Phase III Remediation & Validation Strategy Proposals

At

Cheetham Hill
Manchester

Client: MSV Housing

Reference: 33716-SUT-ZZ-00-RP-G-7301

Date: February 2026

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SUTCLIFFE INVESTIGATIONS

Phase III Remediation & Validation Strategy Proposals

Document Control Sheet

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P01	October 2025	Final Report	AW	DB	WGB
P02	February 2026	Update following CLO comments on Cover System	DE	DB	WGB
		Signatures:	[redacted]		

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Table of Contents

1 Introduction 1

1.1 Terms of Reference 1
1.2 Development Proposal & Legislative Context 1
1.3 Aims & Objectives 2

2 Land Contamination Risks 3

2.1 Revised Conceptual Model 3
2.2 Discounted Contaminant Linkages 3
2.3 Remaining Potential Contaminant Linkages 3

3 Remediation Strategy 6

3.1 Overview 6
3.2 Additional Works Required to Assess Outstanding Contaminant Linkages 6
3.3 Regulatory Approval 6
3.4 Remedial Works 6
3.5 Proposed Capping Thickness – Soft Landscaping Area 8
3.6 Soil Validation Sampling & Testing 8
3.7 Soil Validation Criteria 10
3.8 Capping Layer Depth Validation 10
3.9 Site Completion Report 10
3.10 Additional Remedial Requirements 10

Appendices A

Appendix A – Analytical Results A
Appendix B – Gas Protection Membrane Specification & Membrane Validation Proforma B
Appendix C – Council Validation Requirements C

Drawings D

Drawing Ref. – 21-026-BSA-D-A-1002 Rev D –Proposed Layout D
Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7251 – Site Investigation on Existing Layout E
Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7253 – Gas Risk Assessment Zoning Plan F
Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7254 – Cover System Zoning Plan G
Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7255 – Asbestos delineation Plan H

1 Introduction

1.1 Terms of Reference

Sutcliffe Investigations were instructed by MSV Housing to design an appropriate remediation strategy for the proposed development at Cheetham Hill, Manchester.

The site is centred on National Grid Reference (NGR) 384030, 400690. The site area is approximately 1.3ha.

This report provides details on the protocols to be adopted during remedial works required to be undertaken on the site to ensure that any risks associated with long term human health are mitigated.

The soil sampling strategy and chemical analysis proposals set out in this document are produced in light of a Phase I Preliminary Risk Assessment and Phase II Ground Assessment produced by Sutcliffe Investigations for this site. This report and the outlined strategy should therefore be read in conjunction with:

- 33716-SUT-ZZ-00-RP-G-7101 – Phase I PRA Report (November 2023)
- 33716-SUT-ZZ-00-RP-G-7202 – Phase II Ground Assessment Report (April 2024)

1.2 Development Proposal & Legislative Context

Development Proposal

The proposed layout is shown in Bowker Sadler Architecture Drawing (*Ref: 21-026-BSA-D-A-1002 Rev D*). This report has been prepared in support of a planning application to develop the site for housing with associated garden areas and infrastructure. Based on information received from the architect, it is anticipated that site levels will be retained to facilitate the proposed development option.

Site History

The earliest available historical map (1848) shows the site to be located within field land and segmented by fencing and possible shrubbery. By 1890 terraced houses and roads are noted in the western section of the site and partially in the eastern section of the site, and by 1908 the entire site is occupied by terraced houses as well as several roads. In the 1949 – 1952 mapping, a Clothing Factory is noted to encroach onto the northern boundary of the site.

By 1975 it appears that the terraced houses have been knocked down and new buildings have been erected across the site in their place. The map dated between 1978 and 1984 shows a pub, possibly with a cellar, is noted in the north-western tip of the site. By 1992 a few buildings in the western section of the site are no longer mapped. The aerial photography dated 2000 shows that all the buildings noted on-site are no longer mapped, with grass, several trees and footpaths now cover the site. No further significant changes or features are noted on-site from the available historical mappings.

Legislative Context

The presence of contaminants which may pose a risk to human health or the environment, is a material planning consideration and it remains the responsibility of the developer to ensure safe development.

For planning it should be considered whether the site is suitable for its new use, and the responsibility for securing a safe development (including cumulative effects of pollution on health, and the potential sensitivity of the proposed development to adverse effects from pollution,) rests with the developer and/or landowner. Planning is concerned with the site's proposed use not its current use, where the amount of contamination is expected to be low relative to the level of risk. This is the opposite to Part 2A which considers high levels (significant harm) and the current use of the site.

Section 57 of the Environment Act 1995 adds Part 2A (ss.78A-18YC) to the Environmental Protection Act 1990 and contains the legislative framework for identifying and dealing with contaminated land. Where development is undertaken on land which may be affected by contamination, the National Planning Policy Framework, paragraph 120 to 122 considers pollution and remediation. This links the contaminated land regime within the development process.

1.3 Aims & Objectives

This report provides details of the remedial options applicable for a residential development with associated gardens and an area of public open space.

It also provides procedures to be implemented, in order to verify the remedial measures. The remediation strategy report is required to provide information to regulatory authorities to satisfy planning conditions relating to contaminated land aspects on the site.

This document outlines Sutcliffe Investigations proposals for Remediation Strategies, and includes the following:

- Validation of installed gas protection measures compliant with a Characteristic Situation 2 in specified areas.
- Validation and verification work relating to Asbestos delineation / removal required in the area of TP106.
- Levels are to be reduced by 600mm in the Heatherdale Parade development zone, and material is to be replaced with 600mm of clean imported tested material in this area.
- Validation of imported top and sub soils required to 300mm to facilitate landscape proposals in the Alderford Parade development zone (with the exception of plots in the vicinity of WS107 and TP101 with require 600mm cover system).

2 Land Contamination Risks

2.1 Revised Conceptual Model

Based on the findings of the human health risk assessment as completed by Sutcliffe, the conceptual model has been revised and has been presented within the Ground Assessment Report ref. 33716-SUT-ZZ-00-RP-G-7202.

2.2 Discounted Contaminant Linkages

Groundwater Resources

No contaminant linkages remain for groundwater; therefore, no further action is required.

Surface Water Resources

No contaminant linkages remain for surface water; therefore, no further action is required.

2.3 Remaining Potential Contaminant Linkages

Long Term Human Health

Elevated levels of Lead, Benzo(b)fluoranthene, Benzo(a)pyrene and Dibenzo(ah)anthracene were observed in samples screened in WS107 (0.00-0.40m bgl), WS110 (1.00-1.60m bgl) and TP101 (0.00-0.30m bgl).

The statistical analysis for all exceeded contaminants within the Alderford Parade development zone indicates that there is a very high probability that the true mean concentrations are below the critical concentrations and Sutcliffe are confident that these contaminants are unlikely to pose a zone wide risk to human health. In the areas of exceeded contaminants (TP101 and WS107), it is recommended that plots in the vicinity would be remediated to reduce the risk to human health. This is presented on Sutcliffe Drawing Ref. 33716-SUT-ZZ-00-DR-G-7254 P02 (Cover System Zoning Plan) herein.

The statistical analysis for all exceeded contaminants within the Heatherdale Parade development zone indicates that the true mean concentrations have the potential to be above the critical concentration and hence there is a zone wide risk to human health. Remedial works will be required to reduce the risk and be suitable for the proposed end use.

It is noted that 1No. sample (TP106) identified Asbestos containing material above the threshold for human health, and that further delineation is recommended to ascertain the extent of asbestos contamination in this area and to provide more detailed information on the potential human health risk to construction workers from this material.

Construction workers may be exposed via dermal contact, ingestion and inhalation of soil / dust during the construction period. Adjacent site users may also be exposed to contaminated soils via inhalation of dust generated during the construction phase.

Good hygiene practices should be employed during construction work, in addition, the findings of this investigation should be included within the contractors H&S file and an assessment of risks associated with short term human health completed. No consumption of food or smoking should occur without prior hand washing. If dust is encountered, dust masks should be worn, and dust suppression employed.

Ground Gas

Ground gas monitoring has indicated elevated levels of Carbon Dioxide within WS106 and WS110, and it is recommended that these areas on site are classified as **Characterisation Situation 2**. As such gas protection measures will be required as part of the development of the site. A gas risk classification Drawing Ref. 33716-SUT-ZZ-00-DR-G-7253 highlighting the areas required for gas protection is provided herein.

Using BS8485:2015+A1:2019, "*Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings"* a total of 3.5 points is required for the proposed end use, *Table 2.1* details the protection measures required to achieve this point total.

Table 2.1: BS8485 (2015+A1:2019) Point Score Summary

GAS PROTECTION SCORES FOR THE STRUCTURAL BARRIER	
Floor and substructure design	SCORE
Precast suspended segmental subfloor (i.e. beam and block)	**0**

GAS PROTECTION SCORES FOR VENTILATION PROTECTION MEASURES			
Protection Element System		Comments	SCORE
Passive sub floor dispersal layer: Media used to provide the dispersal layer are: • Clear void; • Polystyrene void former blanket; • Geocomposite void former blanket; • No-fines gravel layer with gas drains; • No-fines gravel layer.	Very good performance	• The ventilation effectiveness of different media depends on a number of different factors including the transmissivity of the medium, the width of the building, the side ventilation spacing and type and the thickness of the layer. • The selected score should be assigned taking into account the recommendations in Annex B of BS8485:2015. • Passive ventilation should be designed to meet at least "good performance".	**2.5**

GAS PROTECTION SCORE FOR THE GAS RESISTANT MEMBRANE		
Protection Element System	Comments	SCORE
Gas resistant membrane meeting all of the following criteria: - Sufficiently impervious to the gases with a methane gas transmission rate <40.0 ml/day/m2/atm (average) for sheet and joints (tested in accordance with BS ISO 15105-1 manometric method; - Sufficiently durable to remain serviceable for the anticipated life of the building and duration of gas emissions; - Sufficiently strong to withstand in-service stresses (e.g. settlement if placed below a floor slab); - Sufficiently strong to withstand the installation process and following trades until covered (e.g. penetration from steel fibres in fibre reinforced concrete, penetration of reinforcement ties, tearing due to working above it, dropping tools etc); - Capable, after installation, of providing a complete barrier to the entry of the relevant gas; and, - Verified in accordance with CIRIA C735.	The performance of membranes is heavily dependent on the quality and design of the installation, resistance to damage after installation and integrity of joints. For example, a minimum 0.40mm thickness (equivalent to 370g/m^2 for polyethylene) reinforced membrane (virgin polymer) meets the performance criteria opposite. If a membrane is installed that does not meet all the criteria opposite, then the score is zero.	**2**

Certification that these passive protection measures have been installed correctly should be provided.

An example of a suitable gas protection membrane and a membrane validation pro forma is presented as *Appendix C.*

3 Remediation Strategy

3.1 Overview

The recommendations provided below are considered appropriate for the site based on the site investigation and the combined risk assessments completed by Sutcliffe (controlled waters, ground gas and long-term human health) and details recommended remediation and validation works.

3.2 Additional Works Required to Assess Outstanding Contaminant Linkages

It is noted that 1No. sample (TP106) identified Asbestos containing material above the threshold for human health, and that further delineation is recommended to ascertain the extent of asbestos contamination in this area and to provide more detailed information on the potential human health risk to construction workers from this material. This will comprise of 8No. samples taken around a 2.5m radius of the position. Should any sample obtained indicate ACM detection, further delineation will be carried out to confirm the affected area.

A plan detailing the delineation plan is presented as *Drawing Ref. 33716-SUT-ZZ-00-DR-G-7255.*

3.3 Regulatory Approval

Consultation with Manchester City Council Contaminated Land Officer is recommended regarding the acceptability of the validation proposal.

Council validation requirements are presented in *Appendix C.*

3.4 Remedial Works

Development Area

Elevated levels of Lead, Benzo(b)fluoranthene, Benzo(a)pyrene and Dibenzo(ah)anthracene were observed in samples screened.

The statistical analysis for all exceeded contaminants within the Alderford Parade development zone indicates that there is a very high probability that the true mean concentrations are below the critical concentrations and Sutcliffe are confident that these contaminants are unlikely to pose a zone wide risk to human health and no remedial works are required. Notwithstanding, it is recommended that site levels are reduced by 300mm and replaced with clean imported material to facilitate a growing medium.

Notwithstanding, In the areas of exceeded contaminants (TP101 and WS107), it is recommended that plots site levels in the vicinity of these positions are reduced by 600mm material from site and the importing of clean tested material to create a capping break layer in garden areas on site.

All other soft landscaping / garden areas within the Alderford Parade zone are recommended that site levels to be reduced by 300mm and replaced with clean imported material to facilitate a growing medium.

The statistical analysis for all exceeded contaminants within the Heatherdale Drive development zone indicates that the true mean concentrations have the potential to be above the critical concentration and hence there is a zone wide risk human health. It is recommended that site levels are reduced by 600mm material from site and the importing of clean tested material to create a capping break layer in garden areas on site, with hardcover providing a break layer in other areas of the site.

When working in areas where asbestos has been identified and as part of the work to remove this material from site, all works must be undertaken in line with JIWG / CLAIRE CAR-Soil 2016 to ensure that works which are licensable, non-licensable and non-notifiable are correctly defined when undertaken.

This will ensure that all identified asbestos is removed in a safe and correct manner to a suitable waste facility in line with its classification.

Should further contamination be observed during site strip/excavation, further testing to delineate the material will be required and standard good practice should be carried out with regard to storage and removal:

- Assign a location for separate storage of the material
- Store the material on a suitable protective membrane and cover the stockpile to prevent cross contamination
- Label the material as contaminated and the location it was found
- Remove the material to the appropriate facility collating all necessary waste transfer notes
- Ensure that machinery used in the transfer of the materials are suitably cleaned to prevent cross contamination

A plan detailing the cover system proposals is presented in *Drawing Ref. 33716-SUT-ZZ-00-DR-G-7254*.

Human Health - Ground Gas

Ground gas monitoring has indicated elevated levels of Carbon Dioxide within WS106 and WS110, and it is recommended that these areas on site are classified as CS2. As such gas protection measures will be required as part of the development of the site. A gas risk classification *Drawing Ref. 33716-SUT-ZZ-00-DR-G-7253* highlighting the areas required for gas protection is provided herein.

Gas protection measures should include a ventilated sub-floor void and a suitable gas membrane in accordance with the requirements of BS8485:2015+A1:2019 as set out in Table 4.1 of this report.

An example of a suitable gas protection membrane and a membrane validation pro forma are presented in Appendix B.

3.5 Proposed Capping Thickness – Soft Landscaping Area

Following the excavation of existing material to a depth of 300mm / 600mm bgl in the development area to facilitate the removal of contamination and to facilitate a growing medium, levels will need to be raised.

