West London & Suburban Property Investments Ltd

80 Charlotte Street, London

Ground Contamination Verification Report

REP-207329-VR-001

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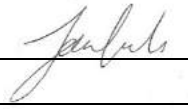
		Signature			
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1 Introduction

1.1 Background

West London & Suburban Property Investments Ltd (WLSPIL) is redeveloping 80 Charlotte Street (the site), located to the west of Tottenham Court Road in the London Borough of Camden (LBC). Planning permission for the redevelopment scheme was granted in March 2012 (application no. 2010/6873/P).

Ove Arup & Partners Ltd (Arup) has been appointed to provide structural, geotechnical engineering and ground contamination advice for the approved development. This verification report provides evidence that the remediation works to date have been completed in line with the remediation method statement [Arup (9 August 2017), Remediation Method Statement, reference Rep-ENV-003, Issue 1], as agreed with the Contaminated Land Officer (CLO) at LBC.

The approved development includes the demolition of most buildings on site as well as the refurbishment of some of the existing buildings (limited to the south eastern corner). The majority of the site will be occupied by new offices, with retail space on the ground floor. Some residential development is also planned above ground floor level. The proposed basements for the buildings are to be deeper than the previous basement levels by approximately 2m. Soft landscaping is to be included in the area of 10-15 Chitty Street. The area, referred to as the Pocket Park, will be constructed above a basement level.

This report provides verification evidence for the piling, enabling works and basement excavation works overseen by Multiplex Ltd and completed by Keltbray. These works comprised the majority of the required remediation works and included remediation of hydrocarbon contaminated soils and groundwater in the vicinity of an underground fuel tank.

1.2 Objectives

A number of conditions were attached to the planning permission (reference 2012/5283/P) for the development. This includes condition 6 which states that:

“No development shall take place until:

a) The applicant has submitted a programme of ground investigation for the presence of soil and groundwater contamination and landfill gas for approval by the Council; and

b) The investigation has been carried out in accordance with the approved details and the results and remediation measures (if necessary) have been submitted to and approved by the Council.

c) All approved remediation measures shall be implemented strictly in accordance with the approved details and a verification report shall be submitted and approved by the Council.”

The objective of this report is to partially discharge condition 6 part c for the construction works completed to date, comprising: tank removal works; basement excavation; construction of piles; and remediation of hydrocarbon contaminated soils. This report covers the verification of these works as outlined in the remediation method statement.

The outstanding element of the remediation method statement comprises the importation and verification of landscaping soils for the Pocket Park. An addendum to this verification report will be provided to address imported landscaping soils when this has been completed.

1.3 Report structure

The structure of this verification report is as follows:

- Section 2 provides a summary of investigations and assessments undertaken previously on the site related to ground contamination and summarises the approved remediation strategy.
- Section 3 describes the parties involved, references key documents and describes the progress of development and remediation. It includes photographs of development progress.
- Section 4 describes specific remediation activities with reference to verification visits and testing.
- Section 5 provides information on imported soils.
- Section 6 provides a summary of the soil waste disposal.
- Section 7 presents the conclusions of this verification report.

Figures and appendices are provided at the end of this report.

1.4 Limitations

This report has been produced by Arup for use by West London & Suburban Property Investments Ltd in connection with the proposed redevelopment of 80 Charlotte Street. It is not intended for, and should not be relied upon by any third party except as provided for in Arup's agreement with West London & Suburban Property Investments Ltd.

Reasonable skill and care has been exercised in the preparation of this report in accordance with the technical requirements of the brief. Notwithstanding the efforts made by the professional team in undertaking this verification report, it is possible that the ground conditions other than those previously identified may exist at the site.

This report has been prepared based upon information collected by other parties. Arup has assumed that the factual information provided by others is reliable but does not take any responsibility for the accuracy of third party data.

2 Remediation strategy

2.1 Ground investigation and assessment

Phased ground investigations were completed across the site prior to demolition between 2012 and 2017. The summary of the findings of the investigations is presented below.

- Ground conditions comprised Made Ground (up to 5.5m thick), underlain by River Terrace Deposits (RTD) and London Clay, the investigations showed that limited contamination was present in both the soil and groundwater.
- Petroleum hydrocarbon contamination was identified in the RTD (and associated groundwater) and towards the base of the Made Ground in a localised zone around the Chitty Street tank.
- Concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) were measured above the commercial assessment criteria (human health), and diesel-range organics above the saturation limit assessment criteria were recorded in several soil samples taken in the vicinity of the Chitty Street tank.
- Elevated groundwater concentrations of petroleum hydrocarbons (predominantly diesel and oil) were recorded at locations in the vicinity of the Chitty Street tank. Results indicate the presence of light non-aqueous phase liquids (LNAPL) in the groundwater.
- Elevated levels of volatile organic compounds (VOC), methane and carbon dioxide were recorded in association with the hydrocarbon contamination.
- Asbestos was detected in two of 25 (8%) samples of Made Ground tested. Both were taken in the vicinity of the Whitfield Street tank and reported very low concentrations (0.001%) of free fibres (amosite and/ or chrysotile).

The plausible potential contaminant linkages to be addressed by the remediation are summarised in Table 1; details of the agreed remediation strategy are summarised in Section 2.2.

Table 1 Plausible potential contaminant linkages

Source		Pathway		Receptor		Contaminant linkage
Hydrocarbon contamination in the RTD surrounding the Chitty Street tank.	Human health					
	→	Dermal contact with contaminated soils/ dust	→	<u>During development</u> Construction workers Site visitors	→	Potential harm to human health
	→	Ingestion of contaminated soils/ dust	→		→	
	→	Inhalation of vapours, gases or contaminated dust	→	Construction workers Site visitors Neighbours	→	

Source		Pathway		Receptor		Contaminant linkage
	→	Inhalation of vapours and gases	→	<u>After development</u> Maintenance workers Neighbours of the development Office worker/users Visitors	→	Potential harm to human health
	→	Migration of hazardous gases and vapours to confined spaces	→		→	
	→	Ingestion of potable water	→		→	
Hydrocarbon contamination in the RTD surrounding the Chitty Street tank.	Controlled water					
	→	Migration of free phase product (lateral/ vertical)	→	<u>During & after development</u> Secondary A aquifer	→	Potential migration of hydrocarbon contamination into secondary A aquifer when disturbed during construction.
	→	Lateral migration of dissolved phase contaminants	→		→	
	→	Migration of free phase product (lateral/ vertical)	→	<u>During & after development</u> Lambeth Group and RTD secondary A aquifer Chalk principal aquifer	→	Potential migration of hydrocarbon contamination during piling which penetrate the London Clay in the eastern area of the leak.
	→	Lateral migration of dissolved phase contaminants	→		→	
Potential ground contamination	Building materials and services					
	→	Direct contact of building materials with soil and groundwater	→	<u>After development</u> Building foundations Buried services	→	Potential damage to building materials Potable supply and human health
	→	Permeation of potable water supply	→	<u>After development</u> Potable water supply and human health	→	

The following plausible potential contaminant linkages were discounted from the conceptual site model as described below:

- A potential contaminant linkage was identified between ground contamination affecting potable water supply pipes and future site users, however no water supply pipes were to be laid within the contaminated soils onsite and so this linkage may be discounted.

- A potential contaminant linkage was identified from contamination migration between the upper aquifer to the deep chalk-basal sands principal aquifer associated with piling. In the final design all piles terminated in the London Clay and all were cased from ground level to the top of the clay. There was no potential migration pathway and so this linkage may be discounted.

2.2 Remediation strategy

The full remediation method statement (RMS) is provided in the Arup RMS report, which was agreed by the CLO at LBC in August 2017 (a copy of the correspondence is included in Appendix A). The general strategy is summarised below:

- decommissioning and removal of all past fuel tanks prior to piling, with removal of any significant contamination and chemical validation of excavation (if required);
- excavation works down to basement formation level across the site;
- additional deeper remedial excavation in contaminated area around Chitty Street tank to remove petroleum hydrocarbon contaminated RTD soils, and chemical validation of remedial excavation (using a QROS QED hydrocarbon analyser and samples to be analysed for chemical laboratory analysis) to verify that the significantly contaminated soils have been remediated;
- implementation of proactive dust mitigation measures to prevent dust and potential release of asbestos fibres;
- appropriate hygiene and personnel protective equipment (PPE);
- if required, odour and vapour control and monitoring;
- watching brief for unexpected contamination;
- verification of imported material; and
- environmental controls, such as wheel washing and sheeting of lorries.

The RMS included remediation target concentrations for soils remaining onsite. Criteria were set for in-situ samples to be analysed using a QROS QED hydrocarbon analyser and for the chemical laboratory analysis; these criteria are reproduced in Tables 2 and 3 respectively.

Table 2 QED soil advisory onsite targets

Determinand	Advisory onsite target (mg/kg)	Rationale
BTEX	500	Levels below which it is unlikely any free product remains and laboratory validation samples are likely to pass the verification criteria.
Diesel range organics (DRO)	1,000	

Table 3 Validation criteria

Determinand	Unit	Validation criteria (saturation limits)
TPH - Aliphatic >EC_8-EC_{10}	mg/kg	2000 (78)
TPH - Aliphatic >EC_{10}-EC_{12}	mg/kg	9700 (48)
TPH - Aliphatic >EC_{12}-EC_{16}	mg/kg	59000 (24)
TPH - Aromatic >EC_8-EC_{10}	mg/kg	3500 (613)
TPH - Aromatic >EC_{10}-EC_{12}	mg/kg	3800
TPH - Aromatic >EC_{12}-EC_{16}	mg/kg	36000 (169)
Ethylbenzene	mg/kg	5700 (518)
o-Xylene	mg/kg	6600 (478)
p-Xylene	mg/kg	5900 (576)

The validation criteria adopted are LQM S4UL commercial values for 1% soil organic matter, which take into account various pathways including dermal contact, ingestion and vapour inhalation. Where saturation limits are available (values in brackets), these were used as validation criteria.

2.3 Verification plan

The verification plan was set out in Section 8 of the agreed RMS report. The verification plan documents the information to be contained in the verification report. It is reproduced here with references to the relevant sections of this verification report, where the relevant information is contained.

General information:

- site details and background (see Sections 1 and 2);
- details of the various parties involved in the work (see Section 3.1);
- start and finish dates of the different earthworks (see Section 4);
- a summary of the original site conditions with reference to relevant reports including the original risk assessment(s) for the site (see Section 2.1);
- development/ remediation objectives (see Section 2.2); and
- progress colour photographs of the earthworks undertaken (see Section 4).

Tank decommissioning:

- Documentation detailing the decommissioning of the three oil tanks and associated pipework present on site (see Section 4.1 and Appendix B);
- photographs of the decommissioning works (see Section 4); and
- confirmatory soil samples to show no contaminated soils were present at the sides and base of the tank excavations (for the Charlotte Street tank and the Whitfield Street tank) (Appendix C).

Chitty Street tank remediation:

- Documentation detailing the Chitty Street tank remediation works (see Section 4.2);
- laboratory and in-situ test results confirming all contaminated materials in the area of the Chitty Street tank were excavated (see Appendix D); and
- records of dewatering and water disposal / treatment (section 4.3 and Appendix E).

Materials:

- Details of any soil material imported to site, including source details, description, quantities, laboratory test results for samples taken at source, laboratory test results for samples taken on site (see Section 4.5 and Appendix F); and
- laboratory test results for samples of material reused on site.

Waste:

- Waste management documentation, details of waste classification undertaken, quantities of waste sent off site and the destination of all waste soils. The report include copies of exemptions, permits and other duty of care documentation (see Section 5 and Appendix G).

Controls:

- health and safety and quality management documentation (see Section 3.3 and Appendix H for the contractor toolbox talks for ground contamination);
- details of any previously unidentified contamination encountered and how it was dealt with (see Section 4.4); and
- details of communications held with the contaminated land officer (CLO) and other regulatory bodies during implementation (see Appendix A).

3 Summary of development progress

3.1 Description of roles

The development is being co-ordinated by Multiplex as the Principal Contractor. Keltbray are the earthworks contractor for the basement excavation, piling and remediation dig. Keltbray has undertaken the remediation and waste disposal works.

Arup has carried out a role as verification coordinator for the remediation at 80 Charlotte Street. During the remediation works Arup attended site on sixteen occasions, mostly during remediation excavation works in the contaminated area around Chitty Street tank, but also during decommissioning of the other tanks.

Terragen Environmental Consultants Ltd provided environmental specialist services to Keltbray by collecting soil samples from site for verification purposes and arranging laboratory analysis.

Amery is the construction contractor following on from the Keltbray enabling works. Amery will complete the construction of the basement. This will include some minor localised excavation works around pile caps.

3.2 Programme and progress

Demolition of the building onsite was completed between January 2016 and July 2017. Before the bulk basement excavation and enabling works were undertaken, these included:

- a strip of all hard standing;
- probing at pile locations and obstructions clearance;
- decommissioning and cleaning of three underground fuel tanks; and
- breaking out and removal of concrete tank structures.

Piling was completed between June 2017 and September 2017 and basement excavation and foundation construction followed. Final excavation works including minor ongoing excavations around pile caps are programmed to be complete by August 2018.

The depth of the reduced level dig across the site varies depending on the basement formation level. Piling was completed from the previous ground level (+25.4 m OD). During the basement excavation piles were cut down and pile caps constructed. Various temporary works activities have also been undertaken during construction of the basement including installation of crane bases, props and a lorry loading gantry.

Once the basement excavation reached the required formation level, the remediation excavation was completed to remove the contaminated soils in the area of the Chitty Street tank. These works were completed in February 2018.

3.3 Inventory of verification records

Table 4 provides details of the key contractor documents and method statements relating to the remediation works. These method statements include details consistent with the agreed RMS. All of the relevant documents relating to the project are stored and updated on the Multiplex Aconex document control system.

Table 4 References to key contractor documents relating to remediation works

Contractor	Title and reference	Revision and date
Multiplex	Construction Phase Health and Safety Plan CHS-MPX-SW-XX-PP-HS-00011	Revision 09 12/04/2017
MLM Consulting Engineers Ltd on behalf of Multiplex	Construction Dust Risk Assessment 772843-REP-ENV-001	Revision 0 September 2015
Multiplex	Environmental Sustainability Management Plan UK-ENV-T-001 80 Charlotte Street ESMP April	Revision 6 25/04/2017
Keltbray	Method Statement Removal of Contaminated Soil & Water CHS-KLL-80-ZZ-MS-B101-105	Revision 02 30/11/2017
Keltbray	Method Statement Bulk excavation, perimeter propping and skin wall construction CHS-KLL-80-ZZ-MS-X-B101-080	Revision 00 27/02/2017
Keltbray	Method Statement Courtyard Pile Probing CHS-KLL-80-BG-MS-X-B101-057	Revision 02 11/07/2017
WJ Groundwater on behalf of Keltbray	Method Statement De-watering CHS-KLL-80-00-MS-X-B101-093	Revision 00 29/03/2017
WJ Groundwater on behalf of Keltbray	Method Statement - Addendum De-watering P2252-RAMS-001-ADD_rev 000	Revision 00 05/12/2017
Boiler and Plant Dismantlers Ltd on behalf of Keltbray	Method Statement To decommission, de-sludge, oil tanks. CHS-KLL-80-00-MS-X-B101-091	Revision 01 27/03/2017

4 Implementation of remediation strategy

4.1 Tank removal works

4.1.1 Decommissioning

Three underground fuel tanks were formerly located on the site, at the locations shown on Figure 1. The tanks were referred to as Whitfield Street, Charlotte Street and Chitty Street tanks. All three underground fuel tank areas were decommissioned and removed during the enabling works in summer 2017.

The tank decommissioning works were completed by Boiler and Plant Dismantlers Ltd (BPDL). The method statement for these works is referenced in Table 4, and was provided to Arup for review. The tanks were first cleaned with any water or sludge removed by tanker. BPDL provided hazardous waste consignment notes for disposal of the sludge. On completion of the tank decommissioning each was issued with a gas clearance certificate. Tank decommissioning records are included in Appendix B.

Arup visited site during decommissioning of Charlotte Street tank on 5th July 2017. Photos are provided in Table 5 below. This activity was undertaken for all three tanks prior to removal, as evidenced by the records in Appendix B.

Table 5 Photographs of decommissioning of Charlotte Street tank 5th July 2017

Tanker, tripod with harness set up over tank opening. BBDL operatives preparing for man entry into tank.

Man entry into tank for cleaning and suction of sludge.

4.1.2 Tank removal

After decommissioning the tanks were each broken out and removed from site. The tanks were found to be constructed from reinforced concrete with clay tiles lining the inside walls and floor, and with cast iron opening and pipework. The tanks were removed on the following dates:

- 23rd June 2017 – Whitfield Street tank;
- 18th to 20th July 2017 – Charlotte Street tank; and
- 24th to 29th August 2017 – Chitty Street tank.

Arup visited site to witness tank removal works for the Charlotte Street tank on 18th and 20th July 2017. A selection of photos from each tank removal activity are included in Table 6.

Table 6 Tank removal verification evidence photos

Whitfield St tank removal (23/06/2017).

Charlotte Street tank removal (18/07/2017).

Obstructions cleared from Chitty St tank removal operation, after the tank was removed, but prior to subsequent remediation, summarised in Section 4.2 (29/08/2017).

4.1.3 Verification of Whitfield Street and Charlotte street tank removal

The RMS sets out the procedure for verification of the ground following removal of the tanks and associated tank structure. This includes sampling from the sides and base of the excavation around the former tank structure.

For the Whitfield Street and Charlotte Street tanks there were no known leaks or associated ground contamination issues; specific remediation around the Chitty Street tank was required. On completion of the tank removal no evidence of significant contamination of the surrounding soils was observed.

Following removal of the Whitfield Street tank, two samples (sample A and B) were taken considered to be representative of the soils from around the tank. Both samples recorded concentrations of contaminants significantly below the remediation targets.

Arup was on site to oversee the removal of the Charlotte Street tank. Five samples were collected from soils surrounding the tank, from each side and the base. All results were well below remediation targets.

A summary of the results compared against the agreed remediation target concentrations are show in Table 7.

Table 7 Summary of validation results following removal of the Whitfield Street and Charlotte Street fuel tanks

Determinand	Validation criteria (mg/kg)	Whitfield Street		Charlotte Street	
		Min	Max	Min	Max
TPH - Aliphatic >EC_8-EC_{10}	2000 (78)	<2	7	<4	<4
TPH - Aliphatic >EC_{10}-EC_{12}	9700 (48)	<2	10	<4	<4
TPH - Aliphatic >EC_{12}-EC_{16}	59000 (24)	<2	37	<4	8.93
TPH - Aromatic >EC_8-EC_{10}	3500 (613)	<2	<2	<4	<4
TPH - Aromatic >EC_{10}-EC_{12}	3800	<2	2	<4	<4
TPH - Aromatic >EC_{12}-EC_{16}	36000 (169)	<2	40	<4	<4
Ethylbenzene	5700 (518)	<0.002	<0.002	<0.01	<0.01
o-Xylene	6600 (478)	<0.002	<0.002	<0.01	<0.01
p-Xylene	5900 (576)	<0.002	<0.002	<0.01	<0.01

BTEX were not measured above the detection limit and very low PAH concentrations were detected in all the samples. The laboratory analytical reports are included in full in Appendix C1 and C2, for the Charlotte Street and Whitfield Street tanks respectively.

The subsequent excavation of the basement further removed soil below the Whitfield and Charlotte Street tank excavations and no visual or olfactory evidence of contamination was reported by Keltbray during these works.

4.2 Remediation excavation beneath Chitty Street tank

Keltbray undertook remediation excavation and contaminated soil removal in the area of the Chitty Street tank between 16th and 22nd February. The remediation excavation was carried out below the basement formation level. The remediation works were constrained by nearby temporary works activities onsite, such as: the loading gantry, located above the excavation, temporary piles and crane base constructions. However, coordination between the activities enabled successful completion of the remediation in accordance with the RMS. The method of works for the remediation excavation was as follows:

- excavation was undertaken to basement formation level (20.6m OD) under the contamination watching brief and visually impacted soils segregated prior to off-site disposal;
- a visual inspection for evidence of contamination was carried out at formation level (with reference to the ground investigation data), and samples collected for onsite analysis for hydrocarbons using the QROS QED (results included in Appendix D1, sampling points shown on Figure 2);
- where there was no visual or olfactory evidence of contamination and where QROS QED samples met the remediation targets (therefore beyond the zone of impact) no further remediation was required;
- where there was evidence of contamination and/or where QROS QED analysis identified concentrations above the agreed insitu criteria (see Table 2) further excavation to remove the contamination was undertaken;
- verification samples collected were from sides and base of remediation excavation for both insitu analysis, and for offsite laboratory analysis; and
- additional excavation (as required) to remove any further residual contamination, was undertaken until the verification samples of the remaining soils passed the all the remediation target concentrations (results included in Appendix D2, sampling points shown on Figure 2).

The remediation comprised a 1.2m deep excavation below the basement formation level over an area of approximately 100 square metres. A plan showing the remediation excavation and verification sampling points is included in Figure 2. This plan sets the remediation in the context of the anticipated potential extent of remediation as shown in the RMS.

Arup undertook regular verification visits during the remediation excavation. Table 8 provides a photographic record during the remediation works.

Table 8 Photographic record of remediation dig

05/02/2018: Inspection of basement formation level adjacent to the northeast of contaminated area (QROS QED sample areas A-D). Visual and olfactory observations indicated that the area was free from any obvious visual and olfactory indicators of hydrocarbon contamination.

08/02/2018: Inspection of basement formation level just to the northwest of contaminated area (QROS QED sample areas A-D). Visual and olfactory observations indicated that the area was free from any obvious visual and olfactory indicators of hydrocarbon contamination.

09/02/2018: Excavation works within contaminated area. Annotated line on shows boundary between “clean” and contaminated soils at the proposed basement formation level. Excavation and removal of the visually impacted soils was subsequently carried out.

16/02/2018: Soils at formation level in contaminated area, prior to removal.

20/02/2018 (left) and 22/02/2018 (right): Remediation excavation to 1.2m below basement formation level. No obvious visual and olfactory indicators of hydrocarbon contamination noted in the base or sidewalls of the excavation..

06/03/2018: Collection of the final verification sample from eastern side of the remediation excavation. The final sample was carried out following extension of the excavation following a failed sample.

Insitu analysis of soils in and around the remediation excavation was completed with the QROS QED. Samples were collected on a grid pattern (A to JJ) as shown on Figure 2. 44 in-situ tests using the QED were undertaken, a summary of the results against the agreed QROS QED remediation included in Table 9. The results are included in full in Appendix D1.

Table 9 Summary of QED insitu analysis against soil advisory targets

Determinand	Advisory onsite target (mg/kg)	Number of samples	QROS QED insitu analysis (mg/kg)	
			Min	Max
BTEX	500	44	<0.65	<16.6
Diesel range organics (DRO)	1,000		0.38	784.6

On completion of the remediation excavation samples were collected for laboratory analysis. Five samples were collected, four samples from the sides and one from the base. One of these initial verification samples (V2-E) was found to fail the remediation targets, due to TPH concentrations above saturation limits. On 06/03/2018 this part of the excavation was extended and resampled (V2-E-A), which was found to pass the remedial targets. The surveyed extent of the remediation excavation and sampling points are shown in Figure 2. The results of the final verification (five) samples are summarised in Table 10. The result of laboratory analysis are included in full in Appendix D2.

Table 10 Summary of final validation results following completion of the remediation excavation below the Chitty Street tank

Determinand	**Validation criteria (mg/kg)**	**Number of samples**	**Verification sample results (mg/kg)**	
			Min	**Max**
TPH - Aliphatic >EC_8-EC_{10}	2000 (78)	5	<2	<2
TPH - Aliphatic >EC_{10}-EC_{12}	9700 (48)		<2	<2
TPH - Aliphatic >EC_{12}-EC_{16}	59000 (24)		<3	4
TPH - Aromatic >EC_8-EC_{10}	3500 (613)		<2	<2
TPH - Aromatic >EC_{10}-EC_{12}	3800		<2	<2
TPH - Aromatic >EC_{12}-EC_{16}	36000 (169)		<2	4
Ethylbenzene	5700 (518)		<0.002	<0.002
o-Xylene	6600 (478)		<0.002	<0.002
p-Xylene	5900 (576)		<0.002	<0.002
Note: Verification sample V2-E failed the verification and so is not included in the above results. Further excavation to remove this residual contamination was undertaken and the areas was retested (V2-E-A).				

4.3 Groundwater management and dewatering

The groundwater level in the RTD across the site was around +22.0mOD, and the deepest basement formation level was approximately +21.1mOD. A dewatering system was installed around the perimeter of the site prior to the basement excavation.

The methodology for dewatering is described in the method statements from WJ groundwater. Ten 150mm diameter groundwater wells were installed around the site perimeter. Seven of these wells were connected directly to a discharge point. The three groundwater wells located closest to the contaminated area around Chitty Street tank were isolated from the main works and connected to a separate discharge line connected up to a “Siltbuster” treatment unit before being discharged. No contaminated water was encountered in the remediation excavation as the water table had been lowered sufficiently prior to the removal of contaminated soil.

The water pumped via the Siltbuster was visually inspected twice daily to ensure no visible hydrocarbons were present, as well as being samples and laboratory

tested. Three samples of groundwater were collected from the sediment tanks and tested for a range of general water quality parameters, and for hydrocarbons.

Concentrations of contaminants in the sediment tanks were all extremely low and below the criteria for groundwater were set in the RMS. The majority of TPH and BTEX were below laboratory method detection limits, with the exception of TPH Aliphatic >EC_6-EC_8 recorded at between 16 and 20µg/l, which is low. The results were also below levels set in the Thames Water discharge permit. The results are included in full in Appendix E.

Before the Siltbuster was demobilised from site it was checked by Keltbray, Multiplex and the supplier to confirm no contaminants were present in the filtration system. Keltbray reported that no oil sheens or product was identified.

4.4 Watching brief for contamination

A watching brief for unexpected contamination was maintained during excavation works onsite. Keltbray toolbox talk on contamination and daily task briefings that highlight the potential for contamination to their site personnel are included in Appendix L.

During the groundworks there was one incidence of contamination, which was observed as a slight oil sheen and discolouration of the water in an excavation (Tower Crane 4) in the west of site near the former location of the Charlotte Street tank on 09/11/2017. The works were being undertaken with local dewatering via a pump, before the abstraction wells for the site wide dewatering were operational. Groundwater was allowed to accumulate in the area overnight while the mobile pump was turned off.

Table 11 Photograph of oil sheen within Tower Crane 4 excavation.

09/11/2018: Slight oil sheen on water within excavation.

Spill absorbent pads were used between Friday 10/11/2017 to Monday 13/11/2017 to recover the oil sheen. These spill materials were then disposed of appropriately.

In response to this incident Keltbray continued to monitor the groundwater within the excavation and passing through the settlement tank closely for evidence of oil or contamination. No further instances of oil were observed. This incidence was indicative of minor localised contamination and no further action was deemed to be required.

4.5 Imported materials

On completion of the remediation excavation and verification in the area of the Chitty Street contamination, the excavation was backfilled with imported recycled aggregate up to basement formation level.

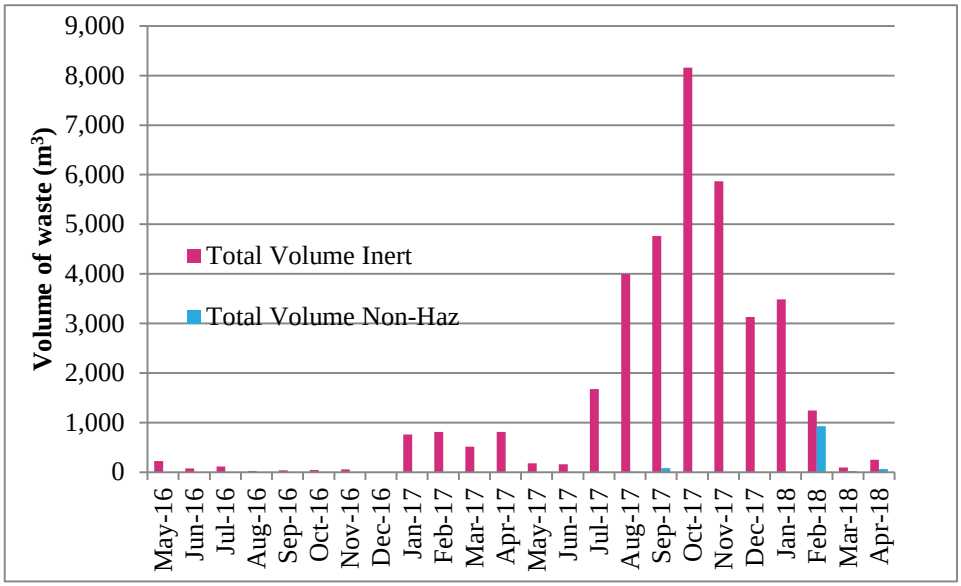
Approximately 150 cubic metres of recycled aggregate were imported. These soils were sourced from haulage and demolition contractor R. Collard from their depot in Hook, north Hampshire.

Test results for the imported soils are included in Appendix F. These include particle size distribution tests that demonstrate that the soils comply with the geotechnical requirements, and tests for asbestos. No asbestos containing material or fibres were detected in the samples tested.

5 Waste disposal

Soils removed from site were disposed of as inert or non-hazardous waste. 37,600m^3 of soil was removed from site, between May 2016 and April 2018. The majority of the soil was classified as inert waste, with 1,100m^3 classified as non-hazardous.

Table 12 Waste soil volume by month



During the remediation excavation works around the Chitty Street tank, 81 lorry loads of contaminated materials were removed from site, which equates to approximately 930m^3. The arisings were classified by the contractor as non-hazardous waste. The soils were removed from site between 5th and 20th February 2018 during the remediation dig.

The arisings from the remediation excavation were sent to Mohawk Wharf in Silvertown for treatment. The treatment facility has an active environmental permit EPR/FP3092LH. The activities allowed at Mohawk Wharf include disposal or recovery of hazardous and non-hazardous waste and temporary storage of hazardous wastes. The specified activities include ex-situ bioremediation of contaminated soils in biopiles. Waste tickets for the non-hazardous soils are included in Appendix G1.

In addition to the soils from the remediation dig around Chitty St tank in February 175m^3 of non-hazardous soil were also generated during excavations for foundations during construction of the basement box. These comprised 90m^3 generated in August and September, during Keltbray piling works and 85m^3 in March and April generated by Amery.

Waste soils from the basement excavation were tested using the onsite QROS QED to confirm waste classification. A selection of the results are included in Appendix G2.

Hazardous waste consignment notes from sludge removed from underground fuel tanks by tanker are included in Appendix B.

6 Conclusions

6.1 Summary of verification

Based on the verification evidence provided in this report the remediation has been undertaken in accordance with the agreed RMS. This report is provided for the partial discharge of condition 6c with respect to contamination remediation. Verification evidence has been provided for the following remediation activities:

- decommissioning and removal of underground fuel tanks; and
- remediation by excavation of hydrocarbon contaminated soils beneath the proposed basement around Chitty St Tank.

Keltbray were the contractor responsible for bulk excavation of the basement and construction of piled foundations. They characterised all soil waste prior to disposal through soil samples and with onsite analysis for hydrocarbons. A watching brief for unexpected contamination was undertaken throughout the works. One instance of previously unidentified contamination occurred where a slight oily sheen was visible on the surface of groundwater which collected within an excavation. The contamination was contained and cleaned. No further instances were reported.

Imported materials to site consisted of recycled aggregate. These were shown to be free from asbestos.

The majority of soil waste has been removed from site during the enabling and foundation works by Keltbray. In total this has comprised 36,000m^3 of soil, of which 500m^3 has been classed as non-hazardous and the rest is inert. The non-hazardous soils contaminated with petroleum hydrocarbons have been sent to a soil treatment facility for bioremediation prior to beneficial recovery.

