
REMEDIATION VALIDATION REPORT

58 Renfrew Street
Glasgow
G2 3BW



Client: ES Renfield Limited

17 June 2019

J18065



Document control

Project title		58 Renfrew Street, Glasgow, G2 3BW		Project No	J18065
Report title		Remediation Validation Report			
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Report Checked and Approved for issue by					
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Issue No	Status	Amendment Details	Date	Approved for Issue	
1	Final		17 June 2019		

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This report is intended as a Ground Investigation Report (GIR) as defined in BS EN1997-2, unless specifically noted otherwise. The report is not a Geotechnical Design Report (GDR) as defined in EN1997-2 and recommendations made within this report are for guidance only.

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1.0 INTRODUCTION

Consideration is being given to the construction of a 13-storey to 15-storey hotel and a 16-storey block of student accommodation, along with two areas of soft landscaped amenity space. The site has previously been subject to a desk study and ground investigation by GEA (Report Ref J18065, dated 30 May 2018). The previous work identified fragments of asbestos within the shallow made ground and, at a single location, elevated TPH, PAH and phenol concentrations were measured.

This report confirms that the objectives of the Remediation Method Statement (J18065 RMS Issue 1, dated August 2019) were satisfactorily achieved. It should be read in conjunction with the previous reports.

1.1 Limitations

The conclusions and recommendations made in this report are limited to those that can be made on the basis of the investigations carried out. The results of the work should be viewed in the context of the range of data sources consulted, the number of locations where the ground was sampled and the number of soil, gas or groundwater samples tested; no liability can be accepted for information in other data sources or conditions not revealed by the sampling or testing. Any comments made on the basis of information obtained from the client or other third parties are given in good faith on the assumption that the information is accurate; no independent validation of such information has been made by GEA.

2.0 THE SITE

The site is located in Glasgow city centre, approximately 450 m northwest of Queen Street railway station. The site is irregular in shape measuring 85 m north to south by 95 m east to west in maximum dimension and is

bounded by Renfrew Street to the south, from which it is accessed, and by Renfield Street to the east; the northern boundary of the site is formed by an office building occupied by Tesco Bank. The western boundary is irregular in shape and formed by the Citizen M hotel in the southwestern corner and the Theatre Royal in the northwestern corner. A service yard is located between these two buildings and forms part of the site, but is not going to be developed as part of the proposed scheme.

The area immediately adjacent to the northern site boundary is surfaced with concrete and is at a level of 30.1 m OD. From this area the site slopes steeply up a grassed bank to a level of 30.9 m OD and then slopes gently down to the south to the level of the entrance from Renfrew Street at 28.3 m OD.

The site occupies an area of 0.44 Ha and its centre may additionally be located by National Grid Reference 258930, 665920.

3.0 CONCEPTUAL MODEL

The table below, extracted from the remediation statement, set out the risk pathways that could potentially be present following the commercial development of the site. This conceptual model is based upon the findings of the ground model developed in the light of the investigation findings and highlights areas where remedial work should be considered.

SOURCE	RECEPTOR	PATHWAY	COMMENT
Localised TPH and PAH and phenol concentrations Asbestos	End users	Direct contact, accidental ingestion or inhalation of soil or soil derived dust	No direct contact due to footprint of the buildings and surrounds. Areas of soft landscaping will be incorporate imported certified clean sub-soil and topsoil as a planting medium.
	Vegetation	Uptake via soil through roots in landscaped areas	
	Groundwater	Percolation and leaching of surface run-off in areas of soft landscaping	Following removal of the source no residual risks will remain.
	Adjacent sites	Mobilisation of contaminants to underlying aquifer via leaching	
	Ground workers and future site workers	Ingestion of contaminated soil or dust, through skin contact or inhalation although in acute dose the risk posed by the concentrations present is considered to be small	Skin contact with the soil should be minimized through the use of PPE and washing facilities will be provided
	Buried services	Direct contact with soil	Contamination will be isolated from buried services through the use of oversized, clean backfilled trenches or through the use of barrier pipe

4.0 REMEDIAL OBJECTIVES

Based on the above conceptual model and the risk assessment in the remediation statement the following remedial objectives were established for this development;

- break the potential chronic human exposure pathways to the contaminated soil in areas which are not to be covered by hard structures and pavements;
- prevent the ingress of volatile contamination into the proposed buildings;
- protect ground workers who will be exposed to the soil; and
- provide buried water pipes with protection to minimise the potential for permeation or degradation by contaminants and to minimise the potential exposure of future maintenance personnel.