Reinstatement to achieve finished site levels will be required and will include the importation of clean validated top and sub soils, comprising, 400-450mm subsoil, overlain by minimum 150-200mm topsoil in the areas that require a 600mm strip and 150mm subsoil and 150mm topsoil in areas requiring a 300mm strip.

3.6 Soil Validation Sampling & Testing

Soil Sampling

In accordance with the current requirements of the regulatory authorities, validation samples will be collected from all materials that are to be subject to movement and reuse under the protocols outlined within this Remediation Strategy, or for materials to be imported onto site to facilitate the proposed residential development.

Soil samples destined for chemical analysis will be collected at regular intervals in appropriate sampling containers. All samples will subsequently be stored in cooled boxes prior to submission to a UKAS / MCERTS accredited laboratory.

All samples will be collected using appropriate PPE and sampling equipment that will be cleaned at each sampling location.

Where material is found to contain concentrations of potential contaminants at levels in excess of the site-specific screening criteria the excavation will be extended, and further sampling undertaken.

The sampling frequency for materials to be managed under the Remediation Strategy is presented within *Table 3.1* and *Table 3.2*.

Table 3.1: Testing Frequency for Material Use on Site (Imported)

Material Use	Testing Frequency
Subsoil Greenfield Source *(450mm garden cover)*	1 Sample per 200m^3 (Minimum 3 samples)
Subsoil Brownfield Source *(450mm garden cover)*	1 Sample per 50m^3 (Minimum 3 samples)
Topsoil Greenfield Source *(150mm garden cover)*	1 Sample per 200m^3 (Minimum 3 samples)
Topsoil Brownfield Source *(150mm garden cover)*	1 Sample per 50m^3 (Minimum 3 samples)

Table 3.2: Testing Frequency for Material Use on Site (Site Generated)

Material Use	Testing Frequency
Site Generated 6F2	1 Sample Per 1000m^3 (Minimum 3 samples)
Site Won Made Ground General Backfill	1 Sample Per 250m^3 (Minimum 3 samples)
Site Won Natural Backfill	1 Sample Per 2000m^3 (Minimum 3 samples)
Site generated Sub-Soil *(450mm garden cover)*	1 Sample Per 250m^3 (Minimum 3 samples)
Site Generated Topsoil Cover *(150mm garden cover)*	1 Sample per 50m^3 (Minimum 3 samples)
Hotspot Validation Samples	1 Sample per 10m of linear excavation to base and sidewall.

Imported Soil Validation Testing

Imported material needs to be compliant with BS3882: 2015 Specification for Topsoil and BS8601: 2013 Specification for Subsoil and requirements for use.

The typical testing suite will comprise:

Arsenic, boron, cadmium, chromium (total and hexavalent), copper, lead, mercury, nickel, selenium, vanadium, zinc, water soluble sulphate, pH, USEPA PAH 16, asbestos (presence or absence) and organic matter.

Where the source is 'brownfield' or to site source unknown, the soil will additionally be tested for the following:

Speciated banded petroleum hydrocarbons (TPHCWG), benzene, toluene, ethylbenzene and xylene (BTEX), MTBE, cyanide suite, boron and phenol.

Site Generated Soil Validation Testing

The typical testing suite will comprise:

Arsenic, boron, cadmium, chromium (total and hexavalent), copper, lead, mercury, nickel, selenium, vanadium, zinc, water soluble sulphate, pH, USEPA PAH 16, asbestos (presence or absence) and organic matter, speciated banded petroleum hydrocarbons (TPHCWG), benzene, toluene, ethylbenzene and xylene (BTEX), MTBE, cyanide suite, boron and phenol.

Dependant on this additional sampling and assessment consideration will be given to its emplacement within garden areas.

3.7 Soil Validation Criteria

Generic Soil Assessment Criteria – Imported Top & Sub soils

The results of the topsoil and subsoil samples may be contrasted to contemporary UK soil assessment criteria.

With regards to the soil risk assessment for imported top and sub soils Sutcliffe will use the following hierarchy:

- LQM Suitable 4 Use Levels (S4ULs).
- ATRISK Soil Screening Values (SSVs) and DEFRA Generic Assessment Criteria (GACs).
- DEFRA Category 4 Screening Levels (C4SLs) for Lead.

Based upon the above we will use the LQM S4ULs. These use similar assumptions and land uses to C4SLs. However, toxicological information has been based on 'minimal risk' as per previous guidelines and assumptions.

If contaminants are not present as S4ULs, then we propose to use ATRISK SSVs or CL:AIRE GACs. These follow the 'minimal' risk principle and more stringent exposure parameters and will be conservative. The only exception to this is for Lead where the C4SL is used.

3.8 Capping Layer Depth Validation

The depth of the capping layer on site will be demonstrated by excavating a hole and collecting photographic evidence. The photographs will show the location of the validation, the downhole view and the depth using a levelling staff.

3.9 Site Completion Report

The site completion report will include details of the imported soil validation and photographs of the soil depth placed across the site.

The site wide planning conditions may only be discharged once Manchester City Council are satisfied that, in accordance with the National Planning Policy Framework (NPPF):

- The site is suitable for its new use
- Adequate site investigation information, prepared by a competent person, is presented.

3.10 Additional Remedial Requirements

Site Material Management Plan (SMMP)

It is advised that an appropriate SMMP is designed for the scheme and prior to the commencement of any works and maintained throughout the development of the scheme. All waste transfer notes will need to be retained and documented to allow ease of review by the regulators.

Material Reuse

Should any material from the site be reused an assessment for suitability for use would be required.

Unexpected Contamination

In the event that during the development works if unexpected contamination is identified then all works should cease and the appointed environmental consultant notified.

Documentation

On completion of the remedial works detailed within *Section 3.4* of this report, a Phase IV Completion Report will be required and will need to include the following documentation:

- Details of Asbestos Delineation
- Waste consignment notes for contaminated material removed from site, including details of the recipient waste facility.
- Consignment notes for top/sub soils imported to site.
- Photographic log pre & post site reduction.
- Photographic log of the gas membrane installation.
- Independent certification of guarantee from third party confirming the suitability of gas membrane installation.

Appendix A – Analytical Results

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/11847
Issue Number: 1 **Date:** 11 December, 2023

Client: Sutcliffe
18-20 Harrington Street
Liverpool
L2 9QA

Project Manager: (Use) D Evans; D Bowen; A Tosh; W Baldwin/(Use) Sa
Project Name: Cheetham Hill
Project Ref: 33716LG
Order No: 10089
Date Samples Received: 29/11/23
Date Instructions Received: 30/11/23
Date Analysis Completed: 11/12/23

Approved by:



Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
% Moisture at <40C$_A$	22.1	18.3	-	14.2	12.6	15.9	19.8	% w/w	0.1	A-T-044
% Stones >10mm$_A$	<0.1	12.5	<0.1	19.4	16.6	9.9	10.8	% w/w	0.1	A-T-044
pH$_D$ M#	6.67	7.14	7.73	7.92	8.16	8.49	7.68	pH	0.01	A-T-031s
Electrical conductivity @ 20degC$_D$	-	-	305	-	-	-	-	µs/cm	10	A-T-037s
Sulphate (water sol 2:1)$_D$ M#	<0.01	0.04	-	0.04	0.03	0.08	0.03	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$ M#	660	920	-	660	480	2400	440	mg/kg	200	A-T-028s
Cyanide (total)$_A$ M#	<1	<1	-	<1	<1	<1	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	mg/kg	0.2	A-T-050s
Sulphide$_A$	110	80	-	73	61	59	48	mg/kg	5	A-T-043-s
Sulphur (elemental)$_D$ M#	<5	<5	-	11	<5	<5	<5	mg/kg	5	A-T-029s
Organic Matter$_D$ M#	7.2	5.7	-	2.0	4.0	3.9	4.9	% w/w	0.1	A-T-032s
Arsenic$_D$ M#	8	12	-	6	10	10	7	mg/kg	1	A-T-024s
Boron (water soluble)$_D$ M#	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	mg/kg	1	A-T-027s
Cadmium$_D$ M#	0.8	1.1	-	0.6	0.5	0.7	0.5	mg/kg	0.5	A-T-024s
Copper$_D$ M#	37	55	-	31	37	44	28	mg/kg	1	A-T-024s
Chromium$_D$ M#	20	31	-	23	19	29	17	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	-	<1	<1	<1	<1	mg/kg	1	A-T-040s
Chromium (trivalent)	20	31	-	23	19	29	17	mg/kg	1	Calc
Lead$_D$ M#	88	154	-	79	88	109	57	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	1.80	-	0.43	0.48	1.41	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$ M#	20	24	-	24	21	27	14	mg/kg	1	A-T-024s
Selenium$_D$ M#	<1	<1	-	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$ M#	85	133	-	67	61	124	62	mg/kg	5	A-T-024s
Redox Potential (water soluble)$_D$	-	-	237	-	-	-	-	mV		Redox

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	-	NAD	NAD	NAD	NAD			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	-	N/A	N/A	N/A	N/A			A-T-045

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.04	0.03	-	0.07	0.03	0.89	0.04	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	-	<0.01	<0.01	0.05	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.05	0.06	-	0.11	0.05	1.16	0.08	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.24	0.22	-	0.46	0.31	2.60	0.34	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.26	0.19	-	0.43	0.33	2.09	0.31	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.31	0.24	-	0.54	0.40	2.44	0.39	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.15	0.12	-	0.26	0.22	0.99	0.18	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.14	0.12	-	0.22	0.18	0.97	0.18	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.31	0.26	-	0.53	0.37	2.71	0.40	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A$	<0.04	<0.04	-	0.06	0.05	0.22	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.47	0.51	-	0.96	0.53	6.30	0.77	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.03	0.02	-	0.04	<0.01	0.72	0.03	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.18	0.12	-	0.30	0.23	1.12	0.20	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	-	<0.03	<0.03	0.50	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.23	0.29	-	0.48	0.21	5.31	0.40	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.45	0.47	-	0.84	0.52	5.49	0.67	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A$	2.86	2.65	-	5.30	3.43	33.6	3.99	mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
SVOC										
4-Bromophenyl phenyl ether$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorobenzene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Diethyl phthalate$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Dimethyl phthalate$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Dibenzofuran$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Carbazole$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Butylbenzyl phthalate$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate$_A$	-	-	<500	-	-	-	-	µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
4-Nitrophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
3+4-Methylphenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
4-Chloro-3-methylphenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2-Nitrophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2-Methylphenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2-Chlorophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2,6-Dinitrotoluene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dinitrotoluene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dimethylphenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2,4-Dichlorophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2,4,6-Trichlorophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2,4,5-Trichlorophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
1,4-Dichlorobenzene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
1,3-Dichlorobenzene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
1,2-Dichlorobenzene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2-Chloronaphthalene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
2-Methylnaphthalene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Acenaphthylene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Acenaphthene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Anthracene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Benzo(a)anthracene$_A$	-	-	254	-	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
Benzo(b)fluoranthene$_A$	-	-	264	-	-	-	-	µg/kg	100	A-T-052s
Benzo(k)fluoranthene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Benzo(a)pyrene$_A$	-	-	282	-	-	-	-	µg/kg	100	A-T-052s
Benzo(ghi)perylene$_A$	-	-	190	-	-	-	-	µg/kg	100	A-T-052s
Chrysene$_A$	-	-	246	-	-	-	-	µg/kg	100	A-T-052s
Fluoranthene$_A$	-	-	424	-	-	-	-	µg/kg	100	A-T-052s
Fluorene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Indeno(1,2,3-cd)pyrene$_A$	-	-	195	-	-	-	-	µg/kg	100	A-T-052s
Phenanthrene$_A$	-	-	264	-	-	-	-	µg/kg	100	A-T-052s
Pyrene$_A$	-	-	434	-	-	-	-	µg/kg	100	A-T-052s
Naphthalene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Dibenzo(ah)anthracene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Phenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Pentachlorophenol$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
n-Dioctylphthalate$_A$	-	-	<500	-	-	-	-	µg/kg	500	A-T-052s
n-Dibutylphthalate$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Nitrobenzene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Isophorone$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Hexachloroethane$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Hexachlorobutadiene$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
SVOC Total (excl. PAH/Phenols/Cresols)$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Phenol Total$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s
Cresol & Chlorinated Phenol Total$_A$	-	-	<100	-	-	-	-	µg/kg	100	A-T-052s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
VOC										
Dichlorodifluoromethane$_A$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Chloromethane$_A$	-	-	<250	-	-	-	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene)$_A^{\#}$	-	-	<25^U	-	-	-	-	µg/kg	1	A-T-006s
Bromomethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Chloroethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Trichlorofluoromethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethene$_A^{\#}$	-	-	<25^U	-	-	-	-	µg/kg	1	A-T-006s
Carbon Disulphide$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Dichloromethane$_A$	-	-	<125	-	-	-	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloroethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
2,2-Dichloropropane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Bromochloromethane$_A^{\#}$	-	-	<125	-	-	-	-	µg/kg	5	A-T-006s
Chloroform$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1-Dichloropropene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Carbon Tetrachloride$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloroethane$_A^{\#}$	-	-	<50	-	-	-	-	µg/kg	2	A-T-006s
Benzene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Trichloroethene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichloropropane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Dibromomethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Bromodichloromethane$_A^{\#}$	-	-	<250	-	-	-	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Toluene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,3-Dichloropropane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Tetrachloroethene$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Dibromochloromethane$_A^{\#}$	-	-	<75	-	-	-	-	µg/kg	3	A-T-006s
1,2-Dibromoethane$_A^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
Chlorobenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane$_{A}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Ethylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
m & p Xylene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
o-Xylene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Styrene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Bromoform$_{A}^{\#}$	-	-	<75	-	-	-	-	µg/kg	3	A-T-006s
Isopropylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane$_{A}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
Bromobenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
n-Propylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
2-Chlorotoluene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
4-Chlorotoluene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
tert-Butylbenzene$_{A}^{\#}$	-	-	<50	-	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
sec-Butylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
4-Isopropyltoluene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene$_{A}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
n-Butylbenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP)$_{A}$	-	-	<50	-	-	-	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene$_{A}$	-	-	<75	-	-	-	-	µg/kg	3	A-T-006s
Hexachlorobutadiene$_{A}^{\#}$	-	-	<25	-	-	-	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene$_{A}$	-	-	<75	-	-	-	-	µg/kg	3	A-T-006s
VOC Total$_{A}$	-	-	<250	-	-	-	-	µg/kg	10	A-T-006s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A$$^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A$$^{M\#}$	<1	<1	<1	<1	<1	1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A$$^{M\#}$	<1	1	<1	2	<1	2	1	mg/kg	1	A-T-055s
Ali >C21-C35$_A$$^{M\#}$	12	19	5	17	16	36	17	mg/kg	1	A-T-055s
Total Aliphatics$_A$	-	-	5	-	-	-	-	mg/kg	1	Calc-As Recd
Aro >C5-C7$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<3	<3	<1	5	<3	<3	<3	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	3	<1	1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	3	3	<1	6	2	7	2	mg/kg	1	A-T-055s
Aro >C16-C21$_A$$^{M\#}$	8	12	3	24	7	32	10	mg/kg	1	A-T-055s
Aro >C21-C35$_A$$^{M\#}$	30	58	10	95	36	125	32	mg/kg	1	A-T-055s
EPH Total Ali & Aro (>C10-C16)$_A$$^{\#}$	-	-	<1	-	-	-	-	mg/kg	1	A-T-055s
EPH Total Ali & Aro (>C16-C35)$_A$$^{M\#}$	-	-	16	-	-	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	-	-	13	-	-	-	-	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	-	-	18	-	-	-	-	mg/kg	1	Calc-As Recd
BTEX and MTBE Total$_A$	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Benzene$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A$$^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
VPH total (>C5-C10)$_A$$^{\#}$	-	-	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS116	WS115	WS115	WS113	WS112	WS111	ws108			
Depth to Top	0.0	0.2	0.8	0.5	0.3	0.3	0.0			
Depth To Bottom	0.2	0.75	1.2	1.0	0.6	0.6	0.4			
Date Sampled	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	27-Nov-23	28-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6AE	6AE	6A	6AE	4AB	4ABE	4AE			
TPH UKCWG with Clean Up										
Ali >C35-C44$_A$	1	3	-	3	2	9	2	mg/kg	1	A-T-055s
Total Aliphatics$_A$	13	24	-	23	19	48	20	mg/kg	1	Calc-As Recd
Aro >C35-C44$_A$	<1	2	-	3	<1	5	1	mg/kg	1	A-T-055s
Total Aromatics$_A$	40	75	-	135	46	171	46	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C44)$_A$	53	99	-	158	65	220	66	mg/kg	1	Calc-As Recd

