377	1357378	1357379	1357380	1357381	1357382	1357383
	Sample Location:				TP1	TP1	TP2	TP3	TP3	TP4	TP5	TP5	TP6
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	1.3	0.3	0.3	1.0	0.3	0.3	1.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-		-	-		-	-		-
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001									
Total Asbestos	U	2192	%	0.001									
Moisture	N	2030	%	0.020	14	19	19	14	18	15	14	22	18
pH	U	2010		4.0	8.7	8.2	8.5	8.6	8.4	8.5	8.4	8.3	8.3
Arsenic	U	2450	mg/kg	1.0	47	31	20	24	22	32	31	30	11
Cadmium	U	2450	mg/kg	0.10	0.78	0.16	0.28	0.47	0.15	0.32	0.20	0.65	0.52
Chromium	U	2450	mg/kg	1.0	23	23	14	26	22	20	23	20	22
Copper	U	2450	mg/kg	0.50	180	39	66	730	30	100	310	140	34
Mercury	U	2450	mg/kg	0.10	0.79	0.20	0.25	0.86	< 0.10	0.34	0.65	0.35	< 0.10
Nickel	U	2450	mg/kg	0.50	31	34	20	29	33	24	34	31	27
Lead	U	2450	mg/kg	0.50	460	72	160	220	29	290	280	220	76
Selenium	U	2450	mg/kg	0.20	0.58	0.28	0.37	0.73	0.30	0.46	0.43	0.83	0.34
Zinc	U	2450	mg/kg	0.50	270	57	130	160	50	140	240	160	80
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	20	22	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	43	32	< 1.0	6.6
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	27	35	< 1.0	53
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	90	88	< 5.0	59
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	75	6.9	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0	140	52	< 1.0	740	160	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	110	< 1.0	740	270	< 1.0	2300	860	15	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	460	< 1.0	1600	560	< 1.0	4400	2900	7.4	45
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	200	24	< 1.0	360	340	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	580	< 5.0	2700	910	< 5.0	7800	4300	22	45
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	580	< 10	2700	910	< 10	7900	4400	22	100
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357375	1357376	1357377	1357378	1357379	1357380	1357381	1357382	1357383
	Sample Location:				TP1	TP1	TP2	TP3	TP3	TP4	TP5	TP5	TP6
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	1.3	0.3	0.3	1.0	0.3	0.3	1.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357375	1357376	1357377	1357378	1357379	1357380	1357381	1357382	1357383
	Sample Location:				TP1	TP1	TP2	TP3	TP3	TP4	TP5	TP5	TP6
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	1.3	0.3	0.3	1.0	0.3	0.3	1.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	1.9	< 0.50	0.82	< 0.50	< 0.50	0.60	2.9	< 0.50	< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357375	1357376	1357377	1357378	1357379	1357380	1357381	1357382	1357383
	Sample Location:				TP1	TP1	TP2	TP3	TP3	TP4	TP5	TP5	TP6
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	1.3	0.3	0.3	1.0	0.3	0.3	1.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	U	2790	mg/kg	0.50	0.61	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	6.0	2.6	2.2	1.1	< 0.50	2.1	9.0	< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	2.9	2.5	0.94	0.71	< 0.50	1.0	4.8	< 0.50	< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	4.0	1.7	1.5	1.0	< 0.50	1.6	8.3	< 0.50	< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	42	9.1	13	8.2	< 0.50	14	66	2.6	< 0.50
Anthracene	U	2790	mg/kg	0.50	11	1.7	2.5	2.1	< 0.50	3.9	16	< 0.50	< 0.50
Carbazole	U	2790	mg/kg	0.50	2.4	< 0.50	0.62	< 0.50	< 0.50	0.78	3.0	< 0.50	< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	60	3.4	19	14	< 0.50	25	88	3.9	< 0.50
Pyrene	U	2790	mg/kg	0.50	54	2.5	16	13	< 0.50	22	87	4.2	< 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	22	< 0.50	5.8	4.9	< 0.50	9.0	33	2.0	< 0.50
Chrysene	U	2790	mg/kg	0.50	27	< 0.50	7.0	6.6	< 0.50	11	38	1.9	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	30	< 0.50	8.0	7.5	< 0.50	13	43	1.9	< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	10	< 0.50	2.6	2.4	< 0.50	5.1	14	< 0.50	< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	24	< 0.50	5.9	5.7	< 0.50	10	35	1.4	< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	12	< 0.50	2.8	3.2	< 0.50	5.0	16	< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	3.1	< 0.50	0.80	0.62	< 0.50	1.4	4.3	< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	13	< 0.50	3.0	3.3	< 0.50	5.9	17	0.71	< 0.50

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.: 22-02360				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.: 1357384				1357385	1357386	1357387	1357388	1357389	1357390	1357391	1357392	1357392
	Sample Location:				TP7	TP8	TP8	TP9	TP10	TP10	TP11	TP12	TP13
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	0.3	1.5	0.3	0.3	0.7	0.3	0.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-		-	-		-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001									
Total Asbestos	U	2192	%	0.001									
Moisture	N	2030	%	0.020	17	18	28	17	18	23	21	15	21
pH	U	2010		4.0	8.6	8.3	7.8	8.0	8.3	7.3	8.0	8.4	8.4
Arsenic	U	2450	mg/kg	1.0	62	39	89	42	73	11	40	33	14
Cadmium	U	2450	mg/kg	0.10	0.38	0.31	12	0.60	0.48	< 0.10	1.4	1.0	0.22
Chromium	U	2450	mg/kg	1.0	18	17	14	24	29	17	16	14	16
Copper	U	2450	mg/kg	0.50	120	140	2100	110	170	11	140	75	28
Mercury	U	2450	mg/kg	0.10	0.29	0.54	0.51	1.7	0.92	< 0.10	0.51	0.43	0.18
Nickel	U	2450	mg/kg	0.50	29	30	26	30	35	12	22	18	20
Lead	U	2450	mg/kg	0.50	350	230	5300	380	480	17	190	180	85
Selenium	U	2450	mg/kg	0.20	0.55	0.59	1.3	1.2	0.62	< 0.20	0.41	0.37	0.27
Zinc	U	2450	mg/kg	0.50	130	110	520	200	180	27	270	210	58
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	7.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	34	12	< 1.0	< 1.0	13	< 1.0	10	< 1.0	10
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	59	46	< 1.0	< 1.0	17	< 1.0	14	< 1.0	18
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	44	51	< 1.0	< 1.0	25	< 1.0	< 1.0	< 1.0	15
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	160	170	20	48	110	< 1.0	79	33	120
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	170	120	< 1.0	< 1.0	56	< 1.0	41	< 1.0	64
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	470	400	20	48	220	< 5.0	140	33	230
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	7.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	61	70	< 1.0	< 1.0	< 1.0	< 1.0	13	< 1.0	20
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	460	390	< 1.0	13	130	< 1.0	87	< 1.0	170
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	2000	1200	14	130	670	< 1.0	250	100	740
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	5700	3800	69	600	1800	< 1.0	990	470	2500
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	370	190	< 1.0	< 1.0	62	< 1.0	< 1.0	< 1.0	98
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	8600	5700	82	740	2700	< 5.0	1300	570	3600
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	9100	6100	100	790	2900	< 10	1500	600	3800
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357384	1357385	1357386	1357387	1357388	1357389	1357390	1357391	1357392
	Sample Location:				TP7	TP8	TP8	TP9	TP10	TP10	TP11	TP12	TP13
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	0.3	1.5	0.3	0.3	0.7	0.3	0.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.9	8.2
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	27	< 2.0	26	28
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.9	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	13	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	9.3	7.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.7
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	13
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	2.7
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	15	13
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.6	12
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357384	1357385	1357386	1357387	1357388	1357389	1357390	1357391	1357392
	Sample Location:				TP7	TP8	TP8	TP9	TP10	TP10	TP11	TP12	TP13
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	0.3	1.5	0.3	0.3	0.7	0.3	0.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	18	17
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	9.9	< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	1.3	< 0.50	< 0.50	0.94	0.67	< 0.50	< 0.50	1.5	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	1.6	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	2.0
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357384	1357385	1357386	1357387	1357388	1357389	1357390	1357391	1357392
	Sample Location:				TP7	TP8	TP8	TP9	TP10	TP10	TP11	TP12	TP13
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.3	0.3	1.5	0.3	0.3	0.7	0.3	0.5	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:				COVENTRY	COVENTRY		COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	5.4	1.3	< 0.50	3.1	1.8	< 0.50	< 0.50	2.0	6.4
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	2.4	< 0.50	< 0.50	1.6	0.75	< 0.50	< 0.50	0.92	3.0
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	3.8	0.92	< 0.50	2.3	1.3	< 0.50	< 0.50	1.3	4.7
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	30	8.0	2.0	21	15	< 0.50	4.1	41	44
Anthracene	U	2790	mg/kg	0.50	6.0	1.9	< 0.50	4.8	3.4	< 0.50	1.0	3.4	10
Carbazole	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.4	0.99	< 0.50	< 0.50	1.3	3.4
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	38	12	2.4	26	24	< 0.50	6.5	26	61
Pyrene	U	2790	mg/kg	0.50	33	12	2.5	24	21	< 0.50	6.1	24	56
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	11	4.5	1.4	9.0	12	< 0.50	2.3	11	21
Chrysene	U	2790	mg/kg	0.50	13	6.1	1.3	12	11	< 0.50	3.0	12	25
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	14	7.0	1.3	13	12	< 0.50	3.3	13	27
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	1.7	2.2	< 0.50	4.3	4.1	< 0.50	1.1	4.2	9.1
Benzo[a]pyrene	U	2790	mg/kg	0.50	4.6	5.5	1.1	11	10	< 0.50	2.5	9.8	20
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	1.3	3.0	< 0.50	5.6	5.0	< 0.50	1.4	4.8	8.8
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	4.7	0.62	< 0.50	1.2	1.4	< 0.50	< 0.50	1.3	1.9
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	4.7	3.4	< 0.50	6.2	5.6	< 0.50	1.1	5.5	9.3