6.2 Additional works to complete remediation

The majority of the works outlined in the RMS have been completed and documented in this report. The following works have yet to be completed and will be verified in an addendum to this report, to allow condition 6 to the fully discharged:

- minor further excavation works to be completed by Amery during construction of the basement box, including waste documentation; and
- Import and verification of topsoil within pocket park (see below).

The development at 80 Charlotte Street includes provision of a small area of landscaping at ground level (the pocket park). This area is to be created on a podium, over the basement. The chemical suitability of the imported soils and verification testing requirements set out in the RMS will need to be adopted for the soft landscaping.

Figures

529400

Block G

Whitfield St. tank

Block H

71 - 81 Whitfield St.

Charlotte St. tank

Block H

67- 69 Whitfield St.

Chitty St. tank

Block K

Legend

Former tank locations

Issue	Date	By	Chkd	Appd
P1	17-05-18	AJ	JW	JL

Metres

0 5 10 20

ARUP

13 Fitzroy Street London W1T 4BQ
Tel +44 (0)20 7636 1531
www.arup.com

Client

West London and Suburban Property Investments Ltd

Job Title

80 Charlotte Street

Drawing Title

Pre-development site layout plan showing former fuel tanks

Scale at A3

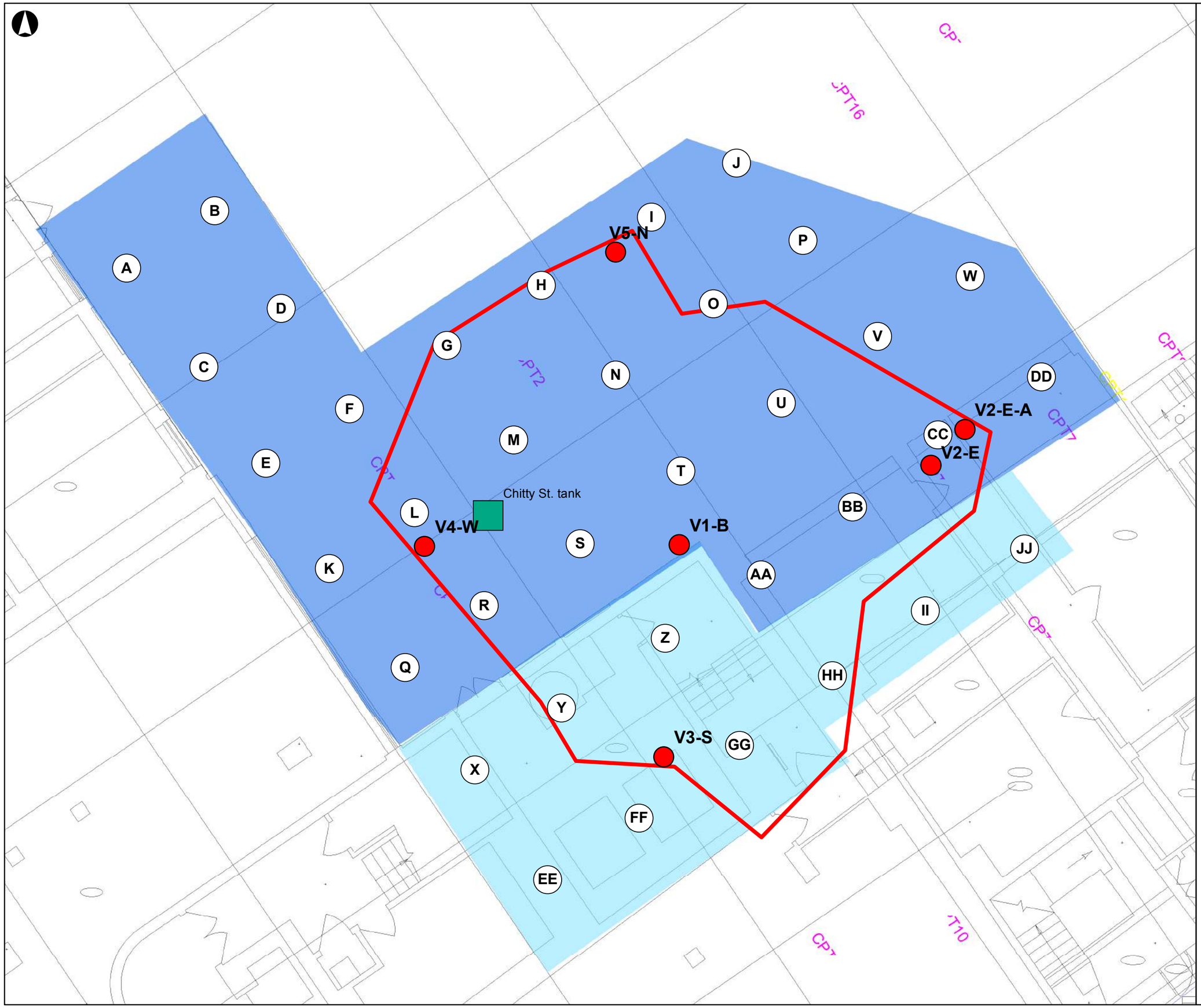
1:400

Drawing Status

Issue

Job No	Drawing No	Issue
207329	Figure 1	P1

oFileLocation



Legend

- In-situ QED samples
- Verification samples
- Remediation excavation
- Potentially contaminated area indicated in the RMS
- Additional potentially contaminated area (uncertain extent) indicated in the RMS

Issue	Date	By	Chkd	Appd
P1	17-05-18	AJ	JW	JL

Metres
0 1 2 4

ARUP
13 Fitzroy Street London W1T 4BQ
Tel +44 (0)20 7636 1531
www.arup.com

Client

West London and Suburban Property Investments Ltd

Job Title

80 Charlotte Street Redevelopment

Drawing Title

Chitty St tank remediation area

Scale at A3

1:80

Drawing Status

Issue

Job No	Drawing No	Issue
207329	Figure 2	P1

oFileLocation

Appendix A

Correspondence with LBC

From: Arthur, Anona <Anona.Arthur@camden.gov.uk>
Sent: 08 January 2018 11:30
To: Jeff Widd
Subject: RE: 80 Charlotte Street - remediation method statement

Good Morning Jeff

Thank you for your update on the progress of the remediation works at the above site.

Regards

Anona Arthur

Environmental Health Officer / Contaminated Land Officer

From: Jeff Widd [mailto:Jeff.Widd@arup.com]
Sent: 08 January 2018 10:37
To: Louise Cox <Louise.Cox@arup.com>; Arthur, Anona <Anona.Arthur@camden.gov.uk>; Contaminated Land <ContaminatedLand@camden.gov.uk>
Cc: Chris Barrett <Chris.Barrett@arup.com>; David Anderton <David.Anderton@arup.com>; Pierre-Marie Meilleray <pierre-marie.meilleray@multiplex.global>; Matthew Sinclair <Matthew.Sinclair@multiplex.global>; Rahul Patel <Rahul.Patel@arup.com>; James Hastie <James.Hastie@multiplex.global>; Andrew.Cashman@multiplex.global; Frank Blande <Frank.Blande@multiplex.global>
Subject: RE: 80 Charlotte Street - remediation method statement

Hi Anona,

As mentioned before Christmas I have taken over the 80 Charlotte Street project from Louise Cox while she is on maternity leave.

The excavation in the area of the hydrocarbon impacted soils has now commenced and is anticipated to occur over the next two weeks or so. During this process Arup will be making regular site inspection visits to view the works and the verification records. I'll keep you updated as the works progress.

Please do not hesitate to contact me should you wish to discuss.

Best regards,

Jeff

Jeff Widd
Senior Consultant | Environmental Consulting

Arup
www.arup.com

From: Louise Cox
Sent: 12 December 2017 13:51
To: Arthur, Anona; Contaminatedland@camden.gov.uk
Cc: Chris Barrett; David Anderton; Pierre-Marie Meilleray; Matthew Sinclair; Rahul Patel; James Hastie; Andrew.Cashman@multiplex.global; Frank Blande; Jeff Widd
Subject: RE: 80 Charlotte Street - remediation method statement

Hi Anona,

It was good speaking to you on Thursday. Please find below a link to download the original RMS and updated method statement from the contractor involved (Keltbray).

https://arup.sharefile.com/d-sb29dd157c474cada

As explained over the phone, we will not reissue the RMS, but rather any changes to the method statement followed will be clearly highlighted in the verification report produced upon the completion of the ground works.

Many thanks,

Louise Cox
Senior Contaminated Land Consultant | Environmental Consulting

Arup
www.arup.com

From: Arthur, Anona [mailto:Anona.Arthur@camden.gov.uk]
Sent: 07 December 2017 15:54
To: Louise Cox <Louise.Cox@arup.com>
Cc: Chris Barrett <Chris.Barrett@arup.com>; David Anderton <David.Anderton@arup.com>; Pierre-Marie Meilleray <pierre-marie.meilleray@multiplex.global>; Matthew Sinclair <Matthew.Sinclair@multiplex.global>; Rahul Patel <Rahul.Patel@arup.com>; James Hastie <James.Hastie@multiplex.global>; Andrew.Cashman@multiplex.global; Frank Blande <Frank.Blande@multiplex.global>; Jeff Widd <Jeff.Widd@arup.com>
Subject: RE: 80 Charlotte Street - remediation method statement

Hello Louise

Thank you for your email. I tried to call you on your landline and mobile phone.

Please can you forward the amended RMS. Please note I am out of the office now and returning on Monday 11th December 2017.

Regards

Anona Arthur
Environmental Health Officer / Contaminated Land Officer
Communities
Culture and Environment
London Borough of Camden

Web: camden.gov.uk

From: Louise Cox [mailto:Louise.Cox@arup.com]
Sent: 07 December 2017 10:49
To: Arthur, Anona <Anona.Arthur@camden.gov.uk>
Cc: Chris Barrett <Chris.Barrett@arup.com>; David Anderton <David.Anderton@arup.com>; Pierre-Marie Meilleray <pierre-marie.meilleray@multiplex.global>; Matthew Sinclair <Matthew.Sinclair@multiplex.global>; Rahul Patel <Rahul.Patel@arup.com>; James Hastie <James.Hastie@multiplex.global>; Andrew.Cashman@multiplex.global; Frank Blande <Frank.Blande@multiplex.global>; Jeff Widd <Jeff.Widd@arup.com>
Subject: RE: 80 Charlotte Street - remediation method statement

Hello Anona,

I was hoping that we could have a catch up regarding the development at 80 Charlotte Street. Works have been progressing well, and the contractor has proposed a change to the agreed method statement, which was included in the Remediation Method Statement (RMS) which we sent over to you in August.

In summary, the change affects the way contaminated groundwater pumped out via the dewatering process in the Chitty Street tank area is dealt with. Previously, the water was to be taken off site for disposal via tankers. The contractor now proposes to use a Siltbuster on site to remove free product from the water, and following confirmatory testing against the criteria set out in the RMS (section 5.5.2), disposal to the main sewer via the discharge consent already in place. The dewatering strategy has also been amended, and now makes use of the main dewatering system in place for the whole site, and does not require additional boreholes specifically for the Chitty Street tank area.

I can send you a copy of the amended RAMS if you would like to see this? In any case, I will give you a ring later today to discuss.

Best regards,

Louise Cox
Senior Contaminated Land Consultant | Environmental Consulting

Arup
www.arup.com

From: Louise Cox
Sent: 09 August 2017 20:26
To: Arthur, Anona <Anona.Arthur@camden.gov.uk>
Cc: Chris Barrett <Chris.Barrett@arup.com>; David Anderton <David.Anderton@arup.com>; Pierre-Marie Meilleray <pierre-marie.meilleray@multiplex.global>; Matthew Sinclair <Matthew.Sinclair@multiplex.global>; Rahul Patel <Rahul.Patel@arup.com>; James Hastie <James.Hastie@multiplex.global>; Andrew.Cashman@multiplex.global
Subject: RE: 80 Charlotte Street - remediation method statement

Dear Anona,

Many thanks for your prompt reply. We've made some edits to the report to address your comments. I have included a link below for you to download the final Remediation Method Statement for your approval: https://arup.sharefile.com/d-s69ce8fec6a543c49

To answer your two comments below:

- The only soft landscaping will be present at podium level, and not directly above the area of hydrocarbon contamination. As such, no capping layer will be required. Any imported material (topsoil/ subsoil) will be validated as per the details in my original email (section on Imported material – Pocket Park, and also see section 8.1 of the RMS);
- The remediation works will be carried out by Keltbray, under the supervision of Multiplex. Arup will be collating verification records and producing the verification report on behalf of Multiplex, and as such will be independently validating the various stages. Can you confirm this is acceptable?

Best regards,

Louise Cox
Senior Contaminated Land Consultant | Environmental Consulting

Arup
www.arup.com

From: Arthur, Anona [mailto:Anona.Arthur@camden.gov.uk]
Sent: 03 August 2017 14:52
To: Louise Cox
Cc: Chris Barrett
Subject: RE: 80 Charlotte Street - remediation method statement outline

Dear Louise

Thank you for your email regarding the proposals for the RMS for the above site which I am generally satisfied with. However, please can you clarify the details of the soil capping layers for the soft landscaping once the hydrocarbon contamination has been removed. Also as previously mentioned once the remedial measures have been completed they need to be independently validated at the appropriate stages.

Regards

Anona Arthur

From: Chris Barrett [mailto:Chris.Barrett@arup.com]
Sent: 03 August 2017 11:22
To: Louise Cox <Louise.Cox@arup.com>; Arthur, Anona <Anona.Arthur@camden.gov.uk>
Subject: RE: 80 Charlotte Street - remediation method statement outline

Hi Anona

Further to Louise's email below; are you likely to have any comments. If you do I'll wait before issuing the final RMS to you. If not I'll get it issued soon.

Thanks and regards

Chris Barrett
Associate Director | Contaminated land, water and waste
Specialist in Land Condition (SiLC)

Arup
www.arup.com

Connect with me on LinkedIn
Join the debate at Arup Thoughts

From: Louise Cox
Sent: 29 July 2017 21:58
To: Arthur, Anona
Cc: Chris Barrett
Subject: 80 Charlotte Street - remediation method statement outline

Hello Anona,

Following our phone call just over a week ago, please find below the main points which will be included in our Remediation Method Statement for the development at 80 Charlotte Street, and in particular in relation to the remediation works in the area of the Chitty Street tank, where hydrocarbon contamination was previously identified. Could you please let me know whether you are in general agreement with this, or whether you have any comments which we should incorporate prior to submitting this document formally to you. We will seek to do this the week commencing 31st July. I would be grateful if you could copy in my colleague Chris Barrett as I will be on leave until the 9th August.

- **Chitty Street tank area remediation**
    - Based on the conceptual site model, the remediation of the hydrocarbon contamination around the Chitty Street tank is required to protect future end-users and controlled waters. A proportion of the hydrocarbon contamination present in the area of the Chitty Street tank will be removed as part of the basement excavation works. Over excavation down to the London Clay will enable the removal of the remaining contamination identified during previous ground investigations.
    - Chemical validation (soil sampling) of the excavation base and sides will be undertaken to confirm that the heavily contaminated soils have been removed. The remediation excavation

will be undertaken in the presence of a specialist contamination consultant (Arup) who will provide advice to the contractor, for example, on extents of excavation and sampling locations.

- Excavation works in the area of the Chitty Street tank should proceed until no visual or olfactory evidence of significant hydrocarbon contamination is recorded. To assist the remediation excavation, on site soil testing will be carried out using the QROS QED Hydrocarbon Analyser, to validate the sides and base of the excavation (see section on validation sampling below). This will provide real-time results on site which will inform the contractor team on whether further soil removal if necessary.
- The QED provides results for a range of determinands, two of which have been identified as specifically relevant to the site. Table 1 below sets out advisory onsite targets which should not be exceeded. These are based on varying factors, which are detailed in this same table.

Table 1 Soil advisory onsite targets

Determinand	Advisory onsite target (mg/kg)	Rationale
BTEX	500	Levels below which it is unlikely any free product remains and laboratory validation samples are likely to pass the criteria set in Appendix F.
Diesel range organics (DRO)	1,000	

- These target values are indicative of the presence or absence of free product on site. Once the in situ samples meet these values, then the excavation works will cease and validation samples will be collected. Confirmatory samples for laboratory analysis will then be taken (see section on validation sampling below). The validation criteria protective of human health that these samples should meet is detailed in Table 2 below. The criteria are typically LQM S4UL commercial values for 1% soil organic matter, which take into account various pathways including dermal contact, ingestion and vapour inhalation. Where saturation limits are available (values in brackets), these should be used as validation criteria.

Table 2 Soil validation criteria

Determinand	Unit	Validation criteria (saturation limits)
TPH - Aliphatic >EC8-EC10	mg/kg	2000 (78)
TPH - Aliphatic >EC10-EC12	mg/kg	9700 (48)
TPH - Aliphatic >EC12-EC16	mg/kg	59000 (24)
TPH - Aromatic >EC8-EC10	mg/kg	3500 (613)
TPH - Aromatic >EC10-EC12	mg/kg	3800
TPH - Aromatic >EC12-EC16	mg/kg	36000 (169)
Ethylbenzene	mg/kg	5700 (518)
o-Xylene	mg/kg	6600 (478)
p-Xylene	mg/kg	5900 (576)

- Dewatering will need to be undertaken to allow for the over excavation to take place. The groundwater within the RTD will be pumped out until no measurable thickness of free product remains. Once this stage is reached, three confirmatory groundwater samples should be taken for laboratory analysis, and compared to the SoBRA generic assessment criteria detailed in Table 3 below. The samples should be taken prior to the start of the excavation backfill, at hourly intervals.

Table 3 SoBRA criteria for petroleum hydrocarbons in groundwater

Determinand	Human health commercial criteria (mg/l)
Benzene	20
Ethylbenzene	960
Toluene	21,000
Meta-xylene	940
TPH aliphatic EC5-EC6	190
TPH aliphatic >EC6-EC8	150
TPH aliphatic >EC8-EC10	5.7
TPH aliphatic >EC10-EC12	3.6
TPH aromatic >EC5-EC7	20,000
TPH aromatic >EC7-EC8	21,000
TPH aromatic >EC8-EC10	190
TPH aromatic >EC10-EC12	660
TPH aromatic >EC12-EC16	3,700

  - The above criteria take into account the indoor vapour risk from hydrocarbons in groundwater. As most values exceed the aqueous solubility of the determinands listed, then providing that any measurable free product is removed, the groundwater results should meet the commercial human health criteria.

- **Validation sampling**
  - In the case of the Charlotte Street tank and the Whitfield Street tank (where no hydrocarbon contamination was previously identified), validation samples will be taken from the sides and base of each excavation, and will be tested by an MCERTS accredited laboratory for a suite of contaminants including TPH (CWG banding), BTEX and speciated PAH. A minimum of one sample per 10m length of exposed face and one sample per 100m2 in the base will be taken. The test results will be assessed against hazardous waste criteria.
  - In the case of the Chitty Street tank, samples will be taken for onsite testing using QROS' QED Hydrocarbon Analyser over a 5m2 grid pattern over the base and all sides of the excavation. Further excavation should be undertaken and validation samples collected for onsite testing until all samples meet the remediation targets set out below. Validation samples should then be taken for laboratory analysis, in line with the sampling frequency described above for the other two tanks.

- **Gas and vapour protection measures**

  - The elevated hydrocarbons are a source of gas and hydrocarbon vapours. The extent of the contamination has been delineated over the course of several phases of ground investigation. The proposed basement excavation and remediation works will remove this source of contamination in its entirety, together with the majority of the Made Ground present elsewhere on site. Therefore, no vapour and gas barrier will be required in the future development. The basement construction (watertight, with ventilation) will also provide protection against potential ground gases.

- **Imported material**
  - The excavation in the area of the Chitty Street tank will be backfilled with suitable imported material to make up the necessary levels. Imported materials will need to be tested at source to confirm they meet the relevant compliance criteria (see Table 4 below). The data should

be checked by a competent person before delivery to site. Validation samples will typically be collected at a minimum of one sample per 200m3 material imported for each source.

- Any subsoil and topsoil used in planters or for construction of the Pocket Park should be soil imported from a known and reputable source. The material should be suitable for its proposed use in soft landscaping. Chemical test results obtained from samples taken both at source and on site shall be obtained by the contractor. Samples will be tested for the full suite of contaminants with compliance criteria (see Table 4 below). Validation samples will typically be collected at a minimum of one sample per 50m3 topsoil or subsoil material imported for each source.

Table 4 Soil compliance criteria

Determinand	**Unit**	**Compliance criteria**
Antimony	mg/kg	7500
Arsenic	mg/kg	640
Beryllium	mg/kg	12
Cadmium	mg/kg	190
Chromium (III)	mg/kg	8600
Chromium (VI)	mg/kg	33
Copper	mg/kg	68000
Lead	mg/kg	2300
Mercury elemental	mg/kg	58
Mercury inorganic	mg/kg	1100
Mercury methyl	mg/kg	320
Nickel	mg/kg	980
Selenium	mg/kg	12000
Vanadium (pentavalent)	mg/kg	9000
Zinc	mg/kg	730000
Carbon disulphide	mg/kg	11
Hexachloro-1,3-butadiene	mg/kg	31
Asbestos	%w/w	<0.001%
Acenaphthene	mg/kg	84000
Acenaphthylene	mg/kg	83000
Anthracene	mg/kg	520000
Benzo[a]anthracene	mg/kg	170
Benzo[a]pyrene	mg/kg	35
Benzo[b]fluoranthene	mg/kg	44
Benzo[k]fluoranthene	mg/kg	1200
Benzo[ghi]perylene	mg/kg	3900
Chrysene	mg/kg	350
Dibenz[ah]anthracene	mg/kg	4
Fluoranthene	mg/kg	23000
Fluorene	mg/kg	63000
Indeno[123-cd]pyrene	mg/kg	500
Naphthalene	mg/kg	190

Determinand	Unit	Compliance criteria
Phenanthrene	mg/kg	22000
Pyrene	mg/kg	54000
TPH - Aliphatic EC5-EC6	mg/kg	3200 (304)
TPH - Aliphatic >EC6-EC8	mg/kg	7800 (144)
TPH - Aliphatic >EC8-EC10	mg/kg	2000 (78)
TPH - Aliphatic >EC10-EC12	mg/kg	9700 (48)
TPH - Aliphatic >EC12-EC16	mg/kg	59000 (24)
TPH - Aliphatic >EC16-EC35	mg/kg	1600000
TPH - Aliphatic >EC35-EC44	mg/kg	1600000
TPH - Aromatic >EC5-EC7	mg/kg	26000 (1220)
TPH - Aromatic >EC7-EC8	mg/kg	56000 (869)
TPH - Aromatic >EC8-EC10	mg/kg	3500 (613)
TPH - Aromatic >EC10-EC12	mg/kg	3800
TPH - Aromatic >EC12-EC16	mg/kg	36000 (169)
TPH - Aromatic >EC16-EC21	mg/kg	28000
TPH - Aromatic >EC21-EC35	mg/kg	28000
TPH - Aromatic >EC35-EC44	mg/kg	28000
TPH - Aromatic & Aliphatic >EC44-EC70	mg/kg	28000
Benzene	mg/kg	27
Ethylbenzene	mg/kg	5700 (518)
Toluene	mg/kg	56000 (869)
o-Xylene	mg/kg	6600 (478)
m-Xylene	mg/kg	6200 (625)
p-Xylene	mg/kg	5900 (576)

- An explanation for this criteria is provided in the 2015 Arup interpretative report. The criteria are typically LQM S4UL commercial values for 1% soil organic matter. Where saturation limits are available (values in brackets), these should be used as compliance criteria.

Best regards,

Louise Cox
Senior Contaminated Land Consultant | Environmental Consulting

Arup
www.arup.com

Appendix B

Tank decommissioning records

COLD CUT ONLY

INDUSTRIAL DISPOSAL trading as:.

Boiler & Plant Dismantlers Ltd.

11 Wellfields, Loughton, Essex IG10 1PB

Mobile: 07802 883517 Telephone: 020 7183 3222 Email: info@sitedecom.co.uk

GAS FREE CERTIFICATE OF EXAMINATION

CONTRACTOR: KELTBRAY DEMOLITION	Job ref no: J1649
With regard to the tank(s) located at: UNDERGROUND BLOCK (H) OIL TANK 80 CHARLOTTE ST LONDON W1T 4HQ	

This is to certify that I have this day examined the following tanks, and find them to be free from inflammable or explosive gases or vapours:

1 REDUNDANT FUEL TANK

The said compartments are safe for men to work in providing that tanks are

COLD CUT ONLY and that NO NAKED LIGHTS ARE TO BE USED for these tanks

Also, any pipe-work must be COLD CUT or unbolted – watch for oil run-backs and wipe dry.

Fire extinguishers must be at point of work.

Percentage lower explosive limit at time of test 20.9 per cent (0 %)

Valid for 24 hours from time of examination

Signed

Date: 05/07/2017 Time: 10.55

CAUTION

This certificate is only valid so long as all pipe-lines, heating coils, valves and valve boxes in or connected with the tank remain as they were at the time of the test.

GAS FREE TESTING AND CERTIFICATION TO THE HEATING ENGINEERING, SHIP REPARING AND ALLIED TRADES

J1649

GOL 3448.

Part A: Notification Details

The Hazardous Waste Regulations 2005 Consignment Note / Duty of Care Note

Consignment Note Code [illegible]

Code Type

Consignment Type
Hazardous Waste

Expiry Date

Contact Name
JOHN 07908 584044

The Waste Will Be Taken To
Malary House
Brookfields Business Centre
Twenty Pence Rd
Cottenham
Cambs
CB24 8PS

The Waste Described Below Is To Be Removed From
KELTBRAY SITE (CHARLOTTE ST)

81 WHITFIELD STREET , USE CHITTY STREET ENTRANCE
CHARLOTTE STREET
LONDON
LONDON
W1T 4QS

Was Broker Used
No broker used

Alternative Disposal Site
No disposal site

Disposal point email address

The Waste Producer Was
KELTBRAY SITE (CHARLOTTE ST)

Email
gill.smith@malary.co.uk

Process Giving Rise To Waste
WASTE MANAGEMENT

SIC For The Process
38.22

Job Reference
P/O 17/0472

Part B: Description Of The Waste

Description			Shipping Name		Handling	
OILY WATER			OILY WATER			
Ewc	UN ID	UN Class	Packing	Container Type	Container No	Accepted ☒
13 05 02	UC	UC	NA		3000Ls	
Qty (kg)	Component	Concentration	Hazard	Physical Form		R or D
3000	OIL	< 10%	HP7,HP14	Liquid		D9

Part C: Carriers Certificate

3rd Party Paper Work ☐
Broker ☐
Add To EA ☒
Add To N.O.R ☒

Attachment
Choose File No file selected

Carrier Name
Simon Gilbey

Collection Due Date
05/07/2017
[illegible]

On Behalf Of
[illegible]
Malary House
Brookfields Business Centre
Twenty Pence Rd
Cottenham
Cambs

Carrier Registration Number/Reason For Exemption
[illegible]

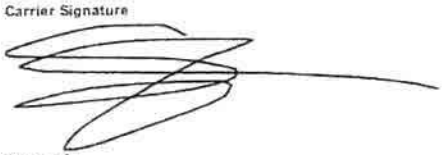
If third party consignment note is used enter alternative note code here

Where this note comprises part of a multiple collection the round number and collection number are:

Pickups	Collection Number	Round Number
Single		OILY WATER

I certify that I today collected the consignment and that the waste removal address, waste delivery address, and wastes described in part B are correct. I have also been advised of any specific handling requirments.

Carrier Signature



Signed On
05/07/2017 10:51

J1649

Vehicle Registration (Or Non-Road Mode Of Transport)

AK63NEU

Part D: Consignor's Certificate

Consignor Name

John seaborne

On Behalf Of

KELTHRAY SITE (CHAR. CITE ST)

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirments

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011.

I Certify that should this consignment represent the collection of waste oil, it will not contain any Petrol , Diesel (Petroleum) with a flash point below 60 °C

Customer Signature

Signed On

05/07/2017 10:51

Part E: Consignee's Certificate

Consignee Name

Sarah Fitzmaurice

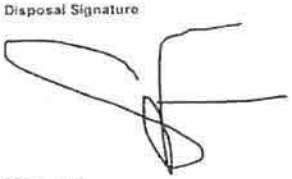
I Received The Waste At The Delivery Address On

05/07/2017 11:00

Where The Consignment Forms Part Of A Mutiple Collection, As Identified In Part C, I Certify That The Total Number Of Consignments Forming The Collection Are

I certify that waste permit/exempt waste operation number **BT2777IK** authorises the management of the waste described in B at the address given in Part A.

Disposal Signature



Signed On

05/07/2017 11:00

Extra Notes

Note

START TIME 08.00
END TIME 11.00
on site all day
including approx kgs sludge 250

Note

Hazardous Waste Regulations (England & Wales) 2005

Industrial Disposal trading as:
Boiler & Plant Dismantlers Ltd
Tel: 020 7183 3222

Consignor's / Carrier's / Consignee's Copy

A. NOTIFICATION DETAILS

A1 Consignment Note number: KELTBR/1304A

Date: 13TH APRIL 2017 | Job no:

The waste described below is to be removed from (Consignor):

A2 Consignor / Organisation	Consignor address	Postcode
KELTBRAY DEMOLITION	81 WHITFIELDS ST, LONDON	W1
Contact name	**Telephone / mobile**	**Email**
CONTANTINE	07525991222	
A3 Premises code, if applicable:	Not applicable	Signed

The waste will be taken to:

A4 Waste Transfer Station	Transfer station address	Postcode
WasteCare (UK) Ltd	4-10 Atcost Road, Barking, Essex	IG11 0EQ
Premises code:	Site license: EPR/EP 3494 VG	

A5 Waste producer (If different from **A2** above)	Address	Postcode

B. DESCRIPTION OF WASTE

B1 The process giving rise to the waste: Site demolition / site clearance

B2. SIC for the process giving rise to the waste: 45.11

B3 The waste is:

EWC Code	UN # Class & PG	Product/Material (Proper shipping name)	Active Ingredient with concentrations if known.	Container size	Qty	% full	Total KGS	Hazard Code/Class
150202		OIL CONTAMINATED MATERIAL		BAGS	6			HP5 HP7 HP11 HP14

Special handling instructions if applicable:

C. CARRIER'S CERTIFICATE:

I certify that today I collected the consignment and that details in **A2, A4 and B3** are correct and I have been advised of any specific handling requirements: **Boiler & Plant Dismantlers Ltd,** 11 Wellfields, Loughton, Essex IG10 1PB

Carrier's registration:	CB DU 94012
Vehicle Registration no:	EF66 4 4X
Date: 13/04/17	Driver's signature

D. CONSIGNOR'S CERTIFICATE (as A2 above):

I certify that the information in **A, B and C** has been completed and is correct, that the carrier is registered and exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labeled correctly. and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011.

Date: 13.04.2017 | Signed for

E. CONSIGNEE'S CERTIFICATE (RECIEVER OF WASTE):

EWC Code	QTY kgs	A - Accepted/ R - Rejected	Details of rejected waste	Waste Management Operation R or D Code

1. I received the waste for onward delivery to the address given in **A4** on (date): _____ at (time): _____

2. Vehicle Reg no: _____

I certify that the waste management license/exemption WEX003531 authorises the management of the waste described in **B** before being removed to WasteCare (UK) Ltd. for recovery or disposal

Company	Signature	Date:

COLD CUT ONLY

INDUSTRIAL DISPOSAL trading as:.

Boiler & Plant Dismantlers Ltd.