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
% Moisture at <40C$_A$	15.6	-	13.2	10.8	15.8	-	16.9	% w/w	0.1	A-T-044
% Stones >10mm$_A$	23.4	3.7	18.5	21.6	21.4	<0.1	18.4	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.94	8.02	8.08	8.47	8.09	8.31	6.94	pH	0.01	A-T-031s
Electrical conductivity @ 20degC$_D$	-	174	-	-	-	114	-	µs/cm	10	A-T-037s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	-	0.02	0.05	0.06	-	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	480	-	640	620	650	-	210	mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	-	<1	<1	<1	-	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	mg/kg	0.2	A-T-050s
Sulphide$_A$	33	-	53	19	11	-	9	mg/kg	5	A-T-043-s
Sulphur (elemental)$_D$$^{M\#}$	<5	-	<5	<5	<5	-	<5	mg/kg	5	A-T-029s
Organic Matter$_D$$^{M\#}$	4.6	-	5.1	4.2	5.2	-	1.3	% w/w	0.1	A-T-032s
Arsenic$_D$$^{M\#}$	12	-	20	17	9	-	2	mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	-	<1.0	<1.0	<1.0	-	<1.0	mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	0.8	-	1.1	1.0	0.7	-	<0.5	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	51	-	72	67	59	-	14	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	16	-	23	23	15	-	11	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	-	<1	<1	<1	-	<1	mg/kg	1	A-T-040s
Chromium (trivalent)	16	-	23	23	15	-	11	mg/kg	1	Calc
Lead$_D$$^{M\#}$	118	-	196	161	69	-	29	mg/kg	1	A-T-024s
Mercury$_D$	0.83	-	1.15	1.43	1.60	-	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	19	-	20	20	17	-	11	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	-	<1	<1	<1	-	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	81	-	214	83	60	-	26	mg/kg	5	A-T-024s
Redox Potential (water soluble)$_D$	-	235	-	-	-	209	-	mV		Redox

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	-	NAD	NAD	NAD	-	NAD			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	-	N/A	N/A	N/A	-	N/A			A-T-045

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.09	-	2.41	0.23	0.22	-	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.02	-	0.08	0.02	<0.01	-	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.14	-	3.13	0.33	0.28	-	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.65	-	4.68	1.21	0.96	-	0.06	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.56	-	3.23	1.05	0.86	-	0.06	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.69	-	3.75	1.24	1.05	-	0.07	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.29	-	1.47	0.54	0.49	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.29	-	1.28	0.47	0.43	-	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.72	-	4.47	1.23	1.04	-	0.08	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A$	0.06	-	0.36	0.12	0.10	-	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	1.41	-	12.2	2.73	2.04	-	0.10	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.05	-	1.87	0.12	0.11	-	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.34	-	1.82	0.65	0.56	-	0.04	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	0.04	-	0.92	0.06	0.12	-	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.58	-	11.8	1.37	1.11	-	0.04	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	1.27	-	10.2	2.30	1.71	-	0.10	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A$	7.20	-	63.7	13.7	11.1	-	0.55	mg/kg	0.01	A-T-019s

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
SVOC										
4-Bromophenyl phenyl ether$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Hexachlorobenzene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Diethyl phthalate$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Dimethyl phthalate$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Dibenzofuran$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Carbazole$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Butylbenzyl phthalate$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate$_A$	-	<500	-	-	-	<500	-	µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
4-Nitrophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
3+4-Methylphenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
4-Chloro-3-methylphenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2-Nitrophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2-Methylphenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2-Chlorophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2,6-Dinitrotoluene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2,4-Dinitrotoluene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2,4-Dimethylphenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2,4-Dichlorophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2,4,6-Trichlorophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2,4,5-Trichlorophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
1,4-Dichlorobenzene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
1,3-Dichlorobenzene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
1,2-Dichlorobenzene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2-Chloronaphthalene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
2-Methylnaphthalene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Acenaphthylene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Acenaphthene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Anthracene$_A$	-	183	-	-	-	<100	-	µg/kg	100	A-T-052s
Benzo(a)anthracene$_A$	-	677	-	-	-	<100	-	µg/kg	100	A-T-052s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
Benzo(b)fluoranthene$_A$	-	584	-	-	-	<100	-	µg/kg	100	A-T-052s
Benzo(k)fluoranthene$_A$	-	221	-	-	-	<100	-	µg/kg	100	A-T-052s
Benzo(a)pyrene$_A$	-	572	-	-	-	<100	-	µg/kg	100	A-T-052s
Benzo(ghi)perylene$_A$	-	331	-	-	-	<100	-	µg/kg	100	A-T-052s
Chrysene$_A$	-	675	-	-	-	<100	-	µg/kg	100	A-T-052s
Fluoranthene$_A$	-	1350	-	-	-	<100	-	µg/kg	100	A-T-052s
Fluorene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Indeno(1,2,3-cd)pyrene$_A$	-	349	-	-	-	<100	-	µg/kg	100	A-T-052s
Phenanthrene$_A$	-	823	-	-	-	<100	-	µg/kg	100	A-T-052s
Pyrene$_A$	-	1350	-	-	-	<100	-	µg/kg	100	A-T-052s
Naphthalene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Dibenzo(ah)anthracene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Phenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Pentachlorophenol$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
n-Dioctylphthalate$_A$	-	<500	-	-	-	<500	-	µg/kg	500	A-T-052s
n-Dibutylphthalate$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Nitrobenzene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Isophorone$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Hexachloroethane$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Hexachlorobutadiene$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
SVOC Total (excl. PAH/Phenols/Cresols)$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Phenol Total$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s
Cresol & Chlorinated Phenol Total$_A$	-	<100	-	-	-	<100	-	µg/kg	100	A-T-052s

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
VOC										
Dichlorodifluoromethane$_A$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Chloromethane$_A$	-	<250	-	-	-	<50	-	µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene)$_A^{\#}$	-	<25^U	-	-	-	<5^U	-	µg/kg	1	A-T-006s
Bromomethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Chloroethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Trichlorofluoromethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1-Dichloroethene$_A^{\#}$	-	<25^U	-	-	-	<5^U	-	µg/kg	1	A-T-006s
Carbon Disulphide$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Dichloromethane$_A$	-	<125	-	-	-	<25	-	µg/kg	5	A-T-006s
trans 1,2-Dichloroethene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1-Dichloroethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
cis 1,2-Dichloroethene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
2,2-Dichloropropane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Bromochloromethane$_A^{\#}$	-	<125	-	-	-	<25	-	µg/kg	5	A-T-006s
Chloroform$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1,1-Trichloroethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1-Dichloropropene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Carbon Tetrachloride$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,2-Dichloroethane$_A^{\#}$	-	<50	-	-	-	<10	-	µg/kg	2	A-T-006s
Benzene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Trichloroethene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,2-Dichloropropane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Dibromomethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Bromodichloromethane$_A^{\#}$	-	<250	-	-	-	<50	-	µg/kg	10	A-T-006s
cis 1,3-Dichloropropene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Toluene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
trans 1,3-Dichloropropene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1,2-Trichloroethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,3-Dichloropropane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Tetrachloroethene$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Dibromochloromethane$_A^{\#}$	-	<75	-	-	-	<15	-	µg/kg	3	A-T-006s
1,2-Dibromoethane$_A^{\#}$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
Chlorobenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane$_A$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Ethylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
m & p Xylene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
o-Xylene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Styrene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Bromoform$_A^\#$	-	<75	-	-	-	<15	-	µg/kg	3	A-T-006s
Isopropylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane$_A$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,2,3-Trichloropropane$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
Bromobenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
n-Propylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
2-Chlorotoluene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
4-Chlorotoluene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
tert-Butylbenzene$_A^\#$	-	<50	-	-	-	<10	-	µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
sec-Butylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
4-Isopropyltoluene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,3-Dichlorobenzene$_A$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,4-Dichlorobenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
n-Butylbenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,2-Dichlorobenzene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP)$_A$	-	<50	-	-	-	<10	-	µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene$_A$	-	<75	-	-	-	<15	-	µg/kg	3	A-T-006s
Hexachlorobutadiene$_A^\#$	-	<25	-	-	-	<5	-	µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene$_A$	-	<75	-	-	-	<15	-	µg/kg	3	A-T-006s
VOC Total$_A$	-	<250	-	-	-	<50	-	µg/kg	10	A-T-006s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	2	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	1	3	<1	2	2	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	4	5	80	42	24	4	9	mg/kg	1	A-T-055s
Total Aliphatics$_A$	-	6	-	-	-	10	-	mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<3	<1	<3	<3	<3	1	<3	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	2	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	3	5	8	5	8	2	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	11	15	29	19	35	2	6	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	41	53	99	54	107	2	22	mg/kg	1	A-T-055s
EPH Total Ali & Aro (>C10-C16)$_A^{\#}$	-	5	-	-	-	5	-	mg/kg	1	A-T-055s
EPH Total Ali & Aro (>C16-C35)$_A^{M\#}$	-	75	-	-	-	12	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	-	73	-	-	-	9	-	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	-	79	-	-	-	19	-	mg/kg	1	Calc-As Recd
BTEX and MTBE Total$_A$	-	<0.01	-	-	-	<0.01	-	mg/kg	0.01	A-T-022s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
VPH total (>C5-C10)$_A^{\#}$	-	<0.01	-	-	-	<0.01	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12	23/11847/13	23/11847/14	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS109	WS109	WS107	WS106	WS105	WS105A	WS104			
Depth to Top	0.4	1.0	0.0	0.4	0.4	1.0	0.0			
Depth To Bottom	1.0	1.3	0.4	0.8	0.8	1.3	0.4			
Date Sampled	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	29-Nov-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6ABE	6A	4AE	4AB	4ABE	5AE	6AE			
TPH UKCWG with Clean Up										
Ali >C35-C44$_A$	<1	-	26	11	4	-	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	5	-	110	54	30	-	10	mg/kg	1	Calc-As Recd
Aro >C35-C44$_A$	<1	-	14	5	3	-	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	54	-	152	83	153	-	27	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C44)$_A$	59	-	262	137	183	-	37	mg/kg	1	Calc-As Recd

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/16	23/11847/17	23/11847/18	23/11847/19				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS110	WS110	WS114	WS114						
Depth to Top	0.3	1.0	0.6	0.3						
Depth To Bottom	0.6	1.6	0.9	0.6						
Date Sampled	29-Nov-23	29-Nov-23	29-Nov-23	29-Nov-23						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	6ABE	4ABE	6A	6A						
% Moisture at <40C$_A$	16.3	15.4	20.8	22.3				% w/w	0.1	A-T-044
% Stones >10mm$_A$	16.6	12.7	<0.1	<0.1				% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.76	7.84	7.72	7.54				pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	0.02	<0.01	0.04				g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	430	710	500	600				mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	<0.2				mg/kg	0.2	A-T-050s
Sulphide$_A$	<5	<5	<5	<5				mg/kg	5	A-T-043-s
Sulphur (elemental)$_D$$^{M\#}$	<5	10	<5	<5				mg/kg	5	A-T-029s
Organic Matter$_D$$^{M\#}$	5.4	6.5	5.9	4.9				% w/w	0.1	A-T-032s
Arsenic$_D$$^{M\#}$	13	27	10	13				mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	<1.0	<1.0	<1.0				mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	1.3	1.9	0.9	1.4				mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	121	100	28	43				mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	22	37	17	19				mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1				mg/kg	1	A-T-040s
Chromium (trivalent)	22	37	17	19				mg/kg	1	Calc
Lead$_D$$^{M\#}$	138	790	65	76				mg/kg	1	A-T-024s
Mercury$_D$	0.80	0.69	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	20	31	14	18				mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	119	223	65	80				mg/kg	5	A-T-024s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/16	23/11847/17	23/11847/18	23/11847/19				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS110	WS110	WS114	WS114						
Depth to Top	0.3	1.0	0.6	0.3						
Depth To Bottom	0.6	1.6	0.9	0.6						
Date Sampled	29-Nov-23	29-Nov-23	29-Nov-23	29-Nov-23						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	6ABE	4ABE	6A	6A						
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD	NAD						A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-						A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-						A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A	N/A						A-T-045

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/16	23/11847/17	23/11847/18	23/11847/19				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS110	WS110	WS114	WS114						
Depth to Top	0.3	1.0	0.6	0.3						
Depth To Bottom	0.6	1.6	0.9	0.6						
Date Sampled	29-Nov-23	29-Nov-23	29-Nov-23	29-Nov-23						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	6ABE	4ABE	6A	6A						
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.32	1.01	0.05	0.03				mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	0.15	<0.01	<0.01				mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.34	1.95	0.09	0.04				mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	1.25	5.15	0.32	0.18				mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	1.12	4.07	0.27	0.17				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	1.41	4.66	0.32	0.21				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.61	2.00	0.15	0.09				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.58	1.89	0.15	0.09				mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	1.29	5.32	0.35	0.22				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A$	0.12	0.45	<0.04	<0.04				mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	2.77	12.8	0.71	0.39				mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.14	0.84	0.03	<0.01				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.71	2.28	0.18	0.10				mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	0.06	0.29	0.11	<0.03				mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	1.40	8.72	0.39	0.18				mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	2.23	11.8	0.62	0.35				mg/kg	0.07	A-T-019s
Total PAH-16MS$_A$	14.3	63.4	3.74	2.05				mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/16	23/11847/17	23/11847/18	23/11847/19				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS110	WS110	WS114	WS114						
Depth to Top	0.3	1.0	0.6	0.3						
Depth To Bottom	0.6	1.6	0.9	0.6						
Date Sampled	29-Nov-23	29-Nov-23	29-Nov-23	29-Nov-23						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	6ABE	4ABE	6A	6A						
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	2	<1	<1				mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	2	4	<1	<1				mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	22	25	9	6				mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<3	<3	<3	<3				mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	2	<1	<1				mg/kg	1	A-T-055s
Aro >C12-C16$_A$	9	14	<1	<1				mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	29	74	5	4				mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	96	269	20	12				mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s