5.0 REMEDIAL PROPOSALS

The site investigation and risk assessment have identified potential risks to end users of the site and as such remedial measures will be implemented to ensure the safe development of the site. To address the remedial objectives the remedial measures will include;

- the removal of the coal tar contamination in the vicinity of Borehole No 6;
- the removal of identifiable fragments of asbestos during site preparation; and

- the installation of a soil cap of 'clean' soil in landscaped areas to prevent end users coming in to contact with potential contaminated soil through direct contact. This capping will also minimise the potential for dust generation from the existing made ground;

The details of these remedial measures are set out below:

5.1 Coal Tar Contamination

The odorous and stained soil identified in Borehole No 6 at 2.8 m has now been removed from site and the resultant excavation backfilled with unaffected site won material to remove the risk of vapour ingress into the proposed buildings and any potential for groundwater impactation.

6.0 VALIDATION OF REMEDIAL MEASURES

This section sets out how the remedial measures have been carried out, and how the remediation has been validated.

6.1 Coal Tar Contamination

GEA has supervised and directed the excavation of the coal tar impacted soils and confirmed its removal through laboratory testing as set out below.

6.1.1 Excavation

On 28th May 2019, GEA reported to site to direct the excavation of the coal tar. The excavation commenced south of Borehole No 6 using a 20 tonne excavator and 1.2 m wide bucket. The excavation revealed coal tar at a depth of 2.8 m in solid form with fragments of up to 300 mm x 150 mm x 75 mm thick. Whilst odorous, this material was not volatile and no concentrations above background levels were recorded on the

PID. The coal tar was black in colour and easily identifiable by its odour and nature as being different from the surrounding soil and these two parameters were used to determine the extent of the excavation. The excavation was extended in all directions and to a maximum depth of 3.2 m until to north south and west until the material had been removed. The extent of the excavation was surveyed and a plan showing its location is appended.

6.1.2 Testing

Seven samples were taken from the sides and base of the excavation following removal of the coal tar material. The results confirm that the sides and base are free of the coal tar material such that the excavation is deemed to have achieved the remedial objectives. These test results are appended.

6.1.3 Disposal

The coal tar contaminated material was separated and placed in a bund. The unaffected material was stockpiled at the opposite side of the excavation. The affected material formed a single lorry load and it was removed by a haulier holding a waste carrier licence to a designated tip.

6.1.4 Residual Contamination

Samples of the coal tar affected material were shown to McAleer and Rushe site team so that if further such material is encountered it could be segregated for disposal off site.

7.0 CONCLUSIONS

The removal of the coal tar has been satisfactorily completed such that the risk posed to groundwater, other sites and odour nuisance have been addressed.

Site work will be continue, however, to be carried out in accordance with guidelines set out by HSE and CIRIA and all appropriate PPE will be worn. Where any odorous, discoloured, fibrous or suspicious material is identified during construction, work in that area will cease until GEA return to site to investigate, assess and make necessary recommendations.

APPENDICES

Plans and photographs showing the extent of the excavation.