11 Wellfields, Loughton, Essex IG10 1PB

Mobile: 07802 883517 Telephone: 020 7183 3222 Email: info@sitedecom.co.uk

GAS FREE CERTIFICATE OF EXAMINATION

CONTRACTOR: KELTBRAY DEMOLITION	Job ref no:

With regard to the tank(s) located at: TANK UNDERGROUND NEXT TO BOILERHOUSE
81 WHITEFIELD ST
LONDON W1

This is to certify that I have this day examined the following tanks,
and find them to be free from inflammable or explosive gases or vapours:

1 x REDUNDANT FUEL TANK

The said compartments are safe for men to work in providing that tanks are

COLD CUT ONLY and that NO NAKED LIGHTS ARE TO BE USED for these tanks

Also, any pipe-work must be COLD CUT or unbolted – watch for oil run-backs and wipe dry.

Fire extinguishers must be at point of work.

Percentage lower explosive limit at time of test 20.9 per cent (0 %)

Valid for 24 hours from time of examination

Signed

Date: 13/04/2017 Time: 13-00

CAUTION

This certificate is only valid so long as all pipe-lines, heating coils, valves and valve boxes in or connected with the tank remain as they were at the time of the test.

GAS FREE TESTING AND CERTIFICATION TO THE HEATING ENGINEERING, SHIP REPARING AND ALLIED TRADES

Job no: 1592

INDUSTRIAL DISPOSAL trading as:

Boiler & Plant Dismantlers Ltd.

11 Wellfields, Loughton, Essex IG10 1PB

Mobile: 07802 883517 Telephone: 020 7183 3222 Email:
info@sitedecom.co.uk

Constantin Varzari
Keltbray Ltd
St Andrew's House
Portsmouth Road
Esher, Surrey KT10 9TA

Date: 10 April 2017

Your email/Tel no Constantin.Varzari@keltbray.com Mob: 075 2559 1222
stuart.joynson@keltbray.com Mob: 07809164729
Quotation ref: 2017-04-10_81WhitfieldSt_LondonW1T_Tanks_Kelt_J1592

QUOTATION

Site:	81 Whitfield Street London W1T 4QS
Job:	To uplift oils from two tanks and boiler-house floor and remove from site

Dear Constantin

Further to our site visit of today, we are pleased to quote for the supply of labour, vacuum tanker and equipment to clean and degas two tanks and uplift oily spillage from boiler-house floor as follows:

- To supply vacuum tanker
- To clean, gas-free and purge 1 redundant underground oil tank
- To issue Gas-free Certificate

Boiler-house, small oil tank

- To cold cut access hole into tank
- To uplift oil and sludge using the vacuum tanker
- To clean
- To issue Gas-free Certificate

Boiler-house floor

- To uplift oily spillage from floor using the vacuum tankers
- To remove all oils and sludge residues from site
- To issue Waste Consignment Notes upon completion

This work will be undertaken strictly in compliance with the current Environment Agency requirements.

Upon completion a Waste Consignment Note will be issued.

The price to carry out this work will be: £3,100 plus VAT

Job no: 1592

Site:	81 Whitfield Street London W1T 4QS
Job:	To uplift oils from two tanks and boiler-house floor and remove from site

10 April 2017

If you wish to accept this quotation, please complete your details below and return a signed copy to us at your earliest convenience.

Purchase Order No:: _____ Signed _____

Date: _____ Print Name: _____

Upon receipt of your acceptance, we will submit our method statement for your approval and will look forward to arranging a mutually convenient date to commence this work.

Yours sincerely Jeff Gold

Part A: Notification Details

The Hazardous Waste Regulations 2005 Consignment Note / Duty of Care Note

Consignment Note Code KELTBR/04580

Code Type

Consignment Type
Hazardous Waste

Expiry Date

Contact Name
JOHN 07908 584044

The Waste Will Be Taken To
Malary House
Brookfields Business Centre
Twenty Pence Rd
Cottenham
Cambs
CB24 8PS

The Waste Described Below Is To Be Removed From
KELTBRAY SITE (CHARLOTTE ST)

81 WHITFIELD STREET , USE CHITTY STREET
ENTRANCE
CHARLOTTE STREET
LONDON
LONDON
W1T 4QS

Was Broker Used
No broker used

Alternative Disposal Site
No disposal site

Disposal point email address

The Waste Producer Was
KELTBRAY SITE (CHARLOTTE ST)

Email
gill.smith@malary.co.uk,

Process Giving Rise To Waste
WASTE MANAGEMENT

SIC For The Process
38.22

Job Reference
JOB FOR JEFF GOLD

Part B: Description Of The Waste

Description	Shipping Name	Handling
OILY WATER	OILY WATER	

Ewc	UN ID	UN Class	Packing	Container Type	Container No	
13 05 02	UC	UC	NA			Accepted ☒

Qty (kg)	Component	Concentration	Hazard	Physical Form	R or D
4500	OIL	<10%	HP7,HP14	Liquid	D09

Part C: Carriers Certificate

3rd Party Paper Work ☐
Broker ☐
Add To EA ☒
Add To N.O.R ☒

Attachment
Choose File No file selected

Carrier Name
JTC JTC

Collection Due Date:
13/04/2017
13/04/2017 00:00:00

On Behalf Of
Malary Ltd
Malary House
Brookfields Business Centre
Twenty Pence Rd
Cottenham
Cambs

Carrier Registration Number/Reason For Exemption
CB/JE5147LB

If third party consignment note is used enter alternative note code here.

Where this note comprises part of a multiple collection the round number and collection number are:

Pickups	Collection Number	Round Number
Single	OWRN 37133	JTC FOR GILL

I certify that I today collected the consignment and that the waste removal address, waste delivery address, and wastes described in part B are correct. I have also been advised of any specific handling requirments.

Carrier Signature

PP

Signed On
18/04/2017 08:19

Vehicle Registration (Or Non-Road Mode Of Transport)

Part D: Consignor's Certificate

Consignor Name

John

On Behalf Of

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirments.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011.

I Certify that should this consignment represent the collection of waste oil, it will not contain any Petrol - Diesel (Petroleum) with a flash point below 60 °C

Customer Signature ☑

Part E: Consignee's Certificate

Consignee Name

SITZMAURICE

I Received The Waste At The Delivery Address On

Where The Consignment Forms Part Of A Muliple Collection, As Identified In Part C, I Certify That The Total Number Of Consignments Forming The Collection Are:

I certify that waste permit/exempt waste operation number **BT2777IK** authorises the management of the waste described in B at the address given in Part A.

Disposal Signature ☐

Extra Notes

Note

START TIME:
END TIME:

Note

COLD CUT ONLY

INDUSTRIAL DISPOSAL trading as:.

Boiler & Plant Dismantlers Ltd.

11 Wellfields, Loughton, Essex IG10 1PB

Mobile: 07802 883517 Telephone: 020 7183 3222 Email: info@sitedecom.co.uk

GAS FREE CERTIFICATE OF EXAMINATION

CONTRACTOR: KELTBRAY DEMOLITION	Job ref no: J1592.
With regard to the tank(s) located at: TANK UNDERGROUND NEXT TO BOILERHOUSE 81 WHITEFIELD ST LONDON W1	

This is to certify that I have this day examined the following tanks, and find them to be free from inflammable or explosive gases or vapours:

1 x REDUNDANT FUEL TANK

The said compartments are safe for men to work in providing that tanks are

COLD CUT ONLY and that NO NAKED LIGHTS ARE TO BE USED for these tanks

Also, any pipe-work must be COLD CUT or unbolted – watch for oil run-backs and wipe dry.

Fire extinguishers must be at point of work.

Percentage lower explosive limit at time of test 20.9 per cent (0 %)

Valid for 24 hours from time of examination

Signed

Date: 13/04/2017 Time: 13-00

CAUTION

This certificate is only valid so long as all pipe-lines, heating coils, valves and valve boxes in or connected with the tank remain as they were at the time of the test.

GAS FREE TESTING AND CERTIFICATION TO THE HEATING ENGINEERING, SHIP REPARING AND ALLIED TRADES

INDUSTRIAL DISPOSAL trading as:

Boiler & Plant Dismantlers Ltd.

11 Wellfields, Loughton, Essex IG10 1PB

Mobile: 07802 883517 Telephone: 020 7183 3222 Email: info@sitedecom.co.uk

GAS FREE CERTIFICATE OF EXAMINATION

CONTRACTOR: KELTBRAY DEMOLITION	Job ref no:

With regard to the tank(s) located at: BLOCK 9 WHITEFIELD ST LONDON N11

This is to certify that I have this day examined the following tanks, and find them to be free from inflammable or explosive gases or vapours:

1 REDUNDANT FUEL TANKS

The said compartments are safe for men to work in, and it is perfectly safe to use naked lights

All pipe-work must be cold cut or unbolted. Watch for oil run-backs and wipe dry in way of HOT WORK

Fire extinguishers must be at point of work.

Percentage lower explosive limit at time of test 20.9 per cent (0 %)

Valid for 24 hours from time of examination

Signed

Date: 18/05/2017 Time: 12-00

CAUTION

This certificate is only valid so long as all pipe-lines, heating coils, valves and valve boxes in or connected with the tank remain as they were at the time of the test.

GAS FREE TESTING AND CERTIFICATION TO THE HEATING ENGINEERING, SHIP REPARING AND ALLIED TRADES

Appendix C

Tank validation records

C1 Charlotte Street tank Validation

Our Ref: EFS/177076 (Ver. 1)
Your Ref:

August 1, 2017

Environmental Chemistry
ESG
Bretby Business Park
Ashby Road
Burton-on-Trent
Staffordshire
DE15 0YZ

Telephone: 01283 554400
Facsimile: 01283 554422

Matthew Sinclair
Multiplex Construction Europe Ltd
80 Charlotte Street

For the attention of Matthew Sinclair

Dear Matthew Sinclair

Sample Analysis - 80 Charlotte Street

Samples from the above site have been analysed in accordance with the schedule supplied.
The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Where appropriate the samples will be kept until 06/09/17 when they will be discarded. Please call 01283 554500 for an extension of this date.
Please be aware that our policy for the retention of paper based laboratory records and analysis reports is 6 years.

The work was carried out in accordance with Environmental Scientifics Group Ltd (Multi-Sector Services) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for ESG

J Elstub
Project Co-ordinator
01283 554500

TEST REPORT

1252

Report No. EFS/177076 (Ver. 1)

Multiplex Construction Europe Ltd
80 Charlotte Street

Site: 80 Charlotte Street

The 5 samples described in this report were registered for analysis by ESG on 26-Jul-2017. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 01-Aug-2017

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

On behalf of
ESG :
Tim Barnes

Operations Director
Energy & Waste Services

Date of Issue: 01-Aug-2017

Tests marked '^' have been subcontracted to another laboratory.
Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.
ESG accepts no responsibility for any sampling not carried out by our personnel.

Units :			mg/kg	mg/kg	mg/kg														
Method Codes :			GROHSA	TPHUSSI	PAHMSUS														
Method Reporting Limits :			0.2	10															
UKAS Accredited :			Yes	Yes	Yes														
LAB ID Number CL/	**Client Sample Description**	**Sample Date**	**GRO (AA-UK) HSA-GCFID**	**TPH by GCFID (SI-UKCWG)>44**	**PAH (16) by GCMS**														
1768518	H1-3 23.50	**18-Jul-17**	Req	Req	Req														
1768519	CL1-3 22.50	**18-Jul-17**	Req	Req	Req														
1768520	CY1-3 22.50	**20-Jul-17**	Req	Req	Req														
1768521	W1-3 23.00	**20-Jul-17**	Req	Req	Req														
1768522	B1-3 21.50	**20-Jul-17**	Req	Req	Req														

ESG

Bretby Business Park, Ashby Road

Burton-on-Trent, Staffordshire, DE15 0YZ

Tel +44 (0) 1283 554400

Fax +44 (0) 1283 554422

Client Name	**Multiplex Construction Europe Ltd**
Contact	Matthew Sinclair

80 Charlotte Street

Sample Analysis

Date Printed	**31-Jul-2017**
Report Number	**EFS/177076**
Table Number	**1**

Polycyclic Aromatic Hydrocarbons
GC/MS (SIM)

Customer and Site Details:	Multiplex Construction Europe Ltd: 80 Charlotte Street		
Sample Details:	H1-3 23.50	**Job Number:**	S17_7076
LIMS ID Number:	CL1768518	**Date Booked in:**	26-Jul-17
QC Batch Number:	170810	**Date Extracted:**	28-Jul-17
Quantitation File:	Initial Calibration	**Date Analysed:**	29-Jul-17
Directory:	072817.MS17\	**Matrix:**	Soil
Dilution:	1.0	**Ext Method:**	Ultrasonic

UKAS accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit
Naphthalene	91-20-3	-	< 0.08	-
Acenaphthylene	208-96-8	-	< 0.08	-
Acenaphthene	83-32-9	-	< 0.08	-
Fluorene	86-73-7	-	< 0.08	-
Phenanthrene	85-01-8	5.55	0.14	97
Anthracene	120-12-7	-	< 0.08	-
Fluoranthene	206-44-0	6.88	0.29	77
Pyrene	129-00-0	7.16	0.24	73
Benzo[a]anthracene	56-55-3	8.84	0.22	94
Chrysene	218-01-9	8.89	0.20	92
Benzo[b]fluoranthene	205-99-2	10.36	0.31	73
Benzo[k]fluoranthene	207-08-9	10.40	0.11	73
Benzo[a]pyrene	50-32-8	10.78	0.22	99
Indeno[1,2,3-cd]pyrene	193-39-5	12.15	0.18	82
Dibenzo[a,h]anthracene	53-70-3	-	< 0.08	-
Benzo[g,h,i]perylene	191-24-2	12.44	0.14	91
Total (USEPA16) PAHs	-	-	< 2.53	-

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	81
Acenaphthene-d10	80
Phenanthrene-d10	78
Chrysene-d12	75
Perylene-d12	98

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	96
Terphenyl-d14	68

Concentrations are reported on a wet weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons
GC/MS (SIM)

Customer and Site Details:	Multiplex Construction Europe Ltd: 80 Charlotte Street		
Sample Details:	CL1-3 22.50	**Job Number:**	s17_7076
LIMS ID Number:	CL1768519	**Date Booked in:**	26-Jul-17
QC Batch Number:	170810	**Date Extracted:**	28-Jul-17
Quantitation File:	Initial Calibration	**Date Analysed:**	29-Jul-17
Directory:	072817.MS17\	**Matrix:**	Soil
Dilution:	1.0	**Ext Method:**	Ultrasonic

UKAS accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit
Naphthalene	91-20-3	-	< 0.08	-
Acenaphthylene	208-96-8	-	< 0.08	-
Acenaphthene	83-32-9	-	< 0.08	-
Fluorene	86-73-7	-	< 0.08	-
Phenanthrene	85-01-8	5.55	0.10	97
Anthracene	120-12-7	-	< 0.08	-
Fluoranthene	206-44-0	6.88	0.28	74
Pyrene	129-00-0	7.17	0.23	87
Benzo[a]anthracene	56-55-3	8.84	0.19	99
Chrysene	218-01-9	8.89	0.22	96
Benzo[b]fluoranthene	205-99-2	10.36	0.26	75
Benzo[k]fluoranthene	207-08-9	10.39	0.10	76
Benzo[a]pyrene	50-32-8	10.78	0.19	92
Indeno[1,2,3-cd]pyrene	193-39-5	12.15	0.14	68
Dibenzo[a,h]anthracene	53-70-3	-	< 0.08	-
Benzo[g,h,i]perylene	191-24-2	12.44	0.10	83
Total (USEPA16) PAHs	-	-	< 2.29	-

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	82
Acenaphthene-d10	80
Phenanthrene-d10	75
Chrysene-d12	73
Perylene-d12	91

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	96
Terphenyl-d14	71

Concentrations are reported on a wet weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons
GC/MS (SIM)

Customer and Site Details:	Multiplex Construction Europe Ltd: 80 Charlotte Street		
Sample Details:	CY1-3 22.50	**Job Number:**	S17_7076
LIMS ID Number:	CL1768520	**Date Booked in:**	26-Jul-17
QC Batch Number:	170810	**Date Extracted:**	28-Jul-17
Quantitation File:	Initial Calibration	**Date Analysed:**	29-Jul-17
Directory:	072817.MS17\	**Matrix:**	Soil
Dilution:	1.0	**Ext Method:**	Ultrasonic

UKAS accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit
Naphthalene	91-20-3	-	< 0.08	-
Acenaphthylene	208-96-8	-	< 0.08	-
Acenaphthene	83-32-9	-	< 0.08	-
Fluorene	86-73-7	-	< 0.08	-
Phenanthrene	85-01-8	-	< 0.08	-
Anthracene	120-12-7	-	< 0.08	-
Fluoranthene	206-44-0	6.88	0.09	65
Pyrene	129-00-0	7.16	0.08	61
Benzo[a]anthracene	56-55-3	-	< 0.08	-
Chrysene	218-01-9	-	< 0.08	-
Benzo[b]fluoranthene	205-99-2	-	< 0.08	-
Benzo[k]fluoranthene	207-08-9	-	< 0.08	-
Benzo[a]pyrene	50-32-8	-	< 0.08	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.08	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.08	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.08	-
Total (USEPA16) PAHs	-	-	< 1.29	-

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	97
Acenaphthene-d10	97
Phenanthrene-d10	97
Chrysene-d12	102
Perylene-d12	144

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	95
Terphenyl-d14	71

Concentrations are reported on a wet weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons
GC/MS (SIM)

Customer and Site Details:	Multiplex Construction Europe Ltd: 80 Charlotte Street		
Sample Details:	W1-3 23.00	**Job Number:**	s17_7076
LIMS ID Number:	CL1768521	**Date Booked in:**	26-Jul-17
QC Batch Number:	170810	**Date Extracted:**	28-Jul-17
Quantitation File:	Initial Calibration	**Date Analysed:**	29-Jul-17
Directory:	072817.MS17\	**Matrix:**	Soil
Dilution:	1.0	**Ext Method:**	Ultrasonic

UKAS accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit
Naphthalene	91-20-3	-	< 0.08	-
Acenaphthylene	208-96-8	-	< 0.08	-
Acenaphthene	83-32-9	-	< 0.08	-
Fluorene	86-73-7	-	< 0.08	-
Phenanthrene	85-01-8	-	< 0.08	-
Anthracene	120-12-7	-	< 0.08	-
Fluoranthene	206-44-0	6.88	0.11	78
Pyrene	129-00-0	7.16	0.11	67
Benzo[a]anthracene	56-55-3	8.84	0.11	94
Chrysene	218-01-9	8.89	0.11	92
Benzo[b]fluoranthene	205-99-2	10.36	0.15	90
Benzo[k]fluoranthene	207-08-9	-	< 0.08	-
Benzo[a]pyrene	50-32-8	10.79	0.11	98
Indeno[1,2,3-cd]pyrene	193-39-5	12.15	0.09	77
Dibenzo[a,h]anthracene	53-70-3	-	< 0.08	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.08	-
Total (USEPA16) PAHs	-	-	< 1.51	-

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	90
Acenaphthene-d10	89
Phenanthrene-d10	84
Chrysene-d12	76
Perylene-d12	92

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	96
Terphenyl-d14	69

Concentrations are reported on a wet weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons
GC/MS (SIM)

Customer and Site Details:	Multiplex Construction Europe Ltd: 80 Charlotte Street		
Sample Details:	B1-3 21.50	**Job Number:**	S17_7076
LIMS ID Number:	CL1768522	**Date Booked in:**	26-Jul-17
QC Batch Number:	170810	**Date Extracted:**	28-Jul-17
Quantitation File:	Initial Calibration	**Date Analysed:**	29-Jul-17
Directory:	072817.MS17\	**Matrix:**	Soil
Dilution:	1.0	**Ext Method:**	Ultrasonic

UKAS accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit
Naphthalene	91-20-3	3.20	0.09	99
Acenaphthylene	208-96-8	-	< 0.08	-
Acenaphthene	83-32-9	-	< 0.08	-
Fluorene	86-73-7	-	< 0.08	-
Phenanthrene	85-01-8	5.55	0.22	99
Anthracene	120-12-7	-	< 0.08	-
Fluoranthene	206-44-0	6.88	0.19	83
Pyrene	129-00-0	7.17	0.14	61
Benzo[a]anthracene	56-55-3	8.84	0.12	94
Chrysene	218-01-9	8.89	0.11	92
Benzo[b]fluoranthene	205-99-2	10.36	0.13	79
Benzo[k]fluoranthene	207-08-9	-	< 0.08	-
Benzo[a]pyrene	50-32-8	10.78	0.08	91
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.08	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.08	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.08	-
Total (USEPA16) PAHs	-	-	< 1.72	-

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	74
Acenaphthene-d10	72
Phenanthrene-d10	69
Chrysene-d12	64
Perylene-d12	77

Surrogates	% Rec
Nitrobenzene-d5	NA
2-Fluorobiphenyl	96
Terphenyl-d14	69

Concentrations are reported on a wet weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Gasoline Range Organics
(BTEX and Aromatic/Aliphatic Carbon Ranges)

Customer and Site Details: Multiplex Construction Europe Ltd : 80 Charlotte Street
Job Number: S17_7076
Directory: E:\TES\DATA\2017\0728HSA_GC9\072817 2017-07-28 12-36-20\026F2601.D
Method: HEADSPACE GCFID

Matrix: Soil
Date Booked in: 26-Jul-17
Date extracted: 28-Jul-17
Date Analysed: 28-Jul-17, 20:02:5
Units: mg/kg

*** Sample data with an asterisk are not UKAS accredited.**

		BTEX				Aromatics		Aliphatics		Total GRO
Sample ID	**Client ID**	**Benzene**	**Toluene**	**Ethyl benzene**	**Xylenes**	**C5 - C7**	**>C7 - C8**	**C5 - C6**	**>C6 - C8**	**C5 - C10**
CL1768518	H1-3 23.50	<0.010	<0.010	<0.010	<0.020	<0.01	<0.01	<0.2*	<0.2	<0.2
CL1768519	CL1-3 22.50	<0.010	<0.010	<0.010	<0.020	<0.01	<0.01	<0.2	<0.2	<0.2
CL1768520	CY1-3 22.50	<0.010	<0.010	<0.010	<0.020	<0.01	<0.01	<0.2	<0.2	<0.2
CL1768521	W1-3 23.00	<0.010	<0.010	<0.010	<0.020	<0.01	<0.01	<0.2*	<0.2	<0.2
CL1768522	B1-3 21.50	<0.010	<0.010	<0.010	<0.020	<0.01	<0.01	<0.2	<0.2	<0.2

Where individual results are flagged see report notes for status.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Multiplex Construction Europe Ltd : 80 Charlotte Street
Job Number: S17_7076
QC Batch Number: 170810
Directory: D:\TES\DATA\2017\072817\072817 2017-07-28 08-24-42\B-076-65-CL1768522ARO.D
Method: Ultra Sonic

Separation: Silica gel
Eluents: Hexane, DCM

Matrix: Soil
Date Booked in: 26-Jul-17
Date Extracted: 28-Jul-17
Date Analysed: 29-Jul-17, 01:36:49

Bands marked with a ' * ' are not UKAS Accredited

		Concentration, (mg/kg) - as wet weight												
		>C8 - C10	>C8 - C10	>C10 - C12	>C10 - C12	>C12 - C16	>C12 - C16	>C16 - C35	>C16 - C21	>C35 - C44*	>C21 - C35	>C35 - C44*	>C8 - C44*	>C8 - C44*
Sample ID	**Client ID**	**Aliphatics**	**Aromatics**	**Aliphatics**	**Aromatics**	**Aliphatics**	**Aromatics**	**Aliphatics**	**Aromatics**	**Aliphatics**	**Aromatics**	**Aromatics**	**Aliphatics**	**Aromatics**
CL1768518	H1-3 23.50	<4	<4	<4	<4	8.93	<4*	108	10.3*	<5.62	78.1	17.7	122	110
CL1768519	CL1-3 22.50	<4.04	<4	<4.04	<4	<4.04	<4*	27	4.29*	<5.68	28.8	<5.62	29.5	38.5
CL1768520	CY1-3 22.50	<4	<4	<4	<4	4.35	<4*	78.9	11.2*	<5.62	56.9	10.7	84.9	82.9
CL1768521	W1-3 23.00	<4	<4	<4	<4	<4	<4*	<11.9	<4*	<5.62	10.7	<5.62	<20	<20
CL1768522	B1-3 21.50	<4	<4	<4	<4	<4	<4*	34.7	4.55*	<5.62	21.8	<5.62	39.5	31.1

Where individual results are flagged see report notes for status.

Analytical and Deviating Sample Overview

Customer Multiplex Construction Europe Ltd
Site 80 Charlotte Street
Report No S177076

Consignment No S67629
Date Logged 26-Jul-2017

Report Due 01-Jul-2017

ID Number	Description	Sampled	MethodID	CustServ	GROHSA	PAHMSUS	TPHUSSI
				REPORT A	GRO (AA-UK) HSA-GCFID	PAH (16) by GCMS	TPH by GCFID (Si-UKCWG)>44
					✓	✓	✓
CL/1768518	H1-3 23.50	18/07/17					
CL/1768519	CL1-3 22.50	18/07/17					
CL/1768520	CY1-3 22.50	20/07/17					
CL/1768521	W1-3 23.00	20/07/17					
CL/1768522	B1-3 21.50	20/07/17					

Note: For analysis where the scheduled turnaround is greater than the holding time we will do our utmost to prioritise these samples. However, it is possible that samples could become deviant whilst being processed in the laboratory.

In this instance please contact the laboratory immediately should you wish to discuss how you would like us to proceed. If you do not respond within 24 hours, we will proceed as originally requested.

Deviating Sample Key	
A	The sample was received in an inappropriate container for this analysis
B	The sample was received without the correct preservation for this analysis
C	Headspace present in the sample container
D	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
E	Sample processing did not commence within the appropriate holding time
F	Sample processing did not commence within the appropriate handling time

Requested Analysis Key	
	Analysis Required
	Analysis dependant upon trigger result - **Note: due date may be affected if triggered**
	No analysis scheduled
^	Analysis Subcontracted - **Note: due date may vary**

Where individual results are flagged see report notes for status.

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
TPHUSSI	CL1768518 TO CL1768522	The Secondary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily (including the Primary Process Control) and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation from the affected analytes (Bandings C12-C16 and C16-C21) . These circumstances should be taken into consideration when utilising the data.
GROHSA	CL1768518	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target bandings falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation from the affected banding (C5-C6) . These circumstances should be taken into consideration when utilising the data”

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) by Headspace GCFID
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection including quantitation of Aromatic and Aliphatic fractions.

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,
- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
  All results on MCERTS reports are reported on a 105ºC dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,
- Results are expressed as mg/kg
- SG is expressed as g/cm^3@ 15^{o}C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile **TR** Denotes Tremolite
CR Denotes Crocidolite **AC** Denotes Actinolite
AM Denotes Amosite **AN** Denotes Anthophylite
NAIIS No Asbestos Identified in Sample
NADIS No Asbestos Detected In Sample

Symbol Reference

^ Sub-contracted analysis.
$$ Unable to analyse due to the nature of the sample
¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols. This may have resulted in deterioration of the sample(s) during transit to the laboratory. Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
¥ Results for guidance only due to possible interference
& Blank corrected result
I.S Insufficient sample to complete requested analysis
I.S(g) Insufficient sample to re-analyse, results for guidance only
Intf Unable to analyse due to interferences
N.D Not determined **N.Det** Not detected
N.F No Flow
NS Information Not Supplied
Req Analysis requested, see attached sheets for results
Þ Raised detection limit due to nature of the sample
***** All accreditation has been removed by the laboratory for this result
‡ MCERTS accreditation has been removed for this result
§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Sample Descriptions

Client : Multiplex Construction Europe Ltd

Site : 80 Charlotte Street

Report Number : S17_7076

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/1768518	H1-3 23.50	MADE GROUND
CL/1768519	CL1-3 22.50	MADE GROUND
CL/1768520	CY1-3 22.50	MADE GROUND
CL/1768521	W1-3 23.00	MADE GROUND
CL/1768522	B1-3 21.50	MADE GROUND

C2 Whitfield Street tank validation

Site Analytical Services Ltd.

Site Investigations, Analytical & Environmental Chemists, Laboratory Testing Services.

Units 14 + 15, River Road Business Park,
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Tel: 0208 594 8134
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Directors: J. S. Warren, M.R.S.C., P. C. Warren, J. I. Pattinson, BSc (Hons). MSc
Consultants: G. Evans, BSc., M.Sc., P.G. Dip., FGS., MIEnvSc. A. J. Kingston, BSc C.Eng. MIMM
F. J. Gibbs, F.I.B.M.S. F.I.F.S.T., F.R.S.H. K. J. Blanchette

Your Ref: ORDER NO. AWAITED
MR TERRY GOOD

Our Ref: 17/26994
JSW/LB

SAMPLES OF `SOIL'
EX: CHARLOTTE STREET

SUBMITTED BY KELTBRAY GROUP (HOLDINGS) LIMITED

RECEIVED ON 27th JUNE 2017

INTRODUCTION

Two samples of the above material were received into the laboratory for waste acceptance criteria (WAC) analysis in order to determine the classification of the material for landfill purposes.

The samples were referenced 'A' and 'B'.

RESULTS

WASTE CLASSIFICATION	
SAMPLE 'A'	**NON HAZARDOUS WASTE**
SAMPLE 'B'	**NON HAZARDOUS WASTE**

Site Analytical Services Ltd.

Ref: 17/26994

COMMENTS

The samples were analysed using the 'Catwastesoil' assessment tool, which concluded that the samples were not hazardous in nature. For the purpose of waste disposal it is likely that the soil samples submitted would be classified as:

Sample Ref: 'A' **Non Hazardous Waste**

The sample exceeded the upper acceptance limit of Inert Waste for Antimony and Sulphate.