Envirolab Job Number: 23/11847

Client Project Name: Cheetham Hill

Client Project Ref: 33716LG

Lab Sample ID	23/11847/16	23/11847/17	23/11847/18	23/11847/19				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS110	WS110	WS114	WS114						
Depth to Top	0.3	1.0	0.6	0.3						
Depth To Bottom	0.6	1.6	0.9	0.6						
Date Sampled	29-Nov-23	29-Nov-23	29-Nov-23	29-Nov-23						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	6ABE	4ABE	6A	6A						
TPH UKCWG with Clean Up										
Ali >C35-C44$_A$	4	7	<1	<1				mg/kg	1	A-T-055s
Total Aliphatics$_A$	28	38	9	6				mg/kg	1	Calc-As Recd
Aro >C35-C44$_A$	3	7	<1	<1				mg/kg	1	A-T-055s
Total Aromatics$_A$	138	367	25	15				mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C44)$_A$	165	406	34	22				mg/kg	1	Calc-As Recd

Report Notes

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **six weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and Interpretations expressed are outside our scope of accreditation.
The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^{o}C / 11550µS/cm @ 20^{o}C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Sutcliffe, 18-20 Harrington Street, Liverpool, L2 9QA

Project No: 23/11847

Date Received: 30/11/2023 (am)

Project: Cheetham Hill

Cool Box Temperatures (°C): 5.5-6.3

Clients Project No: 33716LG

Lab Sample ID	23/11847/1	23/11847/2	23/11847/4	23/11847/5	23/11847/6
Client Sample No					
Client Sample ID/Depth	WS116 0.0-0.2m	WS115 0.2-0.75m	WS113 0.5-1.0m	WS112 0.3-0.6m	WS111 0.3-0.6m
Date Sampled	27/11/23	27/11/23	27/11/23	27/11/23	27/11/23
Deviation Code					
F	✓	✓	✓	✓	✓

Key

F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	23/11847/1	23/11847/2	23/11847/4	23/11847/5	23/11847/6
Client Sample No					
Client Sample ID/Depth	WS116 0.0-0.2m	WS115 0.2-0.75m	WS113 0.5-1.0m	WS112 0.3-0.6m	WS111 0.3-0.6m
Date Sampled	27/11/23	27/11/23	27/11/23	27/11/23	27/11/23
Sulphide	✓	✓	✓	✓	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12
Client Sample No												
Client Sample ID/Depth	WS116 0.0-0.2m	WS115 0.2-0.75m	WS115 0.8-1.2m	WS113 0.5-1.0m	WS112 0.3-0.6m	WS111 0.3-0.6m	ws108 0.0-0.4m	WS109 0.4-1.0m	WS109 1.0-1.3m	WS107 0.0-0.4m	WS106 0.4-0.8m	WS105 0.4-0.8m
Date Sampled	27/11/23	27/11/23	27/11/23	27/11/23	27/11/23	27/11/23	28/11/23	28/11/23	28/11/23	28/11/23	28/11/23	28/11/23
A-T-004s												
A-T-006s			08/12/2023						08/12/2023			
A-T-007s												
A-T-019s	07/12/2023	07/12/2023		07/12/2023	07/12/2023	07/12/2023	07/12/2023	07/12/2023		07/12/2023	07/12/2023	07/12/2023
A-T-022s	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023
A-T-024s	08/12/2023	08/12/2023		08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023		08/12/2023	07/12/2023	07/12/2023
A-T-025w												
A-T-026s	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023
A-T-026w												
A-T-026w (F)												
A-T-027s	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023
A-T-028s	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023
A-T-029s	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023
A-T-030s												
A-T-031s	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-031w												
A-T-032s	07/12/2023	07/12/2023		07/12/2023	08/12/2023	08/12/2023	11/12/2023	08/12/2023		08/12/2023	08/12/2023	08/12/2023
A-T-032w												
A-T-037s			06/12/2023						06/12/2023			
A-T-037w												
A-T-040s	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023		06/12/2023	06/12/2023	06/12/2023
A-T-042sTCN	05/12/2023	05/12/2023		05/12/2023	05/12/2023	05/12/2023	05/12/2023	05/12/2023		05/12/2023	05/12/2023	05/12/2023
A-T-043-s	07/12/2023	07/12/2023		07/12/2023	07/12/2023	07/12/2023	07/12/2023	07/12/2023		07/12/2023	07/12/2023	07/12/2023
A-T-044	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-045	01/12/2023	01/12/2023		01/12/2023	01/12/2023	01/12/2023	01/12/2023	01/12/2023		01/12/2023	01/12/2023	01/12/2023
A-T-050s	11/12/2023	11/12/2023		11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023		11/12/2023	11/12/2023	11/12/2023
A-T-050w												
A-T-052s			04/12/2023						04/12/2023			
A-T-055s	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023
A-T-ANCs												
Calc	08/12/2023	08/12/2023		08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023		08/12/2023	07/12/2023	07/12/2023
Calc-As Recd	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023

Lab Sample ID	23/11847/1	23/11847/2	23/11847/3	23/11847/4	23/11847/5	23/11847/6	23/11847/7	23/11847/8	23/11847/9	23/11847/10	23/11847/11	23/11847/12
Client Sample No												
Client Sample ID/Depth	WS116 0.0-0.2m	WS115 0.2-0.75m	WS115 0.8-1.2m	WS113 0.5-1.0m	WS112 0.3-0.6m	WS111 0.3-0.6m	ws108 0.0-0.4m	WS109 0.4-1.0m	WS109 1.0-1.3m	WS107 0.0-0.4m	WS106 0.4-0.8m	WS105 0.4-0.8m
Date Sampled	27/11/23	27/11/23	27/11/23	27/11/23	27/11/23	27/11/23	28/11/23	28/11/23	28/11/23	28/11/23	28/11/23	28/11/23
Calc-no stones												
Probe (w)												
Redox			06/12/2023						06/12/2023			

Lab Sample ID	23/11847/13	23/11847/14	23/11847/16	23/11847/17	23/11847/18	23/11847/19
Client Sample No						
Client Sample ID/Depth	WS105A 1.0-1.3m	WS104 0.0-0.4m	WS110 0.3-0.6m	WS110 1.0-1.6m	WS114 0.6-0.9m	WS114 0.3-0.6m
Date Sampled	28/11/23	29/11/23	29/11/23	29/11/23	29/11/23	29/11/23
A-T-004s		05/12/2023				
A-T-006s	08/12/2023					
A-T-007s		08/12/2023				
A-T-019s		07/12/2023	07/12/2023	07/12/2023	07/12/2023	07/12/2023
A-T-022s	08/12/2023	08/12/2023	07/12/2023	08/12/2023	08/12/2023	08/12/2023
A-T-024s		07/12/2023	07/12/2023	07/12/2023	07/12/2023	07/12/2023
A-T-025w		11/12/2023				
A-T-026s		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-026w		11/12/2023				
A-T-026w (F)		11/12/2023				
A-T-027s		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-028s		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-029s		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-030s		05/12/2023				
A-T-031s	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-031w		11/12/2023				
A-T-032s		08/12/2023	08/12/2023	08/12/2023	08/12/2023	08/12/2023
A-T-032w		11/12/2023				
A-T-037s	06/12/2023					
A-T-037w		11/12/2023				
A-T-040s		06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-042sTCN		05/12/2023	05/12/2023	05/12/2023	05/12/2023	05/12/2023
A-T-043-s		07/12/2023	07/12/2023	07/12/2023	07/12/2023	07/12/2023
A-T-044	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023
A-T-045		01/12/2023	01/12/2023	01/12/2023	01/12/2023	01/12/2023
A-T-050s		11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023
A-T-050w		11/12/2023				
A-T-052s	04/12/2023					
A-T-055s	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023	04/12/2023
A-T-ANCs		06/12/2023				
Calc		07/12/2023	07/12/2023	07/12/2023	07/12/2023	07/12/2023
Calc-As Recd	08/12/2023	08/12/2023	07/12/2023	08/12/2023	08/12/2023	08/12/2023
Calc-no stones		11/12/2023				
Probe (w)		11/12/2023				

Lab Sample ID	23/11847/13	23/11847/14	23/11847/16	23/11847/17	23/11847/18	23/11847/19
Client Sample No						
Client Sample ID/Depth	WS105A 1.0-1.3m	WS104 0.0-0.4m	WS110 0.3-0.6m	WS110 1.0-1.6m	WS114 0.6-0.9m	WS114 0.3-0.6m
Date Sampled	28/11/23	29/11/23	29/11/23	29/11/23	29/11/23	29/11/23
Redox	06/12/2023					

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/12007
Issue Number: 1 **Date:** 21 December, 2023

Client: Sutcliffe
18-20 Harrington Street
Liverpool
L2 9QA

Project Manager: (Use) D Evans; D Bowen; A Tosh; W Baldwin/(Use) Sa
Project Name: Cheetham Hill, Manchester
Project Ref: 33716LG
Order No: 10120
Date Samples Received: 04/12/23
Date Instructions Received: 05/12/23
Date Analysis Completed: 21/12/23

Approved by:



Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3	23/12007/4	23/12007/5	23/12007/6	23/12007/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS103	WS102	WS101	WS101	TP102	TP101	TP101			
Depth to Top	0.00	0.20	0.40	1.00	0.20	0.00	0.30			
Depth To Bottom	0.40	0.60	1.00	1.50	0.50	0.30	0.80			
Date Sampled	30-Nov-23	30-Nov-23	30-Nov-23	30-Nov-23	01-Dec-23	01-Dec-23	01-Dec-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	4AE	6ABDE	6AB	6AB	4AB	6ABE	4AB			
Hazardous Waste Assessment	-	Appended	-	Appended	Appended	-	-			Assessment
% Moisture at <40C$_A$	17.4	12.0	11.8	18.2	13.9	16.1	16.2	% w/w	0.1	A-T-044
% Stones >10mm$_A$	25.4	<0.1	36.3	1.7	46.4	17.5	19.1	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	8.59	7.63	8.35	8.22	8.56	8.03	8.37	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.05	0.01	<0.01	-	0.04	0.02	0.03	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	1600	<200	370	-	1400	640	890	mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1	-	<1	<1	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	mg/kg	0.2	A-T-050s
Sulphide$_A$	70	110	52	-	62	66	57	mg/kg	5	A-T-043-s
Sulphur (elemental)$_D$$^{M\#}$	10	<5	38	-	8	50	12	mg/kg	5	A-T-029s
Organic Matter$_D$$^{M\#}$	4.3	8.2	3.5	-	3.6	6.4	4.0	% w/w	0.1	A-T-032s
Arsenic$_D$$^{M\#}$	6	3	6	10	4	7	6	mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	1.0	1.0	0.8	1.1	0.5	1.0	1.0	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	37	27	30	36	19	38	32	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	21	25	22	21	15	17	20	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Chromium (trivalent)	21	25	22	-	15	17	20	mg/kg	1	Calc
Lead$_D$$^{M\#}$	62	43	87	123	28	106	106	mg/kg	1	A-T-024s
Mercury$_D$	0.61	<0.17	0.40	0.26	0.54	0.53	0.54	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	19	30	16	21	14	17	17	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	160	59	92	136	96	92	123	mg/kg	5	A-T-024s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3	23/12007/4	23/12007/5	23/12007/6	23/12007/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS103	WS102	WS101	WS101	TP102	TP101	TP101			
Depth to Top	0.00	0.20	0.40	1.00	0.20	0.00	0.30			
Depth To Bottom	0.40	0.60	1.00	1.50	0.50	0.30	0.80			
Date Sampled	30-Nov-23	30-Nov-23	30-Nov-23	30-Nov-23	01-Dec-23	01-Dec-23	01-Dec-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	4AE	6ABDE	6AB	6AB	4AB	6ABE	4AB			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	Amosite & Chrysotile	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	Loose Fibres	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A			A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing)$_{D}$	-	<0.001	-	-	-	-	-	% w/w	0.001	A-T-054