Validation Test Results

Waste Transfer Note

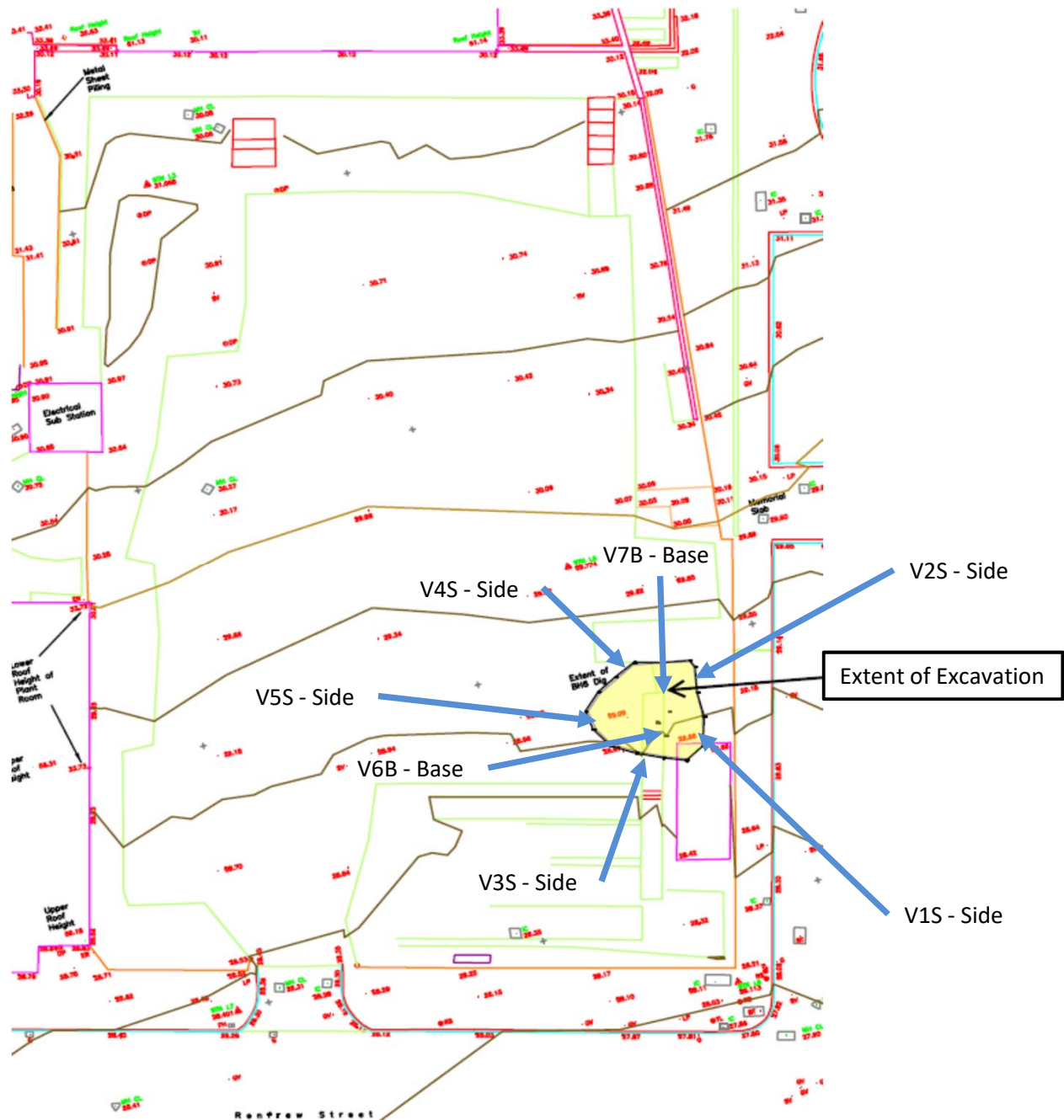
Site 58 Renfrew Street, Glasgow

Client ES Renfield Limited

Engineer Ian Black Consulting

Job Number
J18065

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Site 58 Renfrew Street, Glasgow

Client ES Renfield Limited

Engineer Ian Black Consulting

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Site 58 Renfrew Street, Glasgow**Client** ES Renfield Limited**Engineer** Ian Black Consulting**Job Number**
J18065**Sheet**
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Certificate of Analysis

Certificate Number 19-10258

06-Jun-19

Client Geotechnical & Environmental Associates
Unit 1
Church Farm
Gotham Road
Nottingham
NG11 0DE

Our Reference 19-10258

Client Reference J18065

Order No (not supplied)

Contract Title Glasgow Renfrew Street

Description 7 Soil samples

Date Received 03-Jun-19

Date Started 03-Jun-19

Date Completed 06-Jun-19

Test Procedures Identified by prefix DETSn (details on request).