Sample Ref: 'B' **Non Hazardous Waste**

The sample exceeded the upper acceptance limit of Inert Waste for Molybdenum, Antimony TDS and Sulphate.

p.p. SITE ANALYTICAL SERVICES LIMITED

5th July 2017

A Davidson BSc MSc DIC
Environmental Engineer

APPENDIX

Laboratory Test Data

Aubrey Davidson
Site Analytical Services Ltd
Units 14 & 15
River Road Business Park
33 River Road
Barking
Essex
IG11 0EA

QTS Environmental Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410
russell.jarvis@qtsenvironmental.com

QTS Environmental Report No: 17-60753

Site Reference:	80 Charlotte Street
Project / Job Ref:	17/26994
Order No:	1165
Sample Receipt Date:	28/06/2017
Sample Scheduled Date:	28/06/2017
Report Issue Number:	1
Reporting Date:	04/07/2017

Authorised by:

Kevin Old
Associate Director of Laboratory

Authorised by:

Russell Jarvis
Associate Director of Client Services

QTSE is the trading name of DETS Ltd, company registration number 03705645

QTS Environmental Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate						
QTS Environmental Report No: 17-60753	Date Sampled	27/06/17	27/06/17			
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: 80 Charlotte Street	TP / BH No	A	B			
Project / Job Ref: 17/26994	Additional Refs	None Supplied	None Supplied			
Order No: 1165	Depth (m)	None Supplied	None Supplied			
Reporting Date: 04/07/2017	QTSE Sample No	276389	276390			

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025	Detected	Detected			
Sample Matrix (S)	Material Type	N/a	NONE	Small bundle in soil	Small bundles in soil			
Asbestos Type (S)	PLM Result	N/a	ISO17025	Crocidolite	Chrysotile & Amosite			
Asbestos Quantification (S)	%	< 0.001	ISO17025	< 0.001	< 0.001			
pH	pH Units	N/a	MCERTS	9.8	10.2			
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Complex Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Free Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Total Sulphate as SO_4	mg/kg	< 200	NONE	5225	5895			
Total Sulphate as SO_4	%	< 0.02	NONE	0.52	0.59			
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS	1420	1470			
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS	1.42	1.47			
Sulphide	mg/kg	< 5	NONE	45	224			
Organic Matter	%	< 0.1	MCERTS	2.4	1.2			
Total Organic Carbon (TOC)	%	< 0.1	MCERTS	1.4	0.7			
Arsenic (As)	mg/kg	< 2	MCERTS	12	12			
W/S Boron	mg/kg	< 1	NONE	< 1	< 1			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	16	16			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	54	64			
Lead (Pb)	mg/kg	< 3	MCERTS	249	246			
Mercury (Hg)	mg/kg	< 1	NONE	1.9	2.3			
Nickel (Ni)	mg/kg	< 3	MCERTS	14	13			
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3			
Zinc (Zn)	mg/kg	< 3	MCERTS	90	88			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C
Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Asbestos Analyst: Javeed Malik

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis (S)

QTS Environmental Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate - Speciated PAHs						
QTS Environmental Report No: 17-60753	Date Sampled	27/06/17	27/06/17			
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: 80 Charlotte Street	TP / BH No	A	B			
Project / Job Ref: 17/26994	Additional Refs	None Supplied	None Supplied			
Order No: 1165	Depth (m)	None Supplied	None Supplied			
Reporting Date: 04/07/2017	QTSE Sample No	276389	276390			

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	0.11	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.13			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.12			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Coronene	mg/kg	< 0.1	NONE	< 0.1	< 0.1			
Total Oily Waste PAHs	mg/kg	< 1	MCERTS	< 1	< 1			
Total Dutch 10 PAHs	mg/kg	< 1	MCERTS	< 1	< 1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6			
Total WAC-17 PAHs	mg/kg	< 1.7	NONE	< 1.7	< 1.7			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{o}C

QTS Environmental Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate - TPH CWG Banded						
QTS Environmental Report No: 17-60753	Date Sampled	27/06/17	27/06/17			
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: 80 Charlotte Street	TP / BH No	A	B			
Project / Job Ref: 17/26994	Additional Refs	None Supplied	None Supplied			
Order No: 1165	Depth (m)	None Supplied	None Supplied			
Reporting Date: 04/07/2017	QTSE Sample No	276389	276390			

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	7	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	10	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	37	< 3			
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	56	< 3			
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	15	< 10			
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	126	< 21			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2			
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	2	< 2			
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	40	< 2			
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	79	< 3			
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	20	< 10			
Aromatic (C5 - C35)	mg/kg	< 21	NONE	142	< 21			
Total >C5 - C35	mg/kg	< 42	NONE	268	< 42			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

QTS Environmental Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate - BTEX / MTBE						
QTS Environmental Report No: 17-60753	Date Sampled	27/06/17	27/06/17			
Site Analytical Services Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: 80 Charlotte Street	TP / BH No	A	B			
Project / Job Ref: 17/26994	Additional Refs	None Supplied	None Supplied			
Order No: 1165	Depth (m)	None Supplied	None Supplied			
Reporting Date: 04/07/2017	QTSE Sample No	276389	276390			

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2			
Toluene	ug/kg	< 5	MCERTS	< 5	< 5			
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2			
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
MTBE	ug/kg	< 5	MCERTS	< 5	< 5			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

QTS Environmental Ltd
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Maidstone
Kent ME17 2JN
Tel : 01622 850410

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3

QTS Environmental Report No: 17-60753		**Date Sampled**	27/06/17			**Landfill Waste Acceptance Criteria Limits**		
Site Analytical Services Ltd		**Time Sampled**	None Supplied			**Inert Waste Landfill**	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Site Reference: 80 Charlotte Street		**TP / BH No**	A					
Project / Job Ref: 17/26994		**Additional Refs**	None Supplied					
Order No: 1165		**Depth (m)**	None Supplied					
Reporting Date: 04/07/2017		**QTSE Sample No**	276389					
Determinand	**Unit**	**MDL**						
TOC[MU]	%	< 0.1	1.4			3%	5%	6%
Loss on Ignition	%	< 0.01	4.50			--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05			6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1			1	--	--
Mineral Oil[MU]	mg/kg	< 10	118			500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7			100	--	--
pH[MU]	pH Units	N/a	9.8			--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	2			--	To be evaluated	To be evaluated

Eluate Analysis	**2:1 mg/l**	**8:1 mg/l**		**Cumulative 10:1 mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic[U]	0.01	0.01		< 0.2	0.5	2	25
Barium[U]	0.05	< 0.02		0.2	20	100	300
Cadmium[U]	< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium[U]	< 0.005	< 0.005		< 0.20	0.5	10	70
Copper[U]	0.01	< 0.01		< 0.5	2	50	100
Mercury[U]	< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum[U]	0.136	0.029		0.4	0.5	10	30
Nickel[U]	0.018	< 0.007		< 0.2	0.4	10	40
Lead[U]	< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony[U]	0.010	0.009		0.09	**0.06**	0.7	5
Selenium[U]	< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc[U]	0.012	< 0.005		< 0.2	4	50	200
Chloride[U]	36	6		89	800	15000	25000
Fluoride[U]	< 0.5	< 0.5		< 1	10	150	500
Sulphate[U]	1113	246		3185	**1000**	20000	50000
TDS	1290	306		3881	4000	60000	100000
Phenol Index	< 0.01	< 0.01		< 0.5	1	-	-
DOC	24.5	8.4		97.4	500	800	1000
Leach Test Information							
Sample Mass (kg)	0.20						
Dry Matter (%)	89.1						
Moisture (%)	12.2						
Stage 1							
Volume Eluate L2 (litres)	0.33						
Filtered Eluate VE1 (litres)	0.15						

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and QTS Environmental cannot be held responsible for any discrepencies with current legislation
M Denotes MCERTS accredited test
U Denotes ISO17025 accredited test

QTS Environmental Ltd
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QTS Environmental Report No: 17-60753		**Date Sampled**	27/06/17			**Landfill Waste Acceptance Criteria Limits**		
Site Analytical Services Ltd		**Time Sampled**	None Supplied			**Inert Waste Landfill**	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Site Reference: 80 Charlotte Street		**TP / BH No**	B					
Project / Job Ref: 17/26994		**Additional Refs**	None Supplied					
Order No: 1165		**Depth (m)**	None Supplied					
Reporting Date: 04/07/2017		**QTSE Sample No**	276390					
Determinand	**Unit**	**MDL**						
TOC[MU]	%	< 0.1	0.7			3%	5%	6%
Loss on Ignition	%	< 0.01	5.70			--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05			6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1			1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10			500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7			100	--	--
pH[MU]	pH Units	N/a	10.2			--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	2			--	To be evaluated	To be evaluated

Eluate Analysis	**2:1 mg/l**	**8:1 mg/l**		**Cumulative 10:1 mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic[U]	< 0.01	< 0.01		< 0.2	0.5	2	25
Barium[U]	0.08	0.04		0.5	20	100	300
Cadmium[U]	< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium[U]	< 0.005	< 0.005		< 0.20	0.5	10	70
Copper[U]	< 0.01	< 0.01		< 0.5	2	50	100
Mercury[U]	< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum[U]	0.200	0.038		0.6	**0.5**	10	30
Nickel[U]	0.010	< 0.007		< 0.2	0.4	10	40
Lead[U]	< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony[U]	0.010	0.010		0.10	**0.06**	0.7	5
Selenium[U]	< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc[U]	0.012	0.011		< 0.2	4	50	200
Chloride[U]	24	4		65	800	15000	25000
Fluoride[U]	< 0.5	< 0.5		< 1	10	150	500
Sulphate[U]	1298	509		6035	**1000**	20000	50000
TDS	1390	404		5218	**4000**	60000	100000
Phenol Index	< 0.01	< 0.01		< 0.5	1	-	-
DOC	23.1	8.7		104	500	800	1000
Leach Test Information							
Sample Mass (kg)	0.21						
Dry Matter (%)	85						
Moisture (%)	17.8						
Stage 1							
Volume Eluate L2 (litres)	0.32						
Filtered Eluate VE1 (litres)	0.21						

Results are expressed on a dry weight basis, after correction for moisture content where applicable
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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 17-60753	
Site Analytical Services Ltd	
Site Reference: 80 Charlotte Street	
Project / Job Ref: 17/26994	
Order No: 1165	
Reporting Date: 04/07/2017	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
276389	A	None Supplied	None Supplied	10.9	Brown gravelly clay with stones
276390	B	None Supplied	None Supplied	15	Brown gravelly clay with stones

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

Insufficient Sample I/S

Unsuitable Sample U/S

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mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME
UKAS TESTING 4480

Soil Analysis Certificate - Methodology & Miscellaneous Information

QTS Environmental Report No: 17-60753
Site Analytical Services Ltd
Site Reference: 80 Charlotte Street
Project / Job Ref: 17/26994
Order No: 1165
Reporting Date: 04/07/2017

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

D Dried
AR As Received

Appendix D

Chitty Street tank validation

D1 Insitu QROS QED results

Matrix	Date Taken	Grid ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	% Ratios			HC Fingerprint Match
											C5 - C10	C10 - C18	C18	
s	21.02.18	L	33.9	<1.7	<0.85	6.9	6.9	2.5	0.1	<0.017	0	99.6	0.4	Deg.Diesel 79.1%,(FCM)
s	21.02.18	M	31.3	<0.78	<0.78	3.2	3.2	1.1	0.04	<0.016	0	100	0	Deg.Diesel 69.7%,(FCM)
s	21.02.18	Z	33.7	<1.7	<0.84	<0.34	<0.84	<0.17	<0.03	<0.017	0	0	0	PHC ND,(FCM),(P)
s	21.02.18	S	34.6	<0.87	<0.87	<0.35	<0.87	<0.17	<0.03	<0.017	0	34	66	Residual HC
s	21.02.18	T	33.0	<0.82	<0.82	49.2	49.2	22.5	0.83	<0.016	0	99.1	0.9	Deg.Diesel 80.4%,(FCM)
s	21.02.18	U	37.6	<0.94	<0.94	<0.38	<0.94	<0.19	<0.04	<0.019	0	0	0	PHC ND,(FCM),(P)
s	21.02.18	HH-Side	26.1	<0.65	<0.65	8.4	8.4	3.3	0.12	<0.013	0	99.3	0.7	Deg.Diesel 79.7%,(FCM)
s	21.02.18	R	196.0	<4.9	40.7	784.6	825.3	359.3	13.2	<0.098	12	87.3	0.8	Deg.Diesel 86.5%,(FCM)
s	21.02.18	AA	29.1	<0.73	12.6	120.2	138.8	56.9	2.1	<0.015	21	78.4	0.6	Deg.Diesel 88.2%,(FCM),(OCR)
s	21.02.18	BB	203	<5.1	61.2	477	538.2	212.9	7.8	<0.1	25.7	73.6	0.7	Deg.Diesel 84.8%,(FCM)
s	21.02.18	BB-Side	143	<3.6	42.3	460.8	503.1	213.5	7.8	<0.072	19.3	79.9	0.9	Deg.Diesel 82.9%,(FCM)
s	21.02.18	U-side	666.0	<16.6	84.9	493.4	578.3	247.5	7.7	<0.33	29.2	70.3	0.5	Deg.Diesel 83.7%,(FCM)
s	21.02.18	II	87.4	<2.2	>37	>488.3	>525.3	>227	>8.5	<0.044	16.4	82.8	0.8	Deg.Diesel 83.6%,(FCM),(OCR)
s	21.02.18	Y-Side	178.0	<4.5	48.3	530	578.3	253.9	9	<0.089	18.6	80.7	0.7	Deg.Diesel 80.7%,(FCM)
s	21.02.18	FF-Side	30.0	<0.75	<0.75	1.3	1.3	0.77	<0.03	<0.015	0	98.1	1.9	V.Deg.Diesel 77%,(FCM)
s	21.02.18	GG-Side	31.0	<0.78	<0.78	1.4	1.4	0.35	<0.03	<0.016	0	90.9	9.1	Cal,(BO)
s	06.03.18	U	32.3	<0.81	<0.81	10.3	10.3	5.8	0.24	<0.016	0	98	2	V.Deg.Diesel 80.3%,(FCM)
s	06.03.18	BB	28.7	<0.72	<0.72	17.2	17.2	6.8	0.25	<0.014	0	98.8	1.2	Deg.Diesel 71.6%,(FCM)
s	06.03.18	BB	36.9	<0.92	<0.92	7	7	2.4	0.09	<0.018	0	100	0	Deg.Diesel 68.2%,(FCM)
s	07.02.18	A	29.0	<0.72	<0.72	6	6	6	0.29	<0.014	0	93.2	6.3	V.Deg.PHC 94.3%,(FCM)
s	07.02.18	B	37.6	<0.94	<0.94	46.1	46.1	23.5	2.7	0.41	0	93.9	5.7	Motor oil 82.6%,(FCM),(BO)
s	15.02.18	JJ	116.0	<2.9	26	490.8	516.8	337.9	11.4	<0.058	8.5	91.4	0.1	Deg.Diesel 83.3%,(FCM)
s	13.02.18	G	33.3	<1.7	<0.83	0.38	0.38	0.17	<0.03	<0.017	0	91.6	7.4	Residual HC
s	14.02.18	Y	36.0	<0.9	10.8	115.3	126.1	59.4	2.2	<0.018	18	81.6	0.3	Deg.Diesel 74.7%,(FCM)
s	16.02.18	C	47.3	<2.4	<1.2	55.7	55.7	19.3	1.1	0.029	0	94.8	4.9	Deg.Fuel 85.5%,(FCM),(BO)
s	19.02.18	D	36.9	<0.92	<0.92	7	7	2.4	0.09	<0.018	0	100	0	Deg.Diesel 68.2%,(FCM)
s	20.02.18	E	30.0	<1.5	7.5	40.6	48.1	22	0.76	<0.015	29.1	70.7	0.1	Deg.Diesel 82.5%,(FCM)
s	08.02.18	EE	40.8	<1	<1	15.7	15.7	13.6	0.67	<0.02	0	92.3	7.2	Deg.Fuel 79.1%,(FCM)
s	07.02.18	G	29.0	<0.72	<0.72	6	6	6	0.29	<0.014	0	93.2	6.3	V.Deg.PHC 94.3%,(FCM)
s	07.02.18	F	37.6	<0.94	<0.94	46.1	46.1	23.5	2.7	0.41	0	93.9	5.7	Motor oil 82.6%,(FCM),(BO)
s	06.02.18	H	39.5	<0.99	<0.99	26.3	26.3	23.9	1.2	0.028	0	92.6	6.9	Deg.Fuel 85.2%,(FCM),(BO)
s	06.02.18	I	34.1	<1.7	7.2	54.4	61.6	25.2	0.9	<0.017	25.5	73.9	0.5	Deg.Diesel 75.9%,(FCM)
s	05.02.18	J	36.7	<0.92	<0.92	32.7	32.7	27.6	1.2	<0.018	0	95.9	3.8	V.Deg.Diesel 87.7%,(FCM)
s	03.02.18	K	37.6	<0.94	<0.94	23.1	23.1	23	1.2	0.035	0	90	9.2	V.Deg.PHC 77.4%,(FCM)

s	03.02.18	N	26.3	<0.66	<0.66	12.6	12.6	10.6	0.5	<0.013	0	94.2	5.4	Deg.Fuel 89.5%,(FCM),(BO)
s	03.02.18	O	32.8	<0.82	<0.82	12.4	12.4	12.4	1.4	0.19	0	94.5	5.2	V.Deg.PHC 95.7%,(FCM),(BO)
s	03.02.18	P	34.6	<1.7	<0.87	2.6	2.6	2.6	0.14	<0.017	0	88.6	10.5	V.Deg.PHC 77.1%,(FCM),(BO)
s	03.18.18	W	34.3	<0.86	<0.86	18.2	18.2	16.2	1.6	0.22	0	95	4.6	Deg.Fuel 89.4%,(FCM)
s	29.01.18	V	32.1	<0.8	<0.8	25.7	25.7	23.3	1.1	<0.022	0	94	5.5	Deg.Fuel 83.8%,(FCM)
s	29.01.18	BB	37.8	<1.9	<0.95	2.1	2.1	1.9	0.09	<0.019	0	93.4	6.1	Deg.Fuel 88.2%,(FCM),(P)
s	29.01.18	DD	48.8	<1.2	<1.2	11.7	11.7	10.7	1.1	0.16	0	94.6	5.1	Deg.Fuel 87.6%,(FCM),(P)
s	31.01.18	CC	27.4	<1.4	7.3	29.3	36.6	13.9	0.48	<0.014	38.7	60.9	0.3	Deg.Diesel 84%,(FCM)
s	25.01.18	X	34.3	<0.86	<0.86	1.2	1.2	1	0.05	<0.017	0	93.8	5.8	V.Deg.Diesel 82.3%,(FCM),(P)
s	25.01.18	Q	36.9	<0.92	<0.92	19.1	19.1	16.9	0.78	<0.018	0	93.2	6.3	Deg.Fuel 84%,(FCM),(BO)

D2 Laboratory verification results

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QTS Environmental Report No: 18-71313

Site Reference:	Charlotte Street, London, W1T
Project / Job Ref:	TJ3321A03
Order No:	TJ3321A03
Sample Receipt Date:	23/02/2018
Sample Scheduled Date:	23/02/2018
Report Issue Number:	1
Reporting Date:	28/02/2018

Authorised by:

Kevin Old
Associate Director of Laboratory

Authorised by:

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QTS Environmental is the trading name of DETS Ltd, company registration number 03705645

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Soil Analysis Certificate - TPH CWG Banded							
QTS Environmental Report No: 18-71313	**Date Sampled**	22/02/18	22/02/18	22/02/18	22/02/18	22/02/18
Terragen Environmental Consultants Ltd	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Charlotte Street, London, W1T	**TP / BH No**	V1 - B	V2 - E	V3 - S	V4 - W	V5 - N
Project / Job Ref: TJ3321A03	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: TJ3321A03	**Depth (m)**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 28/02/2018	**QTSE Sample No**	318761	318762	318763	318764	318765

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	77	< 2	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	358	< 2	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	4	1433	< 3	< 3	< 3
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	6	1498	< 3	< 3	< 3
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	520	< 10	< 10	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	3887	< 21	< 21	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	27	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	177	< 2	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	4	863	< 2	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	879	< 3	< 3	< 3
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	286	< 10	< 10	< 10
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	2232	< 21	< 21	< 21
Total >C5 - C35	mg/kg	< 42	NONE	< 42	6119	< 42	< 42	< 42

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

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Soil Analysis Certificate - BTEX / MTBE						
QTS Environmental Report No: 18-71313	**Date Sampled**	22/02/18	22/02/18	22/02/18	22/02/18	22/02/18
Terragen Environmental Consultants Ltd	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Charlotte Street, London, W1T	**TP / BH No**	V1 - B	V2 - E	V3 - S	V4 - W	V5 - N
Project / Job Ref: TJ3321A03	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: TJ3321A03	**Depth (m)**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 28/02/2018	**QTSE Sample No**	318761	318762	318763	318764	318765

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	115	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	417	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	78	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 18-71313	
Terragen Environmental Consultants Ltd	
Site Reference: Charlotte Street, London, W1T	
Project / Job Ref: TJ3321A03	
Order No: TJ3321A03	
Reporting Date: 28/02/2018	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
318761	V1 - B	None Supplied	None Supplied	3.5	Brown sandy gravel with stones
318762	V2 - E	None Supplied	None Supplied	2.5	Brown sandy clay with stones
318763	V3 - S	None Supplied	None Supplied	4.2	Brown sandy clay with stones
318764	V4 - W	None Supplied	None Supplied	5.7	Brown sandy clay with stones
318765	V5 - N	None Supplied	None Supplied	2.8	Brown sandy clay with stones

Moisture content is part of procedure E003 & is not an accredited test
Insufficient Sample I/S
Unsuitable Sample U/S

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Soil Analysis Certificate - Methodology & Miscellaneous Information

QTS Environmental Report No: 18-71313
Terragen Environmental Consultants Ltd
Site Reference: Charlotte Street, London, W1T
Project / Job Ref: TJ3321A03
Order No: TJ3321A03
Reporting Date: 28/02/2018

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

D Dried
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QTS Environmental Report No: 18-71740

Site Reference:	Charlotte Street, London, W1T
Project / Job Ref:	TJ3321B01
Order No:	TJ3321B01
Sample Receipt Date:	07/03/2018
Sample Scheduled Date:	07/03/2018
Report Issue Number:	1
Reporting Date:	09/03/2018

Authorised by:

Kevin Old
Associate Director of Laboratory

Authorised by:

Russell Jarvis
Associate Director of Client Services

QTS Environmental is the trading name of DETS Ltd, company registration number 03705645

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Soil Analysis Certificate - TPH CWG Banded						
QTS Environmental Report No: 18-71740	**Date Sampled**	06/03/18				
Terragen Environmental Consultants Ltd	**Time Sampled**	None Supplied				
Site Reference: Charlotte Street, London, W1T	**TP / BH No**	V2-E-A				
Project / Job Ref: TJ3321B01	**Additional Refs**	None Supplied				
Order No: TJ3321B01	**Depth (m)**	None Supplied				
Reporting Date: 09/03/2018	**QTSE Sample No**	320362				

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01				
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05				
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2				
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2				
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3				
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3				
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10				
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21				
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01				
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05				
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2				
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2				
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2				
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3				
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10				
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21				
Total >C5 - C35	mg/kg	< 42	NONE	< 42				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

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Soil Analysis Certificate - BTEX / MTBE						
QTS Environmental Report No: 18-71740	**Date Sampled**	06/03/18				
Terragen Environmental Consultants Ltd	**Time Sampled**	None Supplied				
Site Reference: Charlotte Street, London, W1T	**TP / BH No**	V2-E-A				
Project / Job Ref: TJ3321B01	**Additional Refs**	None Supplied				
Order No: TJ3321B01	**Depth (m)**	None Supplied				
Reporting Date: 09/03/2018	**QTSE Sample No**	320362				

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2				
Toluene	ug/kg	< 5	MCERTS	< 5				
Ethylbenzene	ug/kg	< 2	MCERTS	< 2				
p & m-xylene	ug/kg	< 2	MCERTS	< 2				
o-xylene	ug/kg	< 2	MCERTS	< 2				
MTBE	ug/kg	< 5	MCERTS	< 5				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30^{o}C

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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 18-71740	
Terragen Environmental Consultants Ltd	
Site Reference: Charlotte Street, London, W1T	
Project / Job Ref: TJ3321B01	
Order No: TJ3321B01	
Reporting Date: 09/03/2018	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
320362	V2-E-A	None Supplied	None Supplied	3.5	Light grey sand

Moisture content is part of procedure E003 & is not an accredited test
Insufficient Sample I/S
Unsuitable Sample U/S

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Soil Analysis Certificate - Methodology & Miscellaneous Information
QTS Environmental Report No: 18-71740
Terragen Environmental Consultants Ltd
Site Reference: Charlotte Street, London, W1T
Project / Job Ref: TJ3321B01
Order No: TJ3321B01
Reporting Date: 09/03/2018

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

D Dried
AR As Received

Appendix E

Groundwater analysis

Subcontractor SHEQ Document Cover Sheet

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SHEQ Document Information

Document to comply with the Project Information Management Manual and uploaded onto Aconex using the correct project metadata suitable for the document type.

Project:	80 Charlotte St
Subcontractor:	Keltbray
Activity:	Report
Document Title:	Title: Water Sample Results (1 - 1g) 27-29.11.2017
Document Type: And / or any other similar document	☐ Method Statement ☐ Risk Assessment ☐ Lifting Plan ☐ Construction Health & Safety Plan ☐ Environmental Management Plan ☒ Other (specify):Test Report ☐ Quality Plan ☐ Quality Inspection & Test Plan ☐ Procedures / Processes / Operational Control Plans ☐ Resource Planning: a) Plant; b) Labour; c) Supervision
Document Number:	**CHS-KLL-80-XX-RP-X-10111**
Revision:	00
Works Commencement Date:	
Date Response Required By:	

Note: All Subcontractor's Health & Safety, Environmental and Quality Plans, Method Statements, Risk Assessments and Documents must be issued 14 days prior to works commencement. Subcontractor and Multiplex may use the Document Preparation and Review Guidance overleaf when preparing / reviewing key Health & Safety, Environmental and Quality Plans, Method Statements and documents where applicable in line with subcontract scope of works and project requirements.

Authorised Multiplex Reviewer(s)

Multiplex Lead Document Reviewer (typically the Multiplex Package Manager) must receive, review, coordinate & issue the document to the required reviewers & checkers for appropriateness and correctness, where necessary, before awarding a document status A, B or C.
Note – Method Statement can only be awarded a status A or C.

Lead Document Reviewer:	Frank Blande
Date Received:	

Distribution for Review

Name	Position	End Date for Review	Comments	Initials
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Lead Reviewer Comment and Document Review Status

General Comments (see mark-up of documents for specific comments / queries)	As discussed outside of Aconex, the report covers all potential contaminants except Suspended Solid levels. This is a requirement from Thames Water so must be measured in all subsequent water quality tests.
Document Review Status **** Note Method Statements can only be awarded a status A or C.***	☐ **A - No comment** ☒ **B - Noted subject to comments; incorporate comments promptly*** ☐ **C - Rejected – correct and resubmit within 5 business days**
Lead Reviewer Signature	Frank Blande
Lead Document Review Date	14.12.17
Date Returned to Subcontractor	14.12.17

Subcontractor SHEQ Document Preparation and Review Guidance

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The following provides guidance of contents when preparing and reviewing key Health & Safety, Environmental and Quality Subcontractor Plans, Method Statements and documents where applicable in line with subcontract scope of works and project requirements.

Method Statement (EHS Controls)

Health & Safety Control (Method Statement)

- Monitoring arrangements
- Hazards (EHS)
- Risk assessments (EHS)
- Materials
- Training requirements
- Plant and equipment
- Method of work
- Sequence of work
- Temporary works
- Personal protective equipment
- Work at height
- Lifting equipment
- Permits to work
- Access and lighting
- Manual handling
- Housekeeping
- Noise/vibration
- Traffic management
- Protection of others
- Health and welfare arrangements
- Emergency arrangements
- First aid
- Control of hazardous substances
- Safety risk assessment attached

Environmental Control (Method Statement)

- Noise/dust suppression methods
- Project sustainability sourcing requirements addressed
- Correct working / noisy hours for the project
- Multiplex Out of Hours permit requirements
- Legally compliant COSHH assessments and MSDS for all hazardous materials appended to document
- Operatives to be trained in spill prevention, response and reporting
- Refuelling protocol to prevent pollution – source, pathway and receptor considered
- Spillage prevention measures
- Spill kit near potential hazards and fully accessible
- Spill kit to be complete and appropriate for the activities undertaken (size/type)
- Cleaning arrangements for site and equipment that prevent pollution
- Interceptors used (e.g. tanks) to be maintained at least every 6 months
- Hazardous/COSHH - bund, lockable, impermeable, away from receptors
- Fuel/Oil storage – secondary containment (110% or 25% total), spill procedures
- COSHH/Hazardous/Special waste safe storage in lockable waterproof area
- Waste disposal arrangements for general and hazardous/special waste
- Waste segregation for plasterboard and for COSHH/hazardous/special waste
- Arrangements for disposal of old tyres (banned from landfill) from site machinery
- Stockpiled materials appropriately covered to prevent dust/contamination
- Vehicles to be managed in accordance with the project's Traffic Management Plan
- Appropriate maintenance of plant and equipment to prevent air pollution
- Use of biodegradable oil for hydraulics where appropriate
- Electric power sourced tools are preferable in comparison to fuel powered
- Use a wheel wash and road sweeper to minimise mud on public highway
- Pallets and packaging material to be reused or sent back to the supplier

Additional controls: concrete

- Concrete washout control – management, disposal, discharge
- Discharge point control – spill trays, spill kit, monarflex/visqueen lining
- Cleaning methods regarding all concrete works to prevent pollution
- ***Demolition*** - Reuse of suitable demo material on site (e.g. piling mat)
- ***Dewatering*** - Appropriate settlement tanks taking into account size of suspended solid particles
- Controls to ensure compliance with conditions of Discharge Consent

Excavation - earthworks - piling

- Vibration monitoring when working near water mains
- Archaeological findings to be reported immediately
- Suitable measures for prevention of water entering excavations
- Appropriate stockpiling of materials (away from watercourses and drainage)
- Appropriate bentonite management to prevent release to drains/waterways

Health and Safety Plan

- Introduction
- H&S policy statement
- Project management organisation and responsibilities
- H&S meetings, consultation and liaison
- Contractor selection, assessment and appointment
- Site security
- Induction briefing
- Training
- Welfare
- Site layout and access signage
- Accident reporting procedures
- Design phase hazard identification and management
- Construction phase hazard identification and risk assessments
- Site rules
- Emergency procedures
- Permits to work
- Client / third party considerations
- H&S inspections and audits
- Safe storage and removal of waste from site
- Plant
- Lifting equipment and lifting operations
- Control of hazardous substances
- Personal protective equipment
- Temporary electricity and gas supplies
- Noise and vibration
- Tool box talks
- Working at height
- Excavations, ground conditions and underground working
- Asbestos
- Contaminated land
- Occupational health
- Other risks
- Liaison with the Enforcing Authorities
- Health and Safety File
- Project 4 Field, Project Specific Monthly H&S Reporting

Environmental Management Plan

- Environmental policy statement
- ISO 14001 certification or equivalent
- EMP Plan Purpose and Scope
- Project / Contract specific requirements
- Project Management Organisation and Responsibilities
- Environmental training arrangements
- Environmental meeting, consultation and liaison
- Environmental legal and any other environmental obligations requirements and arrangements
- Significant environmental pollution risks
- Method statements of activities with an environmental pollution risk
- Pollution incident response process and equipment, including names of trained staff.
- Project 4 Field, Metrics and Project Specific Monthly Environmental Reporting
- Waste management arrangements
- Environmental tool box talks
- Environmental inspections and audits
- Liaison with the Enforcing Authorities

Subcontractor Quality Plan (SQP)

- Quality policy statement
- ISO 9001 certification or equivalent
- Quality Plan Purpose and Scope
- Project / Contract specific requirements
- Project specific quality objectives
- Project Quality roles and responsibilities
- Project & Work Activity Quality Risks
- Quality Training and Awareness
- Authorised approvers and checkers, to inspect/check/ approve works/product
- Control of construction programmes
- Document and record management
- Design quality plan and change control
- Management of technical query /RFIs
- Material/ samples/ benchmarks/ mock-ups requirements and Status arrangements
- Management of Supply Chain (selection and performance monitoring)
- Materials and Plant Control
- Schedule of quality inspection and test plan
- Off-site fabrication/ inspection/ test process
- Test and commissioning process
- Control of measuring/testing equipment.
- Laboratory testing of material protocols
- Identification and traceability of all material from raw material to final product
- Protection of works / Asset Protection
- Remedial and Making Good Procedures
- Non-conformance Management of, Defective Works and site observations using a risk based approach
- Project quality audit/surveillance Schedule
- Project 4 Field and project quality Reporting
- Compilation/issue of quality assurance records
- Compilation/issue of handover deliverables

Subcontractor Quality Inspection and Test Plan (SQITP)

- Suitably addresses preconstruction, fabrication, construction phase, handover and final asset protection
- Itemised each onsite / offsite check/ inspection/ test as per specification requirements
- Specification clause ref/criteria to be met
- Check/ inspection/ test type and method
- Check/ inspection/ test frequency
- The objective criteria/ tolerance parameters that will determine if the check/inspection/ test for that item has passed or not
- The inspection, check and test responsibilities of every party involved
- Identifies suitable hold points
- The document that will be prepared and saved as a record of pass or failure
- The record that is required as part of the handover deliverables
- All supporting procedures and material referenced / appended