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3	23/12007/4	23/12007/5	23/12007/6	23/12007/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS103	WS102	WS101	WS101	TP102	TP101	TP101			
Depth to Top	0.00	0.20	0.40	1.00	0.20	0.00	0.30			
Depth To Bottom	0.40	0.60	1.00	1.50	0.50	0.30	0.80			
Date Sampled	30-Nov-23	30-Nov-23	30-Nov-23	30-Nov-23	01-Dec-23	01-Dec-23	01-Dec-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	4AE	6ABDE	6AB	6AB	4AB	6ABE	4AB			
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.30	0.02	0.02	0.16	0.22	0.53	0.08	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	0.03	<0.01	<0.01	<0.01	0.03	0.06	0.02	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.46	0.06	0.05	0.18	0.49	1.11	0.17	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	1.53	0.15	0.23	0.49	1.48	3.39	0.81	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	1.35	0.10	0.21	0.25	1.19	3.26	0.78	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	1.73	0.15	0.31	0.42	1.60	4.15	1.13	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.92	0.06	0.16	0.12	0.70	1.79	0.47	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.55	<0.07	0.11	0.17	0.56	1.44	0.36	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	1.63	0.15	0.27	0.59	1.49	3.60	0.92	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A$	0.16	<0.04	<0.04	<0.04	0.13	0.33	0.09	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	3.31	0.39	0.47	1.33	3.44	7.59	1.52	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.17	0.01	0.01	0.10	0.24	0.41	0.05	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	1.00	0.07	0.17	0.13	0.79	2.00	0.52	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	0.07	<0.03	0.04	<0.03	0.17	0.22	0.06	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	2.01	0.25	0.23	0.91	2.32	4.92	0.74	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	3.10	0.33	0.45	1.31	3.16	6.99	1.49	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A$	18.3	1.74	2.73	6.16	18	41.8	9.21	mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3	23/12007/4	23/12007/5	23/12007/6	23/12007/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS103	WS102	WS101	WS101	TP102	TP101	TP101			
Depth to Top	0.00	0.20	0.40	1.00	0.20	0.00	0.30			
Depth To Bottom	0.40	0.60	1.00	1.50	0.50	0.30	0.80			
Date Sampled	30-Nov-23	30-Nov-23	30-Nov-23	30-Nov-23	01-Dec-23	01-Dec-23	01-Dec-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	4AE	6ABDE	6AB	6AB	4AB	6ABE	4AB			
Speciated PCB-WHO12										
PCB BZ 81$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 105$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 114$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 118$_A^{M\#}$	<0.007	-	-	-	-	-	-	mg/kg	0.007	A-T-004s
PCB BZ 123$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 126$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 156$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 157$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 167$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 169$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 189$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
PCB BZ 77$_A^{M\#}$	<0.005^U	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
Total Speciated PCB-WHO12$_A^{M\#}$	<0.007	-	-	-	-	-	-	mg/kg	0.005	A-T-004s
TPH Total with ID + GC Trace										
TPH total (>C6-C40)$_A^{M\#}$	-	95	-	101	757	-	-	mg/kg	10	A-T-007s
TPH FID Chromatogram$_A$	-	Appended	-	Appended	Appended	-	-			A-T-007s
TPH ID Interpretation$_A$	-	C10-C44 with PAHs and other unknown hydrocarbons	-	C10-C44 with PAHs and other unknown hydrocarbons	C10-C44 with PAHs and other unknown hydrocarbons	-	-			A-T-007s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3	23/12007/4	23/12007/5	23/12007/6	23/12007/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS103	WS102	WS101	WS101	TP102	TP101	TP101			
Depth to Top	0.00	0.20	0.40	1.00	0.20	0.00	0.30			
Depth To Bottom	0.40	0.60	1.00	1.50	0.50	0.30	0.80			
Date Sampled	30-Nov-23	30-Nov-23	30-Nov-23	30-Nov-23	01-Dec-23	01-Dec-23	01-Dec-23			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	4AE	6ABDE	6AB	6AB	4AB	6ABE	4AB			
TPH UKCWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<10	<1	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<10	<1	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<10	<1	<1	-	<1	2	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<10	<1	1	-	2	2	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	85	8	17	-	138	22	11	mg/kg	1	A-T-055s
Ali >C35-C44$_A$	20	2	7	-	37	14	5	mg/kg	1	A-T-055s
Total Aliphatics$_A$	105	10	26	-	177	39	16	mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<10	<1	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<10	<1	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<10	2	2	-	6	12	5	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	23	6	7	-	33	53	24	mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	60	17	30	-	136	180	78	mg/kg	1	A-T-055s
Aro >C35-C44$_A$	12	1	8	-	49	15	5	mg/kg	1	A-T-055s
Total Aromatics$_A$	94	26	46	-	224	261	112	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C44)$_A$	199	36	72	-	402	300	128	mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/8	23/12007/9	23/12007/10	23/12007/11	23/12007/12			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP106	TP104	TP105	TP103	TP108					
Depth to Top	0.30	2.00	1.00	0.30	0.30					
Depth To Bottom	0.60	2.50	1.50	0.75	0.75					
Date Sampled	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL					
Sample Matrix Code	4AB	6AE	4AE	4ABE	4ABE					
% Moisture at <40C$_A$	12.1	16.8	14.6	-	20.1			% w/w	0.1	A-T-044
% Stones >10mm$_A$	<0.1	0.2	26.5	16.7	8.8			% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.96	8.26	7.89	-	7.66			pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.01	0.03	0.01	-	0.03			g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	810	340	480	-	720			mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1	-	<1			mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	-	<0.2			mg/kg	0.2	A-T-050s
Sulphide$_A$	75	97	66	-	73			mg/kg	5	A-T-043-s
Sulphur (elemental)$_D$$^{M\#}$	<5	150	17	-	70			mg/kg	5	A-T-029s
Organic Matter$_D$$^{M\#}$	3.1	6.8	4.6	-	6.4			% w/w	0.1	A-T-032s
Arsenic$_D$$^{M\#}$	7	4	12	-	8			mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	1.1	<1.0	-	<1.0			mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	0.7	1.1	1.2	-	1.0			mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	31	45	49	-	36			mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	17	33	19	-	23			mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	-	<1			mg/kg	1	A-T-040s
Chromium (trivalent)	17	33	19	-	23			mg/kg	1	Calc
Lead$_D$$^{M\#}$	107	56	108	-	92			mg/kg	1	A-T-024s
Mercury$_D$	0.24	0.22	0.43	-	0.36			mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	16	30	18	-	19			mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	-	<1			mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	69	52	86	-	115			mg/kg	5	A-T-024s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/8	23/12007/9	23/12007/10	23/12007/11	23/12007/12			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP106	TP104	TP105	TP103	TP108					
Depth to Top	0.30	2.00	1.00	0.30	0.30					
Depth To Bottom	0.60	2.50	1.50	0.75	0.75					
Date Sampled	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL					
Sample Matrix Code	4AB	6AE	4AE	4ABE	4ABE					
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	Chrysotile	NAD	NAD	-	NAD					A-T-045
Asbestos Matrix (visual)$_{D}$	Cement	-	-	-	-					A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-					A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	No	N/A	N/A	-	N/A					A-T-045
Asbestos in Soil Quantification % (Hand Picking & Weighing)										
Asbestos in soil % composition (hand picking and weighing)$_{D}$	0.032	-	-	-	-			% w/w	0.001	A-T-054

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/8	23/12007/9	23/12007/10	23/12007/11	23/12007/12			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP106	TP104	TP105	TP103	TP108					
Depth to Top	0.30	2.00	1.00	0.30	0.30					
Depth To Bottom	0.60	2.50	1.50	0.75	0.75					
Date Sampled	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL					
Sample Matrix Code	4AB	6AE	4AE	4ABE	4ABE					
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.02	0.89	0.12	-	0.08			mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	0.06	0.05	-	0.02			mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.05	0.53	0.23	-	0.17			mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.22	1.18	0.79	-	0.63			mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.20	1.01	0.74	-	0.51			mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.30	1.30	1.14	-	0.74			mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.14	0.58	0.40	-	0.31			mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.09	0.42	0.34	-	0.27			mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.25	1.27	0.91	-	0.72			mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A$	<0.04	0.12	0.08	-	0.06			mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.42	2.53	1.76	-	1.37			mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.01	0.49	0.07	-	0.07			mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.15	0.61	0.47	-	0.33			mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	0.38	0.03	-	<0.03			mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.23	1.97	0.86	-	0.90			mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.40	2.63	1.58	-	1.34			mg/kg	0.07	A-T-019s
Total PAH-16MS$_A$	2.48	16	9.57	-	7.52			mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/8	23/12007/9	23/12007/10	23/12007/11	23/12007/12			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP106	TP104	TP105	TP103	TP108					
Depth to Top	0.30	2.00	1.00	0.30	0.30					
Depth To Bottom	0.60	2.50	1.50	0.75	0.75					
Date Sampled	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL					
Sample Matrix Code	4AB	6AE	4AE	4ABE	4ABE					
Speciated PCB-WHO12										
PCB BZ 81$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 105$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 114$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 118$_A^{M\#}$	-	-	-	<0.007	-			mg/kg	0.007	A-T-004s
PCB BZ 123$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 126$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 156$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 157$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 167$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 169$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 189$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
PCB BZ 77$_A^{M\#}$	-	-	-	<0.005^U	-			mg/kg	0.005	A-T-004s
Total Speciated PCB-WHO12$_A^{M\#}$	-	-	-	<0.007	-			mg/kg	0.005	A-T-004s

Envirolab Job Number: 23/12007

Client Project Name: Cheetham Hill, Manchester

Client Project Ref: 33716LG

Lab Sample ID	23/12007/8	23/12007/9	23/12007/10	23/12007/11	23/12007/12			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP106	TP104	TP105	TP103	TP108					
Depth to Top	0.30	2.00	1.00	0.30	0.30					
Depth To Bottom	0.60	2.50	1.50	0.75	0.75					
Date Sampled	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23	01-Dec-23					
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL					
Sample Matrix Code	4AB	6AE	4AE	4ABE	4ABE					
TPH UKCWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	-	<1			mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	-	<1			mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	-	<1			mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	2	1	<1	-	<1			mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	17	5	18	-	6			mg/kg	1	A-T-055s
Ali >C35-C44$_A$	5	4	6	-	2			mg/kg	1	A-T-055s
Total Aliphatics$_A$	24	10	25	-	8			mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	-	<1			mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	4	<1	-	<1			mg/kg	1	A-T-055s
Aro >C12-C16$_A$	3	11	3	-	2			mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	7	23	15	-	8			mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	38	60	69	-	30			mg/kg	1	A-T-055s
Aro >C35-C44$_A$	3	4	5	-	2			mg/kg	1	A-T-055s
Total Aromatics$_A$	51	101	93	-	42			mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C44)$_A$	75	110	118	-	50			mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	-	<0.01			mg/kg	0.01	A-T-022s

Report Notes

General
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The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
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Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^{o}C / 11550µS/cm @ 20^{o}C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Sutcliffe, 18-20 Harrington Street, Liverpool, L2 9QA

Project: Cheetham Hill, Manchester

Clients Project No: 33716LG

Project No: 23/12007

Date Received: 05/12/2023 (am)

Cool Box Temperatures (°C): 7.1 & 7.2

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3
Client Sample No			
Client Sample ID/Depth	WS103 0.00-0.40m	WS102 0.20-0.60m	WS101 0.40-1.00m
Date Sampled	30/11/23	30/11/23	30/11/23
Deviation Code			
F	✓	✓	✓

Key

F *Maximum holding time exceeded between sampling date and analysis for analytes listed below*

HOLDING TIME EXCEEDANCES

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3
Client Sample No			
Client Sample ID/Depth	WS103 0.00-0.40m	WS102 0.20-0.60m	WS101 0.40-1.00m
Date Sampled	30/11/23	30/11/23	30/11/23
Sulphide	✓	✓	✓

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/12007/1	23/12007/2	23/12007/3	23/12007/4	23/12007/5	23/12007/6	23/12007/7	23/12007/8	23/12007/9	23/12007/10	23/12007/11	23/12007/12
Client Sample No												
Client Sample ID/Depth	WS103 0.00-0.40m	WS102 0.20-0.60m	WS101 0.40-1.00m	WS101 1.00-1.50m	TP102 0.20-0.50m	TP101 0.00-0.30m	TP101 0.30-0.80m	TP106 0.30-0.60m	TP104 2.00-2.50m	TP105 1.00-1.50m	TP103 0.30-0.75m	TP108 0.30-0.75m
Date Sampled	30/11/23	30/11/23	30/11/23	30/11/23	01/12/23	01/12/23	01/12/23	01/12/23	01/12/23	01/12/23	01/12/23	01/12/23
A-T-004s	11/12/2023										11/12/2023	
A-T-007s		18/12/2023		18/12/2023	18/12/2023							
A-T-019s	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023		11/12/2023
A-T-022s	11/12/2023	11/12/2023	11/12/2023		11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023		11/12/2023
A-T-024s	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023		14/12/2023
A-T-026s	12/12/2023	12/12/2023	12/12/2023		12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023		12/12/2023
A-T-027s	12/12/2023	12/12/2023	12/12/2023		12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023		12/12/2023
A-T-028s	12/12/2023	12/12/2023	12/12/2023		12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023		12/12/2023
A-T-029s	18/12/2023	18/12/2023	19/12/2023		18/12/2023	19/12/2023	18/12/2023	18/12/2023	18/12/2023	18/12/2023		19/12/2023
A-T-031s	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023		12/12/2023
A-T-032s	14/12/2023	14/12/2023	14/12/2023		14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023		14/12/2023
A-T-040s	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023		12/12/2023
A-T-042sTCN	11/12/2023	11/12/2023	11/12/2023		11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023		11/12/2023
A-T-043-s	12/12/2023	12/12/2023	12/12/2023		12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023		12/12/2023
A-T-044	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023	12/12/2023
A-T-045	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023	06/12/2023		06/12/2023
A-T-050s	15/12/2023	15/12/2023	15/12/2023		15/12/2023	15/12/2023	15/12/2023	15/12/2023	15/12/2023	15/12/2023		15/12/2023
A-T-054		12/12/2023						12/12/2023				
A-T-055s	11/12/2023	11/12/2023	11/12/2023		11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023		11/12/2023
Assessment		21/12/2023		21/12/2023	21/12/2023							
Calc	14/12/2023	14/12/2023	14/12/2023		14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023	14/12/2023		14/12/2023
Calc-As Recd	11/12/2023	11/12/2023	11/12/2023		11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023	11/12/2023		11/12/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/00632
Issue Number: 1 **Date:** 02 February, 2024

Client: Sutcliffe
18-20 Harrington Street
Liverpool
L2 9QA

Project Manager: (Use) D Evans; D Bowen; A Tosh; W Baldwin/(Use) Sa
Project Name: Cheetham
Project Ref: 33716LG
Order No: 10188
Date Samples Received: 22/01/24
Date Instructions Received: 24/01/24
Date Analysis Completed: 02/02/24

Approved by:

[redacted]

Envirolab Job Number: 24/00632

Client Project Name: Cheetham

Client Project Ref: 33716LG

Lab Sample ID	24/00632/1	24/00632/2	24/00632/3	24/00632/4	24/00632/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP101	WS112	WS107	TP108	WS110					
Depth to Top	0.00	0.00	0.00	0.00	0.00					
Depth To Bottom	0.20	0.30	0.30	0.30	0.30					
Date Sampled	19-Jan-24	19-Jan-24	19-Jan-24	19-Jan-24	19-Jan-24					
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES					
Sample Matrix Code	6	6E	6AE	6E	6AE					
% Moisture at <40C$_A$	17.1	25.7	16.3	32.9	19.4			% w/w	0.1	A-T-044
% Stones >10mm$_A$	<0.1	<0.1	35.3	3.4	8.6			% w/w	0.1	A-T-044
Leachate Prep NRA (10:1)$_A$	*	*	*	*	*					A-T-001
pH (leachable)$_A$	7.99	6.99	7.51	7.23	7.67			pH	0.01	A-T-031w
Sulphate (leachable)$_A$	5.36	<1.00	<1.00	1.41	1.89			mg/l	1	A-T-026w
Cyanide (total) (leachable)$_A$	<0.005	<0.005	<0.005	<0.005	<0.005			mg/l	0.005	A-T-042wTCN
Phenols (total by HPLC) (leachable)$_A$	<0.01	<0.01	<0.01	<0.01	<0.01			mg/l	0.01	A-T-050w
Sulphide (leachable)$_A$	<0.1	<0.1	<0.1	<0.1	<0.1			mg/l	0.1	A-T-043-w
DOC (leachable)$_A$	2.5	6.2	5.6	8.4	4.9			mg/l	2	A-T-032w
Arsenic (leachable)$_A$	<1	<1	5	1	4			µg/l	1	A-T-025w
Boron (leachable)$_A$	11	11	<10	11	12			µg/l	10	A-T-025w
Cadmium (leachable)$_A$	<1	<1	<1	<1	<1			µg/l	1	A-T-025w
Copper (leachable)$_A$	<4	8	20	9	7			µg/l	4	A-T-025w
Chromium (leachable)$_A$	<1	<1	<1	<1	<1			µg/l	1	A-T-025w
Chromium (hexavalent) (leachable)$_A$	<0.05	<0.05	<0.05	<0.05	<0.05			mg/l	0.05	A-T-040w
Chromium (trivalent)	<0.05	<0.05	<0.05	<0.05	<0.05			mg/l	0.05	Calc
Lead (leachable)$_A$	<1	4	60	11	9			µg/l	1	A-T-025w
Mercury (leachable)$_A$	<0.1	<0.1	<0.1	<0.1	<0.1			µg/l	0.1	A-T-025w
Nickel (leachable)$_A$	<2	<2	<2	<2	<2			µg/l	2	A-T-025w
Selenium (leachable)$_A$	<1	<1	<1	<1	<1			µg/l	1	A-T-025w
Sulphur (elemental/free) (leachable)$_A$	<0.1	<0.1	<0.1	<0.1	<0.1			mg/l	0.1	A-T-029w
Zinc (leachable)$_A$	3	19	19	18	9			µg/l	2	A-T-025w
TPH total (>C6-C40) (leachable)$_A$	<80	<80	<80	<80	<80			µg/l	80	A-T-007w