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.: 22-02360				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.: 1357393				1357393	1357394	1357395	1357396	1357397	1357398	1357399	1357400	1357401
	Sample Location:				TP13	TP14	TP14	TP15	TP16	TP17	TP18	TP18	TP19
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.8	0.3	1.0	0.3	0.3	0.3	0.3	1.2	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:					COVENTRY		COVENTRY	NEW-ASB	COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A		-		-	-	-	-		Fibres/Clumps
Asbestos Identification	U	2192		N/A		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		Chrysotile
Asbestos by Gravimetry	U	2192	%	0.001									0.015
Total Asbestos	U	2192	%	0.001									0.015
Moisture	N	2030	%	0.020	28	16	23	17	17	16	18	22	16
pH	U	2010		4.0	8.0	8.3	8.1	8.2	8.2	8.3	8.4	8.0	8.5
Arsenic	U	2450	mg/kg	1.0	90	120	940	83	77	61	93	8.7	87
Cadmium	U	2450	mg/kg	0.10	3.1	0.51	0.29	0.74	0.86	1.0	0.67	< 0.10	0.26
Chromium	U	2450	mg/kg	1.0	60	20	13	16	32	23	22	26	72
Copper	U	2450	mg/kg	0.50	23	120	160	93	210	140	160	26	210
Mercury	U	2450	mg/kg	0.10	3.8	0.62	8.5	0.50	0.76	0.80	0.86	< 0.10	1.9
Nickel	U	2450	mg/kg	0.50	29	27	25	24	42	35	37	30	82
Lead	U	2450	mg/kg	0.50	67	330	650	400	650	430	410	30	1800
Selenium	U	2450	mg/kg	0.20	< 0.20	0.61	1.7	0.36	0.73	0.57	0.79	< 0.20	0.56
Zinc	U	2450	mg/kg	0.50	61	190	140	210	270	370	260	50	350
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	7.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	14	72	9.2	14	10	11	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	39	130	13	17	19	17	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	42	84	< 1.0	40	13	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	160	210	110	190	190	98	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	66	37	47	56	54	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	320	540	180	320	290	130	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0	24	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	27	7400	14	12	11	8.1	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	200	2500	63	86	130	47	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	720	5900	320	510	440	220	< 1.0	150
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	2200	3900	1200	1900	1700	990	< 1.0	790
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	71	49	< 1.0	73	80	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	3200	20000	1600	2600	2400	1300	< 5.0	940
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	3600	20000	1800	2900	2700	1400	< 10	940
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357393	1357394	1357395	1357396	1357397	1357398	1357399	1357400	1357401
	Sample Location:				TP13	TP14	TP14	TP15	TP16	TP17	TP18	TP18	TP19
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.8	0.3	1.0	0.3	0.3	0.3	0.3	1.2	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:					COVENTRY		COVENTRY	NEW-ASB	COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.2	< 1.0	< 1.0	6.3
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	95	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	25	< 2.0	< 2.0	2.5	< 2.0	< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	110	< 1.0	< 1.0	3.7	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	80	< 1.0	< 1.0	7.1	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	100	< 1.0	< 1.0	9.8	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	120	< 1.0	< 1.0	7.2	< 1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	70	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	180	< 1.0	< 1.0	12	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	220	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.: 22-02360				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.: 1357393				1357393	1357394	1357395	1357396	1357397	1357398	1357399	1357400	1357401
	Sample Location: TP13				TP13	TP14	TP14	TP15	TP16	TP17	TP18	TP18	TP19
	Sample Type: SOIL				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m): 0.8				0.8	0.3	1.0	0.3	0.3	0.3	0.3	1.2	0.3
	Date Sampled: 17-Jan-2022				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:					COVENTRY		COVENTRY	NEW-ASB	COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	140	< 1.0	< 1.0	12	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	37	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	< 0.50	4.8	3000	3.6	3.1	3.6	7.3	< 0.50	1.1
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	< 0.50	3.2	42	1.5	1.7	2.5	8.5	< 0.50	0.99
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357393	1357394	1357395	1357396	1357397	1357398	1357399	1357400	1357401
	Sample Location:				TP13	TP14	TP14	TP15	TP16	TP17	TP18	TP18	TP19
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.8	0.3	1.0	0.3	0.3	0.3	0.3	1.2	0.3
	Date Sampled:				17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
	Asbestos Lab:					COVENTRY		COVENTRY	NEW-ASB	COVENTRY	COVENTRY		COVENTRY
Determinand	Accred.	SOP	Units	LOD									
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	0.69	1.6	< 0.50	0.70	1.1	< 0.50	< 0.50	0.78
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	< 0.50	10	95	4.4	5.2	7.2	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17	< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	< 0.50	5.0	76	2.2	2.4	3.1	11	< 0.50	1.5
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	< 0.50	7.9	87	3.5	3.9	5.1	13	< 0.50	2.4
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	< 0.50	63	320	35	41	49	93	< 0.50	16
Anthracene	U	2790	mg/kg	0.50	< 0.50	16	44	8.1	10	12	25	< 0.50	5.2
Carbazole	U	2790	mg/kg	0.50	< 0.50	4.8	9.2	2.6	3.4	3.2	4.8	< 0.50	1.0
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	< 0.50	80	100	51	59	71	93	< 0.50	23
Pyrene	U	2790	mg/kg	0.50	< 0.50	74	78	50	56	68	80	< 0.50	21
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	< 0.50	29	16	19	22	27	30	< 0.50	8.4
Chrysene	U	2790	mg/kg	0.50	< 0.50	35	20	25	28	34	35	< 0.50	11
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	< 0.50	40	18	28	32	38	37	< 0.50	11
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	< 0.50	14	5.8	8.6	11	13	13	< 0.50	4.2
Benzo[a]pyrene	U	2790	mg/kg	0.50	< 0.50	30	16	23	25	30	29	< 0.50	8.9
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	< 0.50	15	6.3	10	13	15	13	< 0.50	4.4
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	< 0.50	4.4	1.8	2.7	3.4	4.2	3.4	< 0.50	1.1
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	< 0.50	16	7.5	12	14	16	5.3	< 0.50	4.6