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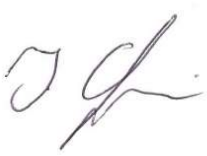
Title: Water Sample Results (1 - 1g) 27-29.11.2017
No: CHS-KLL-80-XX-RP-X-10111

REFERENCE No.:	MH17-3117-2411-1	CLIENT:	Keltbray Limited
CLIENT REF:	6246 - WJ Sediment Tank 1	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	24.11.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	27-29.11.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
pH	pH Units	7.1	Vanadium (dissolved)	ug/l	< 5
Electrical Conductivity	uS/cm	877	Zinc (dissolved)	ug/l	22
Total Cyanide	ug/l	<5	Calcium (dissolved)	mg/l	118
Complex Cyanide	ug/l	<5	Magnesium (dissolved)	mg/l	6.2
Free Cyanide	ug/l	<5	Potassium (dissolved)	mg/l	14.1
Sulphate as SO_4	mg/l	108	Sodium (dissolved)	mg/l	39.5
Sulphide	mg/l	<0.1	Total Phenols (monohydric)	ug/l	<10
Ammonium as NH_4	ug/l	390	VPH (C6 - C10)	ug/l	20
Ammonium as NH_4	mg/l	0.39	DRO (C10 - C24)	ug/l	<10
Chloride	mg/l	55	Mineral Oil (C10 - C40)	ug/l	<10
Nitrate as NO_3	mg/l	36.9	EPH (C10 - C40)	ug/l	<10
Nitrite as NO_2	mg/l	<0.5			
Phosphate as PO_4	mg/l	<1			
Fluoride	mg/l	<0.5			
Total Organic Carbon (TOC)	mg/l	4.2			
Alkalinity	mgCaC03/l	280			
Hardness - Total	mgCaC03/l	319			
Chemical Oxygen Demand	mg/l	<5			
Antimony (dissolved)	ug/l	<5			
Arsenic (dissolved)	ug/l	<5			
Barium (dissolved)	ug/l	65			
Beryllium (dissolved)	ug/l	<3			
Boron (dissolved)	ug/l	141			
Cadmium (dissolved)	ug/l	<0.4			
Chromium (dissolved)	ug/l	<5			
Chromium (hexavalent)	ug/l	<20			
Cobalt (dissolved)	ug/l	<2			
Copper (dissolved)	ug/l	<5			
Iron (dissolved)	ug/l	<5			
Lead (dissolved)	ug/l	<5			
Manganese (dissolved)	ug/l	35			
Mercury (dissolved)	ug/l	<0.05			
Molybdenum (dissolved)	ug/l	<5			
Nickel (dissolved)	ug/l	<5			
Phosphorus (dissolved)	ug/l	310			
Selenium (dissolved)	ug/l	<5			
Tin (dissolved)	ug/l	<5			

REMARKS:



Checked and verified by:

Jon Champion

General Manager

30-Nov-17

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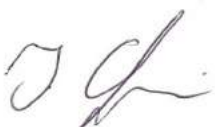
REPORT No.:	MH17-3117-2411-1a	CLIENT:	Keltbray Limited
SAMPLE No.:	6246	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 1	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank 1
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF SPECIATED PAH's - WATER ANALYSIS

Naphthalene	ug/l	0.03
Acenaphthylene	ug/l	<0.01
Acenaphthene	ug/l	<0.01
Fluorene	ug/l	<0.01
Phenanthrene	ug/l	<0.01
Anthracene	ug/l	<0.01
Fluoranthene	ug/l	<0.01
Pyrene	ug/l	0.02
Benzo(a)anthracene	ug/l	<0.01
Chrysene	ug/l	<0.01
Benzo(b)fluoranthene	ug/l	<0.01
Benzo(k)fluoranthene	ug/l	<0.01
Benzo(a)pyrene	ug/l	<0.01
Indeno(1,2,3-cd)pyrene	ug/l	<0.01
Dibenz(a,h)anthracene	ug/l	<0.01
Benzo(ghi)perylene	ug/l	<0.008
Total EPA-16 PAHs	ug/l	0.05

REMARKS:



Checked and verified by:

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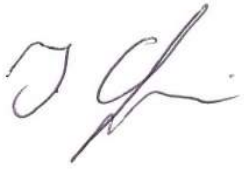
REPORT No.:	MH17-3117-2411-1b	CLIENT:	Keltbray Limited
SAMPLE No.:	3246	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 1	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF TPH CWG Banded - WATER ANALYSIS

Aliphatic >C5 - C6	ug/l	<10
Aliphatic >C6 - C8	ug/l	20
Aliphatic >C8 - C10	ug/l	<10
Aliphatic >C10 - C12	ug/l	<10
Aliphatic >C12 - C16	ug/l	<10
Aliphatic >C16 - C21	ug/l	<10
Aliphatic >C21 - C34	ug/l	<10
Aliphatic (C5 - C34)	ug/l	<70
Aromatic >C5 - C7	ug/l	<10
Aromatic >C7 - C8	ug/l	<10
Aromatic >C8 - C10	ug/l	<10
Aromatic >C10 - C12	ug/l	<10
Aromatic >C12 - C16	ug/l	<10
Aromatic >C16 - C21	ug/l	<10
Aromatic >C21 - C35	ug/l	<10
Aromatic (C5 - C35)	ug/l	<70
Total >C5 - C35	ug/l	<140

REMARKS:



Checked and verified by:
Jon Champion
General Manager

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REPORT No.:	MH7-3117-2411-1c	CLIENT:	Keltbray Limited
SAMPLE No.:	3246	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 1	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF BTEX / MTBE - WATER ANALYSIS

Benzene	ug/kg	<1
Touluene	ug/kg	<5
Ethylbenzene	ug/kg	<5
p & m - xylene	ug/kg	<10
o-xylene	ug/kg	<5
MTBE	ug/kg	<10

REMARKS:

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Water Analysis Certificate - Volatile Organic Compound (VOC)

REFERENCE No.:	MH17-3117-2411-1d	CLIENT:	Keltbray Limited
CLIENT REF:	6247 - WJ Sediment Tank 1	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	24.11.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	27-29.11.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
Dichlorodifluoromethane	ug/l	< 5	Tetrachloroethene	ug/l	33
Vinyl Chloride	ug/l	< 5	Dibromochloromethane	ug/l	< 5
Chloromethane	ug/l	< 5	1,2-Dibromoethane	ug/l	< 5
Chloroethane	ug/l	< 5	Chlorobenzene	ug/l	< 5
Bromomethane	ug/l	< 5	1,1,1,2-Tetrachloroethane	ug/l	< 5
Trichlorofluoromethane	ug/l	< 5	Ethyl Benzene	ug/l	< 5
1,1-Dichloroethene	ug/l	< 5	m,p-Xylene	ug/l	< 10
MTBE	ug/l	< 10	o-Xylene	ug/l	< 5
trans-1,2-Dichloroethene	ug/l	< 5	Styrene	ug/l	< 5
1,1-Dichloroethane	ug/l	< 5	Bromoform	ug/l	< 10
cis-1,2-Dichloroethene	ug/l	15	Isopropylbenzene	ug/l	< 5
2,2-Dichloropropane	ug/l	< 5	1,1,2,2-Tetrachloroethane	ug/l	< 10
Chloroform	ug/l	< 5	1,2,3-Trichloropropane	ug/l	< 5
Bromochloromethane	ug/l	< 10	n-Propylbenzene	ug/l	< 5
1,1,1-Trichloroethane	ug/l	< 5	Bromobenzene	ug/l	< 5
1,1-Dichloropropene	ug/l	< 5	2-Chlorotoluene	ug/l	< 5
Carbon Tetrachloride	ug/l	< 5	1,3,5-Trimethylbenzene	ug/l	< 5
1,2-Dichloroethane	ug/l	< 10	4-Chlorotoluene	ug/l	< 5
Benzene	ug/l	< 1	tert-Butylbenzene	ug/l	< 5
1,2-Dichloropropane	ug/l	< 5	1,2,4-Trimethylbenzene	ug/l	< 5
Trichloroethene	ug/l	5	sec-Butylbenzene	ug/l	< 5
Bromodichloromethane	ug/l	< 5	p-Isopropyltoluene	ug/l	< 5
Dibromomethane	ug/l	< 5	1,3-Dichlorobenzene	ug/l	< 5
TAME	ug/l	< 5	1,4-Dichlorobenzene	ug/l	< 5
cis-1,3-Dichloropropene	ug/l	< 5	n-Butylbenzene	ug/l	< 5
Toluene	ug/l	< 5	1,2-Dichlorobenzene	ug/l	< 5
trans-1,3-Dichloropropene	ug/l	< 5	1,2-Dibromo-3-chloropropane	ug/l	< 10
1,1,2-Trichloroethane	ug/l	< 10	Hexachlorobutadiene	ug/l	< 5
1,3-Dichloropropane	ug/l	< 5			

REMARKS:

Checked and verified by:

Jon Champion

General Manager

30-Nov-17

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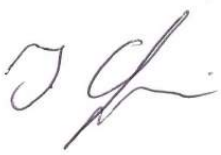
Water Analysis Certificate - Semi Volatile Organic Compounds (SVOC)

REFERENCE No.:	MH17-3117-2411-1e	CLIENT:	Keltbray Limited
CLIENT REF:	6246 - WJ Sediment Tank 1	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	24.11.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	27-29.11.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
Phenol	ug/l	<0.1	3-Nitroaniline	ug/l	<0.1
1,2,4-Trichlorobenzene	ug/l	<0.1	4-Nitroaniline	ug/l	<0.1
2-Nitrophenol	ug/l	<0.1	4-Bromophenyl phenyl ether	ug/l	<0.1
Nitrobenzene	ug/l	<0.1	Hexachlorobenzene	ug/l	<0.1
0-Cresol	ug/l	<0.1	2,4-Dinitrotoluene	ug/l	<0.1
bis(2-chloroethoxy)methane	ug/l	<0.1	Diethyl phthalate	ug/l	<0.1
bis(2-chloroethyl)ether	ug/l	<0.1	Dibenzofuran	ug/l	<0.1
2,4-Dichlorophenol	ug/l	<0.1	Azobenzene	ug/l	<0.1
2-Chlorophenol	ug/l	<0.1	Dibutyl phthalate	ug/l	<0.1
1,3-Dichlorobenzene	ug/l	<0.1	Carbazole	ug/l	<0.1
1,4-Dichlorobenzene	ug/l	<0.1	bis(2-ethylhexyl)phthalate	ug/l	<0.1
1,2-Dichlorobenzene	ug/l	<0.1	Benzyl butyl phthalate	ug/l	<0.1
2,4-Dimethylphenol	ug/l	<0.1	Di-n-octyl phthalate	ug/l	<0.1
Isophorone	ug/l	<0.1			
Hexachloroethane	ug/l	<0.1			
p-Cresol	ug/l	<0.1			
2,4,6-Trichlorophenol	ug/l	<0.1			
2,4,5-Trichlorophenol	ug/l	<0.1			
2-Nitroaniline	ug/l	<0.1			
4-Chloro-3-methylphenol	ug/l	<0.1			
2-Methylnaphthalene	ug/l	<0.1			
Hexachlorocyclopentadiene	ug/l	<0.1			
Hexachlorobutadiene	ug/l	<0.1			
2,6-Dinitrotoluene	ug/l	<0.1			
Dimethyl phthalate	ug/l	<0.1			
2-Chloronaphthalene	ug/l	<0.1			
4-Chloroanaline	ug/l	<0.1			
4-Nitrophenol	ug/l	<0.1			
4-Chlorophenyl phenyl ether	ug/l	<0.1			

REMARKS:



Checked and verified by:
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General Manager

30-Nov-17

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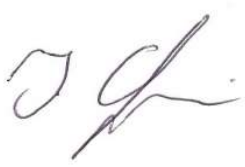
REPORT No.:	MH17-3117-2411-1f	CLIENT:	Keltbray Limited
SAMPLE No.:	6246	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 1	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF PCB (7 Congeners) - WATER ANALYSIS

PCB Congener 28	ug/l	<0.1
PCB Congener 52	ug/l	<0.1
PCB Congener 101	ug/l	<0.1
PCB Congener 118	ug/l	<0.1
PCB Congener 138	ug/l	<0.1
PCB Congener 153	ug/l	<0.1
PCB Congener 180	ug/l	<0.1
Total PCB (7 Congeners)	ug/l	<0.7

REMARKS:



Checked and verified by:
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General Manager

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REPORT No.:	MH17-3117-2411-1g	CLIENT:	Keltbray Limited
SAMPLE No.:	6246	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 1	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF SPECIATED PHENOLS - WATER ANALYSIS

2, 3, 5-trimethylphenol	ug/l	<0.1
2, 3, 6-trimethylphenol	ug/l	<0.1
2, 3-xylenol	ug/l	<0.1
2, 4, 6-trimethylphenol	ug/l	<0.1
2, 4-xylenol	ug/l	<0.1
2, 5-xylenol	ug/l	<0.1
2, 6-xylenol	ug/l	<0.1
2-ethylphenol	ug/l	<0.1
2-isopropylphenol	ug/l	<0.1
3, 4, 5-trimethylphenol	ug/l	<0.1
3, 4-xylenol	ug/l	<0.1
3, 5-xylenol	ug/l	<0.1
3-ethylphenol	ug/l	<0.1
3-isopropylphenol	ug/l	<0.1
4-ethylphenol	ug/l	<0.1
4-isopropylphenol	ug/l	<0.1
m-cresol (3-methylphenol)	ug/l	<0.1
o-cresol (2-methylphenol)	ug/l	<0.1
p-cresol (4-methylphenol)	ug/l	<0.1
phenol	ug/l	<0.1

REMARKS:

Checked and verified by:
Jon Champion
General Manager

Subcontractor SHEQ Document Cover Sheet

MULTIPLEX

SHEQ Document Information

Document to comply with the Project Information Management Manual and uploaded onto Aconex using the correct project metadata suitable for the document type.

Project:	80 Charlotte St
Subcontractor:	Keltbray
Activity:	Report
Document Title:	Title: Water Sample Results (2 - 2g) 27-29.11.2017
Document Type: And / or any other similar document	☐ Method Statement ☐ Risk Assessment ☐ Lifting Plan ☐ Construction Health & Safety Plan ☐ Environmental Management Plan ☒ Other (specify):Test Report ☐ Quality Plan ☐ Quality Inspection & Test Plan ☐ Procedures / Processes / Operational Control Plans ☐ Resource Planning: a) Plant; b) Labour; c) Supervision
Document Number:	**CHS-KLL-80-XX-RP-X-10112**
Revision:	00
Works Commencement Date:	
Date Response Required By:	

Note: All Subcontractor's Health & Safety, Environmental and Quality Plans, Method Statements, Risk Assessments and Documents must be issued 14 days prior to works commencement. Subcontractor and Multiplex may use the Document Preparation and Review Guidance overleaf when preparing / reviewing key Health & Safety, Environmental and Quality Plans, Method Statements and documents where applicable in line with subcontract scope of works and project requirements.

Authorised Multiplex Reviewer(s)

Multiplex Lead Document Reviewer (typically the Multiplex Package Manager) must receive, review, coordinate & issue the document to the required reviewers & checkers for appropriateness and correctness, where necessary, before awarding a document status A, B or C.
Note – Method Statement can only be awarded a status A or C.

Lead Document Reviewer:	Frank Blande
Date Received:	

Distribution for Review

Name	Position	End Date for Review	Comments	Initials
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Lead Reviewer Comment and Document Review Status

General Comments (see mark-up of documents for specific comments / queries)	As discussed outside of Aconex, the report covers all potential contaminants except Suspended Solid levels. This is a requirement from Thames Water so must be measured in all subsequent water quality tests.
Document Review Status **** Note Method Statements can only be awarded a status A or C.***	☐ **A - No comment** ☒ **B - Noted subject to comments; incorporate comments promptly*** ☐ **C - Rejected – correct and resubmit within 5 business days**
Lead Reviewer Signature	Frank Blande
Lead Document Review Date	14.12.17
Date Returned to Subcontractor	14.12.17

Subcontractor SHEQ Document Preparation and Review Guidance

MULTIPLEX

The following provides guidance of contents when preparing and reviewing key Health & Safety, Environmental and Quality Subcontractor Plans, Method Statements and documents where applicable in line with subcontract scope of works and project requirements.

Method Statement (EHS Controls)

Health & Safety Control (Method Statement)

- Monitoring arrangements
- Hazards (EHS)
- Risk assessments (EHS)
- Materials
- Training requirements
- Plant and equipment
- Method of work
- Sequence of work
- Temporary works
- Personal protective equipment
- Work at height
- Lifting equipment
- Permits to work
- Access and lighting
- Manual handling
- Housekeeping
- Noise/vibration
- Traffic management
- Protection of others
- Health and welfare arrangements
- Emergency arrangements
- First aid
- Control of hazardous substances
- Safety risk assessment attached

Environmental Control (Method Statement)

- Noise/dust suppression methods
- Project sustainability sourcing requirements addressed
- Correct working / noisy hours for the project
- Multiplex Out of Hours permit requirements
- Legally compliant COSHH assessments and MSDS for all hazardous materials appended to document
- Operatives to be trained in spill prevention, response and reporting
- Refuelling protocol to prevent pollution – source, pathway and receptor considered
- Spillage prevention measures
- Spill kit near potential hazards and fully accessible
- Spill kit to be complete and appropriate for the activities undertaken (size/type)
- Cleaning arrangements for site and equipment that prevent pollution
- Interceptors used (e.g. tanks) to be maintained at least every 6 months
- Hazardous/COSHH - bund, lockable, impermeable, away from receptors
- Fuel/Oil storage – secondary containment (110% or 25% total), spill procedures
- COSHH/Hazardous/Special waste safe storage in lockable waterproof area
- Waste disposal arrangements for general and hazardous/special waste
- Waste segregation for plasterboard and for COSHH/hazardous/special waste
- Arrangements for disposal of old tyres (banned from landfill) from site machinery
- Stockpiled materials appropriately covered to prevent dust/contamination
- Vehicles to be managed in accordance with the project's Traffic Management Plan
- Appropriate maintenance of plant and equipment to prevent air pollution
- Use of biodegradable oil for hydraulics where appropriate
- Electric power sourced tools are preferable in comparison to fuel powered
- Use a wheel wash and road sweeper to minimise mud on public highway
- Pallets and packaging material to be reused or sent back to the supplier

Additional controls: concrete

- Concrete washout control – management, disposal, discharge
- Discharge point control – spill trays, spill kit, monarflex/visqueen lining
- Cleaning methods regarding all concrete works to prevent pollution
- ***Demolition*** - Reuse of suitable demo material on site (e.g. piling mat)
- ***Dewatering*** - Appropriate settlement tanks taking into account size of suspended solid particles
- Controls to ensure compliance with conditions of Discharge Consent

Excavation - earthworks - piling

- Vibration monitoring when working near water mains
- Archaeological findings to be reported immediately
- Suitable measures for prevention of water entering excavations
- Appropriate stockpiling of materials (away from watercourses and drainage)
- Appropriate bentonite management to prevent release to drains/waterways

Health and Safety Plan

- Introduction
- H&S policy statement
- Project management organisation and responsibilities
- H&S meetings, consultation and liaison
- Contractor selection, assessment and appointment
- Site security
- Induction briefing
- Training
- Welfare
- Site layout and access signage
- Accident reporting procedures
- Design phase hazard identification and management
- Construction phase hazard identification and risk assessments
- Site rules
- Emergency procedures
- Permits to work
- Client / third party considerations
- H&S inspections and audits
- Safe storage and removal of waste from site
- Plant
- Lifting equipment and lifting operations
- Control of hazardous substances
- Personal protective equipment
- Temporary electricity and gas supplies
- Noise and vibration
- Tool box talks
- Working at height
- Excavations, ground conditions and underground working
- Asbestos
- Contaminated land
- Occupational health
- Other risks
- Liaison with the Enforcing Authorities
- Health and Safety File
- Project 4 Field, Project Specific Monthly H&S Reporting

Environmental Management Plan

- Environmental policy statement
- ISO 14001 certification or equivalent
- EMP Plan Purpose and Scope
- Project / Contract specific requirements
- Project Management Organisation and Responsibilities
- Environmental training arrangements
- Environmental meeting, consultation and liaison
- Environmental legal and any other environmental obligations requirements and arrangements
- Significant environmental pollution risks
- Method statements of activities with an environmental pollution risk
- Pollution incident response process and equipment, including names of trained staff.
- Project 4 Field, Metrics and Project Specific Monthly Environmental Reporting
- Waste management arrangements
- Environmental tool box talks
- Environmental inspections and audits
- Liaison with the Enforcing Authorities

Subcontractor Quality Plan (SQP)

- Quality policy statement
- ISO 9001 certification or equivalent
- Quality Plan Purpose and Scope
- Project / Contract specific requirements
- Project specific quality objectives
- Project Quality roles and responsibilities
- Project & Work Activity Quality Risks
- Quality Training and Awareness
- Authorised approvers and checkers, to inspect/check/ approve works/product
- Control of construction programmes
- Document and record management
- Design quality plan and change control
- Management of technical query /RFIs
- Material/ samples/ benchmarks/ mock-ups requirements and Status arrangements
- Management of Supply Chain (selection and performance monitoring)
- Materials and Plant Control
- Schedule of quality inspection and test plan
- Off-site fabrication/ inspection/ test process
- Test and commissioning process
- Control of measuring/testing equipment.
- Laboratory testing of material protocols
- Identification and traceability of all material from raw material to final product
- Protection of works / Asset Protection
- Remedial and Making Good Procedures
- Non-conformance Management of, Defective Works and site observations using a risk based approach
- Project quality audit/surveillance Schedule
- Project 4 Field and project quality Reporting
- Compilation/issue of quality assurance records
- Compilation/issue of handover deliverables

Subcontractor Quality Inspection and Test Plan (SQITP)

- Suitably addresses preconstruction, fabrication, construction phase, handover and final asset protection
- Itemised each onsite / offsite check/ inspection/ test as per specification requirements
- Specification clause ref/criteria to be met
- Check/ inspection/ test type and method
- Check/ inspection/ test frequency
- The objective criteria/ tolerance parameters that will determine if the check/inspection/ test for that item has passed or not
- The inspection, check and test responsibilities of every party involved
- Identifies suitable hold points
- The document that will be prepared and saved as a record of pass or failure
- The record that is required as part of the handover deliverables
- All supporting procedures and material referenced / appended

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Title: Water Sample Results (2 - 2g) 27-29.11.2017
No: CHS-KLL-80-XX-RP-X-10112

REFERENCE No.:	MH17-3117-2411-2	CLIENT:	Keltbray Limited
CLIENT REF:	6247 - WJ Sediment Tank 2	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	24.11.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	27-29.11.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
pH	pH Units	7.0	Vanadium (dissolved)	ug/l	< 5
Electrical Conductivity	uS/cm	835	Zinc (dissolved)	ug/l	20
Total Cyanide	ug/l	<5	Calcium (dissolved)	mg/l	122
Complex Cyanide	ug/l	<5	Magnesium (dissolved)	mg/l	6.5
Free Cyanide	ug/l	<5	Potassium (dissolved)	mg/l	14.6
Sulphate as SO_4	mg/l	106	Sodium (dissolved)	mg/l	39.9
Sulphide	mg/l	<0.1	Total Phenols (monohydric)	ug/l	<10
Ammonium as NH_4	ug/l	377	VPH (C6 - C10)	ug/l	20
Ammonium as NH_4	mg/l	0.38	DRO (C10 - C24)	ug/l	<10
Chloride	mg/l	54	Mineral Oil (C10 - C40)	ug/l	<10
Nitrate as NO_3	mg/l	36.7	EPH (C10 - C40)	ug/l	<10
Nitrite as NO_2	mg/l	<0.5			
Phosphate as PO_4	mg/l	<1			
Fluoride	mg/l	<0.5			
Total Organic Carbon (TOC)	mg/l	3.1			
Alkalinity	mgCaC03/l	280			
Hardness - Total	mgCaC03/l	332			
Chemical Oxygen Demand	mg/l	<5			
Antimony (dissolved)	ug/l	<5			
Arsenic (dissolved)	ug/l	<5			
Barium (dissolved)	ug/l	65			
Beryllium (dissolved)	ug/l	<3			
Boron (dissolved)	ug/l	140			
Cadmium (dissolved)	ug/l	<0.4			
Chromium (dissolved)	ug/l	<5			
Chromium (hexavalent)	ug/l	<20			
Cobalt (dissolved)	ug/l	<2			
Copper (dissolved)	ug/l	<5			
Iron (dissolved)	ug/l	<5			
Lead (dissolved)	ug/l	<5			
Manganese (dissolved)	ug/l	36			
Mercury (dissolved)	ug/l	<0.05			
Molybdenum (dissolved)	ug/l	<5			
Nickel (dissolved)	ug/l	<5			
Phosphorus (dissolved)	ug/l	315			
Selenium (dissolved)	ug/l	<5			
Tin (dissolved)	ug/l	<5			

REMARKS:

Checked and verified by:

Jon Champion

General Manager

30-Nov-17

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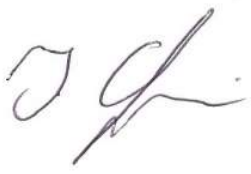
REPORT No.:	MH17-3117-2411-2a	CLIENT:	Keltbray Limited
SAMPLE No.:	6247	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 2	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank 1
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF SPECIATED PAH's - WATER ANALYSIS

Naphthalene	ug/l	0.03
Acenaphthylene	ug/l	<0.01
Acenaphthene	ug/l	<0.01
Fluorene	ug/l	<0.01
Phenanthrene	ug/l	<0.01
Anthracene	ug/l	<0.01
Fluoranthene	ug/l	<0.01
Pyrene	ug/l	0.01
Benzo(a)anthracene	ug/l	<0.01
Chrysene	ug/l	<0.01
Benzo(b)fluoranthene	ug/l	<0.01
Benzo(k)fluoranthene	ug/l	<0.01
Benzo(a)pyrene	ug/l	<0.01
Indeno(1,2,3-cd)pyrene	ug/l	<0.01
Dibenz(a,h)anthracene	ug/l	<0.01
Benzo(ghi)perylene	ug/l	<0.008
Total EPA-16 PAHs	ug/l	0.04

REMARKS:



Checked and verified by:
Jon Champion
General Manager

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REPORT No.:	MH17-3117-2411-2b	CLIENT:	Keltbray Limited
SAMPLE No.:	3247	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF TPH CWG Banded - WATER ANALYSIS

Aliphatic >C5 - C6	ug/l	<10
Aliphatic >C6 - C8	ug/l	20
Aliphatic >C8 - C10	ug/l	<10
Aliphatic >C10 - C12	ug/l	<10
Aliphatic >C12 - C16	ug/l	<10
Aliphatic >C16 - C21	ug/l	<10
Aliphatic >C21 - C34	ug/l	<10
Aliphatic (C5 - C34)	ug/l	<70
Aromatic >C5 - C7	ug/l	<10
Aromatic >C7 - C8	ug/l	<10
Aromatic >C8 - C10	ug/l	<10
Aromatic >C10 - C12	ug/l	<10
Aromatic >C12 - C16	ug/l	<10
Aromatic >C16 - C21	ug/l	<10
Aromatic >C21 - C35	ug/l	<10
Aromatic (C5 - C35)	ug/l	<70
Total >C5 - C35	ug/l	<140

REMARKS:

Checked and verified by:

Jon Champion

General Manager

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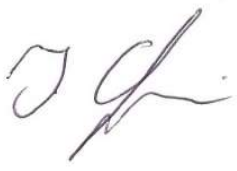
REPORT No.:	MH7-3117-2411-2c	CLIENT:	Keltbray Limited
SAMPLE No.:	3247	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 2	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF BTEX / MTBE - WATER ANALYSIS

Benzene	ug/kg	<1
Touluene	ug/kg	<5
Ethylbenzene	ug/kg	<5
p & m - xylene	ug/kg	<10
o-xylene	ug/kg	<5
MTBE	ug/kg	<10

REMARKS:



Checked and verified by:
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General Manager

30-Nov-17

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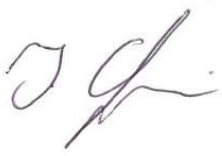
Water Analysis Certificate - Volatile Organic Compound (VOC)

REFERENCE No.:	MH17-3117-2411-2d	CLIENT:	Keltbray Limited
CLIENT REF:	6247 - WJ Sediment Tank 2	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	24.11.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	27-29.11.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
Dichlorodifluoromethane	ug/l	< 5	Tetrachloroethene	ug/l	37
Vinyl Chloride	ug/l	< 5	Dibromochloromethane	ug/l	< 5
Chloromethane	ug/l	< 5	1,2-Dibromoethane	ug/l	< 5
Chloroethane	ug/l	< 5	Chlorobenzene	ug/l	< 5
Bromomethane	ug/l	< 5	1,1,1,2-Tetrachloroethane	ug/l	< 5
Trichlorofluoromethane	ug/l	< 5	Ethyl Benzene	ug/l	< 5
1,1-Dichloroethene	ug/l	< 5	m,p-Xylene	ug/l	< 10
MTBE	ug/l	< 10	o-Xylene	ug/l	< 5
trans-1,2-Dichloroethene	ug/l	< 5	Styrene	ug/l	< 5
1,1-Dichloroethane	ug/l	< 5	Bromoform	ug/l	< 10
cis-1,2-Dichloroethene	ug/l	16	Isopropylbenzene	ug/l	< 5
2,2-Dichloropropane	ug/l	< 5	1,1,2,2-Tetrachloroethane	ug/l	< 10
Chloroform	ug/l	< 5	1,2,3-Trichloropropane	ug/l	< 5
Bromochloromethane	ug/l	< 10	n-Propylbenzene	ug/l	< 5
1,1,1-Trichloroethane	ug/l	< 5	Bromobenzene	ug/l	< 5
1,1-Dichloropropene	ug/l	< 5	2-Chlorotoluene	ug/l	< 5
Carbon Tetrachloride	ug/l	< 5	1,3,5-Trimethylbenzene	ug/l	< 5
1,2-Dichloroethane	ug/l	< 10	4-Chlorotoluene	ug/l	< 5
Benzene	ug/l	< 1	tert-Butylbenzene	ug/l	< 5
1,2-Dichloropropane	ug/l	< 5	1,2,4-Trimethylbenzene	ug/l	< 5
Trichloroethene	ug/l	< 5	sec-Butylbenzene	ug/l	< 5
Bromodichloromethane	ug/l	< 5	p-Isopropyltoluene	ug/l	< 5
Dibromomethane	ug/l	< 5	1,3-Dichlorobenzene	ug/l	< 5
TAME	ug/l	< 5	1,4-Dichlorobenzene	ug/l	< 5
cis-1,3-Dichloropropene	ug/l	< 5	n-Butylbenzene	ug/l	< 5
Toluene	ug/l	< 5	1,2-Dichlorobenzene	ug/l	< 5
trans-1,3-Dichloropropene	ug/l	< 5	1,2-Dibromo-3-chloropropane	ug/l	< 10
1,1,2-Trichloroethane	ug/l	< 10	Hexachlorobutadiene	ug/l	< 5
1,3-Dichloropropane	ug/l	< 5			

REMARKS:



Checked and verified by:

Jon Champion

General Manager

30-Nov-17

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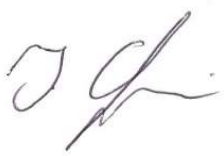
Water Analysis Certificate - Semi Volatile Organic Compounds (SVOC)

