



Phase IV Validation Completion Report

At

Oakwood Lodge
Wythenshawe

Client: John Southworth

Reference: 33266-SUT-ZZ-00-RP-G-7401

Date: November 2024

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SUTCLIFFE INVESTIGATIONS

Phase IV Validation Completion Report

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1 Introduction

1.1 Terms of Reference

Sutcliffe Investigations have carried out remediation validation works on behalf of John Southworth in order to enable contaminated land conditions to be removed at land at Oakwood Lodge, Longley Lane, Wythenshawe, Manchester, M22 4LA.

The present document outlines Sutcliffe Investigations validation works including:

 Topsoil Sampling

 Depth Validation

1.2 Previous Works

This report should be read in conjunction with:

 8928G-WML-00-XX RP-G-0001 – Phase 1 Desk Study (August 2019).

 8928G-WML-00-XX RP-G-0002 Rev. A – Phase 2 Geoenvironmental Investigation & Assessment (December 2019).

 33266-SUT-ZZ-00-RP-G-7201 P03 – Phase II Interpretive Ground Assessment (May 2024).

 33266-SUT-ZZ-00-RP-G-7301 P03 – Phase III Remediation & Validation Strategy Proposals (May 2024).

WML Consulting's Phase 2 Geoenvironmental Investigation & Assessment reports a single exceedance of Lead in WS01. The remaining contamination levels were below the threshold for 'Residential with homegrown produce'.

Sutcliffe's Phase II Interpretive Ground Assessment reports a single exceedance of Lead in TP101. The remaining contamination levels were below the threshold for 'Residential with homegrown produce'.

It was noted that the elevated WML Lead sample was of made ground which was recorded as containing rare material and may therefore suggest that the contamination is very isolated in nature, especially as the elevated Sutcliffe Lead sample was from roughly the same area. The chemical analysis therefore confirms to a large extent that the risk to human health from ground contamination is low.

Although two elevated levels of Lead were noted on site in roughly the same area, both levels were noted to fall under the proposed hardstanding of the houses and carparking areas, therefore breaking pollutant linkages to future end users and removing the risk.

Based on the above, no formal remediation works are required, however it would be Sutcliffe's recommendation that a minimum of 300mm of clean imported tested topsoil / subsoil is placed in all proposed gardens and soft landscaped areas to facilitate a growing medium.

The remainder of the site that is not formed of gardens / soft landscaping will be covered by hardstanding, which will provide a break layer to source pathway receptor linkages.

1.3 Objectives

Therefore, the aim of this document is to provide evidence that methodologies and protocols have been adhered to as detailed within Sutcliffe's Phase III Remediation and Validation Proposals, dated May 2024, thus ensuring risks to identified receptors have been mitigated. This principally relates to the imported topsoil material for garden areas.

1.4 Development Proposal

The proposal layout is for the construction of residential properties with private gardens and associated infrastructure. A plan detailing the proposed development schematic is presented as Drawing Ref: 5415 C-09 Rev A.

1.5 Site Location, Topography and Description

The site is located on land at the located at Oakwood Lodge, Wythenshawe, Manchester, M22 4LA. Site details are summarised in the table below.

Table 1.1: Summary of Site Description

Detail	Remarks
Location	8.61km south from Manchester City Centre
Grid Reference	383410, 389477
Area	0.60ha
Current Access	Site is accessed via Oakwood Lodge
Topography	The site topography is noted to be relatively flat
Surrounding Land Uses	The surrounding area comprises of residential dwellings with some local amenities.

2 Risk Assessment (Pre-Remedial Works)

2.1 Long Term Human Health

Following intrusive site investigation works completed by WML (*reported in December 2019*) & Sutcliffe Investigations (*reported in May 2024*) analytical results indicated that there were two elevated levels of Lead.

Although Sutcliffe acknowledge that there are Lead values that exceed their critical concentrations, both elevated levels of Lead are noted to fall under the proposed hardstanding of the houses and car parking areas, therefore pollutant linkages are broken and the risk to future end users removed.

Although no formal remediation works are required it is Sutcliffe's recommendation to import 300mm of topsoil / subsoil to create a growing medium in areas of soft landscaping on site.

A full assessment of risks to long term human health is presented in Sutcliffe's "*Phase II Geotechnical and Environmental Assessment – May 2024*".

2.2 Ground Gas Risk Assessment

Based on the results of the gas monitoring, a CS1 classification is recommended for the site.

This classification has been determined both in Sutcliffe's PHII investigation and WML Consulting's PHII. Although the Phase II Report produced by WML Consulting indicated Carbon Dioxide above the 5% threshold value in WS5 with the highest volume recorded as 7.1%, however, consideration of these exceedances and the conceptual model indicated that these were not characteristics of the sites ground gas regime and no detectable ground gas flows were recorded during monitoring visits it was concluded that this did not merit an increase to the gas classification.

Additionally, the proposed development on site includes for a ventilated sub-floor void on the plots in the vicinity of WS5. With a standard distribution of vent blocks combined with the lack of flow recorded in the monitoring visits, this would provide an additional layer of protection to prevent the build-up of potentially hazardous levels of CO₂ within the void of the new properties. In this way the risk to the future occupiers of the plots is reduced due to these factors and a Characteristic Situation 1 classification is considered to be sufficient based on these mitigating factors. A full assessment of risks associated with ground gas is presented in Sutcliffe's "*Phase II Geotechnical and Environmental Assessment – May 2024*".

2.3 Controlled Waters

Exceedances of DWS and EQS screening criteria are not considered significant given the likely depth to groundwater, effects of natural attenuation, lack of nearby groundwater abstractions and the absence of any surface water courses that could be in continuity with ground water beneath the site.

A full assessment of risks to controlled waters is presented in Sutcliffe's *"Phase II Geotechnical and Environmental Assessment – May 2024"*.