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

Approved By

Adam Fenwick
Contracts Manager



Summary of Chemical Analysis

Matrix Descriptions

Our Ref 19-10258

Client Ref J18065

Contract Title Glasgow Renfrew Street

Sample ID	Lab No	Completed	Matrix Description
V1S	1509631	06/06/2019	Dark brown sandy, clayey GRAVEL (Possible made ground - brick) (sample matrix outside MCERTS scope of accreditation)
V2S	1509632	06/06/2019	Dark brown gravelly, clayey SAND (Possible made ground - brick)
V3S	1509633	06/06/2019	Brown gravelly, clayey SAND
V4S	1509634	06/06/2019	Brown gravelly, clayey SAND
V5S	1509635	06/06/2019	Dark brown gravelly, sandy CLAY
V6B	1509636	06/06/2019	Dark brown gravelly, sandy CLAY
V7B	1509637	06/06/2019	Dark brown gravelly, sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref 19-10258

Client Ref J18065

Contract Title Glasgow Renfrew Street

Lab No	1509631	1509632	1509633	1509634	1509635	1509636
Sample ID	V1S	V2S	V3S	V4S	V5S	V6B
Depth						
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	28/05/19	28/05/19	28/05/19	28/05/19	28/05/19	28/05/19
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Stones Removed	DETSC 1003*	0	%	0.0	0.0	0.0	0.0	0.0	0.0
Moisture Content 30°C	DETSC 1004*	0.1	%	21	18	13	14	14	19
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	11	11	4.2	6.5	6.2	10
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.4	0.3	0.2	0.2	0.4
Chromium	DETSC 2301#	0.15	mg/kg	27	17	13	12	14	24
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	210	66	52	83	84	250
Lead	DETSC 2301#	0.3	mg/kg	1200	560	250	330	270	720
Mercury	DETSC 2325#	0.05	mg/kg	0.43	0.55	0.22	0.38	0.50	0.33
Nickel	DETSC 2301#	1	mg/kg	29	28	16	24	17	31
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	620	400	190	260	200	490
Inorganics									
pH	DETSC 2008#			9.0	7.9	8.2	8.4	8.8	10.2
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5	0.4	0.2	0.2	< 0.1	2.5
Total Organic Carbon	DETSC 2002	0.1	%	1.9	2.5	0.8	1.2	1.0	1.6
Chloride	DETSC 2055	1	mg/kg	15.3	16.2	18.7	16.0	17.2	44.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	130	1500	1000	1500	1300	92
Sulphide	DETSC 2024*	10	mg/kg	36	44	24	40	52	40
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.21	1.4	0.32	0.55	0.43	0.28
Petroleum Hydrocarbons									
EPH (C8-C10)	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	13
EPH (C16-C21)	DETSC 3311	10	mg/kg	< 10	25	< 10	13	10	41
EPH (C21-C35)	DETSC 3311	10	mg/kg	< 10	30	< 10	39	51	48
EPH (C8-C40)	DETSC 3311*	10	mg/kg	< 10	63	< 10	60	74	100
PAHs									
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	0.3	< 0.1	0.1	< 0.1	1.4
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	0.4	1.1	0.3	0.2	0.1	2.1
Fluorene	DETSC 3301	0.1	mg/kg	0.3	0.8	0.2	0.1	0.1	1.8
Phenanthrene	DETSC 3301	0.1	mg/kg	1.6	4.6	1.2	0.7	0.5	8.3
Anthracene	DETSC 3301	0.1	mg/kg	0.4	1.1	0.4	0.2	0.2	2.0
Fluoranthene	DETSC 3301	0.1	mg/kg	1.7	4.5	1.5	1.1	0.9	7.0
Pyrene	DETSC 3301	0.1	mg/kg	2.0	5.4	1.6	1.4	1.0	6.5
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	0.8	2.1	0.7	0.7	0.5	2.6
Chrysene	DETSC 3301	0.1	mg/kg	0.9	2.3	0.7	0.7	0.5	2.7