REFERENCE No.:	MH17-3117-2411-2e	CLIENT:	Keltbray Limited
CLIENT REF:	6247 - WJ Sediment Tank 2	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	24.11.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	27-29.11.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
Phenol	ug/l	<0.1	3-Nitroaniline	ug/l	<0.1
1,2,4-Trichlorobenzene	ug/l	<0.1	4-Nitroaniline	ug/l	<0.1
2-Nitrophenol	ug/l	<0.1	4-Bromophenyl phenyl ether	ug/l	<0.1
Nitrobenzene	ug/l	<0.1	Hexachlorobenzene	ug/l	<0.1
0-Cresol	ug/l	<0.1	2,4-Dinitrotoluene	ug/l	<0.1
bis(2-chloroethoxy)methane	ug/l	<0.1	Diethyl phthalate	ug/l	<0.1
bis(2-chloroethyl)ether	ug/l	<0.1	Dibenzofuran	ug/l	<0.1
2,4-Dichlorophenol	ug/l	<0.1	Azobenzene	ug/l	<0.1
2-Chlorophenol	ug/l	<0.1	Dibutyl phthalate	ug/l	<0.1
1,3-Dichlorobenzene	ug/l	<0.1	Carbazole	ug/l	<0.1
1,4-Dichlorobenzene	ug/l	<0.1	bis(2-ethylhexyl)phthalate	ug/l	<0.1
1,2-Dichlorobenzene	ug/l	<0.1	Benzyl butyl phthalate	ug/l	<0.1
2,4-Dimethylphenol	ug/l	<0.1	Di-n-octyl phthalate	ug/l	<0.1
Isophorone	ug/l	<0.1			
Hexachloroethane	ug/l	<0.1			
p-Cresol	ug/l	<0.1			
2,4,6-Trichlorophenol	ug/l	<0.1			
2,4,5-Trichlorophenol	ug/l	<0.1			
2-Nitroaniline	ug/l	<0.1			
4-Chloro-3-methylphenol	ug/l	<0.1			
2-Methylnaphthalene	ug/l	<0.1			
Hexachlorocyclopentadiene	ug/l	<0.1			
Hexachlorobutadiene	ug/l	<0.1			
2,6-Dinitrotoluene	ug/l	<0.1			
Dimethyl phthalate	ug/l	<0.1			
2-Chloronaphthalene	ug/l	<0.1			
4-Chloroanaline	ug/l	<0.1			
4-Nitrophenol	ug/l	<0.1			
4-Chlorophenyl phenyl ether	ug/l	<0.1			

REMARKS:



Checked and verified by:

Jon Champion

General Manager

30-Nov-17

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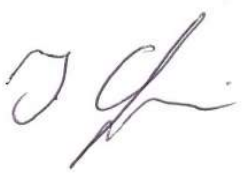
REPORT No.:	MH17-3117-2411-2f	CLIENT:	Keltbray Limited
SAMPLE No.:	6247	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 2	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF PCB (7 Congeners) - WATER ANALYSIS

PCB Congener 28	ug/l	<0.1
PCB Congener 52	ug/l	<0.1
PCB Congener 101	ug/l	<0.1
PCB Congener 118	ug/l	<0.1
PCB Congener 138	ug/l	<0.1
PCB Congener 153	ug/l	<0.1
PCB Congener 180	ug/l	<0.1
Total PCB (7 Congeners)	ug/l	<0.7

REMARKS:



Checked and verified by:

Jon Champion

General Manager

M & H Testing Limited

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Southfield, Barnfield Road, Charing Heath, Ashford, Kent, TN27 0BP
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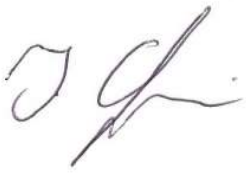
REPORT No.:	MH17-3117-2411-2g	CLIENT:	Keltbray Limited
SAMPLE No.:	6247	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank 2	SITE:	80 Charlotte Street, London
DATE SAMPLED:	24.11.2017	SUPPLIER:	Details Not Supplied
SAMPLED BY:	C.Bates	MATERIAL:	Water
DATE RECEIVED:	24.11.2017	LOCATION:	Sediment Tank
DATE TESTED:	27-29.11.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF SPECIATED PHENOLS - WATER ANALYSIS

2, 3, 5-trimethylphenol	ug/l	<0.1
2, 3, 6-trimethylphenol	ug/l	<0.1
2, 3-xylenol	ug/l	<0.1
2, 4, 6-trimethylphenol	ug/l	<0.1
2, 4-xylenol	ug/l	<0.1
2, 5-xylenol	ug/l	<0.1
2, 6-xylenol	ug/l	<0.1
2-ethylphenol	ug/l	<0.1
2-isopropylphenol	ug/l	<0.1
3, 4, 5-trimethylphenol	ug/l	<0.1
3, 4-xylenol	ug/l	<0.1
3, 5-xylenol	ug/l	<0.1
3-ethylphenol	ug/l	<0.1
3-isopropylphenol	ug/l	<0.1
4-ethylphenol	ug/l	<0.1
4-isopropylphenol	ug/l	<0.1
m-cresol (3-methylphenol)	ug/l	<0.1
o-cresol (2-methylphenol)	ug/l	<0.1
p-cresol (4-methylphenol)	ug/l	<0.1
phenol	ug/l	<0.1

REMARKS:



Checked and verified by:

Jon Champion

General Manager

Subcontractor SHEQ Document Cover Sheet

MULTIPLEX

SHEQ Document Information

Document to comply with the Project Information Management Manual and uploaded onto Aconex using the correct project metadata suitable for the document type.

Project:	80 Charlotte St
Subcontractor:	Keltbray
Activity:	Report
Document Title:	Water Sample Results 0512(1-8) 05/12/2017
Document Type: And / or any other similar document	☐ Method Statement ☐ Risk Assessment ☐ Lifting Plan ☐ Construction Health & Safety Plan ☐ Environmental Management Plan ☒ Other (specify): Report ☐ Quality Plan ☐ Quality Inspection & Test Plan ☐ Procedures / Processes / Operational Control Plans ☐ Resource Planning: a) Plant; b) Labour; c) Supervision
Document Number:	CHS-KLL-80-XX-RP-X-10121
Revision:	00
Works Commencement Date:	
Date Response Required By:	

Note: All Subcontractor's Health & Safety, Environmental and Quality Plans, Method Statements, Risk Assessments and Documents must be issued 14 days prior to works commencement. Subcontractor and Multiplex may use the Document Preparation and Review Guidance overleaf when preparing / reviewing key Health & Safety, Environmental and Quality Plans, Method Statements and documents where applicable in line with subcontract scope of works and project requirements.

Authorised Multiplex Reviewer(s)

Multiplex Lead Document Reviewer (typically the Multiplex Package Manager) must receive, review, coordinate & issue the document to the required reviewers & checkers for appropriateness and correctness, where necessary, before awarding a document status A, B or C.
Note – Method Statement can only be awarded a status A or C.

Lead Document Reviewer:	
Date Received:	

Distribution for Review

Name	Position	End Date for Review	Comments	Initials
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Lead Reviewer Comment and Document Review Status

General Comments (see mark-up of documents for specific comments / queries)	
Document Review Status **** Note Method Statements can only be awarded a status A or C.***	☐ **A - No comment** ☐ **B - Noted subject to comments; incorporate comments promptly*** ☐ **C - Rejected – correct and resubmit within 5 business days**
Lead Reviewer Signature	
Lead Document Review Date	
Date Returned to Subcontractor	

Subcontractor SHEQ Document Preparation and Review Guidance

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The following provides guidance of contents when preparing and reviewing key Health & Safety, Environmental and Quality Subcontractor Plans, Method Statements and documents where applicable in line with subcontract scope of works and project requirements.

Method Statement (EHS Controls)

Health & Safety Control (Method Statement)

- Monitoring arrangements
- Hazards (EHS)
- Risk assessments (EHS)
- Materials
- Training requirements
- Plant and equipment
- Method of work
- Sequence of work
- Temporary works
- Personal protective equipment
- Work at height
- Lifting equipment
- Permits to work
- Access and lighting
- Manual handling
- Housekeeping
- Noise/vibration
- Traffic management
- Protection of others
- Health and welfare arrangements
- Emergency arrangements
- First aid
- Control of hazardous substances
- Safety risk assessment attached

Environmental Control (Method Statement)

- Noise/dust suppression methods
- Project sustainability sourcing requirements addressed
- Correct working / noisy hours for the project
- Multiplex Out of Hours permit requirements
- Legally compliant COSHH assessments and MSDS for all hazardous materials appended to document
- Operatives to be trained in spill prevention, response and reporting
- Refuelling protocol to prevent pollution – source, pathway and receptor considered
- Spillage prevention measures
- Spill kit near potential hazards and fully accessible
- Spill kit to be complete and appropriate for the activities undertaken (size/type)
- Cleaning arrangements for site and equipment that prevent pollution
- Interceptors used (e.g. tanks) to be maintained at least every 6 months
- Hazardous/COSHH - bund, lockable, impermeable, away from receptors
- Fuel/Oil storage – secondary containment (110% or 25% total), spill procedures
- COSHH/Hazardous/Special waste safe storage in lockable waterproof area
- Waste disposal arrangements for general and hazardous/special waste
- Waste segregation for plasterboard and for COSHH/hazardous/special waste
- Arrangements for disposal of old tyres (banned from landfill) from site machinery
- Stockpiled materials appropriately covered to prevent dust/contamination
- Vehicles to be managed in accordance with the project's Traffic Management Plan
- Appropriate maintenance of plant and equipment to prevent air pollution
- Use of biodegradable oil for hydraulics where appropriate
- Electric power sourced tools are preferable in comparison to fuel powered
- Use a wheel wash and road sweeper to minimise mud on public highway
- Pallets and packaging material to be reused or sent back to the supplier

Additional controls: concrete

- Concrete washout control – management, disposal, discharge
- Discharge point control – spill trays, spill kit, monarflex/visqueen lining
- Cleaning methods regarding all concrete works to prevent pollution
- ***Demolition*** - Reuse of suitable demo material on site (e.g. piling mat)
- ***Dewatering*** - Appropriate settlement tanks taking into account size of suspended solid particles
- Controls to ensure compliance with conditions of Discharge Consent

Excavation - earthworks - piling

- Vibration monitoring when working near water mains
- Archaeological findings to be reported immediately
- Suitable measures for prevention of water entering excavations
- Appropriate stockpiling of materials (away from watercourses and drainage)
- Appropriate bentonite management to prevent release to drains/waterways

Health and Safety Plan

- Introduction
- H&S policy statement
- Project management organisation and responsibilities
- H&S meetings, consultation and liaison
- Contractor selection, assessment and appointment
- Site security
- Induction briefing
- Training
- Welfare
- Site layout and access signage
- Accident reporting procedures
- Design phase hazard identification and management
- Construction phase hazard identification and risk assessments
- Site rules
- Emergency procedures
- Permits to work
- Client / third party considerations
- H&S inspections and audits
- Safe storage and removal of waste from site
- Plant
- Lifting equipment and lifting operations
- Control of hazardous substances
- Personal protective equipment
- Temporary electricity and gas supplies
- Noise and vibration
- Tool box talks
- Working at height
- Excavations, ground conditions and underground working
- Asbestos
- Contaminated land
- Occupational health
- Other risks
- Liaison with the Enforcing Authorities
- Health and Safety File
- Project 4 Field, Project Specific Monthly H&S Reporting

Environmental Management Plan

- Environmental policy statement
- ISO 14001 certification or equivalent
- EMP Plan Purpose and Scope
- Project / Contract specific requirements
- Project Management Organisation and Responsibilities
- Environmental training arrangements
- Environmental meeting, consultation and liaison
- Environmental legal and any other environmental obligations requirements and arrangements
- Significant environmental pollution risks
- Method statements of activities with an environmental pollution risk
- Pollution incident response process and equipment, including names of trained staff.
- Project 4 Field, Metrics and Project Specific Monthly Environmental Reporting
- Waste management arrangements
- Environmental tool box talks
- Environmental inspections and audits
- Liaison with the Enforcing Authorities

Subcontractor Quality Plan (SQP)

- Quality policy statement
- ISO 9001 certification or equivalent
- Quality Plan Purpose and Scope
- Project / Contract specific requirements
- Project specific quality objectives
- Project Quality roles and responsibilities
- Project & Work Activity Quality Risks
- Quality Training and Awareness
- Authorised approvers and checkers, to inspect/check/ approve works/product
- Control of construction programmes
- Document and record management
- Design quality plan and change control
- Management of technical query /RFIs
- Material/ samples/ benchmarks/ mock-ups requirements and Status arrangements
- Management of Supply Chain (selection and performance monitoring)
- Materials and Plant Control
- Schedule of quality inspection and test plan
- Off-site fabrication/ inspection/ test process
- Test and commissioning process
- Control of measuring/testing equipment.
- Laboratory testing of material protocols
- Identification and traceability of all material from raw material to final product
- Protection of works / Asset Protection
- Remedial and Making Good Procedures
- Non-conformance Management of, Defective Works and site observations using a risk based approach
- Project quality audit/surveillance Schedule
- Project 4 Field and project quality Reporting
- Compilation/issue of quality assurance records
- Compilation/issue of handover deliverables

Subcontractor Quality Inspection and Test Plan (SQITP)

- Suitably addresses preconstruction, fabrication, construction phase, handover and final asset protection
- Itemised each onsite / offsite check/ inspection/ test as per specification requirements
- Specification clause ref/criteria to be met
- Check/ inspection/ test type and method
- Check/ inspection/ test frequency
- The objective criteria/ tolerance parameters that will determine if the check/inspection/ test for that item has passed or not
- The inspection, check and test responsibilities of every party involved
- Identifies suitable hold points
- The document that will be prepared and saved as a record of pass or failure
- The record that is required as part of the handover deliverables
- All supporting procedures and material referenced / appended

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Water Analysis Certificate

REFERENCE No.:	MH17-3117-0512-1	CLIENT:	Keltbray Limited
CLIENT REF:	6324 - Sediment Tank	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	05.12.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	05-13.12.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
pH	pH Units	7.4	Vanadium (dissolved)	ug/l	< 5
Electrical Conductivity	uS/cm	876	Zinc (dissolved)	ug/l	36
Total Cyanide	ug/l	<5	Calcium (dissolved)	mg/l	126
Complex Cyanide	ug/l	<5	Magnesium (dissolved)	mg/l	6.7
Free Cyanide	ug/l	<5	Potassium (dissolved)	mg/l	13.9
Sulphate as SO_4	mg/l	102	Sodium (dissolved)	mg/l	42.5
Sulphide	mg/l	<0.1	Total Phenols (monohydric)	ug/l	<10
Ammonium as NH_4	ug/l	489	VPH (C6 - C10)	ug/l	16
Ammonium as NH_4	mg/l	0.49	DRO (C10 - C24)	ug/l	<10
Chloride	mg/l	51	Mineral Oil (C10 - C40)	ug/l	<10
Nitrate as NO_3	mg/l	34.2	EPH (C10 - C40)	ug/l	<10
Nitrite as NO_2	mg/l	<0.5			
Phosphate as PO_4	mg/l	<1			
Fluoride	mg/l	<0.5			
Total Organic Carbon (TOC)	mg/l	4.6			
Alkalinity	mgCaC03/l	265			
Hardness - Total	mgCaC03/l	343			
Chemical Oxygen Demand	mg/l	25			
Total Suspended Solids	mg/l	5			
Antimony (dissolved)	ug/l	<5			
Arsenic (dissolved)	ug/l	<5			
Barium (dissolved)	ug/l	61			
Beryllium (dissolved)	ug/l	<3			
Boron (dissolved)	ug/l	125			
Cadmium (dissolved)	ug/l	<0.4			
Chromium (dissolved)	ug/l	<5			
Chromium (hexavalent)	ug/l	<20			
Cobalt (dissolved)	ug/l	<2			
Copper (dissolved)	ug/l	<5			
Iron (dissolved)	ug/l	<5			
Lead (dissolved)	ug/l	<5			
Manganese (dissolved)	ug/l	7			
Mercury (dissolved)	ug/l	<0.05			
Molybdenum (dissolved)	ug/l	<5			
Nickel (dissolved)	ug/l	<5			
Phosphorus (dissolved)	ug/l	325			
Selenium (dissolved)	ug/l	<5			
Tin (dissolved)	ug/l	<5			

REMARKS:

Checked and verified by:
Jon Champion
General Manager

14-Dec-17

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REPORT No.:	MH17-3117-0512-2	CLIENT:	Keltbray Limited
SAMPLE No.:	6324	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank No.3	SITE:	80 Charlotte Street, London
DATE SAMPLED:	05.12.2017	SUPPLIER:	Site Won
SAMPLED BY:	C.Bates	MATERIAL:	Water Sample
DATE RECEIVED:	05.12.2017	LOCATION:	WJ Sediment Tank No.3
DATE TESTED:	05-13.12.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF SPECIATED PAH's

Naphthalene	mg/kg	0.01
Acenphthylene	mg/kg	<0.01
Acenaphthene	mg/kg	0.01
Fluorene	mg/kg	0.01
Phenanthrene	mg/kg	0.03
Anthracene	mg/kg	<0.01
Fluoranthene	mg/kg	0.01
Pyrene	mg/kg	0.01
Benzo(a)anthracene	mg/kg	<0.01
Chrysene	mg/kg	<0.01
Benzo(b)fluoranthene	mg/kg	<0.01
Benzo(k)fluoranthene	mg/kg	<0.01
Benzo(a)pyrene	mg/kg	<0.01
Indeno(1,2,3-cd)pyrene	mg/kg	<0.01
Dibenz(a,h)anthracene	mg/kg	<0.01
Benzo(ghi)perylene	mg/kg	<0.008
Total EPA-16 PAHs	mg/kg	0.08

REMARKS:

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General Manager

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REPORT No.:	MH17-3117-0512-3	CLIENT:	Keltbray Limited
SAMPLE No.:	6324	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank No.3	SITE:	80 Charlotte Street, London
DATE SAMPLED:	05.12.2017	SUPPLIER:	Site Won
SAMPLED BY:	C.Bates	MATERIAL:	Water Sample
DATE RECEIVED:	05.12.2017	LOCATION:	Sediment Tank
DATE TESTED:	05-13.12.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF TPH CWG Banded

Aliphatic >C5 - C6	mg/kg	<10
Aliphatic >C6 - C8	mg/kg	16
Aliphatic >C8 - C10	mg/kg	<10
Aliphatic >C10 - C12	mg/kg	<10
Aliphatic >C12 - C16	mg/kg	<10
Aliphatic >C16 - C21	mg/kg	<10
Aliphatic >C21 - C34	mg/kg	<10
Aliphatic (C5 - C34)	mg/kg	<70
Aromatic >C5 - C7	mg/kg	<10
Aromatic >C7 - C8	mg/kg	<10
Aromatic >C8 - C10	mg/kg	<10
Aromatic >C10 - C12	mg/kg	<10
Aromatic >C12 - C16	mg/kg	<10
Aromatic >C16 - C21	mg/kg	<10
Aromatic >C21 - C35	mg/kg	<10
Aromatic (C5 - C35)	mg/kg	<70
Total >C5 - C35	mg/kg	<140

REMARKS:

Checked and verified by:
Jon Champion
General Manager

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REPORT No.:	MH17-3117-0512-4	CLIENT:	Keltbray Limited
SAMPLE No.:	6324	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9TA
CLIENT REF:	WJ Sediment Tank No.3	SITE:	80 Charlotte Street, London
DATE SAMPLED:	05.12.2017	SUPPLIER:	Site Won
SAMPLED BY:	C.Bates	MATERIAL:	Water Sample
DATE RECEIVED:	05.12.2017	LOCATION:	Sediment Tank
DATE TESTED:	05-13.12.2017	ACCEPT STD.:	Contract Specification
TESTED BY:	QTSE		

REPORT: DETERMINATION OF BTEX / MTBE

Benzene	ug/kg	<1
Touluene	ug/kg	<5
Ethylbenzene	ug/kg	<5
p & m - xylene	ug/kg	<10
o-xylene	ug/kg	<5
MTBE	ug/kg	<10

REMARKS:

Checked and verified by:
Jon Champion
General Manager

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Water Analysis Certificate - Volatile Organic Compound (VOC)

REFERENCE No.:	MH17-3117-0512-5	CLIENT:	Keltbray Limited
CLIENT REF:	6324 - Sediment Tank	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	05.12.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	05-13.12.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit	(hs)	Determinand	Unit	(hs)
Dichlorodifluoromethane	ug/l	<5	Tetrachloroethene	ug/l	25
Vinyl Chloride	ug/l	<5	Dibromochloromethane	ug/l	<5
Chloromethane	ug/l	<5	1,2-Dibromoethane	ug/l	<5
Chloroethane	ug/l	<5	Chlorobenzene	ug/l	<5
Bromomethane	ug/l	<5	1,1,1,2-Tetrachloroethane	ug/l	<5
Trichlorofluoromethane	ug/l	<5	Ethyl Benzene	ug/l	<5
1,1-Dichloroethene	ug/l	<5	m,p-Xylene	ug/l	<10
MTBE	ug/l	<10	o-Xylene	ug/l	<5
trans-1,2-Dichloroethene	ug/l	<5	Styrene	ug/l	<5
1,1-Dichloroethane	ug/l	<5	Bromoform	ug/l	<10
cis-1,2-Dichloroethene	ug/l	9	Isopropylbenzene	ug/l	<5
2,2-Dichloropropane	ug/l	<5	1,1,2,2-Tetrachloroethane	ug/l	<10
Chloroform	ug/l	<5	1,2,3-Trichloropropane	ug/l	<5
Bromochloromethane	ug/l	<10	n-Propylbenzene	ug/l	<5
1,1,1-Trichloroethane	ug/l	<5	Bromobenzene	ug/l	<5
1,1-Dichloropropene	ug/l	<5	2-Chlorotoluene	ug/l	<5
Carbon Tetrachloride	ug/l	<5	1,3,5-Trimethylbenzene	ug/l	<5
1,2-Dichloroethane	ug/l	<10	4-Chlorotoluene	ug/l	<5
Benzene	ug/l	<1	tert-Butylbenzene	ug/l	<5
1,2-Dichloropropane	ug/l	<5	1,2,4-Trimethylbenzene	ug/l	<5
Trichloroethene	ug/l	<5	sec-Butylbenzene	ug/l	<5
Bromodichloromethane	ug/l	<5	p-Isopropyltoluene	ug/l	<5
Dibromomethane	ug/l	<5	1,3-Dichlorobenzene	ug/l	<5
TAME	ug/l	<5	1,4-Dichlorobenzene	ug/l	<5
cis-1,3-Dichloropropene	ug/l	<5	n-Butylbenzene	ug/l	<5
Toluene	ug/l	<5	1,2-Dichlorobenzene	ug/l	<5
trans-1,3-Dichloropropene	ug/l	<5	1,2-Dibromo-3-chloropropane	ug/l	<10
1,1,2-Trichloroethane	ug/l	<10	Hexachlorobutadiene	ug/l	<5
1,3-Dichloropropane	ug/l	<5			

REMARKS:

Checked and verified by:
Jon Champion
General Manager

14-Dec-17

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Water Analysis Certificate - Semi Volatile Organic Compound (SVOC)

REFERENCE No.:	MH17-3117-0512-6	CLIENT:	Keltbray Limited
CLIENT REF:	6324 - Sediment Tank	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	05.12.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	05-13.12.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit		Determinand	Unit	
Phenol	ug/l	<0.1	4-Nitroaniline	ug/l	<0.01
1,2,4-Trichlorobenzene	ug/l	<0.1	4-Bromophenyl phenyl ether	ug/l	<0.01
2-Nitrophenol	ug/l	<0.1	Hexachlorobenzene	ug/l	<0.01
Nitrobenzene	ug/l	<0.1	2,4-Dinitrotoluene	ug/l	<0.01
0-Cresol	ug/l	<0.1	phthalate	ug/l	<0.01
bis(2-chloroethoxy)methane	ug/l	<0.1	Dibenzofuran	ug/l	<0.01
bis(2-chloroethyl)ether	ug/l	<0.1	Azobenzene	ug/l	<0.01
2,4-Dichlorophenol	ug/l	<0.1	Dibutyl phthalate	ug/l	<0.01
2-Chlorophenol	ug/l	<0.1	Carbazole	ug/l	<0.01
1,3-Dichlorobenzene	ug/l	<0.1	bis(2-ethylhexyl)phthalate	ug/l	<0.01
1,4-Dichlorobenzene	ug/l	<0.1	Benzyl butyl phthalate	ug/l	<0.01
1,2-Dichlorobenzene	ug/l	<0.1	Di-n-octyl phthalate	ug/l	<0.01
2,4-Dimethylphenol	ug/l	<0.1			
Isophorone	ug/l	<0.1			
Hexachloroethane	ug/l	<0.1			
p-Cresol	ug/l	<0.1			
2,4,6-Trichlorophenol	ug/l	<0.1			
2,4,5-Trichlorophenol	ug/l	<0.1			
2-Nitroaniline	ug/l	<0.1			
4-Chloro-3-methylphenol	ug/l	<0.1			
2-Methylnaphthalene	ug/l	<0.1			
Hexachlorocyclopentadiene	ug/l	<0.1			
Hexachlorobutadiene	ug/l	<0.1			
2,6-Dinitrotoluene	ug/l	<0.1			
Dimethyl phthalate	ug/l	<0.1			
2-Chloronaphthalene	ug/l	<0.1			
4-Chloroanaline	ug/l	<0.1			
4-Nitrophenol	ug/l	<0.1			
4-Chlorophenyl phenyl ether	ug/l	<0.1			
3-Nitroaniline	ug/l	<0.1			

REMARKS:

Checked and verified by:
Jon Champion
General Manager

14-Dec-17

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Water Analysis Certificate - PCB (7 Congeners)

REFERENCE No.:	MH17-3117-0512-7	CLIENT:	Keltbray Limited
CLIENT REF:	6324 - Sediment Tank	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	05.12.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	05-13.12.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit	
PCB Congener 28	ug/l	<0.1
PCB Congener 52	ug/l	<0.1
PCB Congener 101	ug/l	<0.1
PCB Congener 118	ug/l	<0.1
PCB Congener 138	ug/l	<0.1
PCB Congener 153	ug/l	<0.1
PCB Congener 180	ug/l	<0.1
Total PCB (7 Congeners)	ug/l	<0.7

REMARKS:

Checked and verified by:
Jon Champion
General Manager

14-Dec-17

M & H Testing Limited

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Water Analysis Certificate - Speciated Phenols

REFERENCE No.:	MH17-3117-0512-8	CLIENT:	Keltbray Limited
CLIENT REF:	6324 - WJ Sediment Tank No.3	ADDRESS:	St. Andrews House, Portsmouth Road, Esher, KT10 9T/
DATE SAMLED:	05.12.2017	SITE:	80 Charlotte Street, London
TECHNICIAN:	C.Bates	DATE TESTED:	05-13.12.2017
LOCATION:	Sediment Tank	MATERIAL:	Water

TEST RESULTS:

Determinand	Unit	
2, 3, 5-trimethylphenol	ug/l	<0.1
2, 3, 6-trimethylphenol	ug/l	<0.1
2, 3-xylenol	ug/l	<0.1
2, 4, 6-trimethylphenol	ug/l	<0.1
2, 4-xylenol	ug/l	<0.1
2, 5-xylenol	ug/l	<0.1
2, 6-xylenol	ug/l	<0.1
2-ethylphenol	ug/l	<0.1
2-isopropylphenol	ug/l	<0.1
3, 4, 5-trimethylphenol	ug/l	<0.1
3, 4-xylenol	ug/l	<0.1
3, 5-xylenol	ug/l	<0.1
3-ethylphenol	ug/l	<0.1
3-isopropylphenol	ug/l	<0.1
4-ethylphenol	ug/l	<0.1
4-isopropylphenol	ug/l	<0.1
m-cresol (3-methylphenol)	ug/l	<0.1
o-cresol (2-methylphenol)	ug/l	<0.1
p-cresol (4-methylphenol)	ug/l	<0.1
phenol	ug/l	<0.1

REMARKS:

Checked and verified by:
Jon Champion
General Manager

14-Dec-17

Appendix F

Imported materials

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384560**	Head Office Certificate No :	**384560-18-90287-0-E01**
Site sample no. :	**DP11**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 11 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1200**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**85.96** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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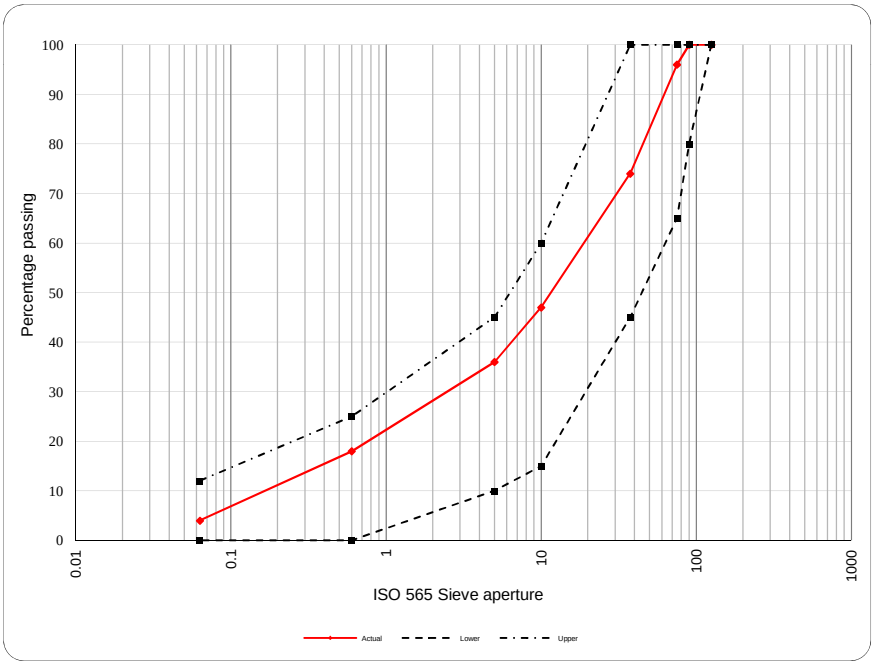
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384560** Head Office Certificate No : **384560-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 11 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**85.96** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**96**	65	100
63.00mm	**90**		
50.00mm	**79**		
37.50mm	**74**	45	100
28.00mm	**66**		
20.00mm	**58**		
14.00mm	**54**		
10.00mm	**47**	15	60
6.30mm	**39**		
5.00mm	**36**	10	45
3.35mm	**32**		
2.00mm	**27**		
1.18mm	**23**		
0.600mm	**18**	0	25
0.425mm	**15**		
0.300mm	**12**		
0.212mm	**9**		
0.150mm	**7**		
0.063mm	**4**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 92