3 Remediation Works

3.1 Introduction

Based on the findings of the ground assessment, completed for the site (reported in May 2024), and with the exception of risks to receptors (construction workers & adjacent site users) associated with the site wide contamination, in addition to risks associated with ground gas, no other source-pathway-receptor linkages have been identified.

A clean 300mm capping system was installed in all soft landscaping (garden) areas to facilitate a growing medium.

3.2 Remedial Works

Imported Material

Approximately 151m³ of clean topsoil and 151m³ of clean subsoil was imported onto site for the garden areas. A recommended depth of 150mm was emplaced in all plots to create a suitable growth medium, along with 150mm subsoil to ensure a total capping system of 300mm was emplaced.

Depth validation was carried out and it was noted that a total depth of 300mm was emplaced on site, comprising 150mm subsoil overlain with 150mm topsoil material.

A photographic log for the depth validation is presented as *Appendix A*.

Consignment notes for imported material and removal are provided in *Appendix C*.

Sampling was undertaken to ensure the material was suitable and “fit for purpose” at a sampling rate of 1 sample per 50m³ of material.

11No. samples (6No. Subsoil and 5No. Topsoil) were recovered from the material on site and sampled against the following guidance values:

 LQM Suitable 4 Use Levels (S4ULs).

 ATRISK Soil Screening Values (SSVs) and CL:AIRE Generic Assessment Criteria (GACs) - Cyanide

 Category 4 Screening Values – Lead

The chemical results for the topsoil and subsoil were compared against the relevant GACs for a residential (with plant uptake) end use at 2.5% soil organic matter (SOM). No elevated levels of contamination or Asbestos have been identified.

The analytical results certificates and screening spreadsheet are presented in *Appendix B*.

Site Variations

No variations have been noted on site during the course of the remediation works.

4 Conclusions

Sutcliffe Investigations can confirm site works have been carried out on site as detailed in this report. Suitable imported topsoil and subsoil for use in garden areas has been sampled and validated and Sutcliffe can confirm that the material is suitable for its proposed use on site.

Sutcliffe can confirm that the site does not pose a significant risk to identified receptors (site users, construction works, adjacent site users & controlled waters).

Appendix A – Depth Validation Photographic Log

Photographic Log – Oakwood lodge – Depth Validations



Photo 1 – Showing Plot 1 depth validation to 0.30m.



Photo 2 – Showing Plot 1 depth validation to 0.30m.



Photo 3 – Showing plot 3 depth validation to 0.30m.



Photo 4 – Showing plot 3 depth validation to 0.30m



Photo 5 – Showing plot 4 depth validation to 0.30m.



Photo 6 – Showing plot 4 depth validation to 0.30m.



Photo 7 – Showing plot 5 depth validation to 0.30m.



Photo 8 – Showing plot 5 depth validation to 0.30m.



Photo 9 – Showing plot 6 depth validation to 0.30m.



Photo 10 – Showing plot 6 depth validation to 0.30m.



Photo 11 – Showing plot 7 depth validation to 0.30m.



Photo 12 – Showing plot 7 depth validation to 0.30m.



Photo 13 – Showing plot 8 depth validation to 0.30m



Photo 14 – Showing plot 8 depth validation to 0.30m.



Photo 15 – Showing plot 9 depth validation to 0.30m.



Photo 16 – Showing plot 9 depth validation to 0.30m



Photo 17 – Showing plot 10 depth validation to 0.30m.



Photo 18 – Showing plot 10 depth validation to 0.30m.



Photo 19 – Showing plot 11 depth validation to 0.30m.



Photo 20 – Showing plot 11 depth validation to 0.30m.



Photo 21 – Showing plot 12 depth validation to 0.30m.



Photo 22 – Showing plot 12 depth validation to 0.30m.



Photo 23 – Showing plot 13 depth validation to 0.30m



Photo 24: Showing plot 13 depth validation to 0.30m.



Photo 25: Showing plot 14 depth validation to 0.30m.



Photo 26 – Showing Plot 14 depth validation to 0.30m.



Photo 27 – Showing Plot 17 depth validation to 0.30m.



Photo 28 – Showing plot 17 depth validation to 0.30m.



Photo 29 – Showing plot 18 depth validation to 0.30m.



Photo 30 – Showing plot 18 depth validation to 0.30m.



Photo 31 – Showing Plot 19 depth validation to 0.30m.



Photo 32 – Showing plot 19 depth validation to 0.30m.

Photographic Log – Oakwood Lodge – Depth Validations – 27/11/24



Photo 1 – Showing Plot 2 depth validation to 0.30m.