Envirolab Job Number: 24/00632

Client Project Name: Cheetham

Client Project Ref: 33716LG

Lab Sample ID	24/00632/1	24/00632/2	24/00632/3	24/00632/4	24/00632/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP101	WS112	WS107	TP108	WS110					
Depth to Top	0.00	0.00	0.00	0.00	0.00					
Depth To Bottom	0.20	0.30	0.30	0.30	0.30					
Date Sampled	19-Jan-24	19-Jan-24	19-Jan-24	19-Jan-24	19-Jan-24					
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES					
Sample Matrix Code	6	6E	6AE	6E	6AE					
PAH-16MS (leachable)										
Acenaphthene (leachable)$_A$	0.01	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Acenaphthylene (leachable)$_A$	<0.01	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Anthracene (leachable)$_A$	0.04	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Benzo(a)anthracene (leachable)$_A$	0.15	<0.01	0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Benzo(a)pyrene (leachable)$_A$	0.14	<0.01	0.02	<0.01	<0.01			µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (leachable)$_A$	0.14	<0.01	0.02	<0.01	<0.01			µg/l	0.01	A-T-019w
Benzo(ghi)perylene (leachable)$_A$	0.07	<0.01	0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (leachable)$_A$	0.06	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Chrysene (leachable)$_A$	0.16	<0.01	0.02	<0.01	<0.01			µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (leachable)$_A$	0.03	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Fluoranthene (leachable)$_A$	0.19	<0.01	0.04	<0.01	<0.01			µg/l	0.01	A-T-019w
Fluorene (leachable)$_A$	0.02	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (leachable)$_A$	0.08	<0.01	0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Naphthalene (leachable)$_A$	<0.01	<0.01	<0.01	<0.01	<0.01			µg/l	0.01	A-T-019w
Phenanthrene (leachable)$_A$	0.12	<0.01	0.02	0.01	<0.01			µg/l	0.01	A-T-019w
Pyrene (leachable)$_A$	0.17	<0.01	0.03	<0.01	<0.01			µg/l	0.01	A-T-019w
Total PAH-16MS (leachable)$_A$	1.38	<0.01	0.18	0.01	<0.01			µg/l	0.01	A-T-019w

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Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and Interpretations expressed are outside our scope of accreditation.
The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

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Asbestos
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Stones etc. are not removed from the sample prior to analysis
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Assigned Matrix Codes

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2	LOAM	7	OTHER	B	Contains Construction Rubble
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4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

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For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^{o}C / 11550µS/cm @ 20^{o}C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Sutcliffe, 18-20 Harrington Street, Liverpool, L2 9QA

Project No: 24/00632

Date Received: 24/01/2024 (am)

Project: Cheetham

Cool Box Temperatures (°C): 8.3

Clients Project No: 33716LG

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	24/00632/1	24/00632/2	24/00632/3	24/00632/4	24/00632/5
Client Sample No					
Client Sample ID/Depth	TP101 0.00-0.20m	WS112 0.00-0.30m	WS107 0.00-0.30m	TP108 0.00-0.30m	WS110 0.00-0.30m
Date Sampled	19/01/24	19/01/24	19/01/24	19/01/24	19/01/24
A-T-007w	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-019w	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-025w	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-026w	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024
A-T-029w	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-031w	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-032w	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
A-T-040w	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024
A-T-042wTCN	30/01/2024	30/01/2024	30/01/2024	30/01/2024	30/01/2024
A-T-043-w	02/02/2024	02/02/2024	02/02/2024	02/02/2024	02/02/2024
A-T-044	29/01/2024	29/01/2024	29/01/2024	29/01/2024	29/01/2024
A-T-050w	31/01/2024	31/01/2024	31/01/2024	31/01/2024	31/01/2024
Calc	01/02/2024	01/02/2024	01/02/2024	01/02/2024	01/02/2024

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

Appendix B – Gas Protection Membrane Specification & Membrane Validation Proforma

Protech GM Super

GAS PROTECTION

• HIGH RISK CHARACTERISTIC SITES •

REGULATIONS COMPATIBILITY TABLE

	CIRIA 665 CHARACTERISTIC SITUATION 2	CIRIA 665 CHARACTERISTIC SITUATION 3-6	BS8485 CHARACTERISTIC SITUATION 2	BS8485 CHARACTERISTIC SITUATION 3-6	BRE 211 RADON	NHBC AMBER 1	NHBC AMBER 2 & RED
METHANE	✓	✓	✓	✓	N/A	✓	✓
CARBON DIOXIDE	✓	✓	✓	✓	N/A	✓	✓
RADON	N/A	N/A	N/A	N/A	✓	N/A	N/A

DESCRIPTION

Protech GM Super is a high performance proprietary reinforced gas barrier, that incorporates a 12 micron aluminium foil layer, for maximum protection against ground-borne gases. This has been specifically designed to conform with the latest guidance documents. Due to its unique composition, the membrane is extremely robust and flexible and, therefore, easy to install on site. The membrane also provides protection from damp when placed below the slab and, therefore, there is no need to install a separate DPM.



SPECIFICATION

CIRIA C665, BS8485:2015 & Local Authority Ground Gas Handbook recommended that gas membranes are specified on the basis of the 'need to survive' construction, i.e. use one that is puncture and tear resistant.

Thickness should not be the main determinant of the suitability of a membrane for a particular site, although it can indirectly influence some key performance parameters.

In practise, because of the nature of construction sites, the durability, survivability and robustness of membranes are equally important than purely permeability to gas.

Protech GM Super incorporates a reinforced grid to ensure that maximum protection is achieved when installed to manufacturers' instructions.

The need for high quality workmanship during installation should not be under-estimated. The health and safety of the occupants of the building is dependent on its satisfactory performance. If installed incorrectly or damaged during the construction process, the membrane is rendered ineffective and will fail to provide adequate protection against the ingress of ground gas or vapours.

TYPICAL PROPERTIES	
Roll Length	50m
Width	2m
Weight	370g/m^2
Thickness	0.4mm
Colour	Green / Silver
Methane Permeability (ISO 15105-1)	≤ 0.1 ml/day/m^2

REQUIRED ACCESSORIES

- Protech GM Super Starter Band (1m x 50m)
- Protech GM Tape
- Protech GM Tophats
- Protech SAGM (Self Adhesive Gas Membrane)
- Protech GM Flashing Strip
- Protech GM Super Corner Units
- Protech GM Primer
- Protech GM 3mm Protection Board
- Protech GM Protection Fleece
- Protech 125

VENTING

On sites where venting is required, our Provoid Venting System should be used. We can provide design advice for both passive and active venting systems to suit individual site requirements.

BBA APPROVAL INSPECTION TESTING CERTIFICATION CERTIFICATE 11/4868

BGA British Geomembrane Association

BSI

CE

Revised April 2021

Visual Inspection of Gas Protection Measures

Site Name:	Gas characteristic situation:
Job Number:	Type of development and building/block checked: residential/commercial/other
Date:	Building description:
Visit by:	Foundation type: suspended floor/raft/other
Weather at time of inspection:	Gas protection type: passive/active

No.	Item	Comments (see notes)
1 Gas membrane		
1.1	Condition of sub-grade and underside of gas membrane	
1.2	Gas membrane type	
1.3	Gas membrane condition	
1.4	Joining tape product	
1.5	Lapping design	
1.6	Laps. Welds and joints seals	
1.7	Service entries seals	
2 Passive venting		
2.1	Sub-floor void	
2.2	External wall airbricks	
2.3	Internal sleeper walls	
2.4	External vent trenches/ducts	
3 Active venting		
3.1	System details	
Additional Notes:		

Notes: inspection checklist

1.1	Underside of gas membrane	Check that the sub grade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.
1.2	Gas membrane type	Manufacturer and product specification, gauge, colour, brand/name, material batch/roll numbers, storage arrangements (protected from dirt/damage?)
1.3	Gas membrane condition	Open punctures, tears, rips, stretching? Excessive footprints/evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?
1.4	Joining tape product	Product type, brand, thickness, material, width, colour? Use of double sided tape?
1.5	Lapping design	Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice?
1.6	Laps and joints sealed	Welds complete? Appropriate joining/double sided tape used?
1.7	Service entries sealed	Top hats seal arrangements fixed around service entries? Use of Jubilee clips?
2.1	Sub-floor void	Is a check possible? Void former? Gravel (type/specification)? Height of void space? Is it clear?
2.2	External wall airbricks	Numbers, size, positions as design drawing?
2.3	Internal sleeper walls	Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design?
2.4	External vent trenches/ducts	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
3.1	Active venting	Type of air supply: mechanical, natural, combined? Location/condition/number of fans and vents? Location and size of inlets? Provision of air-cleaning devices and air heaters? Supply and exhaust ductwork? Alarm provision/installation? Gas monitoring system in under-floor void?

Photographs

No.	**Description**

The gas protection measures inspected:	a Are acceptable and comply with the specification
	b Are acceptable but attention is drawn to issues related to item no.
	c Are not acceptable due to issues related to item no.

Name: **Signature:** **Date:**

Appendix C – Council Validation Requirements

Manchester City Council

Contaminated Land Strategy

Updated March 2011

Undertaken by
Contaminated Land Section
Environmental Services

MANCHESTER
CITY COUNCIL

CONTENTS **Page Number**

Introduction	1
Context	2
Legislation and national policies	2
Corporate Objectives	3
The Contaminated Land Strategy	4
Our Achievements	5
Managing our information efficiently	5
Identifying land that may be contaminated	6
Action taken under Part 2A legislation	7
Contributing to the Council's strategic priorities	7
Consultation and partnership working	8
Our Future Commitments	10
Assessment of landfill sites	10
Review processes	10
Conclusion	11
Contact details	11

APPENDIX I

APPENDIX II

Introduction

Manchester and the surrounding towns were the centre of the Industrial Revolution in England. The City has seen intense industrial activity in many places from the 19th century to the present day. The City's modern commercial and economic importance owes much to this industrial past.

Industrial activity in cities such as Manchester has of course had a significant impact on the local environment. In particular it has left a legacy of potentially contaminated land at former industrial sites and at infilled mineral excavations. In some cases significant risks from this contamination now have to be addressed to protect the health of all those who live and work in the City and to prevent damage to the environment.

Manchester's former industrial land provides great opportunities for the City.

Such land is a major resource for:

- regenerating and developing existing communities
- meeting the demand for new housing using 'brownfield' land, thus preserving the nation's treasured countryside
- developing new sustainable urban communities

In November 2001 Manchester City Council published its Contaminated Land Strategy. The Strategy stated how the Council was:

- tackling the legacy of contamination on former industrial land
- encouraging the best use of this large urban land resource.

This current report provides a review of the progress that has been made to implement the Contaminated Land Strategy and sets out our commitments for continuing this work.

Context

Legislation and national policies

Awareness of the problems associated with land contamination has increased greatly in recent years. The demand for more housing has put pressure on land resources and highlighted the need to use brownfield land effectively. The importance of contaminated land as a national issue is reflected in primary legislation and associated regulations and guidance:

- **Part 2A of the Environmental Protection Act 1990**: Providing a new regime for dealing with the problems arising from contaminated land.
- **Contaminated Land (England) Regulations 2000 (SI 2000:227)**: Deals with the procedural matters, including the content and service of remediation notices and the appeals process.
- **DEFRA Circular 01/2006 'Contaminated Land'**: Statutory Guidance that supports The Act and sets out the UK Government Policy on contaminated land.

The legislation, commonly referred to as 'Part 2A', came into effect in April 2000. It sets out the new regime for identifying and remediating serious contamination. It provides a definition of contaminated land (Appendix I) and provides local authorities and the Environment Agency with a consistent framework for tackling problem sites.

Every local authority in England and Wales has a duty to inspect their district for potentially contaminated land in a 'rational, ordered and efficient' manner. Ideally such land will be remediated voluntarily by those who caused the problem or, according to the legislation, is the 'appropriate person'. However, in some cases local authorities or the Environment Agency will have to use their regulatory powers to enforce remediation.

Corporate Objectives

Manchester City Council is continuing to develop Manchester as a city of national and international importance. Effective management of our brownfield land is contributing to several key Corporate Objectives:

Key Corporate Objectives

- **Environment:** to develop and sustain a healthy, safe and attractive local environment which contributes to the City's and its people's economic and social well-being.
- **Health:** to prevent ill-health and improve local people's health and well being.
- **Population:** to increase the numbers of people living in the City and to reduce the turnover of people leaving the City by creating successful communities

Opening up land for new uses and tackling derelict sites in the City also contributes indirectly to other Corporate Objectives by increasing economic activity, creating jobs, stimulating growth, and reducing crime and anti-social behaviour.

The Contaminated Land Strategy

Our Contaminated Land Strategy is the basis for the sound management of our brownfield land resource. It underpins the work needed to deal with land contamination and contributes to fulfilling the Council's wider Objectives.