Tested by : **CJBDPAMJKRCSAS** Date tested : **30.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384561**	Head Office Certificate No :	**384561-18-90287-0-E01**
Site sample no. :	**DP12**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 12 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1210**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**87.48** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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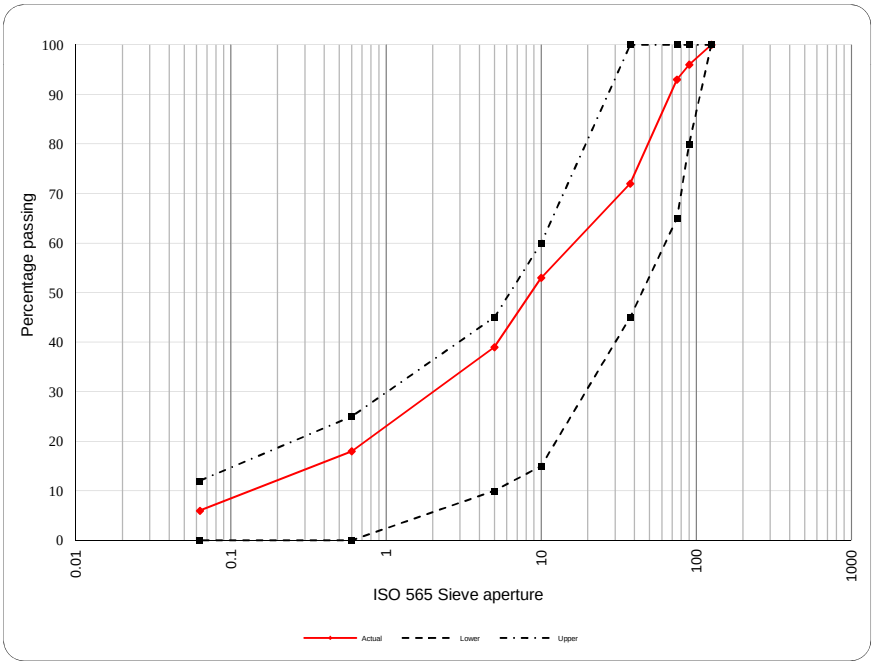
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384561** Head Office Certificate No : **384561-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 12 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**87.48** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**96**	80	100
75.00mm	**93**	65	100
63.00mm	**89**		
50.00mm	**78**		
37.50mm	**72**	45	100
28.00mm	**67**		
20.00mm	**62**		
14.00mm	**58**		
10.00mm	**53**	15	60
6.30mm	**43**		
5.00mm	**39**	10	45
3.35mm	**35**		
2.00mm	**29**		
1.18mm	**24**		
0.600mm	**18**	0	25
0.425mm	**15**		
0.300mm	**11**		
0.212mm	**9**		
0.150mm	**8**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 66

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384562**	Head Office Certificate No :	**384562-18-90287-0-E01**
Site sample no. :	**DP13**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 13 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1215**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**91.64** kg		
Remarks :	**Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention

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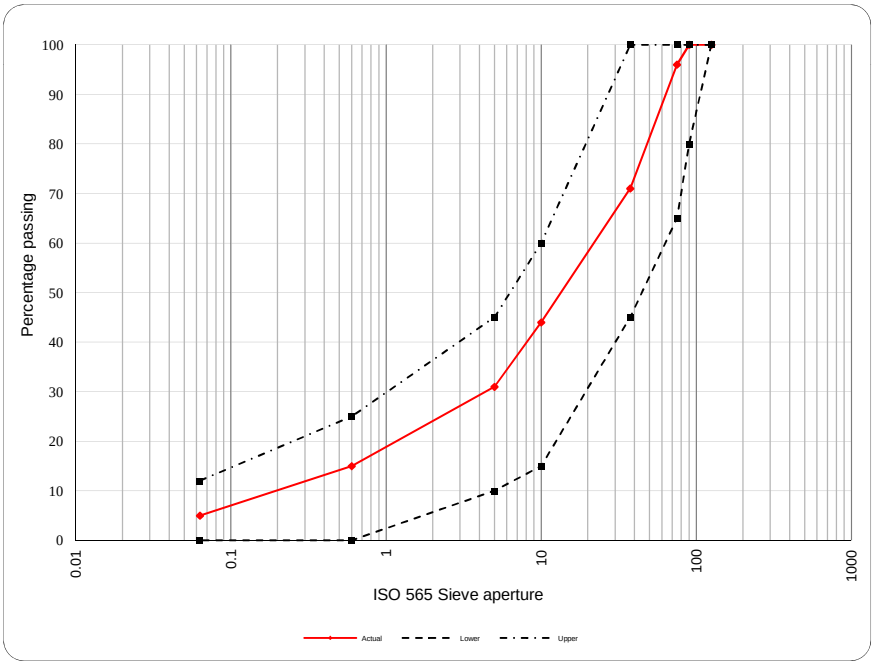
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384562** Head Office Certificate No : **384562-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 13 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**91.64** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**96**	65	100
63.00mm	**86**		
50.00mm	**79**		
37.50mm	**71**	45	100
28.00mm	**65**		
20.00mm	**58**		
14.00mm	**52**		
10.00mm	**44**	15	60
6.30mm	**35**		
5.00mm	**31**	10	45
3.35mm	**27**		
2.00mm	**23**		
1.18mm	**19**		
0.600mm	**15**	0	25
0.425mm	**13**		
0.300mm	**10**		
0.212mm	**8**		
0.150mm	**7**		
0.063mm	**5**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 74

Tested by : **CJBDPAMJKSAS** Date tested : **30.01.2018** Approved : Daniel Paris Senior Technician Date : **30/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384563**	Head Office Certificate No :	**384563-18-90287-0-E01**
Site sample no. :	**DP14**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 14 Stockpile 1**		
Analysis required :	**PSD(Wet sieve),Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1220**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**90.46** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Parls Senior Technician Date : **01/02/2018**

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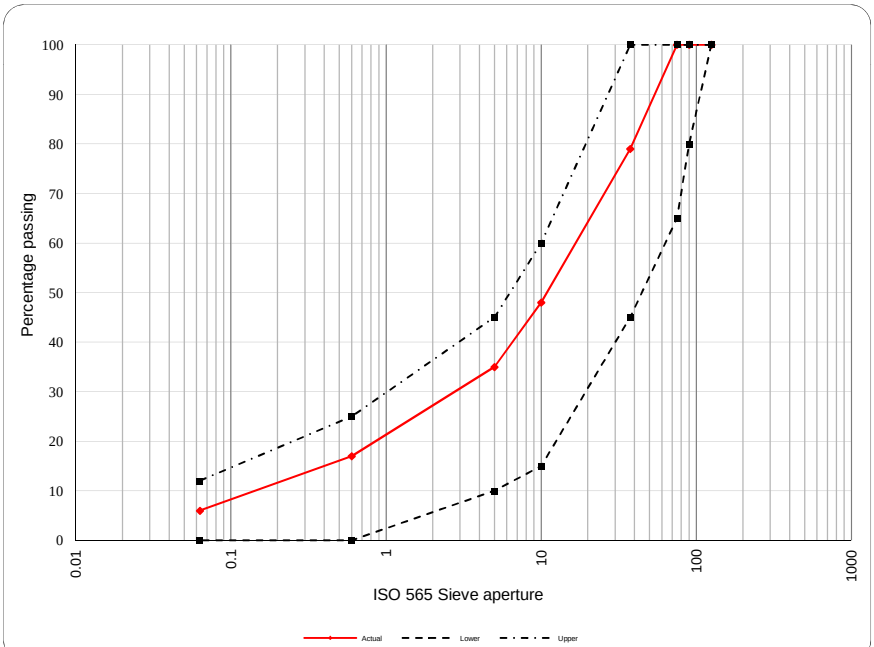
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384563** Head Office Certificate No : **384563-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 14 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**90.46** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**100**	65	100
63.00mm	**94**		
50.00mm	**86**		
37.50mm	**79**	45	100
28.00mm	**72**		
20.00mm	**63**		
14.00mm	**56**		
10.00mm	**48**	15	60
6.30mm	**38**		
5.00mm	**35**	10	45
3.35mm	**30**		
2.00mm	**25**		
1.18mm	**22**		
0.600mm	**17**	0	25
0.425mm	**15**		
0.300mm	**12**		
0.212mm	**10**		
0.150mm	**8**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 82

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384564**	Head Office Certificate No :	**384564-18-90287-0-E01**
Site sample no. :	**DP15**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 15 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1225**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**87.40** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention

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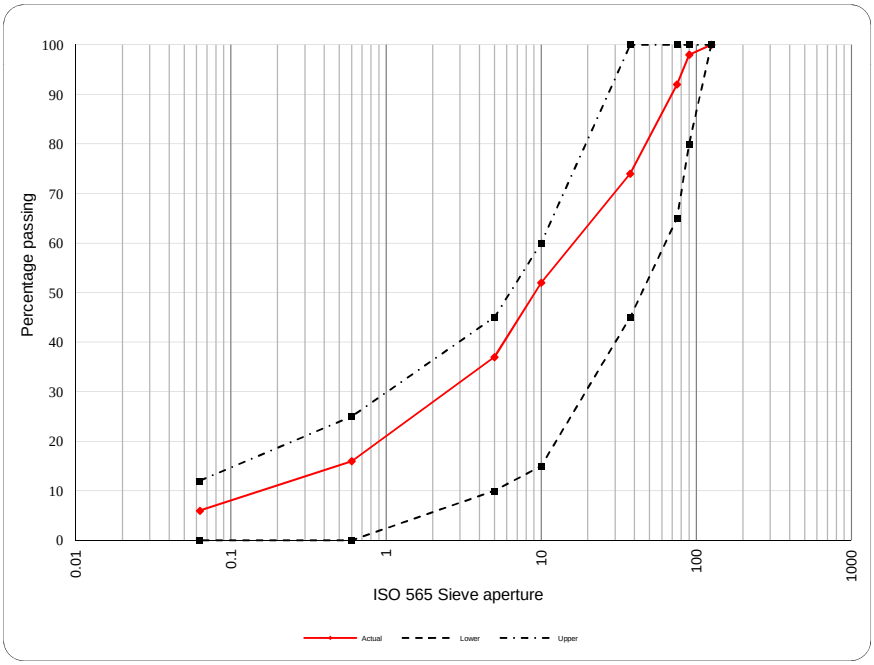
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384564** Head Office Certificate No : **384564-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 15 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**87.40** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**98**	80	100
75.00mm	**92**	65	100
63.00mm	**84**		
50.00mm	**78**		
37.50mm	**74**	45	100
28.00mm	**69**		
20.00mm	**64**		
14.00mm	**59**		
10.00mm	**52**	15	60
6.30mm	**41**		
5.00mm	**37**	10	45
3.35mm	**32**		
2.00mm	**25**		
1.18mm	**21**		
0.600mm	**16**	0	25
0.425mm	**13**		
0.300mm	**10**		
0.212mm	**9**		
0.150mm	**7**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 51

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Parls Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384565**	Head Office Certificate No :	**384565-18-90287-0-E01**
Site sample no. :	**DP16**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 16 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1230**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**86.32** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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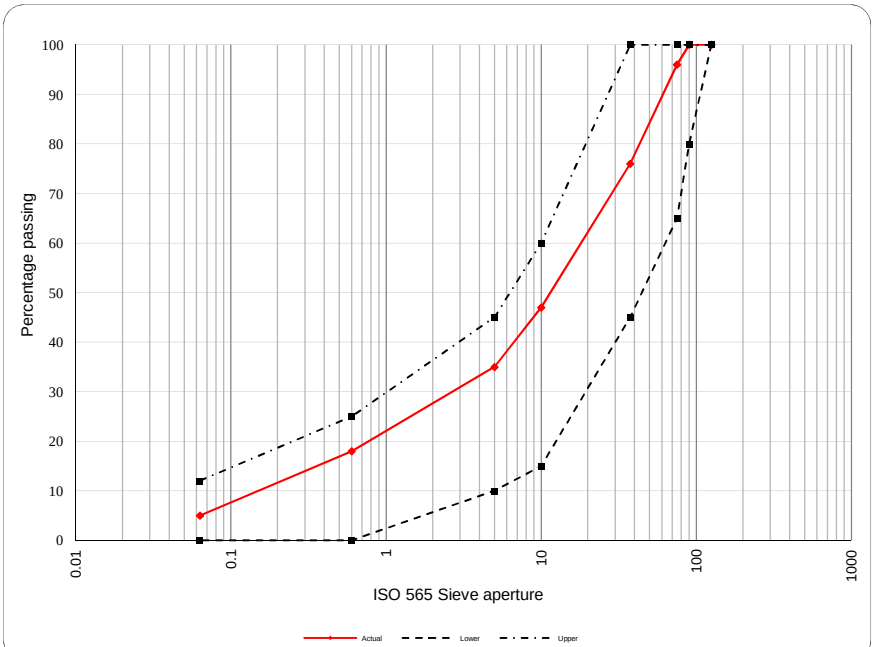
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384565** Head Office Certificate No : **384565-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 16 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**86.32** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**96**	65	100
63.00mm	**88**		
50.00mm	**84**		
37.50mm	**76**	45	100
28.00mm	**68**		
20.00mm	**59**		
14.00mm	**54**		
10.00mm	**47**	15	60
6.30mm	**38**		
5.00mm	**35**	10	45
3.35mm	**31**		
2.00mm	**26**		
1.18mm	**22**		
0.600mm	**18**	0	25
0.425mm	**15**		
0.300mm	**11**		
0.212mm	**9**		
0.150mm	**7**		
0.063mm	**5**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 82

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Parls Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384566**	Head Office Certificate No :	**384566-18-90287-0-E01**
Site sample no. :	**DP17**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 17 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1240**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**81.46** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Parls Senior Technician Date : **01/02/2018**

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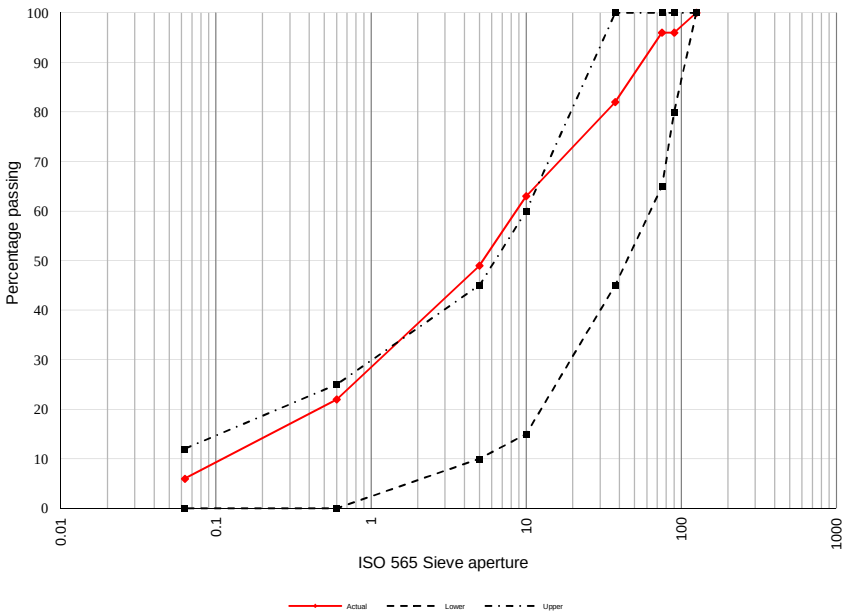
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384566** Head Office Certificate No : **384566-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 17 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**81.46** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**96**	80	100
75.00mm	**96**	65	100
63.00mm	**88**		
50.00mm	**86**		
37.50mm	**82**	45	100
28.00mm	**77**		
20.00mm	**71**		
14.00mm	**69**		
10.00mm	**63**	15	60
6.30mm	**54**		
5.00mm	**49**	10	45
3.35mm	**44**		
2.00mm	**37**		
1.18mm	**30**		
0.600mm	**22**	0	25
0.425mm	**18**		
0.300mm	**14**		
0.212mm	**11**		
0.150mm	**9**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material does not comply with the requirements of the clients indicated specification**
Uniformity Coefficient = 48

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **30.01.2018** Approved : Daniel Paris Senior Technician Date : **30/01/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention
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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384567**	Head Office Certificate No :	**384567-18-90287-0-E01**
Site sample no. :	**DP18**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 18 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1245**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**78.94** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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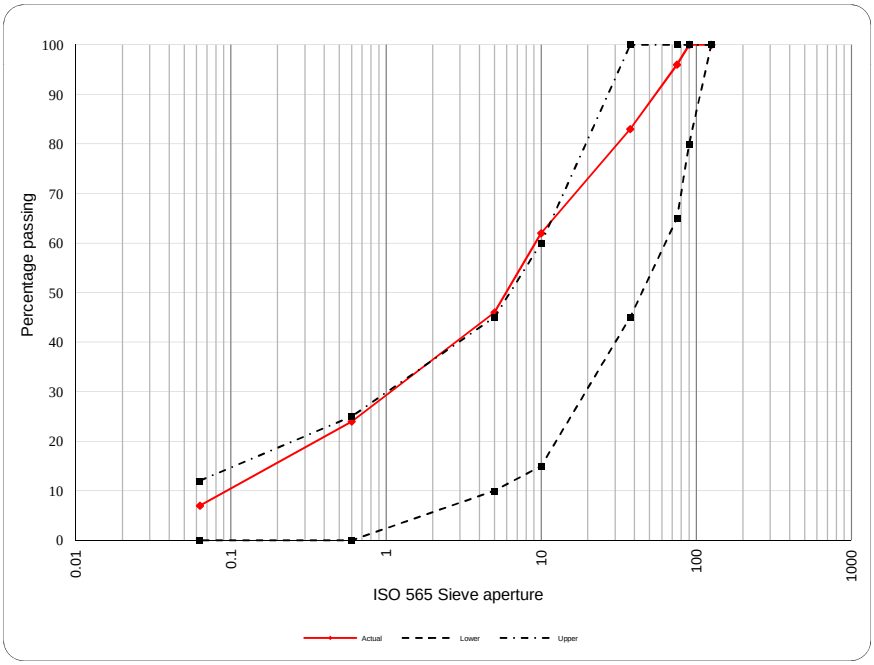
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384567** Head Office Certificate No : **384567-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 18 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**78.94** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**96**	65	100
63.00mm	**88**		
50.00mm	**86**		
37.50mm	**83**	45	100
28.00mm	**79**		
20.00mm	**73**		
14.00mm	**68**		
10.00mm	**62**	15	60
6.30mm	**51**		
5.00mm	**46**	10	45
3.35mm	**40**		
2.00mm	**35**		
1.18mm	**30**		
0.600mm	**24**	0	25
0.425mm	**20**		
0.300mm	**15**		
0.212mm	**12**		
0.150mm	**10**		
0.063mm	**7**	0.0	12.0



Remarks : **This sample of material does not comply with the requirements of the clients indicated specification**
Uniformity Coefficient = 62

Tested by : **CJBDPARCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384568**	Head Office Certificate No :	**384568-18-90287-0-E01**
Site sample no. :	**DP19**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 19 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1250**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**61.23** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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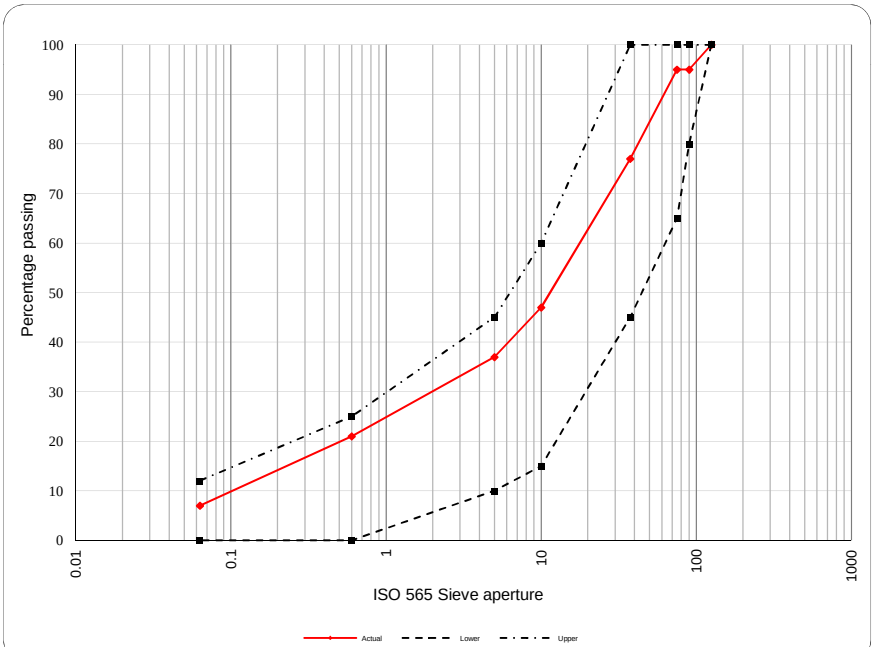
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384568** Head Office Certificate No : **384568-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 19 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**61.23** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**95**	80	100
75.00mm	**95**	65	100
63.00mm	**85**		
50.00mm	**81**		
37.50mm	**77**	45	100
28.00mm	**70**		
20.00mm	**60**		
14.00mm	**54**		
10.00mm	**47**	15	60
6.30mm	**40**		
5.00mm	**37**	10	45
3.35mm	**33**		
2.00mm	**29**		
1.18mm	**25**		
0.600mm	**21**	0	25
0.425mm	**17**		
0.300mm	**14**		
0.212mm	**11**		
0.150mm	**9**		
0.063mm	**7**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 111

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **30.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384569**	Head Office Certificate No :	**384569-18-90287-0-E01**
Site sample no. :	**DP20**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 20 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1155**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**66.43** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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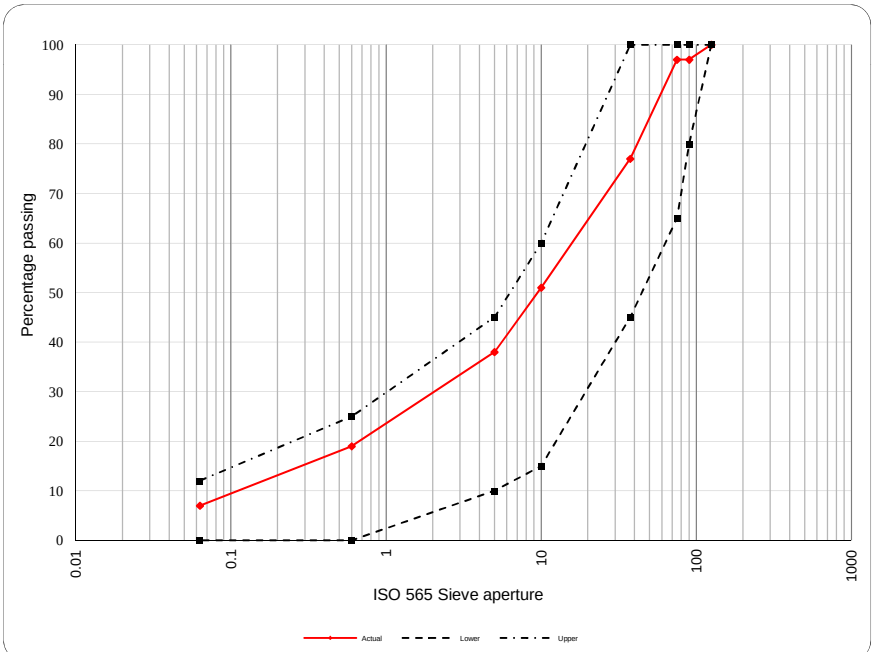
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384569** Head Office Certificate No : **384569-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 20 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**66.43** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**97**	80	100
75.00mm	**97**	65	100
63.00mm	**93**		
50.00mm	**83**		
37.50mm	**77**	45	100
28.00mm	**72**		
20.00mm	**65**		
14.00mm	**60**		
10.00mm	**51**	15	60
6.30mm	**42**		
5.00mm	**38**	10	45
3.35mm	**33**		
2.00mm	**28**		
1.18mm	**23**		
0.600mm	**19**	0	25
0.425mm	**16**		
0.300mm	**14**		
0.212mm	**11**		
0.150mm	**10**		
0.063mm	**7**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 93

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **30.01.2018** Approved : Daniel Parls Senior Technician Date : **30/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384570**	Head Office Certificate No :	**384570-18-90287-0-E01**
Site sample no. :	**DP21**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 21 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1150**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**67.29** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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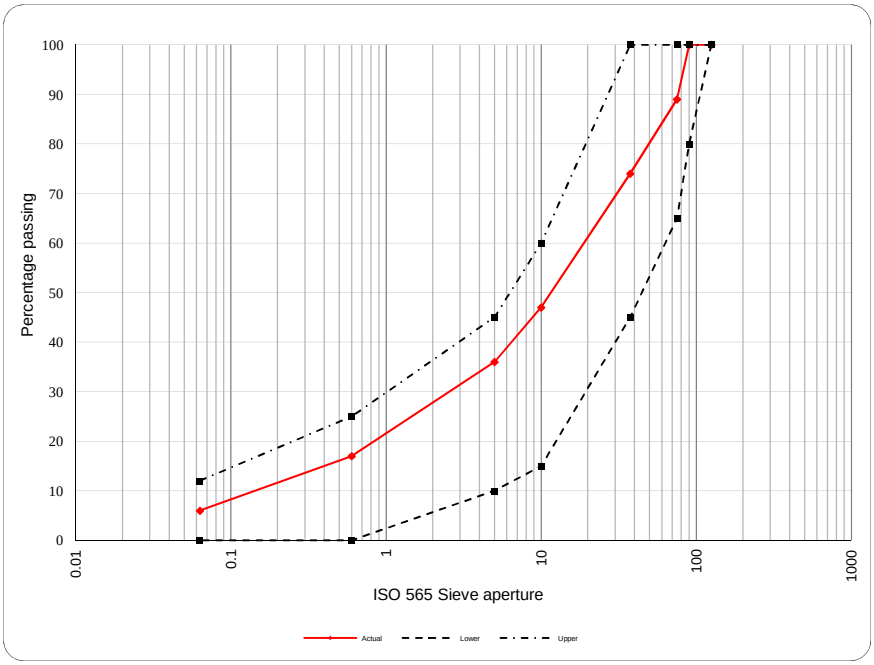
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384570** Head Office Certificate No : **384570-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 21 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**67.29** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**89**	65	100
63.00mm	**83**		
50.00mm	**77**		
37.50mm	**74**	45	100
28.00mm	**69**		
20.00mm	**64**		
14.00mm	**55**		
10.00mm	**47**	15	60
6.30mm	**39**		
5.00mm	**36**	10	45
3.35mm	**31**		
2.00mm	**26**		
1.18mm	**21**		
0.600mm	**17**	0	25
0.425mm	**14**		
0.300mm	**12**		
0.212mm	**10**		
0.150mm	**8**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 82

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384571**	Head Office Certificate No :	**384571-18-90287-0-E01**
Site sample no. :	**DP22**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 22 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1405**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**62.95** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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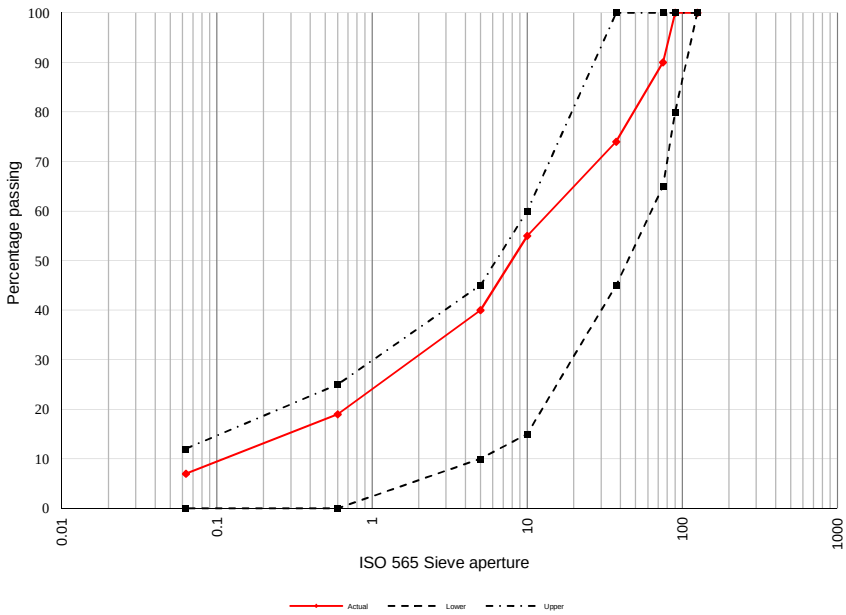
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384571** Head Office Certificate No : **384571-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 22 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**62.95** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**90**	65	100
63.00mm	**85**		
50.00mm	**78**		
37.50mm	**74**	45	100
28.00mm	**70**		
20.00mm	**65**		
14.00mm	**61**		
10.00mm	**55**	15	60
6.30mm	**45**		
5.00mm	**40**	10	45
3.35mm	**35**		
2.00mm	**30**		
1.18mm	**25**		
0.600mm	**19**	0	25
0.425mm	**16**		
0.300mm	**13**		
0.212mm	**10**		
0.150mm	**9**		
0.063mm	**7**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 63

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384572**	Head Office Certificate No :	**384572-18-90287-0-E01**
Site sample no. :	**DP23**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 23 Stockpile 1**		
Analysis required :	**PSD(Wet sieve),Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1410**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**65.09** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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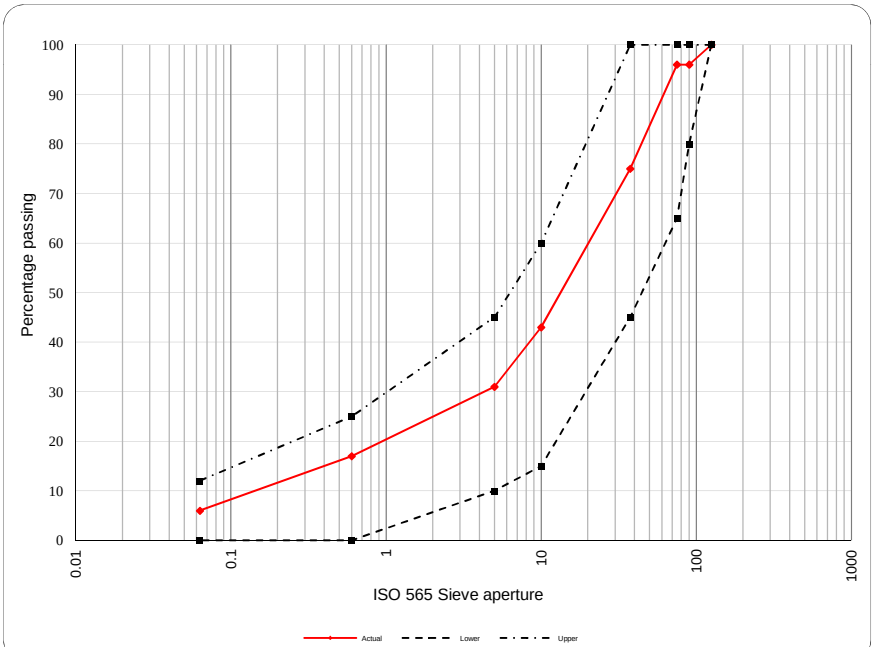
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384572** Head Office Certificate No : **384572-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 23 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**65.09** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**96**	80	100
75.00mm	**96**	65	100
63.00mm	**90**		
50.00mm	**81**		
37.50mm	**75**	45	100
28.00mm	**70**		
20.00mm	**61**		
14.00mm	**53**		
10.00mm	**43**	15	60
6.30mm	**34**		
5.00mm	**31**	10	45
3.35mm	**28**		
2.00mm	**24**		
1.18mm	**20**		
0.600mm	**17**	0	25
0.425mm	**15**		
0.300mm	**12**		
0.212mm	**10**		
0.150mm	**8**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 91

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384573**	Head Office Certificate No :	**384573-18-90287-0-E01**
Site sample no. :	**DP24**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 24 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1415**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**69.74** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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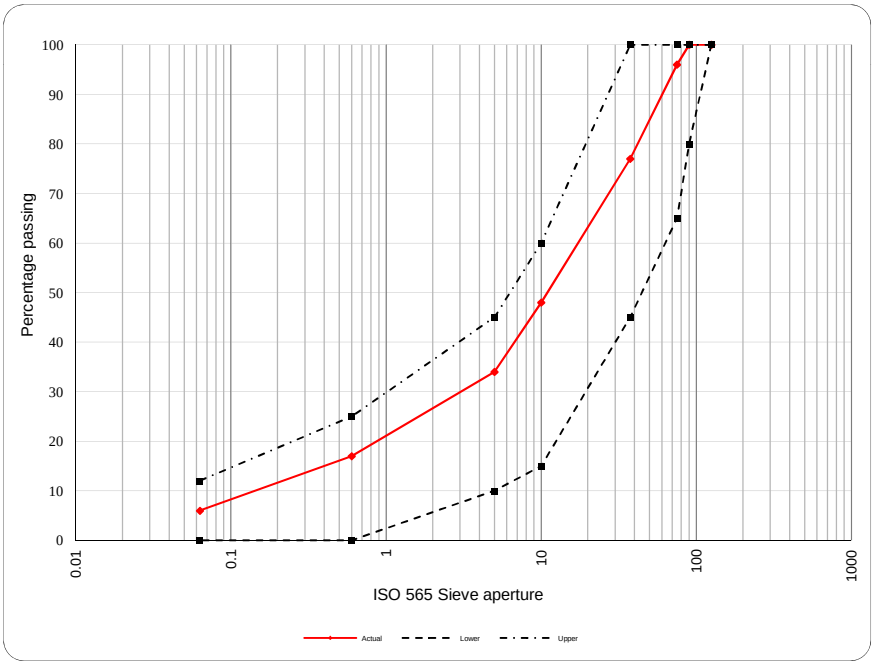
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384573** Head Office Certificate No : **384573-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 24 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**69.74** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**96**	65	100
63.00mm	**91**		
50.00mm	**84**		
37.50mm	**77**	45	100
28.00mm	**71**		
20.00mm	**64**		
14.00mm	**56**		
10.00mm	**48**	15	60
6.30mm	**38**		
5.00mm	**34**	10	45
3.35mm	**29**		
2.00mm	**24**		
1.18mm	**20**		
0.600mm	**17**	0	25
0.425mm	**14**		
0.300mm	**12**		
0.212mm	**10**		
0.150mm	**8**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 80

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384574**	Head Office Certificate No :	**384574-18-90287-0-E01**
Site sample no. :	**DP25**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 25 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1420**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**72.06** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention

Any statement of compliance with a given specification relates only to the test covered by this certificate.