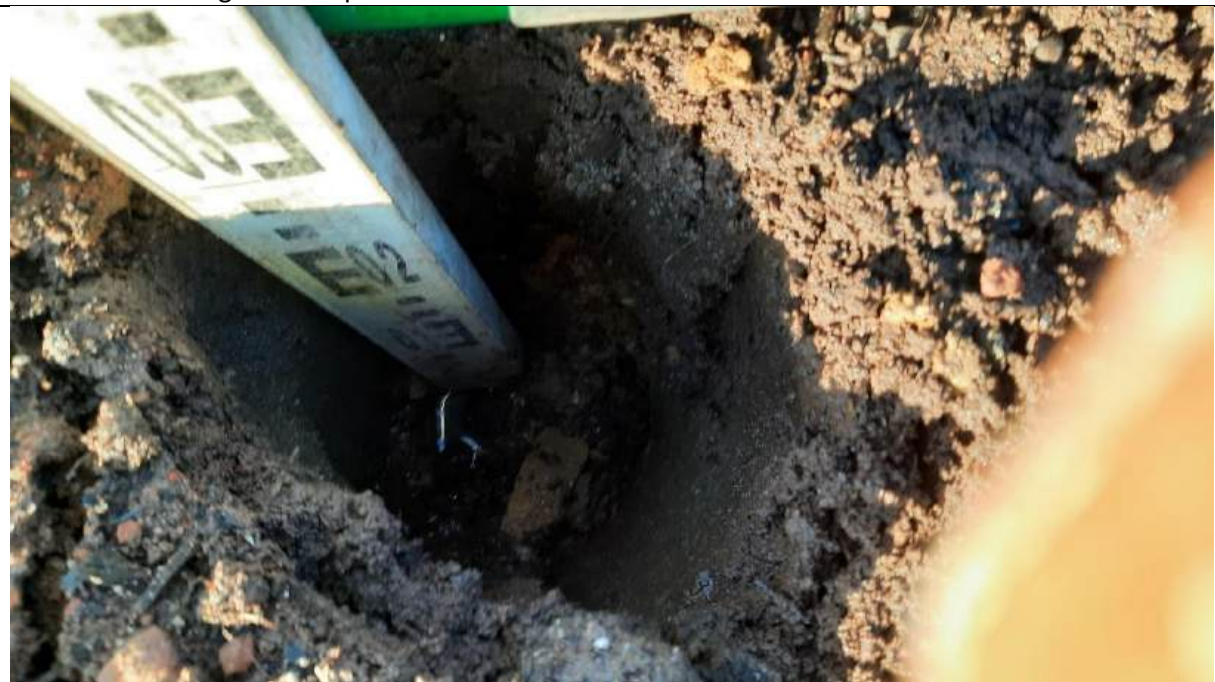


Photo 2 – Showing Plot 2 depth validation to 0.30m.



Photo 3 – Showing Plot 15 depth validation to 0.30m.



Photo 4 – Showing Plot 15 depth validation to 0.30m.



Photo 5 – Showing Plot 16 depth validation to 0.30m.



Photo 6 – Showing Plot 16 depth validation to 0.30m.



Photo 7 – Showing Plot 20 depth validation to 0.35m.



Photo 8 – Showing Plot 20 depth validation to 0.35m.

Appendix B – Analytical Certificates & Screening Tables (Imported)