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357402	1357403
	Sample Location:				WS4	WS6
	Sample Type:				SOIL	SOIL
	Top Depth (m):				3.8	0.6
	Date Sampled:				17-Jan-2022	17-Jan-2022
	Asbestos Lab:					
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A		
Asbestos Identification	U	2192		N/A		
Asbestos by Gravimetry	U	2192	%	0.001		
Total Asbestos	U	2192	%	0.001		
Moisture	N	2030	%	0.020	17	17
pH	U	2010		4.0	8.6	8.3
Arsenic	U	2450	mg/kg	1.0	24	250
Cadmium	U	2450	mg/kg	0.10	0.13	1.0
Chromium	U	2450	mg/kg	1.0	25	15
Copper	U	2450	mg/kg	0.50	27	130
Mercury	U	2450	mg/kg	0.10	0.11	0.64
Nickel	U	2450	mg/kg	0.50	36	27
Lead	U	2450	mg/kg	0.50	52	330
Selenium	U	2450	mg/kg	0.20	0.24	0.71
Zinc	U	2450	mg/kg	0.50	59	400
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20	< 20	< 20

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357402	1357403
	Sample Location:				WS4	WS6
	Sample Type:				SOIL	SOIL
	Top Depth (m):				3.8	0.6
	Date Sampled:				17-Jan-2022	17-Jan-2022
	Asbestos Lab:					
Determinand	Accred.	SOP	Units	LOD		
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0	6.3	< 1.0
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	3.6	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357402	1357403
	Sample Location:				WS4	WS6
	Sample Type:				SOIL	SOIL
	Top Depth (m):				3.8	0.6
	Date Sampled:				17-Jan-2022	17-Jan-2022
	Asbestos Lab:					
Determinand	Accred.	SOP	Units	LOD		
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	< 0.50	0.62
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	< 0.50	0.63
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50

Results - Soil

Project: Varley Street

Client: EnviroSolution	Chemtest Job No.:				22-02360	22-02360
Quotation No.:	Chemtest Sample ID.:				1357402	1357403
	Sample Location:				WS4	WS6
	Sample Type:				SOIL	SOIL
	Top Depth (m):				3.8	0.6
	Date Sampled:				17-Jan-2022	17-Jan-2022
	Asbestos Lab:					
Determinand	Accred.	SOP	Units	LOD		
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	< 0.50	2.3
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	< 0.50	1.2
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	< 0.50	2.0
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	< 0.50	18
Anthracene	U	2790	mg/kg	0.50	< 0.50	3.3
Carbazole	U	2790	mg/kg	0.50	< 0.50	1.9
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	< 0.50	9.0
Pyrene	U	2790	mg/kg	0.50	< 0.50	9.1
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	< 0.50	2.8
Chrysene	U	2790	mg/kg	0.50	< 0.50	2.8
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	< 0.50	2.1
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	< 0.50	0.67
Benzo[a]pyrene	U	2790	mg/kg	0.50	< 0.50	1.8
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	< 0.50	< 0.50

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

Laboratory:
Unit 4
Rose Lane Industrial Estate
Lenham Heath
Kent ME17 2JN
01622 851176



TEST REPORT

Report No:
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XTE 60792

TEST REPORT OF PLASTICITY INDEX

Method: BS 1377-2:1990 Method 4.4 Liquid Limit One Point
Method: BS 1377-2:1990 Method 5.3 Plastic Limit
Method: BS 1377-2:1990 Method 5.4 Plasticity Index

XTRATEC SAMPLE REF | XTE 60792
CUSTOMER/SITE SAMPLE REF | 583108

CLIENT | DETS Ltd
SITE | Varley Street
SOIL DESCRIPTION | Red, orange Clay
SUPPLIER/SOURCE | Insitu
SAMPLING LOCATION | TP4 @ 1.20m

SAMPLING METHOD | Unknown
SAMPLED BY | Client
TYPE OF SAMPLE | Bulk
DATE SAMPLED | 17 January 2022
DATE RECEIVED | 24 January 2022
DATE TESTED | 25 January 2022
PREPARATION METHOD | Tested by Wet Sieving

TEST RESULTS	
Percentage Retained 425um (%)	1
Liquid Limit	55
Plastic Limit	21
Plasticity Index	34

REMARKS:

ISSUE TO: DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane, Lenham Heath
Maidstone
ME17 2JN

DATE: 02 February 2022

AUTHORISED BY: A Schofield Quality
Manager

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TEST REPORT

Report No:
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XTE 60792

TEST REPORT OF MOISTURE CONTENT OF SOILS

Method: BS 1377-2:1990, Method 3.2.3.3, Oven Drying

XTRATEC SAMPLE REF | XTE 60792
CUSTOMER/SITE SAMPLE REF | 583108

CLIENT	DETS Ltd
SITE	Varley Street
TYPE OF MATERIAL	For Classification
SOIL DESCRIPTION	Red, orange Clay
SPECIFICATION	For Classification
SUPPLIER/SOURCE	Insitu
SAMPLING LOCATION	TP4 @ 1.20m
SAMPLING METHOD	Unknown
SAMPLED BY	Client
TYPE OF SAMPLE	Bulk
DATE SAMPLED	17 January 2022
DATE RECEIVED	24 January 2022
DATE TESTED	25 January 2022
PREPARATION METHOD	BS 1377-1. 7.3.5.2 (Sub dividing)

TEST RESULTS	
Moisture Content (%)	27.6

REMARKS:

ISSUE TO: DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane, Lenham Heath
Maidstone
ME17 2JN

DATE: 02 February 2022

AUTHORISED BY: A Schofield Quality
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TEST REPORT

Report No:
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XTE 60793

TEST REPORT OF PLASTICITY INDEX

Method: BS 1377-2:1990 Method 4.4 Liquid Limit One Point
Method: BS 1377-2:1990 Method 5.3 Plastic Limit
Method: BS 1377-2:1990 Method 5.4 Plasticity Index