Summary of Chemical Analysis

Soil Samples

Our Ref 19-10258

Client Ref J18065

Contract Title Glasgow Renfrew Street

Lab No	1509631	1509632	1509633	1509634	1509635	1509636
Sample ID	V1S	V2S	V3S	V4S	V5S	V6B
Depth						
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	28/05/19	28/05/19	28/05/19	28/05/19	28/05/19	28/05/19
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.6	1.7	0.5	0.5	0.5	1.6
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.4	1.0	0.4	0.3	0.3	0.9
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	0.9	2.6	0.8	0.8	0.7	2.4
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.5	1.7	0.5	0.6	0.5	1.4
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.2	0.4	0.1	0.2	0.1	0.3
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.5	1.7	0.5	0.6	0.4	1.3
PAH Total	DETSC 3301	1.6	mg/kg	11	31	9.5	8.4	6.5	43
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.5	1.0	1.2	< 0.3	< 0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 19-10258

Client Ref J18065

Contract Title Glasgow Renfrew Street

Lab No	1509637
Sample ID	V7B
Depth	
Other ID	
Sample Type	SOIL
Sampling Date	28/05/19
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
Stones Removed	DETSC 1003*	0	%	0.0
Moisture Content 30°C	DETSC 1004*	0.1	%	14
Metals				
Arsenic	DETSC 2301#	0.2	mg/kg	5.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	13
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	30
Lead	DETSC 2301#	0.3	mg/kg	250
Mercury	DETSC 2325#	0.05	mg/kg	0.30
Nickel	DETSC 2301#	1	mg/kg	15
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5
Zinc	DETSC 2301#	1	mg/kg	170
Inorganics				
pH	DETSC 2008#			8.3
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Total Organic Carbon	DETSC 2002	0.1	%	1.1
Chloride	DETSC 2055	1	mg/kg	15.6
Sulphate Aqueous Extract as SO ₄	DETSC 2076#	10	mg/l	1300
Sulphide	DETSC 2024*	10	mg/kg	32
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%	0.73
Petroleum Hydrocarbons				
EPH (C8-C10)	DETSC 3321*	0.1	mg/kg	< 0.1
EPH (C10-C12)	DETSC 3311	10	mg/kg	< 10
EPH (C12-C16)	DETSC 3311	10	mg/kg	< 10
EPH (C16-C21)	DETSC 3311	10	mg/kg	20
EPH (C21-C35)	DETSC 3311	10	mg/kg	34
EPH (C8-C40)	DETSC 3311*	10	mg/kg	63
PAHs				
Naphthalene	DETSC 3301	0.1	mg/kg	0.2
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	0.6
Fluorene	DETSC 3301	0.1	mg/kg	0.5
Phenanthrene	DETSC 3301	0.1	mg/kg	2.3
Anthracene	DETSC 3301	0.1	mg/kg	0.6
Fluoranthene	DETSC 3301	0.1	mg/kg	2.5
Pyrene	DETSC 3301	0.1	mg/kg	2.8
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	1.1
Chrysene	DETSC 3301	0.1	mg/kg	1.1

Summary of Chemical Analysis

Soil Samples

Our Ref 19-10258

Client Ref J18065

Contract Title Glasgow Renfrew Street

Lab No	1509637
Sample ID	V7B
Depth	
Other ID	
Sample Type	SOIL
Sampling Date	28/05/19
Sampling Time	n/s

Test	Method	LOD	Units	
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.8
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.5
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	1.2
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.7
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.2
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.7
PAH Total	DETSC 3301	1.6	mg/kg	16
Phenols				
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3

Information in Support of the Analytical Results

Our Ref 19-10258
 Client Ref J18065
 Contract Glasgow Renfrew Street

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1509631	V1S SOIL	28/05/19	GJ 250ml, GJ 60ml		
1509632	V2S SOIL	28/05/19	GJ 250ml, GJ 60ml		
1509633	V3S SOIL	28/05/19	GJ 250ml, GJ 60ml		
1509634	V4S SOIL	28/05/19	GJ 250ml, GJ 60ml		
1509635	V5S SOIL	28/05/19	GJ 250ml, GJ 60ml		
1509636	V6B SOIL	28/05/19	GJ 250ml, GJ 60ml		
1509637	V7B SOIL	28/05/19	GJ 250ml, GJ 60ml		