Aims of the Contaminated Land Strategy:

- To improve the quality of life for Manchester people in line with the Manchester Improvement Programme
- To protect people from risks to health
- To protect the land and water environment
- To support the regeneration of the City
- To encourage the re-use of previously developed land

We will achieve these aims by:

- Ensuring that Manchester City Council fulfils its new duties under Part 2A in particular:
    - to inspect the district to identify potentially contaminated land
    - to investigate land to determine the extent of any contamination problems
    - to bring about the remediation of contaminated land
    - to encourage voluntary remediation wherever possible
- Working towards consistency in managing land contamination across all relevant Council services
- Working in partnership with the Environment Agency and other stakeholders

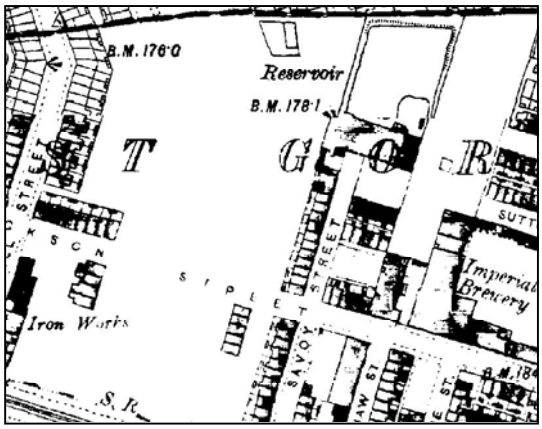
Our Achievements

The Council is committed to delivering its Contaminated Land Strategy and have allocated additional resources to strengthen our specialist Contaminated Land Section within Environmental Health. The Contaminated Land Section:

- provides a customer-oriented service for developers, consultants and members of the public
- provides a consultancy for planning applications on contaminated land and supervises the investigation and remediation of new developments
- acts as the central point within the Council for information on ground contamination
- acts as an internal technical consultancy for the Council and advises on best practice
- carries out environmental information searches

Managing our information efficiently

A Geographical Information System (GIS) and a database are being used to manage the large amount of information being acquired. They enable us to store all of the data in a single secure system that it is fully validated and provides a facility that gives immediate access to the history of sites, maps and photographs of its current use and links to the information contained within the Sections records including any action that has been taken to manage contamination problems. Digital historical maps have been purchased to allow the history of land within the district to be traced. The current use of land is assessed using both current Ordnance Survey mapping and recent digital aerial photography.



Digital historical mapping allows the history of land to be traced.



Recent aerial photography is used in conjunction with Ordnance Survey mapping to determine the current use of the land.

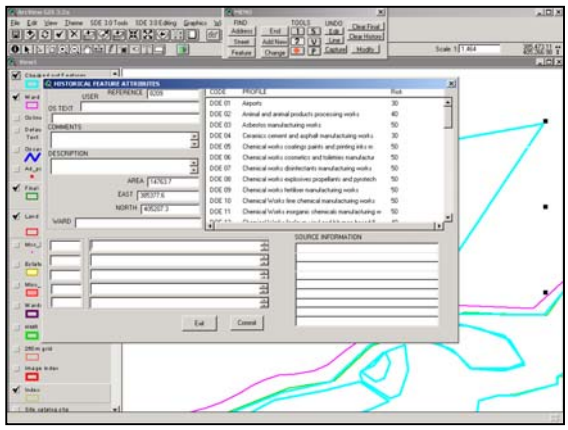
Identifying land that may be contaminated

A systematic procedure has been developed to identify potentially contaminated sites and assess the possible risks. Historical maps are first reviewed to trace former industrial uses. The sites are then ranked according to the potential for the industries to have contaminated the land, taking into account the sensitivity of the current use.

The prioritisation system currently being used in Manchester for the purposes of Part 2A complies with national statutory guidance, and was developed for use by all the Greater Manchester Authorities. The system is known as the PG01 Risk Prioritisation Methodology (PG01) and can be found described in Appendix II.



Recording the boundaries of historical industrial sites.



Entering data to obtain a risk score.

Using the PG01 method, over 6500 potentially contaminated sites have been identified in the City.

The initial identification and prioritisation of sites (Phase 1) is an informed estimate of the potential for contamination to be present at a site and the possibility that it may pose a risk to health or the environment.

Phase 2 of the strategy has now begun. This consists of carrying out detailed inspections of the 6500 sites, in order of priority, to identify whether contamination is actually present.

Action Taken under Part 2A legislation

Some contaminated land has already been investigated, and remediated where necessary, under Part 2A. These have included:

- Garden soils at a housing estate in East Manchester were found to contain unacceptable levels of heavy metals. The affected gardens were remediated and a copy of the Remediation Statement can be found in the contaminated land public register.
- A site investigation has been completed at a former tip site in Harpurhey which is next to the River Irk. The information will be used to design a scheme to remediate the land and begin to create a new high quality open space.
- A site investigation is almost complete at another former tip site in North Manchester which is adjacent to a college.

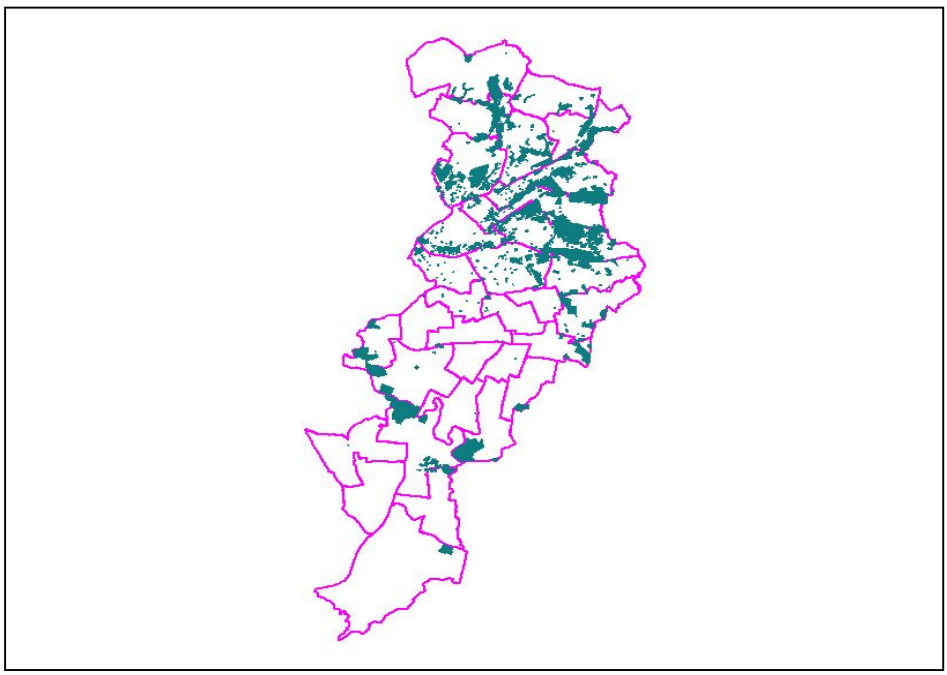


Open land in Harpurhey used historically as a tip for industrial wastes.

Contributing to the Council's strategic priorities

The Contaminated Land Section has carried out detailed environmental desk studies to support large scale voluntary transfer of housing stock in the south and east of the city. This is part of the strategic transfer of all council-owned housing to registered social landlords and other management organisations.

An overview study has been completed to identify the parts of the district with the greatest concentrations of historical industry. These are the areas likely to have become the most polluted. This overview will assist strategic planning while the detailed prioritisation of potential contaminated sites is being completed.



Areas of the City with the greatest concentrations of historical industry and landfilling.

Consultation and partnership working

Ensuring best practice is adopted for new development

The new contaminated land regime is designed to deal with contamination problems that cannot be addressed under other legislation such as the planning system. Given the extensive redevelopment of land now taking place across the City, it is particularly important that any contamination problems at new development sites are identified straight away and not left for the future. To help facilitate this, a guide has been produced for developers and consultants, which explains how planning controls are used, and sets out the Council's standards for remediation when any problems are found. This will ensure that land is properly assessed before any development work starts, and that a high standard of remediation is implemented in any new schemes. The guide is now available to all prospective developers within the City.

Achieving successful remediation of contaminated land

Consultation with local residents and other stakeholders has been a priority during the investigation and remediation of Manchester's first Part 2A land. This has been achieved using public meetings and drop-in sessions, undertaking house-to-house visits, and by ensuring that information is made readily available. A high level of cooperation has been achieved between Council departments including Planning, Environmental Health, Building Control and also developers and consultants. This has provided confidence

to those affected by the contamination and ensured the smooth running of the remediation works.

Working with other local authorities in the region

Contaminated Land Officers across the Greater Manchester area continue to meet regularly through the Land and Water Working Group of the Greater Manchester Public Protection Managers' Group (formerly MAPAC). This forum allows the exchange of technical experience and best practice. Officers are working together towards greater consistency in managing contaminated land across the region.

Our Future Commitments

The actions identified for the implementation of the Contaminated Land Strategy are:

- to continue to respond to the Council's strategic management priorities
- to progress the detailed inspection and remediation of sites identified as potentially contaminated, in order of priority
- to assess the potential risks at each of our landfill sites
- to continually review progress to ensure that the Council's objectives and strategic priorities are being fulfilled.

Listed below are some specific examples of how these commitments will be met.

Assessment of landfill sites

The Council has 62 officially designated landfill sites within its area, many of which were filled before record keeping of such activities was undertaken. Consequently relatively little information is held regarding what went into the sites. The information we do hold is under review and some of the sites will be inspected in order to establish the condition and extent of the landfill. This work will ensure that reliable and consistent information is provided to other Council departments, developers, and landowners. It will also identify at an early stage any landfill sites requiring remediation.

Review processes

The review schedule for this document is 2 years unless circumstances dictate otherwise. A review of the Statutory Guidance is taking place during 2010-11 and, following any changes to that regulatory document, the Council's Strategy will be updated where necessary.

Conclusion

The Contaminated Land Strategy is being taken forward as part of the Council's continuing commitment to develop Manchester as a City of national and international importance, with a thriving economy and a healthy environment. The Contaminated Land Section in Environmental Health has been expanded, and much progress has been made since the Strategy was published in 2001. In particular, a large proportion of the land has already been reviewed to identify land that may be contaminated. This resulted in the first site found to be contaminated land being successfully remediated.

We have an ongoing programme of work focused on the Council's Corporate Objectives for health, the environment, and the Council's statutory responsibilities under Part 2A. Our work will continue with detailed site inspections for those potentially contaminated sites that have been identified under the prioritisation process. Our priority remains to protect the health of those living and working in the City.

Contact details

The Contaminated Land Section
Environmental Protection Group
Regulatory & Enforcement Services
Neighbourhood Services
Manchester City Council
1 Hammerstone Road
Gorton
Manchester M18 8EQ

Telephone: 0161 234 1363
Fax: 0161 274 7245
e-mail: envhealth@manchester.gov.uk

Appendix I Definition of Contaminated Land Under Part IIA

Section 78A defines contaminated land for the purposes of the new regime in the following way:

“Contaminated land” is any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that-

(a) significant land is being caused or there is a significant possibility of such harm being caused; or
(b) pollution of controlled waters is being, or is likely to be caused.

The term ‘significant harm’ refers to harm to certain specified ‘receptors’ – human beings, ecological systems and property – as set out in Table A of Part 3 of the statutory guidance. The phrase ‘significant possibility of significant harm’ must be interpreted with reference to Table B of Part 3 of the statutory guidance.

For the purposes of Part IIA, the term ‘controlled waters’ has the same meaning as in Section 104 of Part III of the Water Resources Act 1991, and includes territorial and coastal waters, inland fresh waters, and ground waters. The phrase ‘the pollution of controlled waters’ refers to (Section 78A(9)) the entry ‘of any poisonous, noxious or polluting matter or any solid waste matter’. For land to be designated as contaminated land for this reason, the pollution must be continuing, or it must be considered likely that pollution might occur.

It should be noted that the term 'ground water' is used here to refer to all water contained in the ground, whether in the unsaturated or the saturated zone - that is, including water above and below the water table. The term 'groundwater', as a single word, is used in the Groundwater Regulations [11] in relation to the protection of water bodies which are potential sources of supply, and refers only to water in the saturated zone - that is, below the water table. Care must be taken when using either term in the context of Part IIA.

The new definition of 'statutory' contaminated land places the emphasis on whether or not conditions are present that may give rise to unacceptable risks to human health or the pollution of controlled waters. It does not depend solely on the presence of undesirable substances in the ground, and makes no distinction between man-made and naturally occurring contaminants.

Even if land contains potentially hazardous substances, as long as the substances cannot harm human beings or pollute controlled waters, the land will not be classified as contaminated land. An example of this is a modern landfill site, which is properly lined and secured, and where there are no links between the fill materials and the outside world.

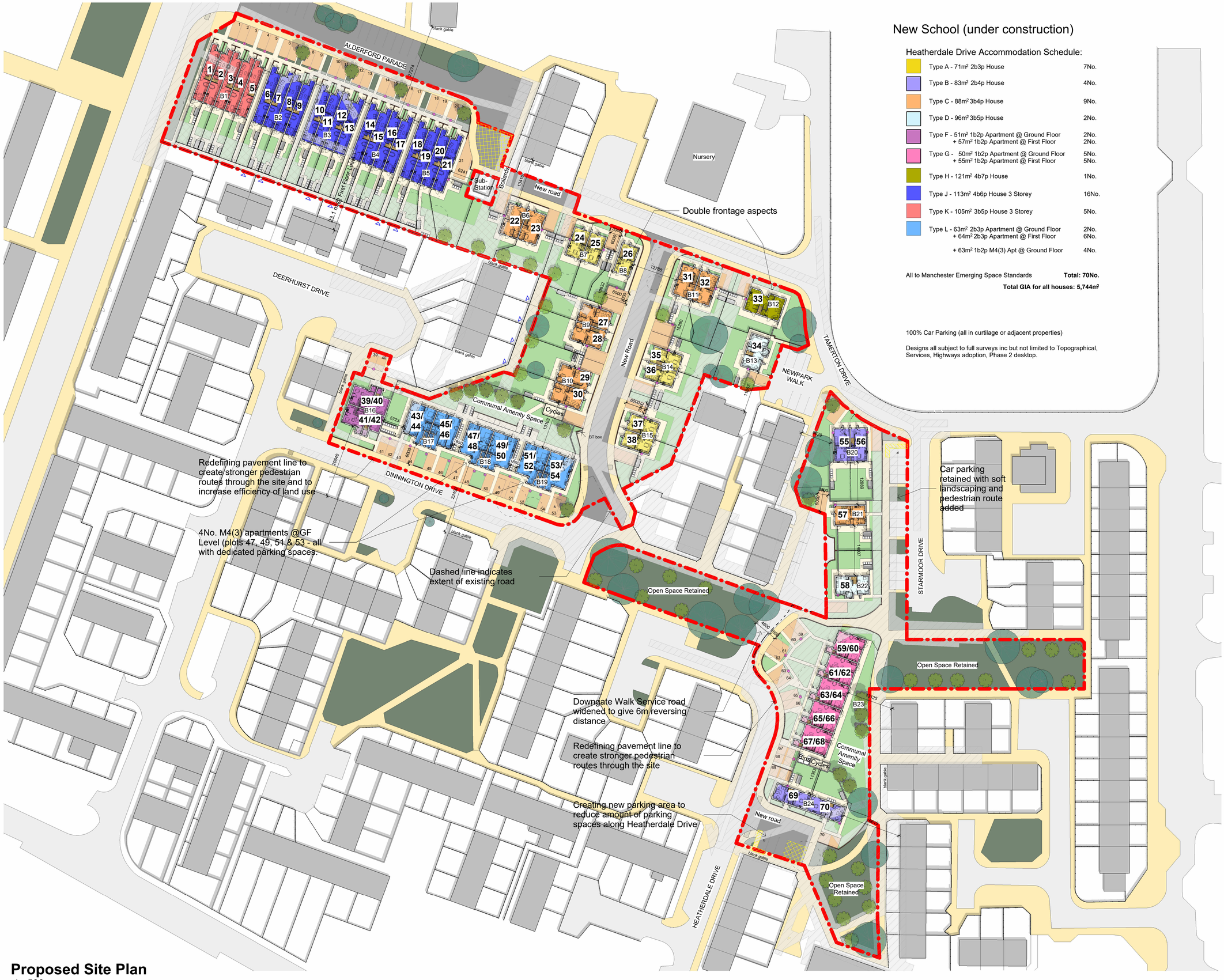
Appendix II PG01 risk prioritisation methodology

The primary regulatory role under Part IIA rests with local authorities. In order to fulfil this role in a manner which ensures that the most pressing and serious problems are considered first MCC has adopted a risk prioritisation system that identifies high risk sites for early investigation.