XTRATEC SAMPLE REF | XTE 60793
CUSTOMER/SITE SAMPLE REF | 583109

CLIENT | DETS Ltd
SITE | Varley Street
SOIL DESCRIPTION | Brown, orange Clay
SUPPLIER/SOURCE | Insitu
SAMPLING LOCATION | TP13 @ 1.20m

SAMPLING METHOD | Unknown
SAMPLED BY | Client
TYPE OF SAMPLE | Bulk
DATE SAMPLED | 18 January 2022
DATE RECEIVED | 24 January 2022
DATE TESTED | 25 January 2022
PREPARATION METHOD | Tested by Wet Sieving

TEST RESULTS	
Percentage Retained 425um (%)	1
Liquid Limit	57
Plastic Limit	23
Plasticity Index	34

REMARKS:

ISSUE TO: DETS Ltd
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ME17 2JN

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TEST REPORT

Report No:
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XTE 60793

TEST REPORT OF MOISTURE CONTENT OF SOILS

Method: BS 1377-2:1990, Method 3.2.3.3. Oven Drying

XTRATEC SAMPLE REF | XTE 60793
CUSTOMER/SITE SAMPLE REF | 583109

CLIENT	DETS Ltd
SITE	Varley Street
TYPE OF MATERIAL	For Classification
SOIL DESCRIPTION	Brown, orange Clay
SPECIFICATION	For Classification
SUPPLIER/SOURCE	Insitu
SAMPLING LOCATION	TP13 @ 1.20m
SAMPLING METHOD	Unknown
SAMPLED BY	Client
TYPE OF SAMPLE	Bulk
DATE SAMPLED	17 January 2022
DATE RECEIVED	24 January 2022
DATE TESTED	25 January 2022
PREPARATION METHOD	BS 1377-1. 7.3.5.2 (Sub dividing)

TEST RESULTS	
Moisture Content (%)	32.0

REMARKS:

ISSUE TO: DETS Ltd
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TEST REPORT

Report No:
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XTE 60794

TEST REPORT OF PLASTICITY INDEX

Method: BS 1377-2:1990 Method 4.4 Liquid Limit One Point
Method: BS 1377-2:1990 Method 5.3 Plastic Limit
Method: BS 1377-2:1990 Method 5.4 Plasticity Index

XTRATEC SAMPLE REF | XTE 60794
CUSTOMER/SITE SAMPLE REF | 583110

CLIENT | DETS Ltd
SITE | Varley Street
SOIL DESCRIPTION | Brown Clay
SUPPLIER/SOURCE | Insitu
SAMPLING LOCATION | WS1 @ 3.50m

SAMPLING METHOD | Unknown
SAMPLED BY | Client
TYPE OF SAMPLE | Bulk
DATE SAMPLED | 17 January 2022
DATE RECEIVED | 24 January 2022
DATE TESTED | 25 January 2022
PREPARATION METHOD | Tested by Wet Sieving

TEST RESULTS	
Percentage Retained 425um (%)	1
Liquid Limit	47
Plastic Limit	19
Plasticity Index	28

REMARKS:

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TEST REPORT

Report No:
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XTE 60794

TEST REPORT OF MOISTURE CONTENT OF SOILS

Method: BS 1377-2:1990, Method 3.2.3.3. Oven Drying

XTRATEC SAMPLE REF | XTE 60794
CUSTOMER/SITE SAMPLE REF | 583110

CLIENT	DETS Ltd
SITE	Varley Street
TYPE OF MATERIAL	For Classification
SOIL DESCRIPTION	Brown Clay
SPECIFICATION	For Classification
SUPPLIER/SOURCE	Insitu
SAMPLING LOCATION	WS1 @ 3.50m
SAMPLING METHOD	Unknown
SAMPLED BY	Client
TYPE OF SAMPLE	Bulk
DATE SAMPLED	17 January 2022
DATE RECEIVED	24 January 2022
DATE TESTED	25 January 2022
PREPARATION METHOD	BS 1377-1. 7.3.5.2 (Sub dividing)

TEST RESULTS	
Moisture Content (%)	21.5

REMARKS:

ISSUE TO: DETS Ltd
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TEST REPORT

Report No:
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XTE 60795

TEST REPORT OF PLASTICITY INDEX

Method: BS 1377-2:1990 Method 4.4 Liquid Limit One Point
Method: BS 1377-2:1990 Method 5.3 Plastic Limit
Method: BS 1377-2:1990 Method 5.4 Plasticity Index

XTRATEC SAMPLE REF | XTE 60795
CUSTOMER/SITE SAMPLE REF | 583111

CLIENT | DETS Ltd
SITE | Varley Street
SOIL DESCRIPTION | Brown Clay
SUPPLIER/SOURCE | Insitu
SAMPLING LOCATION | WS3 @ 2.80m

SAMPLING METHOD | Unknown
SAMPLED BY | Client
TYPE OF SAMPLE | Bulk
DATE SAMPLED | 17 January 2022
DATE RECEIVED | 24 January 2022
DATE TESTED | 25 January 2022
PREPARATION METHOD | Tested by Wet Sieving

TEST RESULTS	
Percentage Retained 425um (%)	2
Liquid Limit	46
Plastic Limit	20
Plasticity Index	26

REMARKS:

ISSUE TO: DETS Ltd
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Rose Lane, Lenham Heath
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ME17 2JN

DATE: 02 February 2022


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TEST REPORT

Report No:
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XTE 60795

TEST REPORT OF MOISTURE CONTENT OF SOILS

Method: BS 1377-2:1990, Method 3.2.3.3. Oven Drying

XTRATEC SAMPLE REF | XTE 60795
CUSTOMER/SITE SAMPLE REF | 583111

CLIENT	DETS Ltd
SITE	Varley Street
TYPE OF MATERIAL	For Classification
SOIL DESCRIPTION	Brown Clay
SPECIFICATION	For Classification
SUPPLIER/SOURCE	Insitu
SAMPLING LOCATION	WS3 @ 2.80m
SAMPLING METHOD	Unknown
SAMPLED BY	Client
TYPE OF SAMPLE	Bulk
DATE SAMPLED	17 January 2022
DATE RECEIVED	24 January 2022
DATE TESTED	25 January 2022
PREPARATION METHOD	BS 1377-1. 7.3.5.2 (Sub dividing)

TEST RESULTS	
Moisture Content (%)	21.3

REMARKS:

ISSUE TO: DETS Ltd
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ME17 2JN

DATE: 02 February 2022


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01622 851176



TEST REPORT

Report No:
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XTE 60796

TEST REPORT OF PLASTICITY INDEX

Method: BS 1377-2:1990 Method 4.4 Liquid Limit One Point
Method: BS 1377-2:1990 Method 5.3 Plastic Limit
Method: BS 1377-2:1990 Method 5.4 Plasticity Index

XTRATEC SAMPLE REF | XTE 60796
CUSTOMER/SITE SAMPLE REF | 583112

CLIENT | DETS Ltd
SITE | Varley Street
SOIL DESCRIPTION | Brown Clay
SUPPLIER/SOURCE | Insitu
SAMPLING LOCATION | WS7 @ 2.50m

SAMPLING METHOD | Unknown
SAMPLED BY | Client
TYPE OF SAMPLE | Bulk
DATE SAMPLED | 18 January 2022
DATE RECEIVED | 24 January 2022
DATE TESTED | 25 January 2022
PREPARATION METHOD | Tested by Wet Sieving