Key: P-Plastic T-Tub G-Glass J-Jar

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETS 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETS 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETS 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETS 2024	Sulphide	mg/kg	10	Air Dried	No	Yes	Yes
DETS 2076	Sulphate Aqueous Extract as SO ₄	mg/l	10	Air Dried	No	Yes	Yes
DETS 2084	Total Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETS 2321	Total Sulphate as SO ₄	%	0.01	Air Dried	No	Yes	Yes
DETS 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 3049	Sulphur (free)	mg/kg	0.75	Air Dried	No	Yes	Yes
DETS 2123	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETS 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETS 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETS 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETS 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETS 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 062	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETS 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETS 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

CONSIGNOR'S COPY

(Keep for 3 Years)



SPECIAL WASTE REGULATIONS 1996

Consignment Note N°

SA1076116

N° of prenotice (if different)

Sheet

of

1

A CONSIGNMENT DETAILS

PLEASE TICK IF YOU ARE A TRANSFER STATION ☐

1. The waste described below is to be removed from (name, address)

POSTCODE

G2 3BW

2. The waste will be taken to (name, address & postcode)

3. The consignment(s) will be:

one single ☒a succession ☐carrier's round ☐other ☐

please specify

4. Expected removal date of first consignment:

14/6/2019

last consignment:

14/6/2019

5. Name

TIMOTHY UMUKORO

On behalf of (company, address & postcode)

CLEANEX GLOBAL SERVICES

Signature

[Signature]

7. The waste producer was (if different from 1.)

321 AIKENHEAD ROAD
GLASGOW G42 0PE

Date

12/6/2019

AS A1

6.

POSTCODE

B DESCRIPTION OF THE WASTE

N° of additional sheets

1. The waste is

CONSTRUCTION WASTE

2. Six-Digit EWC Code(s)

17 05 03*

3. Physical Form:

Liquid ☐Powder ☐Sludge ☐Solid ☒Mixed ☐Gas ☐

4. Colour:

DARK BROWN

5. Total quantity for removal (include units kg/ltrs/tonnes etc):

20 tonnes

Container size, type & number:

8 WHEELED TIPPER

6. The chemical/biological components that make the waste special are:

Component

Concentration
(% or mg/kg)

TPH

> 0.1 %

Component

Concentration
(% or mg/kg)

7. The hazard codes (e.g. H7) are:

H7, H14

8. The process giving rise to the waste is:

EXCAVATION

C CARRIER'S CERTIFICATE

I certify that I today collected the consignment and that the details in A1, A2 and B1 are correct. The Quantity collected is:

Name

JOHN WADDELL

On behalf of (company, address & postcode)

11.340
WILL & DOORS LTD
UNIT 6 WILSON ROAD
DUNDEE DD1 1NQ
HAMILTON ML3 0J

Signature

[Signature]

Date

14/6/19

at

09:30

hrs.

1. Carrier registration n° /reason for exemption:

SNE017991

2. Vehicle registration n° (or mode of transport, if not road):

FE82 NPD

D CONSIGNOR'S CERTIFICATE

I certify that the information in B and C above is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures.

Name

TIMOTHY UMUKORO

On behalf of (company, address & postcode)

CLEANEX GLOBAL
SERVICES, 321 AIKENHEAD ROAD, GLASGOW
G42 0PE

Signature

[Signature]

Date

13/06/2019

E CONSIGNEE'S CERTIFICATE

1. I received this waste on

14/6/19

at

10:00

hrs.

2. Quantity received (include units kg/ltrs/tonnes etc):

11.340

3. Vehicle registration n°

SK880PB

4. Waste Management Operation(s):

TREATMENT

I certify that waste management licence/authorisation/exemption n°

WM4/L/1163794

authorises the management of waste described in B.

Name

[Signature]

On behalf of (company, address & postcode)

SOIL TREATMENT SYSTEMS LTD
321 AIKENHEAD ROAD
GLASGOW G42 0PE

Signature

[Signature]

Date

14/6/19