		SUTCLIFFE INVESTIGATIONS		Long Term Human Health Risk Assessment							
		TEL: 0151 227 3155									
		FAX: 0151 227 3156									
	Job Name:	Oakwood Lodge, Wythenshawe	Job No.:	33266LG							
	Proposed Land Use:	Residential With Plant Uptake	S.O.M. (%):	2.5							
	Legend		Sample Details								
	Above Threshold:		Lab Sample Ref.:		24/08762/2	24/08762/3	24/08762/7	24/10568/2	24/10568/3	24/08762/1	
	Below Limit of Detection:	<0.01	Depth Top (m bgl):		0.00	0.00	0.00			0.00	
	Not Tested:	n/t	Depth Base (m bgl):		0.20	0.20	0.20			0.20	
	No Asbestos Detected:	NAD	Date Sampled:		10-Sep-24	10-Sep-24	10-Sep-24	30-Oct-24	30-Oct-24	10-Sep-24	
Contaminant		Units	Threshold Source	Threshold Value	SP-SS1	SP-SS2	SS-PLOT4	Plot 6	Plot 8	SS-PLOT 19	
Metals / Non-Metals / Other Suite	Arsenic (Total)	mg/kg	LQM S4UL	37	2	2	<1	<1	3	2	
	Boron (Soluble)	mg/kg	LQM S4UL	290	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	Cadmium (Total)	mg/kg	LQM S4UL	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	Chromium III	mg/kg	LQM S4UL	910	8	7	8	11	9	9	
	Chromium VI	mg/kg	LQM S4UL	6	<1	<1	<1	<1	<1	<1	
	Copper (Total)	mg/kg	LQM S4UL	2400	9	5	5	8	7	11	
	Lead (Total)	mg/kg	C4SL	200	25	17	5	7	7	24	
	Mercury (Total)	mg/kg	LQM S4UL	40	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	
	Nickel (Total)	mg/kg	LQM S4UL	130	7	7	7	10	8	8	
	Selenium (Total)	mg/kg	LQM S4UL	250	<1	<1	<1	<1	<1	<1	
	Zinc (Total)	mg/kg	LQM S4UL	3700	21	18	15	23	20	29	
	Cyanide (Total)	mg/kg	ATKINS	34	<1	<1	<1	<1	<1	<1	
	Phenols (Total)	mg/kg	LQM S4UL	200	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
	Organic matter	%	LQM S4UL	N/a	0.3	1	<0.1	0.4	0.5	0.6	
	Sulphate (Acid Soluble)	mg/kg	LQM S4UL	N/a	420	250	<200	<200	<200	200	
	Sulphate as Water Soluble	g/l	LQM S4UL	N/a	0.09	0.08	<0.01	0.03	0.02	0.07	
	Sulphide	mg/kg	LQM S4UL	N/a	<5	<5	<5	<5	<5	<5	
	pH	pH units	LQM S4UL	N/a	8.81	9.65	7.84	8.19	8.1	7.8	
	Sulphur (Elemental)	mg/kg	LQM S4UL	N/a	<5	<5	<5	<5	<5	<5	
Asbestos Suite	Asbestos in soil	N/a	-	N/a	NAD	NAD	NAD	NAD	NAD	NAD	
	Asbestos Matrix (visual)	N/a	-	N/a	-	-	-	-	-	-	
	Asbestos Matrix (microscope)	N/a	-	N/a	-	-	-	-	-	-	
	Suitable for Water Absorption Test?	N/a	-	N/a	N/A	N/A	N/A	N/A	N/A	N/A	
	Asbestos Quantification	% w/w	-	0.001	n/t	n/t	n/t	n/t	n/t	n/t	
TPH Suite	C5 to C6 aliphatic	mg/kg	LQM S4UL	78	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	C6 to C8 aliphatic	mg/kg	LQM S4UL	230	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	C8 to C10 aliphatic	mg/kg	LQM S4UL	65	<1	<1	<1	<1	<1	<1	
	C10 to C12 aliphatic	mg/kg	LQM S4UL	330	<1	<1	<1	<1	<1	<1	
	C12 to C16 aliphatic	mg/kg	LQM S4UL	2400	<1	<1	<1	<1	<1	<1	
	C16 to C21 aliphatic	mg/kg	-	N/a	<1	<1	<1	<1	<1	<1	
	C21 to C35 aliphatic	mg/kg	-	N/a	4	<1	<1	<1	3	<1	
	C16 to C35 aliphatic (as Calc.)	mg/kg	LQM S4UL	92000	5	<2	<2	<2	4	<2	
	C35 to C44 aliphatic	mg/kg	LQM S4UL	92000	2	<1	<1	<1	<1	<1	
	Total Aliphatic	mg/kg	-	N/a	6	<1	<1	<1	3	<1	
	C5 to C7 aromatic (Benzene)	mg/kg	LQM S4UL	140	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	C7 to C8 aromatic (Toluene)	mg/kg	LQM S4UL	290	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	C8 to C10 aromatic	mg/kg	LQM S4UL	83	<1	<1	<1	<1	<1	<1	
	C10 to C12 aromatic	mg/kg	LQM S4UL	180	<1	<1	<1	<1	<1	<1	
	C12 to C16 aromatic	mg/kg	LQM S4UL	330	<1	<1	<1	<1	<1	<1	
	C16 to C21 aromatic	mg/kg	LQM S4UL	540	3	<1	<1	<1	<1	<1	
	C21 to C35 aromatic	mg/kg	LQM S4UL	1500	8	1	<1	<1	2	<1	
	C35 to C44 aromatic	mg/kg	LQM S4UL	1500	1	<1	<1	<1	<1	<1	
	Total Aromatic	mg/kg	-	N/a	12	1	<1	<1	2	<1	
TPH (Total)	mg/kg	-	N/a	18	1	<1	<1	5	<1		
BTEx Suite	benzene	mg/kg	LQM S4UL	0.17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	toluene	mg/kg	LQM S4UL	290	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	ethylbenzene	mg/kg	LQM S4UL	110	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	M&P Xylene	mg/kg	LQM S4UL	130	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	O-Xylene	mg/kg	LQM S4UL	140	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
PAH Suite	naphthalene	mg/kg	LQM S4UL	5.6	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
	acenaphthylene	mg/kg	LQM S4UL	420	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	acenaphthene	mg/kg	LQM S4UL	510	0.03	0.05	<0.01	<0.01	<0.01	0.01	
	fluorene	mg/kg	LQM S4UL	400	0.02	0.03	<0.01	<0.01	<0.01	<0.01	
	phenanthrene	mg/kg	LQM S4UL	220	0.26	0.34	<0.03	<0.03	<0.03	0.13	
	anthracene	mg/kg	LQM S4UL	5400	0.08	0.1	<0.02	<0.02	<0.02	0.03	
	fluoranthene	mg/kg	LQM S4UL	560	0.46	0.47	<0.08	<0.08	<0.08	0.15	
	pyrene	mg/kg	LQM S4UL	1200	0.49	0.49	<0.07	<0.07	<0.07	0.14	
	benzo(a)anthracene	mg/kg	LQM S4UL	11	0.26	0.23	<0.04	<0.04	<0.04	0.06	
	chrysene	mg/kg	LQM S4UL	22	0.3	0.31	<0.06	<0.06	<0.06	0.09	
	benzo(b)fluoranthene	mg/kg	LQM S4UL	3.3	0.3	0.26	<0.05	<0.05	<0.05	0.08	
	benzo(k)fluoranthene	mg/kg	LQM S4UL	93	0.15	0.12	<0.07	<0.07	<0.07	<0.07	
	benzo(a)pyrene	mg/kg	LQM S4UL	2.7	0.26	0.3	<0.04	<0.04	<0.04	0.06	
	dibenzo(ah)anthracene	mg/kg	LQM S4UL	0.28	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	
	benzo(ghi)perylene	mg/kg	LQM S4UL	340	0.2	0.17	<0.05	<0.05	<0.05	<0.05	
	indeno(123cd)pyrene	mg/kg	LQM S4UL	36	0.17	0.15	<0.03	<0.03	<0.03	0.05	