TEST RESULTS	
Percentage Retained 425um (%)	4
Liquid Limit	47
Plastic Limit	20
Plasticity Index	27

REMARKS:

ISSUE TO: DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane, Lenham Heath
Maidstone
ME17 2JN

DATE: 02 February 2022


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01622 851176



TEST REPORT

Report No:
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XTE 60796

TEST REPORT OF MOISTURE CONTENT OF SOILS

Method: BS 1377-2:1990, Method 3.2.3.3. Oven Drying

XTRATEC SAMPLE REF | XTE 60796
CUSTOMER/SITE SAMPLE REF | 583112

CLIENT	DETS Ltd
SITE	Varley Street
TYPE OF MATERIAL	For Classification
SOIL DESCRIPTION	Brown Clay
SPECIFICATION	For Classification
SUPPLIER/SOURCE	Insitu
SAMPLING LOCATION	WS7 @ 2.50m
SAMPLING METHOD	Unknown
SAMPLED BY	Client
TYPE OF SAMPLE	Bulk
DATE SAMPLED	18 January 2022
DATE RECEIVED	24 January 2022
DATE TESTED	25 January 2022
PREPARATION METHOD	BS 1377-1. 7.3.5.2 (Sub dividing)

TEST RESULTS	
Moisture Content (%)	17.8

REMARKS:

ISSUE TO: DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane, Lenham Heath
Maidstone
ME17 2JN

DATE: 02 February 2022


AUTHORISED BY: A Schofield Quality
Manager

The results reported represents only the material tested supplied to the laboratory or if the material has been sampled by Xtratec the quantity of the material represented by the sample.
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Laboratory:
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Rose Lane Industrial Estate
Lenham Heath
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01622 851176



TEST REPORT

Report No:
Page 1 of 1

XTE 60797

TEST REPORT OF PLASTICITY INDEX

Method: BS 1377-2:1990 Method 4.4 Liquid Limit One Point
Method: BS 1377-2:1990 Method 5.3 Plastic Limit
Method: BS 1377-2:1990 Method 5.4 Plasticity Index

XTRATEC SAMPLE REF | XTE 60797
CUSTOMER/SITE SAMPLE REF | 583113

CLIENT | DETS Ltd
SITE | Varley Street
SOIL DESCRIPTION | Brown Clay
SUPPLIER/SOURCE | Insitu
SAMPLING LOCATION | WS10 @ 2.50m

SAMPLING METHOD | Unknown
SAMPLED BY | Client
TYPE OF SAMPLE | Bulk
DATE SAMPLED | 18 January 2022
DATE RECEIVED | 24 January 2022
DATE TESTED | 25 January 2022
PREPARATION METHOD | Tested by Wet Sieving

TEST RESULTS	
Percentage Retained 425um (%)	2
Liquid Limit	47
Plastic Limit	19
Plasticity Index	28

REMARKS:

ISSUE TO: DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane, Lenham Heath
Maidstone
ME17 2JN

DATE: 02 February 2022

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TEST REPORT

Report No:
Page 1 of 1

XTE 60797

TEST REPORT OF MOISTURE CONTENT OF SOILS

Method: BS 1377-2:1990, Method 3.2.3.3. Oven Drying

XTRATEC SAMPLE REF | XTE 60797
CUSTOMER/SITE SAMPLE REF | 583113

CLIENT	DETS Ltd
SITE	Varley Street
TYPE OF MATERIAL	For Classification
SOIL DESCRIPTION	Brown Clay
SPECIFICATION	For Classification
SUPPLIER/SOURCE	Insitu
SAMPLING LOCATION	WS10 @ 2.50m
SAMPLING METHOD	Unknown
SAMPLED BY	Client
TYPE OF SAMPLE	Bulk
DATE SAMPLED	18 January 2022
DATE RECEIVED	24 January 2022
DATE TESTED	25 January 2022
PREPARATION METHOD	BS 1377-1, 7.3.5.2 (Sub dividing)

TEST RESULTS	
Moisture Content (%)	17.8

REMARKS:

ISSUE TO: DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane, Lenham Heath
Maidstone
ME17 2JN

DATE: 02 February 2022


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Envirosolution Ltd
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Derwentside Environmental Testing Services Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 22-00641

Site Reference: Varley Street

Project / Job Ref: Varley Street

Order No: ES210122

Sample Receipt Date: 21/01/2022

Sample Scheduled Date: 24/01/2022

Report Issue Number: 1

Reporting Date: 28/01/2022

Authorised by:

Dave Ashworth
Technical Manager

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

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



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Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 22-00641	Date Sampled	17/01/22	17/01/22	18/01/22	17/01/22	17/01/22
Envirosolution Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Varley Street	TP / BH No	TP3	TP8	TP18	WS1	WS2
Project / Job Ref: Varley Street	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: ES210122	Depth (m)	1.20	0.50	1.30	2.00	2.00
Reporting Date: 28/01/2022	DETS Sample No	583100	583101	583102	583103	583104

Determinand	Unit	RL	Accreditation	(n)				
pH	pH Units	N/a	MCERTS	7.7	7.6	7.2	7.6	8.0
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	1173	3182	778	2791	721
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.12	0.32	0.08	0.28	0.07
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	43	239	261	325	30
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.04	0.24	0.26	0.32	0.03
Total Sulphur	%	< 0.02	NONE	0.08	0.23	0.03	0.41	0.08
Ammonium as NH ₄	mg/kg	< 0.5	MCERTS	1.8	1.6	1.8	1.9	20.2
Ammonium as NH ₄	mg/l	< 0.05	MCERTS	0.18	0.16	0.18	0.19	2.02
W/S Chloride (2:1)	mg/kg	< 1	MCERTS	14	6	26	6	9
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS	6.9	3.2	13.1	3	4.3
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Water Soluble Nitrate (2:1) as NO ₃	mg/l	< 1.5	MCERTS	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
W/S Magnesium	mg/l	< 0.1	NONE	3.1	3.7	9.6	5.3	4.4

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

Subcontracted analysis (S)

(n) Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation



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Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 22-00641	Date Sampled	18/01/22	18/01/22	18/01/22		
Envirosolution Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Varley Street	TP / BH No	WS7	WS8	WS10		
Project / Job Ref: Varley Street	Additional Refs	None Supplied	None Supplied	None Supplied		
Order No: ES210122	Depth (m)	1.00	0.60	2.00		
Reporting Date: 28/01/2022	DETS Sample No	583105	583106	583107		

Determinand	Unit	RL	Accreditation				
pH	pH Units	N/a	MCERTS	7.5	6.8	7.9	
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	3417	426	349	
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.34	0.04	0.03	
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	179	13	54	
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.18	0.01	0.05	
Total Sulphur	%	< 0.02	NONE	0.76	0.03	< 0.02	
Ammonium as NH ₄	mg/kg	< 0.5	MCERTS	20	1.9	1.7	
Ammonium as NH ₄	mg/l	< 0.05	MCERTS	2	0.19	0.17	
W/S Chloride (2:1)	mg/kg	< 1	MCERTS	9	5	28	
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS	4.6	2.5	14	
Water Soluble Nitrate (2:1) as NO ₃	mg/kg	< 3	MCERTS	< 3	< 3	< 3	
Water Soluble Nitrate (2:1) as NO ₃	mg/l	< 1.5	MCERTS	< 1.5	< 1.5	< 1.5	
W/S Magnesium	mg/l	< 0.1	NONE	3.1	0.8	7	