The risk prioritisation system currently being used in Manchester for the purposes of Part IIA complies with national statutory guidance, and was developed for use by all the Greater Manchester Authorities. The system is known as the PG01 Risk Prioritisation Methodology (PG01).

Manchester City Council has made minor changes to the Land Use Classification codes which are used in the model. This ensures that they are representative of the types of historical land uses present within Manchester. A list of revised classifications is included at the end of the Risk Prioritisation Methodology document.

Drawing Ref. – 21-026-BSA-D-A-1002 Rev D –Proposed Layout



New School (under construction)

Heatherdale Drive Accommodation Schedule:

Type A - 71m² 2b3p House		7No.
Type B - 83m² 2b4p House		4No.
Type C - 88m² 3b4p House		9No.
Type D - 96m² 3b5p House		2No.
Type F - 51m² 1b2p Apartment @ Ground Floor		2No.
	+ 57m² 1b2p Apartment @ First Floor	2No.
Type G - 50m² 1b2p Apartment @ Ground Floor		5No.
	+ 55m² 1b2p Apartment @ First Floor	5No.
Type H - 121m² 4b7p House		1No.
Type J - 113m² 4b6p House 3 Storey		16No.
Type K - 105m² 3b5p House 3 Storey		5No.
Type L - 63m² 2b3p Apartment @ Ground Floor		2No.
	+ 64m² 2b3p Apartment @ First Floor	6No.
	+ 63m² 1b2p M4(3) Apt @ Ground Floor	4No.

All to Manchester Emerging Space Standards **Total: 70No.**

Total GIA for all houses: 5,744m²

100% Car Parking (all in curtilage or adjacent properties)

Designs all subject to full surveys inc but not limited to Topographical, Services, Highways adoption, Phase 2 desktop.

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- Drawing not to be scaled
- Report Errors and Omissions to the Architect.
- Check all dimensions on site
- Drawing to be read in conjunction with the Health and Safety Plan and all relevant Risk Assessments

N

1:5
1:500
10m
20
30

KEY

- Natural surveillance
- Proposed tree
- Retained existing tree
- Soft Landscaped area
- Private Lawned Garden
- Existing tree removed
- Shared surface
- New parking spaces
- Relocated/retained existing parking space
- Underground Utilities Easement
- Underground Utilities to be Adjusted
- Current site boundary
- EV Charger

Rev.	Date	Drn.		Chkd.
D	22.10.24	SW	Tree numbers amended for BNG calcs	SW
C	15.10.24	ACo	amended to planning officer feedback. path to rear plots 1-20 amended. Private driveway parking amended to 6x3. Road widened to access plots 57 & 58. disabled parking bays assigned to M4(3) units. Trees added to POS re BNG	SW
B	31.07.24	ACo	Minor landscaping amendments	SW
A	19.07.24	ACo	Landscaping to front of plots 22-38 & 55-58 amended	CL

BowkerSadler

Project
Heatherdale Drive

Client
Mosscare St. Vincents

Drawing
Proposed Site Plan

Scale	Sheet Size	Drawn	Checked	Date
1 : 500	@ A1	SW	CL	10.07.24

Project No.	Originator	Zone	Level	Form	Discipline	Number	Revision
21-026 -	BSA -			D -	A -	1002	D

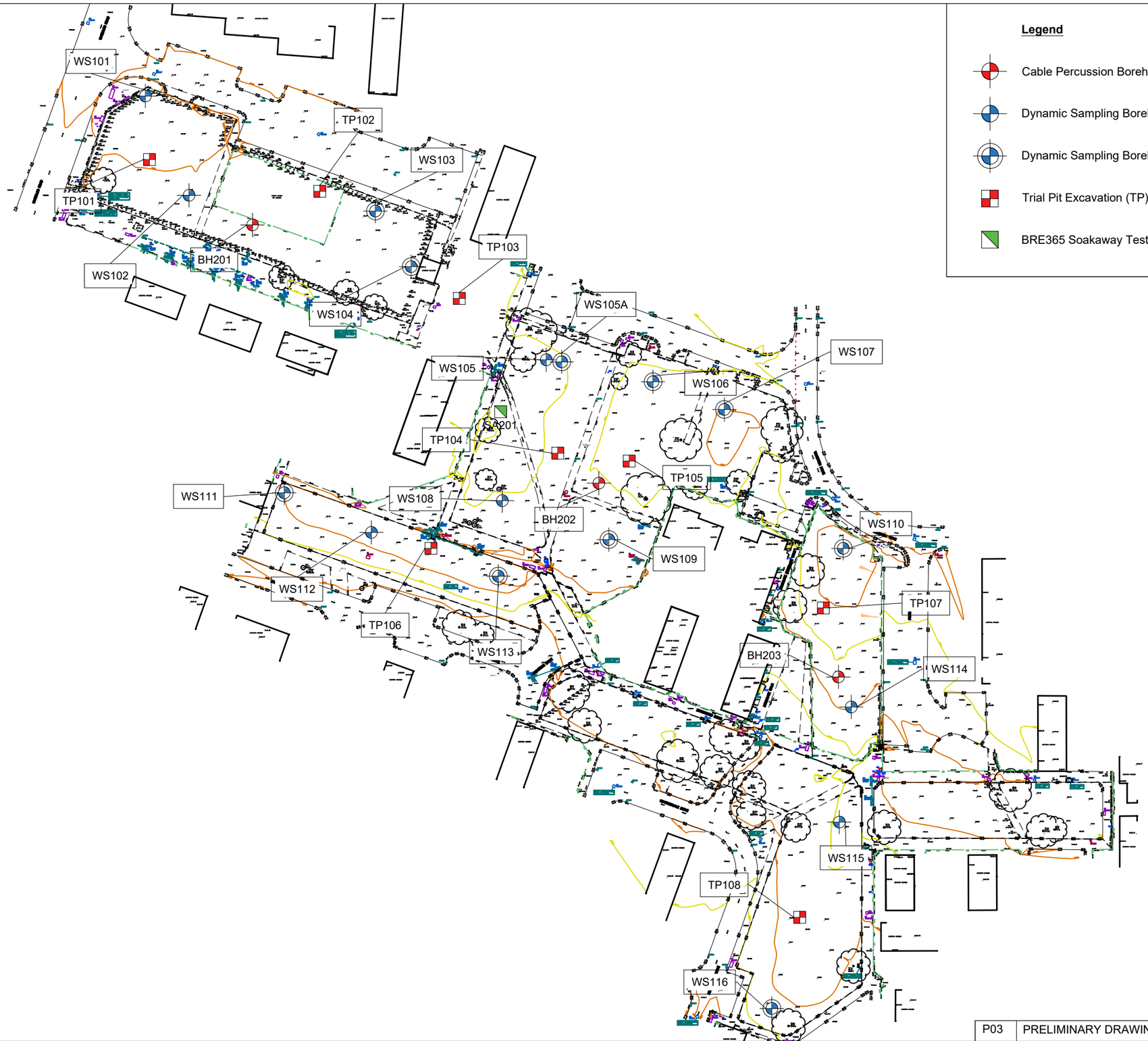
Status
Planning

Hatherlow House, Hatherlow, Romiley, Stockport, SK6 3DY
0161 406 7333 office@bowker-sadler.co.uk www.bowker-sadler.co.uk

Proposed Site Plan
1 : 500

P:\2021\21-026\Drawings\planning\arefix\a-site - Opt 2.rvt

Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7251 – Site Investigation on Existing Layout



Legend

- Cable Percussion Borehole (BH)
- Dynamic Sampling Borehole (WS)
- Dynamic Sampling Borehole with Gas / Groundwater Install (WS)
- Trial Pit Excavation (TP)
- BRE365 Soakaway Test (SA)

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London Office: 020 8016 4320

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Drawing Status

FOR INFORMATION ONLY

Client

MSV HOUSING

Project

CHEETHAM HILL, MANCHESTER

Drawing Title

SITE INVESTIGATION LOCATIONS ON EXISTING PLAN

Rev	Description	Date	By	Chkd
P03	PRELIMINARY DRAWING	04/24	DE	DB

Date	Drawn By	Checked By
APR 2024	D EVANS	D BOWEN

Scale at A3	Project Number
AS SHOWN	33716LG

Sheet Number	Revision
33716-SUT-ZZ-00-DR-G-7251	P03

Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7253 – Gas Risk Assessment Zoning Plan



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Drawing Status
FOR INFORMATION ONLY

Client
MSV HOUSING

Project
CHEETHAM HILL,
MANCHESTER

Drawing Title
GAS RISK CLASSIFICATION
ZONING PLAN

Rev	Description	Date	By	Chkd
P01	PRELIMINARY DRAWING	04/24	DE	DB

Date	Drawn By	Checked By
APR 2024	D EVANS	D BOWEN

Scale at A3	Project Number
AS SHOWN	33716LG

Sheet Number	Revision
33716-SUT-ZZ-00-DR-G-7253	P01

Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7254 P02 – Cover System Zoning Plan



Legend

- Cable Percussion Borehole (BH)
- Dynamic Sampling Borehole (WS)
- Dynamic Sampling Borehole with Gas / Groundwater Install (WS)
- Trial Pit Excavation (TP)
- BRE365 Soakaway Test (SA)
- 300mm Cover System
- 600mm Cover System

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Client

MSV HOUSING

Project

CHEETHAM HILL,
MANCHESTER

Drawing Title

COVER SYSTEM
ZONING PLAN

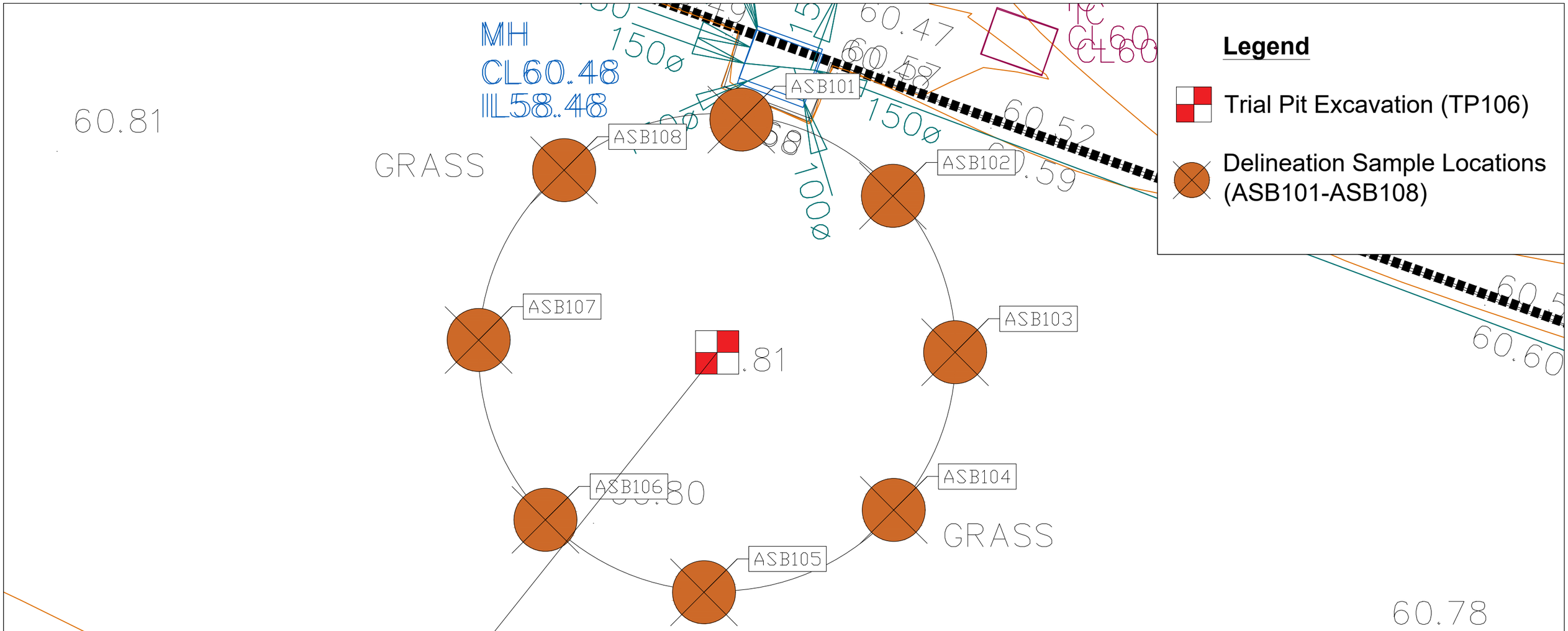
Rev	Description	Date	By	Chkd
P02	PRELIMINARY DRAWING	02/26	AW	DB

Date	Drawn By	Checked By
FEB 2026	A WOODS	D BOWEN

Scale at A3	Project Number
AS SHOWN	33716LG

Sheet Number	Revision
33716-SUT-ZZ-00-DR-G-7254	P02

Drawing Ref. – 33716-SUT-ZZ-00-DR-G-7255 – Asbestos delineation Plan



TP106

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Client
MSV HOUSING

Project
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MANCHESTER

Drawing Title
ASBESTOS DELINEATION
SAMPLING POSITIONS

Rev	Description	Date	By	Chkd
P01	PRELIMINARY DRAWING	10/25	AW	DB

Date	Drawn By	Checked By
OCT 2025	A WOODS	D BOWEN

Scale at A3	Project Number
AS SHOWN	33716LG

Sheet Number	Revision
33716-SUT-ZZ-00-DR-G-7255	P01