	 Sutcliffe	SUTCLIFFE INVESTIGATIONS		Long Term Human Health Risk Assessment										
		TEL: 0151 227 3155												
		FAX: 0151 227 3156												
	Job Name:	Oakwood Lodge, Wythenshawe	Job No.:	33266LG										
	Proposed Land Use:	Residential With Plant Uptake	S.O.M. (%):	2.5										
	Legend		Sample Details											
	Above Threshold:		Lab Sample Ref.:		24/08762/4						24/08762/5	24/08762/6	24/10568/1	24/10568/4
	Below Limit of Detection:	<0.01	Depth Top (m bgl):		0.00						0.00	0.00		
	Not Tested:	n/t	Depth Base (m bgl):		0.20						0.20	0.20		
	No Asbestos Detected:		NAD	Date Sampled:							10-Sep-24	10-Sep-24	10-Sep-24	30-Oct-24
Contaminant		Units	Threshold Source	Threshold Value	SP-TS1	SP-TS2	SP-TS3	Plot 2	Plot 17					
Metals / Non-Metals / Other Suite	Arsenic (Total)		mg/kg	LQM S4UL	37	2	2	2	3	3				
	Boron (Soluble)		mg/kg	LQM S4UL	290	1.1	1.2	1.2	1.7	1.8				
	Cadmium (Total)		mg/kg	LQM S4UL	11	<0.5	<0.5	<0.5	<0.5	<0.5				
	Chromium III		mg/kg	LQM S4UL	910	9	9	11	10	10				
	Chromium VI		mg/kg	LQM S4UL	6	<1	<1	<1	<1	<1				
	Copper (Total)		mg/kg	LQM S4UL	2400	13	14	16	16	21				
	Lead (Total)		mg/kg	C4SL	200	28	28	32	31	31				
	Mercury (Total)		mg/kg	LQM S4UL	40	<0.17	<0.17	<0.17	<0.17	<0.17				
	Nickel (Total)		mg/kg	LQM S4UL	130	8	9	10	9	10				
	Selenium (Total)		mg/kg	LQM S4UL	250	<1	<1	<1	<1	<1				
	Zinc (Total)		mg/kg	LQM S4UL	3700	38	41	48	45	47				
	Cyanide (Total)		mg/kg	ATKINS	34	<1	<1	<1	<1	<1				
	Phenols (Total)		mg/kg	LQM S4UL	200	<0.2	<0.2	<0.2	<0.2	<0.2				
	Organic matter		%	LQM S4UL	N/a	8.6	6.7	5.7	11.3	10.8				
	Sulphate (Acid Soluble)		mg/kg	LQM S4UL	N/a	730	660	530	690	750				
	Sulphate as Water Soluble		g/l	LQM S4UL	N/a	0.12	0.12	0.11	0.18	0.23				
	Sulphide		mg/kg	LQM S4UL	N/a	<5	<5	<5	<5	<5				
	pH		pH units	LQM S4UL	N/a	8.1	7.94	7.94	8.47	8.42				
	Sulphur (Elemental)		mg/kg	LQM S4UL	N/a	<5	<5	<5	17	11				
Asbestos Suite	Asbestos in soil		N/a	-	N/a	NAD	NAD	NAD	NAD	NAD				
	Asbestos Matrix (visual)		N/a	-	N/a	-	-	-	-	-				
	Asbestos Matrix (microscope)		N/a	-	N/a	-	-	-	-	-				
	Suitable for Water Absorption Test?		N/a	-	N/a	N/A	N/A	N/A	N/A	N/A				
	Asbestos Quantification		% w/w	-	0.001	n/t	n/t	n/t	n/t	n/t				
TPH Suite	C5 to C6 aliphatic		mg/kg	LQM S4UL	78	<0.01	<0.01	<0.01	<0.01	<0.01				
	C6 to C8 aliphatic		mg/kg	LQM S4UL	230	<0.01	<0.01	<0.01	<0.01	<0.01				
	C8 to C10 aliphatic		mg/kg	LQM S4UL	65	<1	<5	<1	<1	<1				
	C10 to C12 aliphatic		mg/kg	LQM S4UL	330	<1	<5	<1	<1	<1				
	C12 to C16 aliphatic		mg/kg	LQM S4UL	2400	1	<5	2	<1	<1				
	C16 to C21 aliphatic		mg/kg	-	N/a	5	6	11	5	5				
	C21 to C35 aliphatic		mg/kg	-	N/a	57	109	112	52	49				
	C16 to C35 aliphatic (as Calc.)		mg/kg	LQM S4UL	92000	62	115	123	57	54				
	C35 to C44 aliphatic		mg/kg	LQM S4UL	92000	10	19	51	11	10				
	Total Aliphatic		mg/kg	-	N/a	72	134	176	67	64				
	C5 to C7 aromatic (Benzene)		mg/kg	LQM S4UL	140	<0.01	<0.01	<0.01	<0.01	<0.01				
	C7 to C8 aromatic (Toluene)		mg/kg	LQM S4UL	290	<0.01	<0.01	<0.01	<0.01	<0.01				
	C8 to C10 aromatic		mg/kg	LQM S4UL	83	<1	<5	<1	<1	<1				
	C10 to C12 aromatic		mg/kg	LQM S4UL	180	<1	<5	1	<1	<1				
	C12 to C16 aromatic		mg/kg	LQM S4UL	330	6	11	8	10	10				
	C16 to C21 aromatic		mg/kg	LQM S4UL	540	19	26	30	29	26				
	C21 to C35 aromatic		mg/kg	LQM S4UL	1500	37	47	58	64	61				
	C35 to C44 aromatic		mg/kg	LQM S4UL	1500	8	18	20	13	10				
	Total Aromatic		mg/kg	-	N/a	71	102	117	115	106				
	TPH (Total)		mg/kg	-	N/a	143	236	293	183	170				
BTEx Suite	benzene		mg/kg	LQM S4UL	0.17	<0.01	<0.01	<0.01	<0.01	<0.01				
	toluene		mg/kg	LQM S4UL	290	<0.01	<0.01	<0.01	<0.01	<0.01				
	ethylbenzene		mg/kg	LQM S4UL	110	<0.01	<0.01	<0.01	<0.01	<0.01				
	M&P Xylene		mg/kg	LQM S4UL	130	<0.01	<0.01	<0.01	<0.01	<0.01				
	O-Xylene		mg/kg	LQM S4UL	140	<0.01	<0.01	<0.01	<0.01	<0.01				
PAH Suite	naphthalene		mg/kg	LQM S4UL	5.6	<0.03	<0.03	<0.03	<0.03	<0.03				
	acenaphthylene		mg/kg	LQM S4UL	420	<0.01	<0.01	<0.01	0.02	0.01				
	acenaphthene		mg/kg	LQM S4UL	510	0.06	0.04	0.08	0.12	0.1				
	fluorene		mg/kg	LQM S4UL	400	0.04	0.02	0.05	0.08	0.06				
	phenanthrene		mg/kg	LQM S4UL	220	0.39	0.25	0.41	0.66	0.54				
	anthracene		mg/kg	LQM S4UL	5400	0.1	0.06	0.12	0.16	0.13				
	fluoranthene		mg/kg	LQM S4UL	560	0.76	0.44	0.62	0.93	0.86				
	pyrene		mg/kg	LQM S4UL	1200	0.73	0.43	0.58	0.84	0.78				
	benzo(a)anthracene		mg/kg	LQM S4UL	11	0.35	0.21	0.3	0.38	0.34				
	chrysene		mg/kg	LQM S4UL	22	0.39	0.23	0.32	0.38	0.35				
	benzo(b)fluoranthene		mg/kg	LQM S4UL	3.3	0.39	0.2	0.28	0.4	0.35				
	benzo(k)fluoranthene		mg/kg	LQM S4UL	93	0.14	0.09	0.11	0.13	0.13				
	benzo(a)pyrene		mg/kg	LQM S4UL	2.7	0.28	0.13	0.2	0.32	0.29				
	dibenzo(ah)anthracene		mg/kg	LQM S4UL	0.28	<0.04	<0.04	<0.04	0.05	<0.04				
	benzo(ghi)perylene		mg/kg	LQM S4UL	340	0.23	0.12	0.15	0.23	0.2				
	indeno(123cd)pyrene		mg/kg	LQM S4UL	36	0.19	0.13	0.14	0.22	0.18				