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



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 22-00641	
Envirosolution Ltd	
Site Reference: Varley Street	
Project / Job Ref: Varley Street	
Order No: ES210122	
Reporting Date: 28/01/2022	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
583100	TP3	None Supplied	1.20	16.9	Black loamy sand with stones
583101	TP8	None Supplied	0.50	14.8	Black loamy sand with stones and concrete
583102	TP18	None Supplied	1.30	18.1	Brown sandy clay with stones
583103	WS1	None Supplied	2.00	19.9	Black sandy gravel with stones and concrete
583104	WS2	None Supplied	2.00	18.1	Brown sandy clay with brick
583105	WS7	None Supplied	1.00	25.7	Black loamy sand with vegetation
583106	WS8	None Supplied	0.60	17.3	Brown sandy clay with stones
583107	WS10	None Supplied	2.00	13.5	Brown clay

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

Insufficient Sample ^{I/S}

Unsuitable Sample ^{U/S}



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Soil Analysis Certificate - Methodology & Miscellaneous Information	
DETS Report No: 22-00641	
Envirosolution Ltd	
Site Reference: Varley Street	
Project / Job Ref: Varley Street	
Order No: ES210122	
Reporting Date: 28/01/2022	

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

D Dried
AR As Received

Appendix F – Tier 1 Human Health Assessment

Sample Location:					TP1	TP1	TP2	TP3	TP3	TP4	TP5	TP5	TP6	TP7	TP8	TP8	TP9	TP10	TP10
Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Top Depth (m):					0.3m	1.3m	0.3m	0.3m	1.0m	0.3m	0.3m	1.5m	0.3m	0.3m	0.3m	1.5m	0.3m	0.3m	0.7m
Date Sampled:					17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
Determinand	Unit	LOD	Residential GAC	Commercial GAC															
Moisture	%	0.020			14	19	19	14	18	15	14	22	18	17	18	28	17	18	23
pH		4.0			8.7	8.2	8.5	8.6	8.4	8.5	8.4	8.3	8.3	8.6	8.3	7.8	8.0	8.3	7.3
Heavy Metals																			
Arsenic	mg/kg	1.0	40	640	47	31	20	24	22	32	31	30	11	62	39	89	42	73	11
Cadmium	mg/kg	0.10	85	190	0.78	0.16	0.28	0.47	0.15	0.32	0.20	0.65	0.52	0.38	0.31	12	0.60	0.48	< 0.10
Chromium	mg/kg	1.0	910	8600	23	23	14	26	22	20	23	20	22	18	17	14	24	29	17
Copper	mg/kg	0.50	7100	68000	180	39	66	730	30	100	310	140	34	120	140	2100	110	170	11
Mercury	mg/kg	0.10	1.2	58	0.79	0.20	1.25	0.86	< 0.10	0.34	0.65	0.35	< 0.10	0.29	0.54	0.51	1.7	0.92	< 0.10
Nickel	mg/kg	0.50	180	980	31	34	20	29	33	24	34	31	27	29	30	26	30	35	12
Lead	mg/kg	0.50	310	2300	460	72	160	220	29	290	280	220	76	350	230	5300	380	480	17
Selenium	mg/kg	0.20	430	12000	0.58	0.28	0.37	0.73	0.30	0.46	0.43	0.83	0.34	0.55	0.59	1.3	1.2	0.62	< 0.20
Zinc	mg/kg	0.50	40000	730000	270	57	130	160	50	140	240	160	80	130	110	520	200	180	27
TPH CWG																			
Aliphatic TPH >C8-C10	mg/kg	1.0	27	2000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	mg/kg	1.0	130	9700	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	34	12	< 1.0	< 1.0	13	< 1.0
Aliphatic TPH >C12-C16	mg/kg	1.0	1100	59000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	20	22	< 1.0	< 1.0	59	46	< 1.0	< 1.0	17	< 1.0
Aliphatic TPH >C16-C21	mg/kg	1.0	65000	1600000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	43	32	< 1.0	6.6	44	51	< 1.0	< 1.0	25	< 1.0
Aliphatic TPH >C21-C35	mg/kg	1.0	65000	1600000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	27	35	< 1.0	53	160	170	20	48	110	< 1.0
Aliphatic TPH >C35-C44	mg/kg	1.0	65000	1600000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	170	120	< 1.0	< 1.0	56	< 1.0
Total Aliphatic Hydrocarbons	mg/kg	5.0			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	90	88	< 5.0	59	470	400	20	48	220	< 5.0
Aromatic TPH >C8-C10	mg/kg	1.0	47	3500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	mg/kg	1.0	250	16000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	75	6.9	< 1.0	< 1.0	61	70	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	mg/kg	1.0	1800	36000	< 1.0	< 1.0	140	52	< 1.0	740	160	< 1.0	< 1.0	460	390	< 1.0	13	130	< 1.0
Aromatic TPH >C16-C21	mg/kg	1.0	1900	28000	110	< 1.0	740	270	< 1.0	2300	860	15	< 1.0	2000	1200	14	130	670	< 1.0
Aromatic TPH >C21-C35	mg/kg	1.0	1900	28000	460	< 1.0	1600	560	< 1.0	4400	2900	7.4	45	5700	3800	69	600	1800	< 1.0
Aromatic TPH >C35-C44	mg/kg	1.0	1900	28000	< 1.0	< 1.0	200	24	< 1.0	360	340	< 1.0	< 1.0	370	190	< 1.0	< 1.0	62	< 1.0
Total Aromatic Hydrocarbons	mg/kg	5.0			580	< 5.0	2700	910	< 5.0	7800	4300	22	45	8600	5700	82	740	2700	< 5.0
Total Petroleum Hydrocarbons	mg/kg	10.0			580	< 10	2700	910	< 10	7900	4400	22	100	9100	6100	100	790	2900	< 10
SVOCs																			
1,2-Dichloroethane	µg/kg	2.0			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	27
Naphthalene	mg/kg	0.50	2.3	190	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	< 0.50	< 0.50	1.3	< 0.50	< 0.50	0.94	0.67	< 0.50
2-Methylnaphthalene	mg/kg	0.50			1.9	< 0.50	0.82	< 0.50	< 0.50	0.60	2.9	< 0.50	< 0.50	1.6	< 0.50	< 0.50	1.2	< 0.50	< 0.50
Acenaphthylene	mg/kg	0.50	2900	83000	0.61	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	mg/kg	0.50	3000	84000	6.0	2.6	2.2	1.1	< 0.50	2.1	9.0	< 0.50	< 0.50	5.4	1.3	< 0.50	3.1	1.8	< 0.50
Dibenzofuran	mg/kg	0.50			2.9	2.5	0.94	0.71	< 0.50	1.0	4.8	< 0.50	< 0.50	2.4	< 0.50	< 0.50	1.6	0.75	< 0.50
Fluorene	mg/kg	0.50	2800	63000	4.0	1.7	1.5	1.0	< 0.50	1.6	8.3	< 0.50	< 0.50	3.8	0.92	< 0.50	2.3	1.3	< 0.50
Phenanthrene	mg/kg	0.50	1300	22000	42	9.1	13	8.2	< 0.50	14	66	2.6	< 0.50	30	8.0	2.0	21	15	< 0.50
Anthracene	mg/kg	0.50	31000	520000	11	1.7	2.5	2.1	< 0.50	3.9	16	< 0.50	< 0.50	6.0	1.9	< 0.50	4.8	3.4	< 0.50
Carbazole	mg/kg	0.50			2.4	< 0.50	0.62	< 0.50	< 0.50	0.78	3.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	0.99	< 0.50
Fluoranthene	mg/kg	0.50	1500	23000	60	3.4	19	14	< 0.50	25	88	3.9	< 0.50	38	12	2.4	26	24	< 0.50
Pyrene	mg/kg	0.50	3700	54000	54	2.5	16	13	< 0.50	22	87	4.2	< 0.50	33	12	2.5	24	21	< 0.50
Benzo[a]anthracene	mg/kg	0.50	11	170	22	< 0.50	5.8	4.9	< 0.50	9.0	33	2.0	< 0.50	11	4.5	1.4	9.0	12	< 0.50
Chrysene	mg/kg	0.50	30	350	27	< 0.50	7.0	6.6	< 0.50	11	38	1.9	< 0.50	13	6.1	1.3	12	11	< 0.50
Benzo[b]fluoranthene	mg/kg	0.50	3.9	44	30	< 0.50	8.0	7.5	< 0.50	13	43	1.9	< 0.50	14	7.0	1.3	13	12	< 0.50
Benzo[k]fluoranthene	mg/kg	0.50	110	1200	10	< 0.50	2.6	2.4	< 0.50	5.1	14	< 0.50	< 0.50	1.7	2.2	< 0.50	4.3	4.1	< 0.50
Benzo[a]pyrene	mg/kg	0.50	3.2	35	24	< 0.50	5.9	5.7	< 0.50	10	35	1.4	< 0.50	4.6	5.5	1.1	11	10	< 0.50
Indeno(1,2,3-c,d)Pyrene	mg/kg	0.50	45	500	12	< 0.50	2.8	3.2	< 0.50	5.0	16	< 0.50	< 0.50	1.3	3.0	< 0.50	5.6	5.0	< 0.50
Dibenz[a,h]Anthracene	mg/kg	0.50	0.31	3.5	3.1	< 0.50	0.80	0.62	< 0.50	1.4	4.3	< 0.50	< 0.50	4.7	0.62	< 0.50	1.2	1.4	< 0.50
Benzo[g,h,i]perylene	mg/kg	0.50	360	3900	13	< 0.50	3.0	3.3	< 0.50	5.9	17	0.71	< 0.50	4.7	3.4	< 0.50	6.2	5.6	< 0.50
Notes:																			
Only those determinands that have been detected at concentrations in excess of LoD have been included in the table																			
GAC = Human health generic assessment criteria for residential land use with plant uptake																			
	GAC Exceedance of Residential GAC only																		
	GAC Exceedance of Residential GAC and Commercial GAC																		

Sample Location:					TP11	TP12	TP13	TP13	TP14	TP14	TP15	TP16	TP17	TP18	TP18	TP19	WS4	WS6
Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Top Depth (m):					0.3m	0.5m	0.3m	0.8m	0.3m	1.0m	0.3m	0.3m	0.3m	0.3m	1.2m	0.3m	3.8m	0.6m
Date Sampled:					17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
Determinand	Units	LOD	Residential GAC	Commercial GAC														
ACM Type		N/A			-	-	-		-		-	-	-	-		Fibres/Clumps		
Asbestos Identification		N/A			No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		Chrysotile		
Asbestos by Gravimetry	%	0.001														0.015		
Total Asbestos	%	0.001														0.015		
Moisture	%	0.020			21	15	21	28	16	23	17	17	16	18	22	16	17	17
pH		4.0			8.0	8.4	8.4	8.0	8.3	8.1	8.2	8.2	8.3	8.4	8.0	8.5	8.6	8.3
Heavy Metals																		
Arsenic	mg/kg	1.0	40	640	40	33	14	90	120	940	83	77	61	93	8.7	87	24	250
Cadmium	mg/kg	0.10	85	190	1.4	1.0	0.22	3.1	0.51	0.29	0.74	0.86	1.0	0.67	< 0.10	0.26	0.13	1.0
Chromium	mg/kg	1.0	910	8600	16	14	16	60	20	13	16	32	23	22	26	72	25	15
Copper	mg/kg	0.50	7100	68000	140	75	28	23	120	160	93	210	140	160	26	210	27	130
Mercury	mg/kg	0.10	1.2	58	0.51	0.43	0.18	3.8	0.62	8.5	0.50	0.76	0.80	0.86	< 0.10	1.9	0.11	0.64
Nickel	mg/kg	0.50	180	980	22	18	20	29	27	25	24	42	35	37	30	82	36	27
Lead	mg/kg	0.50	310	2300	190	180	85	67	330	650	400	650	430	410	30	1800	52	330
Selenium	mg/kg	0.20	430	12000	0.41	0.37	0.27	< 0.20	0.61	1.7	0.36	0.73	0.57	0.79	< 0.20	0.56	0.24	0.71
Zinc	mg/kg	0.50	40000	730000	270	210	58	61	190	140	210	270	370	260	50	350	59	400
TPH CWG																		
Aliphatic TPH >C8-C10	mg/kg	1.0	27	2000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	mg/kg	1.0	130	9700	10	< 1.0	10	< 1.0	14	72	9.2	14	10	11	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	mg/kg	1.0	1100	59000	14	< 1.0	18	< 1.0	39	130	13	17	19	17	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	mg/kg	1.0	65000	1600000	< 1.0	< 1.0	15	< 1.0	42	84	< 1.0	40	13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	mg/kg	1.0	65000	1600000	79	33	120	< 1.0	160	210	110	190	190	98	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	mg/kg	1.0	65000	1600000	41	< 1.0	64	< 1.0	66	37	47	56	54	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	mg/kg	5.0			140	33	230	< 5.0	320	540	180	320	290	130	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C8-C10	mg/kg	1.0	47	3500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	24	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	mg/kg	1.0	250	16000	13	< 1.0	20	< 1.0	27	7400	14	12	11	8.1	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	mg/kg	1.0	1800	36000	87	< 1.0	170	< 1.0	200	2500	63	86	130	47	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	mg/kg	1.0	1900	28000	250	100	740	< 1.0	720	5900	320	510	440	220	< 1.0	150	< 1.0	< 1.0
Aromatic TPH >C21-C35	mg/kg	1.0	1900	28000	990	470	2500	< 1.0	2200	3900	1200	1900	1700	990	< 1.0	790	< 1.0	< 1.0
Aromatic TPH >C35-C44	mg/kg	1.0	1900	28000	< 1.0	< 1.0	98	< 1.0	71	49	< 1.0	73	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	mg/kg	5.0			1300	570	3600	< 5.0	3200	20000	1600	2600	2400	1300	< 5.0	940	< 5.0	< 5.0
Total Petroleum Hydrocarbons	mg/kg	10.0			1500	600	3800	< 10	3600	20000	1800	2900	2700	1400	< 10	940	< 10	< 10
SVOCs																		
Trichloromethane	µg/kg	1.0			< 1.0	5.9	8.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.2	< 1.0	< 1.0	6.3	6.3	< 1.0
Benzene	µg/kg	1.0	0.38	27	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	95	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	2.0			< 2.0	26	28	< 2.0	< 2.0	25	< 2.0	< 2.0	2.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Toluene	µg/kg	1.0	880	56000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	110	< 1.0	< 1.0	3.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	2.0			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3.6	< 2.0
Ethylbenzene	µg/kg	1.0			< 1.0	3.9	< 1.0	< 1.0	< 1.0	80	< 1.0	< 1.0	7.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	µg/kg	1.0	31	41000	< 1.0	13	< 1.0	< 1.0	< 1.0	100	< 1.0	< 1.0	9.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	µg/kg	1.0	88	6600	< 1.0	9.3	7.0	< 1.0	< 1.0	120	< 1.0	< 1.0	7.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	µg/kg	1.0			< 1.0	< 1.0	2.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	µg/kg	1.0			< 1.0	< 1.0	13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1.0			< 1.0	1.5	2.7	< 1.0	< 1.0	70	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Propylbenzene	µg/kg	1.0			< 1.0	15	13	< 1.0	< 1.0	180	< 1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1.0			< 1.0	8.6	12	< 1.0	< 1.0	220	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1.0	0.41	42	< 1.0	18	17	< 1.0	< 1.0	140	< 1.0	< 1.0	12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	µg/kg	1.0			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	37	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	2.0	1.5	102	9.9	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Naphthalene	mg/kg	0.50	2.3	190	< 0.50	1.5	< 0.50	< 0.50	4.8	3000	3.6	3.1	3.6	7.3	< 0.50	1.1	< 0.50	0.62
4-Chloroaniline	mg/kg	0.50			< 0.50	< 0.50	3.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	mg/kg	0.50			< 0.50	< 0.50	2.0	< 0.50	3.2	42	1.5	1.7	2.5	8.5	< 0.50	0.99	< 0.50	0.63
Acenaphthylene	mg/kg	0.50	2900	83000	< 0.50	< 0.50	< 0.50	< 0.50	0.69	1.6	< 0.50	0.70	1.1	< 0.50	< 0.50	0.78	< 0.50	< 0.50
Acenaphthene	mg/kg	0.50	3000	84000	< 0.50	2.0	6.4	< 0.50	10	95	4.4	5.2	7.2	< 0.50	< 0.50	< 0.50	< 0.50	2.3
3-Nitroaniline	mg/kg	0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	mg/kg	0.50			< 0.50	0.92	3.0	< 0.50	5.0	76	2.2	2.4	3.1	11	< 0.50	1.5	< 0.50	1.2
4-Chlorophenylphenylether	mg/kg	0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	mg/kg	0.50			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Sample Location:					TP11	TP12	TP13	TP13	TP14	TP14	TP15	TP16	TP17	TP18	TP18	TP19	WS4	WS6
Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Top Depth (m):					0.3m	0.5m	0.3m	0.8m	0.3m	1.0m	0.3m	0.3m	0.3m	0.3m	1.2m	0.3m	3.8m	0.6m
Date Sampled:					17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022	17-Jan-2022
Fluorene	mg/kg	0.50	2800	63000	< 0.50	1.3	4.7	< 0.50	7.9	87	3.5	3.9	5.1	13	< 0.50	2.4	< 0.50	2.0
Phenanthrene	mg/kg	0.50	1300	22000	4.1	41	44	< 0.50	63	320	35	41	49	93	< 0.50	16	< 0.50	18
Anthracene	mg/kg	0.50	31000	520000	1.0	3.4	10	< 0.50	16	44	8.1	10	12	25	< 0.50	5.2	< 0.50	3.3
Carbazole	mg/kg	0.50			< 0.50	1.3	3.4	< 0.50	4.8	9.2	2.6	3.4	3.2	4.8	< 0.50	1.0	< 0.50	1.9
Fluoranthene	mg/kg	0.50	1500	23000	6.5	26	61	< 0.50	80	100	51	59	71	93	< 0.50	23	< 0.50	9.0
Pyrene	mg/kg	0.50	3700	54000	6.1	24	56	< 0.50	74	78	50	56	68	80	< 0.50	21	< 0.50	9.1
Benzo[a]anthracene	mg/kg	0.50	11	170	2.3	11	21	< 0.50	29	16	19	22	27	30	< 0.50	8.4	< 0.50	2.8
Chrysene	mg/kg	0.50	30	350	3.0	12	25	< 0.50	35	20	25	28	34	35	< 0.50	11	< 0.50	2.8
Benzo[b]fluoranthene	mg/kg	0.50	3.9	44	3.3	13	27	< 0.50	40	18	28	32	38	37	< 0.50	11	< 0.50	2.1
Benzo[k]fluoranthene	mg/kg	0.50	110	1200	1.1	4.2	9.1	< 0.50	14	5.8	8.6	11	13	13	< 0.50	4.2	< 0.50	0.67
Benzo[a]pyrene	mg/kg	0.50	3.2	35	2.5	9.8	20	< 0.50	30	16	23	25	30	29	< 0.50	8.9	< 0.50	1.8
Indeno(1,2,3-c,d)Pyrene	mg/kg	0.50	45	500	1.4	4.8	8.8	< 0.50	15	6.3	10	13	15	13	< 0.50	4.4	< 0.50	< 0.50
Dibenz(a,h)Anthracene	mg/kg	0.50	0.31	3.5	< 0.50	1.3	1.9	< 0.50	4.4	1.8	2.7	3.4	4.2	3.4	< 0.50	1.1	< 0.50	< 0.50
Benzo[g,h,i]perylene	mg/kg	0.50	360	3900	1.1	5.5	9.3	< 0.50	16	7.5	12	14	16	5.3	< 0.50	4.6	< 0.50	< 0.50
Notes:																		
Only those determinands that have been detected at concentrations in excess of LoD have been included in the table																		
GAC = Human health generic assessment criteria for residential land use without plant uptake and commercial																		
	GAC Exceedance of Residential GAC only																	
	GAC Exceedance of Residential GAC and Commercial GAC																	