Appendix C – Consignment Notes

Duty of Care - ~~Controlled Waste Transfer Note~~ TRANSPORT OF TOPSOIL		Serial No. DHI/ N/A	
		SIC Code: 41.20/2	Official use only
A Description of the waste	1. How is the waste contained? ☒ Loose ☐ Skips ☐ Sacks ☐ Drums ☐ Other (Specify):		
	2. Describe the waste being transferred TOPSOIL PRODUCT Classification Code: N/A		
B Producer Details	3. QUANTITY: ³⁰⁰ ☐ kg ☒ Tonnes ☐ m3 Group number:		
	4. The Landfill Tax (Qualifying Material) Order Schedule 2011 ☐ Applicable		
	1. Full name (print): FREELAND HORTICULTURE LTD		
	2. Company Name, Address and Postcode: ROSEDALE NURSERY, COLLEGE ROAD, HEXTABLE KENT, BR8 7LT		
C Carrier Details	3. Which of the following are you? (Please tick one or more boxes)		
	A ☐ Waste Producer ☐ Soil Producer ☐ Waste collection/disposal authority ☐ Broker		
	B ☐ Holder of Disposal/Management Licence ☐ Exempt from carrier Licence / Carrier number(S) Issued by:		
D First Transfer	C ☐ Exempt from licensing requirements ☐ Exempt from carrier registration Reason:		
	1. Full Name (print): DHI EXCAVATIONS LTD 2. Company Name, Address and Postcode: 11-13 CHURCH STREET, FARNWORTH, BOLTON, BL4 8AG ☒ Registered Carrier (give number): CBDU181466 We have fulfilled our obligation with regards to the Waste Heirachy Regulations 12 of Waste (England and Wales) Regulations 2011		
E Disposer Details ☐ Waste ☒ Soils	1. Place of Transfer: NOOK LANE, ASTLEY, MANCHESTER, M29 7LW 2. Date of Transfer: 09/09/2024-08/11/2024 (for multiple transfer give between dates, see notes) 3. Name and address of broker arranging transfer (if applicable): WCL No.		
	4. ~~Producers representatives~~ Carriers representatives ~~Name (print): Sign:~~ Name (print): NEIL WILLIAMS ~~Sign:~~ Sign: 		
F Second Transfer	1. Full Name (print): GNL CONSTRUCTION LTD 2. Company Name, Address and Postcode: 324 STYAL ROAD, HEALD GREEN, CHEADLE, SK8 3RS 3. Which of the following are you? (Please tick one or more boxes) ☐ Holder of waste disposal / management licence (give number): N/A Issued by: N/A ☐ Exempt from licence requirements (give reason):		
	1. Place of Transfer: OAKWOOD LODGE DAY CENTRE - LONGLEY LANE, WYTHENSHAW, M22 4LA 2. Date of Transfer: 09/09/2024-08/11/2024 (for multiple consignments give between dates) 3. Name and address of broker arranging transfer (if applicable): 4. Carriers Representatives Disposers Representatives Name (print): NEIL WILLIAMS Name (print): GARY GOLDRICK Sign:  Sign: GARY GOLDRICK Company name: DHI EXCAVATIONS LTD Company name: GNL CONSTRUCTION LTD		

Important: This page must be retained by you, on a register held by you, for at least two years from the date of the last transfer to which the note applies.

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Duty of Care - Controlled Waste Transfer Note

Serial No. DHI/ 002116

SIC Code: 41.20/2

Official
use only**A**
Description
of the waste

- How is the waste contained?
☒ Loose ☐ Skips ☐ Sacks ☐ Drums ☐ Other (Specify):
- Describe the waste being transferred Non-Haz Spoil from location WS01 only
..... Classification CODE? 17-05-04
- QUANTITY: 60 ☐ kg ☒ Ton ☐ m3 Group number:
- The Landfill Tax (Qualifying Material) Order Schedule 2011 ☐ Applicable

B
Producer
Details

- Full name (print): GNL CONSTRUCTION
- Company Name, Address and Postcode: 324 STYAL RD, HEALD GREEN, STOCKPORT SK8 3UA
- Which of the following are you? (Please tick one or more boxes)
A ☒ Waste Producer ☐ Soil Producer ☐ Waste collection/disposal authority ☐ Broker
B ☐ Holder of Disposal/Management Licence ☐ Exempt from carrier
Licence / Carrier number(S) Issued by:
C ☐ Exempt from licensing requirements ☐ Exempt from carrier registration
Reason:

C
Carrier
Details

- Full Name (print) DHI EXCAVATIONS LTD
 - Company Name, Address and Postcode: 11-13 CHURCH RD, FARNWORTH, BOLTON, BL4 8AG
- ☐ Registered Carrier (give number) CBDU 181466

We have fulfilled our obligation with regards to the Waste Heirachy Regulations 12 of Waste (England and Wales) Regulations 2011

- Place of Transfer: LANGLEY LANE, WYTHENSHAW, M22 4LA
- Date of Transfer: 20th NOVEMBER 2023
(for multiple transfer give between dates, see notes)
- Name and address of broker arranging transfer (if applicable): WCL No.