Appendix G – Controlled Waters Risk Assessment

Sample Location:				WS2	WS3	WS7
Sample Type:				WATER	WATER	WATER
Top Depth (m):				1.30m	1.55m	0.85m
Date Sampled:				01-Feb-2022	01-Feb-2022	01-Feb-2022
Determinand	Units	LOD	GAC			
pH		N/A		8.4	7.9	7.4
Sulphate	mg/l	1.0		53	310	65
Total Hardness as CaCO3	mg/l	15		380	590	420
Heavy Metals						
Arsenic (Dissolved)	µg/l	0.20	10	40	97	5.6
Chromium (Dissolved)	µg/l	0.50		2.3	5.5	2.0
Copper (Dissolved)	µg/l	0.50	2000	0.82	1.1	1.1
Nickel (Dissolved)	µg/l	0.50	20	3.8	5.5	3.6
Lead (Dissolved)	µg/l	0.50	10	0.69	< 0.50	< 0.50
Selenium (Dissolved)	µg/l	0.50	10	0.54	0.74	< 0.50
Zinc (Dissolved)	µg/l	2.5	5000	23	4.6	2.6
SVOCs						
Acenaphthene	µg/l	0.50		< 0.50	11	14
Dibenzofuran	µg/l	0.50		< 0.50	2.6	3.6
Fluorene	µg/l	0.50		< 0.50	2.1	3.0
Anthracene	µg/l	0.50		< 0.50	< 0.50	0.69
Fluoranthene	µg/l	0.50		< 0.50	0.74	0.99
Notes:						
Only those determinands that have been detected at concentrations in excess of LoD have been included in the table						
				GAC Exceedance (UK Drinking Water Standards)		