D
Carrier
Details

- Producers representatives**
Name (print): Gary Goldrick
Sign: Gary Goldrick
- Carriers representatives**
Name (print): Lance Kelly
Sign: Lance Kelly

E
Disposer Details
☐ Waste
☐ Soils

- Full Name (print) BOOTH VENTURES LTD
- Company Name, Address and Postcode: 78 CHORLEY NEW RD, BOLTON, BL1 4BY
- Which of the following are you? (Please tick one or more boxes)
☐ Holder of waste disposal / management licence (give number): EPR/BV 8741 IL
Issued by: EA

F
Second
Transfer
(carrier to
disposer)

- Place of Transfer: HARWOOD QUARRY, BROOKFOLD LANE, BOLTON, BL2 4LT
- Date of Transfer:
(for multiple consignments give between dates)
- Name and address of broker arranging transfer (if applicable):
- Carriers Representatives**
Name (print): Lance Kelly
Sign: Lance Kelly
Company name: DHI EXCAVATIONS
- Disposers Representatives**
Name (print): L PLACE
Sign: L PLACE
Company name: Booth Ventures Ltd...

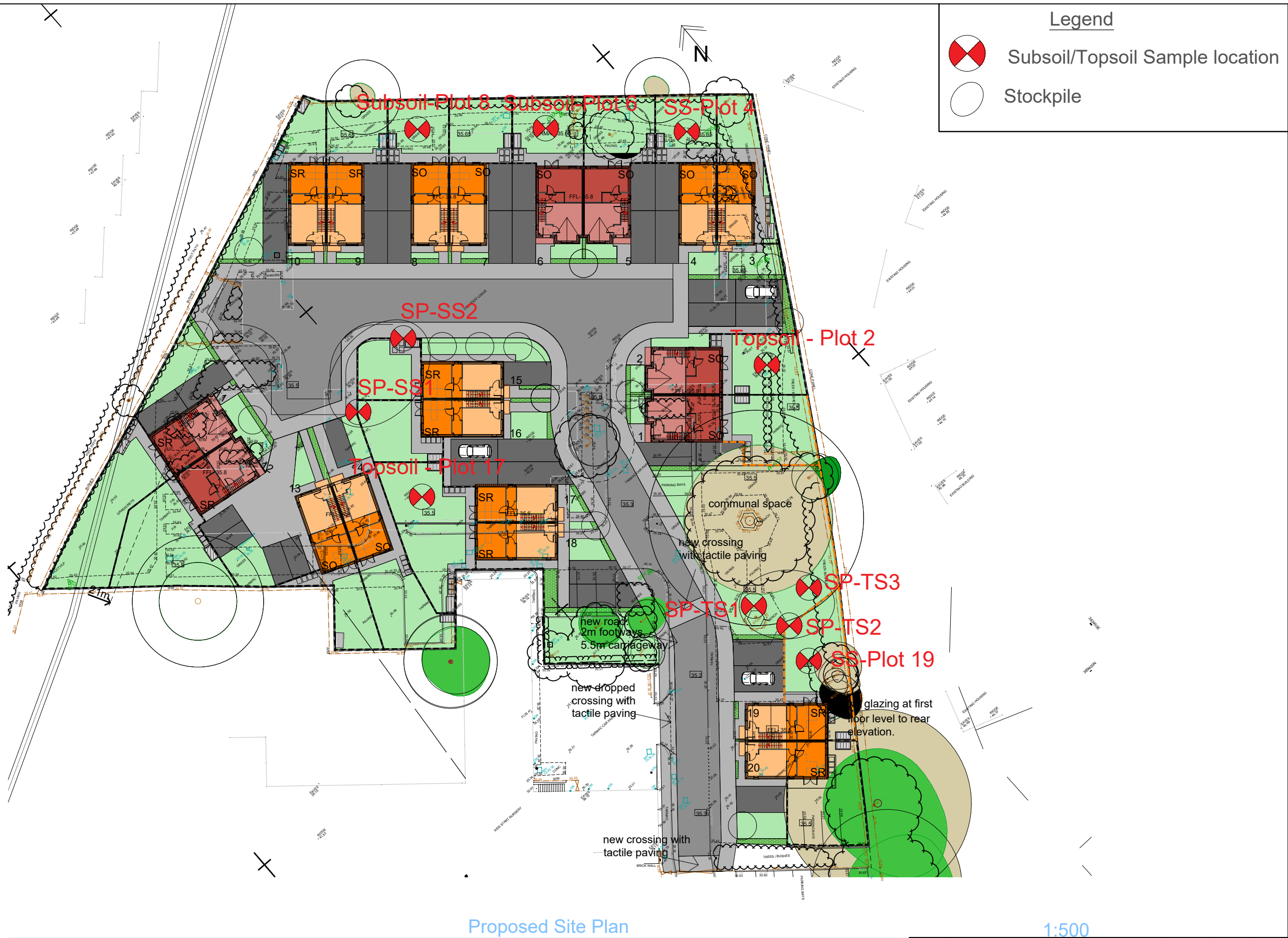
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DHI Excavations Ltd 11 - 13 Church Street, Farnworth, Bolton. BL4 8AG		Serial No. DHI/ 002117							
Duty of Care - Controlled Waste Transfer Note		SIC Code: 41.20/2	Official use only						
A Description of the waste	1. How is the waste contained? ☒ Loose ☐ Skips ☐ Sacks ☐ Drums ☐ Other (Specify): 2. Describe the waste being transferred: <u>Soil + Stone</u> Classification code: <u>17-05-04</u> 3. Quantity: <u>2500</u> kg/Tonnes/m3 Group number: 4. The Landfill Tax (Qualifying Material) order schedule 2011 ☐ Applicable								
B Producer Details	1. Full name (print): <u>GUL Construction</u> 2. Company name, address and postcode: <u>324 Skyal Rd, Heald Green, Stockport, Sh8 3AA</u> 3. Which of the following are you? (Please tick one or more boxes) <table style="width: 100%; border: none;"> <tr> <td style="width: 5%; text-align: center;">A</td> <td>☐ Waste producer ☐ Soil Producer ☐ Waste collection/disposal authority ☐ Broker</td> </tr> <tr> <td style="text-align: center;">B</td> <td>☐ Holder of disposal / management licence ☐ Exempt from carrier Licence / Carrier number(s): Issued by:</td> </tr> <tr> <td style="text-align: center;">C</td> <td>☐ Exempt from licensing requirements ☐ Exempt from carrier registration Reason:</td> </tr> </table>			A	☐ Waste producer ☐ Soil Producer ☐ Waste collection/disposal authority ☐ Broker	B	☐ Holder of disposal / management licence ☐ Exempt from carrier Licence / Carrier number(s): Issued by:	C	☐ Exempt from licensing requirements ☐ Exempt from carrier registration Reason:
A	☐ Waste producer ☐ Soil Producer ☐ Waste collection/disposal authority ☐ Broker								
B	☐ Holder of disposal / management licence ☐ Exempt from carrier Licence / Carrier number(s): Issued by:								
C	☐ Exempt from licensing requirements ☐ Exempt from carrier registration Reason:								
C Carrier Details	1. Full name (print): <u>DHI Excavations Ltd</u> 2. Company name, address and postcode: <u>11 - 13 Church Street, Farnworth, Bolton. BL4 8AG</u> ☒ Registered carrier (give number): <u>CBDU181466</u> SIC: <u>43120</u> We have fulfilled our obligation with regards to the waste hierarchy regulations 12 of Waste (England and Wales) Regulations 2011								
D First Transfer (producer to carrier)	1. Place of transfer: <u>Langley Lane Wythshaw, M22 4UA</u> 2. Date of transfer: <u>19/11/23 - 18/11/24</u> (for multiple transfer give between dates, see notes) 3. Name and address of broker arranging transfer (if applicable): WCL No. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> 4. <u>Producers representatives</u> Name (print): <u>Gary Goldrick</u> Signed: <u>Gary Goldrick</u> </td> <td style="width: 50%; border: none;"> <u>Carriers representatives</u> Name (print): <u>Dance Kelly</u> Signed: <u>[Signature]</u> </td> </tr> </table>			4. <u>Producers representatives</u> Name (print): <u>Gary Goldrick</u> Signed: <u>Gary Goldrick</u>	<u>Carriers representatives</u> Name (print): <u>Dance Kelly</u> Signed: <u>[Signature]</u>				
4. <u>Producers representatives</u> Name (print): <u>Gary Goldrick</u> Signed: <u>Gary Goldrick</u>	<u>Carriers representatives</u> Name (print): <u>Dance Kelly</u> Signed: <u>[Signature]</u>								
E Disposer Details ☐ Waste ☐ Soils	1. Full name (print): <u>WRE Aggregates LTD</u> 2. Company name, address and postcode: <u>1 Old Park Lane, Trafford City, Manchester, M17 7HA</u> 3. Which of the following are you? (Please tick one or more boxes) ☐ Holder of waste disposal / management licence (give number): <u>EPR/4634074X</u> Issued by: <u>EPA</u> ☐ Exempt from licence requirements (give reason):								
F Second Transfer (carrier to disposer)	1. Place of transfer: <u>Wark plant off Liverpool Rd, Eccles, M30 7RT</u> 2. Date of transfer: <u>19/11/23 - 18/11/24</u> (for multiple consignments give between dates) 3. Name and address of broker arranging transfer (if applicable): <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> 4. <u>Carriers representatives</u> Name (print): <u>Dance Kelly</u> Signed: <u>[Signature]</u> Company name: <u>DHI Excavations Ltd</u> </td> <td style="width: 50%; border: none;"> <u>Disposers representatives</u> Name (print): <u>Anthony Duggan</u> Signed: <u>[Signature]</u> Company name: <u>WRE Aggregates</u> </td> </tr> </table>			4. <u>Carriers representatives</u> Name (print): <u>Dance Kelly</u> Signed: <u>[Signature]</u> Company name: <u>DHI Excavations Ltd</u>	<u>Disposers representatives</u> Name (print): <u>Anthony Duggan</u> Signed: <u>[Signature]</u> Company name: <u>WRE Aggregates</u>				
4. <u>Carriers representatives</u> Name (print): <u>Dance Kelly</u> Signed: <u>[Signature]</u> Company name: <u>DHI Excavations Ltd</u>	<u>Disposers representatives</u> Name (print): <u>Anthony Duggan</u> Signed: <u>[Signature]</u> Company name: <u>WRE Aggregates</u>								

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Drawing Ref: – 33266-SUT-ZZ-00-DR-G-7252



Proposed Site Plan

1:500



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Drawing Status
FOR INFORMATION

Client
JOHN SOUTHWORTH

Project
**OAKWOOD LODGE
WYTHENSHAW**

Drawing Title
**VALIDATION SAMPLE LOCATIONS
ON PROPOSED PLAN**

P01	PRELIMINARY DRAWING	10/24	MW	DB
Rev	Description	Date	By	Chkd
Date	Drawn By	Checked By		
OCT 2024	M WIGGINS	D BOWEN		
Scale at A3 NTS		Project Number 33266LG		
Sheet Number 33266-SUT-ZZ-OO-DR-G-7252				Revision P01