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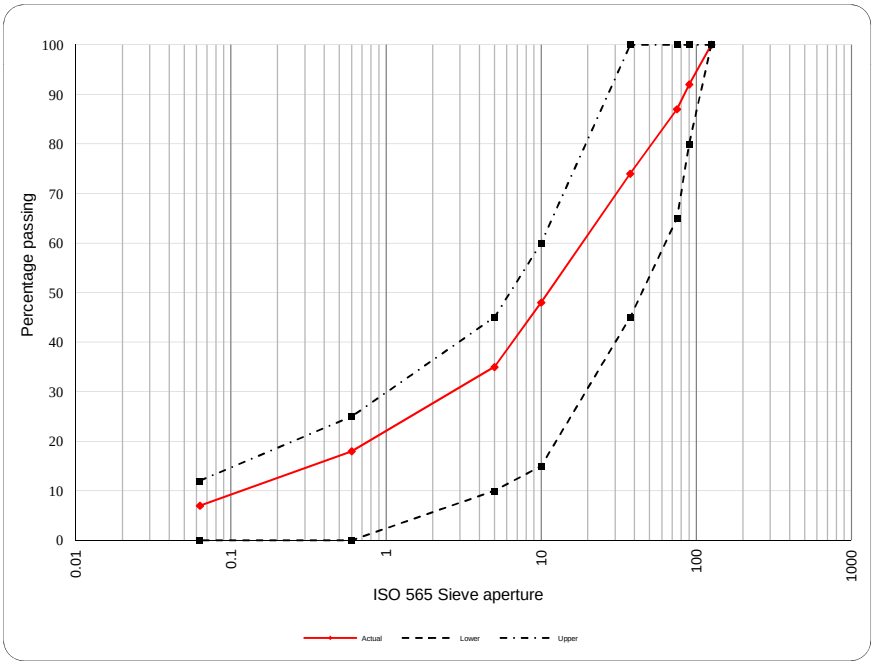
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384574** Head Office Certificate No : **384574-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 25 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**72.06** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**92**	80	100
75.00mm	**87**	65	100
63.00mm	**80**		
50.00mm	**77**		
37.50mm	**74**	45	100
28.00mm	**72**		
20.00mm	**66**		
14.00mm	**57**		
10.00mm	**48**	15	60
6.30mm	**39**		
5.00mm	**35**	10	45
3.35mm	**30**		
2.00mm	**26**		
1.18mm	**22**		
0.600mm	**18**	0	25
0.425mm	**16**		
0.300mm	**13**		
0.212mm	**11**		
0.150mm	**10**		
0.063mm	**7**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 107

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384575**	Head Office Certificate No :	**384575-18-90287-0-E01**
Site sample no. :	**DP26**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 26 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1425**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**68.11** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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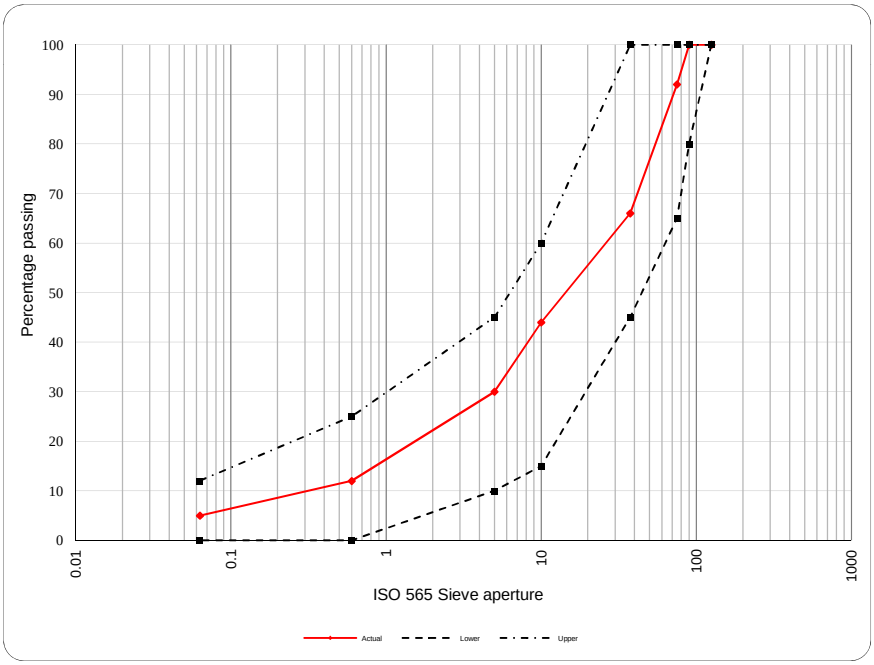
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384575** Head Office Certificate No : **384575-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 26 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**68.11** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**92**	65	100
63.00mm	**78**		
50.00mm	**71**		
37.50mm	**66**	45	100
28.00mm	**62**		
20.00mm	**56**		
14.00mm	**52**		
10.00mm	**44**	15	60
6.30mm	**34**		
5.00mm	**30**	10	45
3.35mm	**24**		
2.00mm	**18**		
1.18mm	**16**		
0.600mm	**12**	0	25
0.425mm	**11**		
0.300mm	**9**		
0.212mm	**7**		
0.150mm	**6**		
0.063mm	**5**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 69

Tested by : **CJBDPAMJKPJOSAS** Date tested : **30.01.2018** Approved : Daniel Paris Senior Technician Date : **30/01/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention
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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384576**	Head Office Certificate No :	**384576-18-90287-0-E01**
Site sample no. :	**DP27**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 27 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1430**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**71.00** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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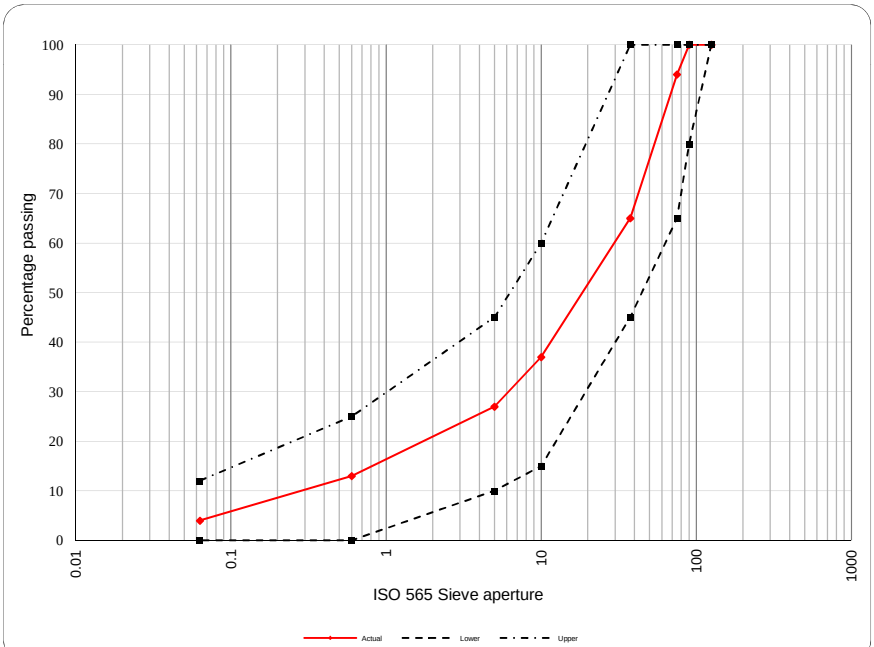
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384576** Head Office Certificate No : **384576-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 27 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**71.00** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**94**	65	100
63.00mm	**84**		
50.00mm	**73**		
37.50mm	**65**	45	100
28.00mm	**58**		
20.00mm	**52**		
14.00mm	**44**		
10.00mm	**37**	15	60
6.30mm	**30**		
5.00mm	**27**	10	45
3.35mm	**23**		
2.00mm	**19**		
1.18mm	**16**		
0.600mm	**13**	0	25
0.425mm	**11**		
0.300mm	**9**		
0.212mm	**7**		
0.150mm	**6**		
0.063mm	**4**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 83

Tested by : **CJBDPAPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Parls Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384577**	Head Office Certificate No :	**384577-18-90287-0-E01**
Site sample no. :	**DP28**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 28 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1435**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**66.17** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

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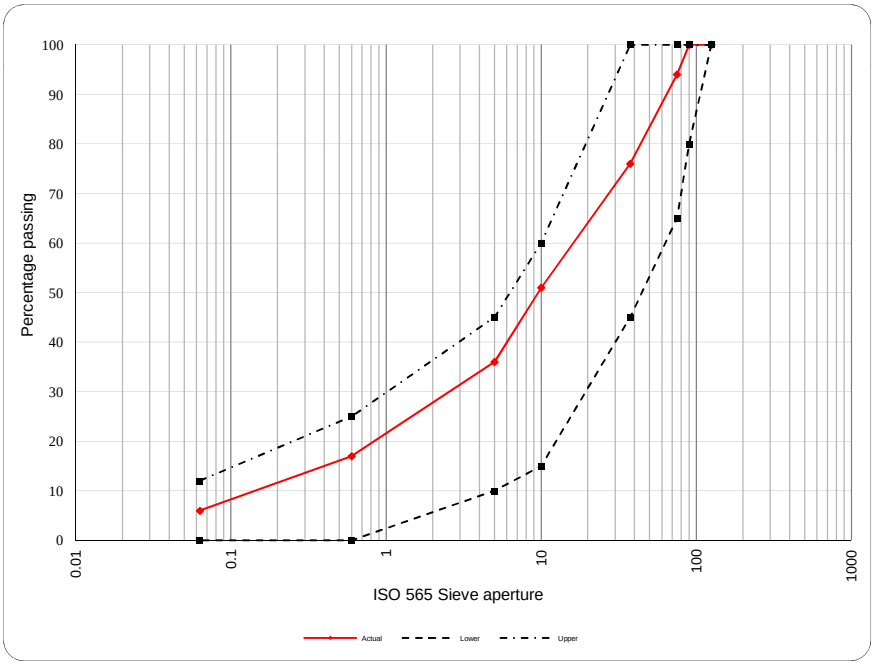
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384577** Head Office Certificate No : **384577-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 28 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**66.17** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**94**	65	100
63.00mm	**90**		
50.00mm	**86**		
37.50mm	**76**	45	100
28.00mm	**71**		
20.00mm	**63**		
14.00mm	**58**		
10.00mm	**51**	15	60
6.30mm	**40**		
5.00mm	**36**	10	45
3.35mm	**31**		
2.00mm	**25**		
1.18mm	**21**		
0.600mm	**17**	0	25
0.425mm	**15**		
0.300mm	**12**		
0.212mm	**10**		
0.150mm	**8**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 77

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384578**	Head Office Certificate No :	**384578-18-90287-0-E01**
Site sample no. :	**DP29**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 29 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1440**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**67.26** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention

Any statement of compliance with a given specification relates only to the test covered by this certificate.

Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation

Head Office
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Tel 01202 622858
Fax 01202 626046

Registered Office
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Blackhill Road West
Holton Heath Trading Park
Poole
Dorset BH16 6LE
ACS Testing Limited
Registered in England and Wales No. 4639658

25th ANNIVERSARY 1987-2012

Quality Testing & Materials Consultancy to the Construction Industry

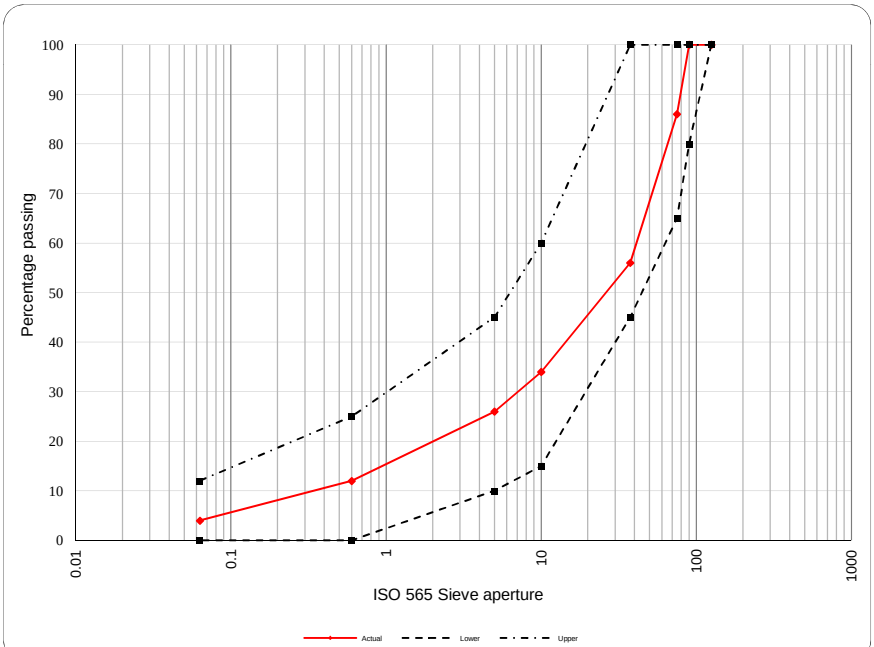
UKAS TESTING 0999

www.acsgroupofcompanies.co.uk

CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384578** Head Office Certificate No : **384578-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 29 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**67.26** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**100**	80	100
75.00mm	**86**	65	100
63.00mm	**71**		
50.00mm	**65**		
37.50mm	**56**	45	100
28.00mm	**50**		
20.00mm	**45**		
14.00mm	**39**		
10.00mm	**34**	15	60
6.30mm	**28**		
5.00mm	**26**	10	45
3.35mm	**23**		
2.00mm	**18**		
1.18mm	**16**		
0.600mm	**12**	0	25
0.425mm	**10**		
0.300mm	**8**		
0.212mm	**7**		
0.150mm	**5**		
0.063mm	**4**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 101

Tested by : **CJBDPAMJKPJORCSAS** Date tested : **31.01.2018** Approved : Daniel Paris Senior Technician Date : **31/01/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention
Any statement of compliance with a given specification relates only to the test covered by this certificate. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation

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CERTIFICATE OF SAMPLING - AGGREGATE IN ACCORDANCE WITH BS EN 932-1 : 1997

Laboratory reference no(s) :	**18-90287 - 384579**	Head Office Certificate No :	**384579-18-90287-0-E01**
Site sample no. :	**DP30**		
Client :	**R. Collard Limited**		
Certificate address :	**Eversley Haulage Park, Brickhouse Hill Hook Hants RG27 0PZ**		
Contract :	**Greystar Greenford Green Development**		
Source of material (as indicated by client) :	**Ex-Site**		
Client reference/data :	**Sample 30 Stockpile 1**		
Analysis required :	**PSD(Wet sieve), Presence of Asbestos ***		
Client's indicated specification(s) :	**SHW: Series 600: Class 6F2**		
Material description :	**Crushed Concrete & Fines**		
Nominal dimension :	**<125** mm		
Material type :	**Artificial**	**(Land based)**	
Comments on sample:	**None**		
Size of batch :	**> 50 ton**	Sampling plan :	**G1**
Date sampled :	**25/01/2018**	Time sampled :	**1445**
Variation from sampling procedure :	**None**		
Description of batch / Location of sample on site :	**Stockpile 1 (See Drawing)**		
Sketch indicating location points and number of increments when there is segregation/contamination or lack of uniformity within the sample material :			
Total mass received at laboratory :	**63.89** kg		
Remarks :	*** Presence of Asbestos testing undertaken under ACS Laboratory Reference Number : 384847-18-90287**		

Name of sampler : **DP/TM** Approved : Daniel Paris Senior Technician Date : **01/02/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention
Any statement of compliance with a given specification relates only to the test covered by this certificate.
Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation

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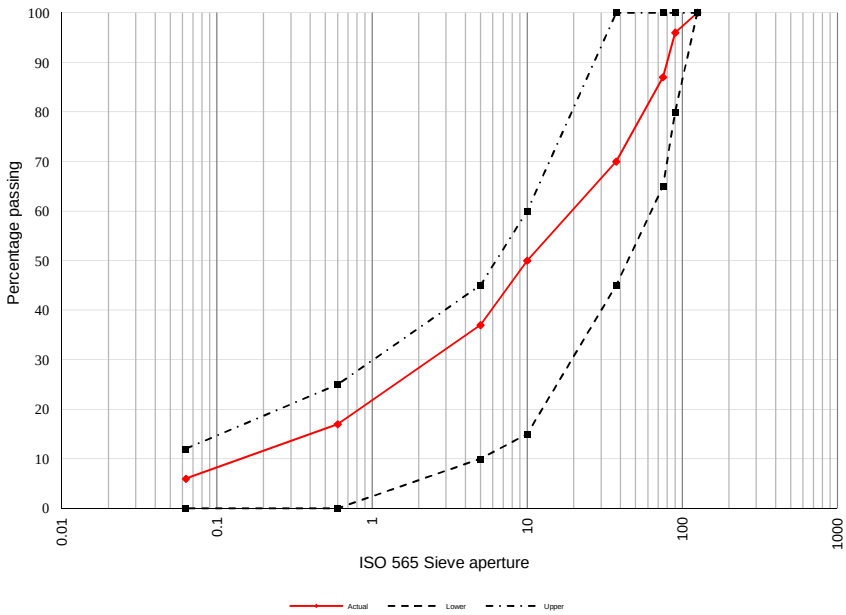
CERTIFICATE OF TEST - PARTICLE SIZE DISTRIBUTION BY WASHING & SIEVING METHOD
TESTED IN ACCORDANCE WITH B.S. 1377 : PART 2 : 1990 : CLAUSE 9.2

Laboratory reference no(s) :	**18-90287 - 384579** Head Office Certificate No : **384579-18-90287-S05**
Client :	**R. Collard Limited**
Certificate address :	**Eversley Haulage Park, Brickhouse Hill** **Eversley, Hook, Hants** **RG27 0PZ**
Contract :	**Greystar Greenford Green Development**
Source of material (as indicated by client) :	**Ex-Site**
Client reference/data :	**Sample 30 Stockpile 1**
Location of sample on site :	**Stockpile 1 (See Drawing)**
Borehole/pit no / depth	**N/A** @ **N/A** m
Date sampled :	**25/01/2018**
Sampled by :	**DP/TM**
Date received :	**26/01/2018**
Material description :	**Crushed Concrete & Fines**
Total mass received :	**63.89** kg
Method of preparation :	**BS 1377 : Part 1 & Part 2**
Variation from test procedure :	**None**
Location & orientation of test specimen within original sample :	**N/A**
Sampling certificate :	**Yes - See Enclosed**
Client's indicated specification(s) :	**SHW: Series 600: Table 6/2: Class 6F2**

ISO 565 Sieve aperture	Percentage passing	Specification limits (Percentage passing)	
	Actual	Lower	Upper
125.00mm	**100**	100	100
90.00mm	**96**	80	100
75.00mm	**87**	65	100
63.00mm	**79**		
50.00mm	**74**		
37.50mm	**70**	45	100
28.00mm	**65**		
20.00mm	**59**		
14.00mm	**56**		
10.00mm	**50**	15	60
6.30mm	**41**		
5.00mm	**37**	10	45
3.35mm	**32**		
2.00mm	**27**		
1.18mm	**22**		
0.600mm	**17**	0	25
0.425mm	**14**		
0.300mm	**11**		
0.212mm	**9**		
0.150mm	**7**		
0.063mm	**6**	0.0	12.0



Remarks : **This sample of material complies with the requirements of the clients indicated specification**
Uniformity Coefficient = 83

Tested by : **CJBDPAMJKPJOSAS** Date tested : **30.01.2018** Approved : Daniel Paris Senior Technician Date : **30/01/2018**

Bulk samples will be retained for a minimum of 21 days from date of receipt unless a written instruction is received within 14 days of receipt requesting sample retention
Any statement of compliance with a given specification relates only to the test covered by this certificate. Opinions and interpretations, if stated, are not within the scope of our UKAS accreditation

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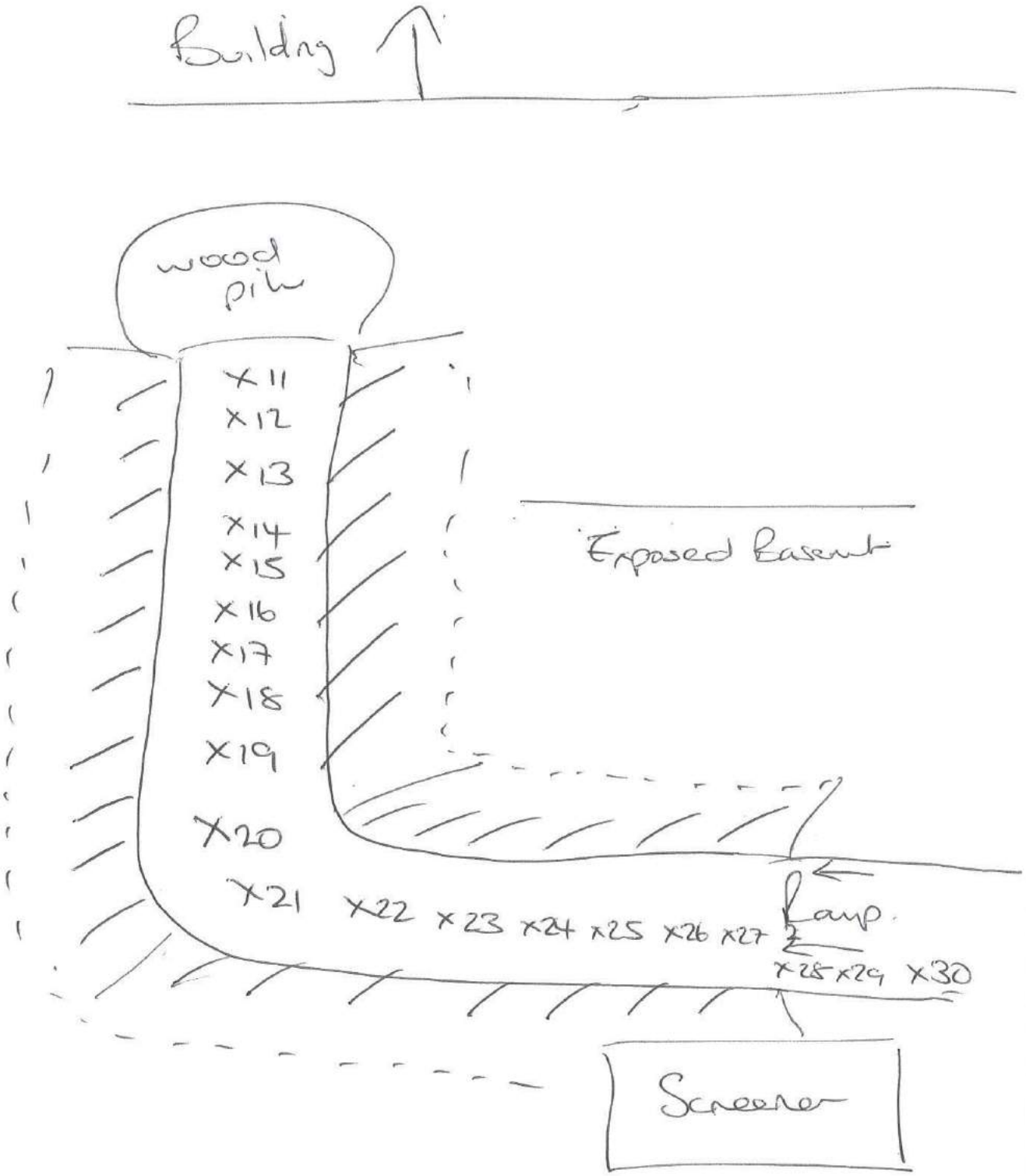
2 Collard

Greystanes Greenfield Green Development

25/1/18 DP/TM

Stockpile 1

18-90287



ACS TESTING LIMITED SUMMARY OF ANALYSIS for Job No.18-90287

Client : **R. Collard Limited**

Site : **Greystar Greenford Green Development**

Certificate Address
R. Collard Limited
Eversley Haulage Park
Brickhouse Hill
Eversley
Hook

Contact Colin Knight
Contact Telephone No. :
Contact e-mail colin@rcollard.com

Sample No.	Material Source	Clients Reference	Sample Location	Date Sampled	Sampled By	Date Received	Material Description	Clients Specification	Test Ref	Test Name
384846	Ex-Site	Sample 1-10 Stockpile 3	Stockpile 3 (See Drawing)	25/01/2018	DP/TM	26/01/2018	Crushed Concrete & Fines	SHW: Series 600: Class 6F2	O04	Presence of Asbestos

This summary relates to analysis sub-contracted to Envirochem Analytical Laboratories Ltd (see attached certificates)

Issued by ACS Testing Limited 02/02/2018

ENVIROCHEM
Analytical Laboratories Ltd.
12 The Gardens
Broadcut, Fareham
Hampshire
PO16 8SS

1227
Tel: (01329) 287777
Fax: (01329) 287755
www.envirochem.co.uk
office@envirochem.co.uk

Our Ref: J137046 FI: 1
Your Ref: H/18-90287/787
Date: 02/02/2018

Asbestos Fibre Identification Report

Client: ACS Testing Ltd
Unit 14 Blackhill Road West, Holton Heath Trading Park, Poole, Dorset, BH16 6LE

Site Address: 384846,

Sampled By: ACS Testing Ltd

Date sampled/received: 30th January 2018

Date analysed: 1st February 2018

Analyst/s: Stefan Kitchener

Analysis Location: 12 The Gardens, Broadcut, Fareham, Hampshire, PO16 8SS

ANALYTICAL PROCEDURE

Fibre identification was carried out in accordance with the documented `in-house' methods based on the HSE Guidance Note HSG 248. These employed stereo microscopy, polarized microscopy and dispersion staining techniques.

RESULTS

Sample No.	Sample Ref.	Location	Asbestos Detected	Asbestos Type
384846	BS462699	Crushed concrete and fines	No	

NOTES:
1. Sample(s) were examined for the presence of 6 types of asbestos fibres: crocidolite (blue), amosite (brown), chrysotile (white), anthophyllite, actinolite and tremolite.
2. Samples collected by the client are evaluated using information provided by the client. For samples collected by the client the date of receipt is deemed to be the same as the date sampled.
3. Envirochem is a UKAS accredited laboratory for sampling and identification of asbestos containing materials.
4. Comments, observations and opinions are outside the scope of UKAS accreditation.
5. The analytical method in the HSG248 does not quantify the amount of asbestos present, therefore UKAS accreditation does not permit quantification.
6. If, during fibre identification, only 1 or 2 fibres are seen and identified as asbestos, then the term 'trace asbestos identified' is used.

SIGNATURE:  Authorised signatory PRINT NAME: Stefan Kitchener

ACS TESTING LIMITED SUMMARY OF ANALYSIS for Job No.18-90287

Client : **R. Collard Limited**

Site : **Greystar Greenford Green Development**

Certificate Address
R. Collard Limited
Eversley Haulage Park
Brickhouse Hill
Eversley
Hook

Contact Colin Knight
Contact Telephone No. :
Contact e-mail colin@rcollard.com

Sample No.	Material Source	Clients Reference	Sample Location	Date Sampled	Sampled By	Date Received	Material Description	Clients Specification	Test Ref	Test Name
384847	Ex-Site	Sample 11-30 Stockpile 1	Stockpile 1 (See Drawing)	25/01/2018	DP/TM	26/01/2018	Crushed Concrete & Fines	SHW: Series 600: Class 6F2	O04	Presence of Asbestos

This summary relates to analysis sub-contracted to Envirochem Analytical Laboratories Ltd (see attached certificates)

Issued by ACS Testing Limited 02/02/2018

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Hampshire
PO16 8SS

UKAS TESTING
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Fax: (01329) 287755
www.envirochem.co.uk
office@envirochem.co.uk

Our Ref: J137047 FI: 1
Your Ref: H/18-90287/787
Date: 02/02/2018

Asbestos Fibre Identification Report

Client: ACS Testing Ltd
Unit 14 Blackhill Road West, Holton Heath Trading Park, Poole, Dorset, BH16 6LE

Site Address: 384847,

Sampled By: ACS Testing Ltd

Date sampled/received: 30th January 2018

Date analysed: 1st February 2018

Analyst/s: Stefan Kitchener

Analysis Location: 12 The Gardens, Broadcut, Fareham, Hampshire, PO16 8SS

ANALYTICAL PROCEDURE

Fibre identification was carried out in accordance with the documented `in-house' methods based on the HSE Guidance Note HSG 248. These employed stereo microscopy, polarized microscopy and dispersion staining techniques.

RESULTS

Sample No.	Sample Ref.	Location	Asbestos Detected	Asbestos Type
384847	BS462700	Crushed concrete & fines	No	

NOTES:
1. Sample(s) were examined for the presence of 6 types of asbestos fibres: crocidolite (blue), amosite (brown), chrysotile (white), anthophyllite, actinolite and tremolite.
2. Samples collected by the client are evaluated using information provided by the client. For samples collected by the client the date of receipt is deemed to be the same as the date sampled.
3. Envirochem is a UKAS accredited laboratory for sampling and identification of asbestos containing materials.
4. Comments, observations and opinions are outside the scope of UKAS accreditation.
5. The analytical method in the HSG248 does not quantify the amount of asbestos present, therefore UKAS accreditation does not permit quantification.
6. If, during fibre identification, only 1 or 2 fibres are seen and identified as asbestos, then the term 'trace asbestos identified' is used.

SIGNATURE:  Authorised signatory PRINT NAME: Stefan Kitchener

ACS TESTING LIMITED SUMMARY OF ANALYSIS for Job No.18-90287

Client : **R. Collard Limited**

Site : **Greystar Greenford Green Development**

Certificate Address
R. Collard Limited
Eversley Haulage Park
Brickhouse Hill
Eversley
Hook

Contact Colin Knight
Contact Telephone No. :
Contact e-mail colin@rcollard.com

Sample No.	Material Source	Clients Reference	Sample Location	Date Sampled	Sampled By	Date Received	Material Description	Clients Specification	Test Ref	Test Name
384848	Ex-Site	Sample 31-34 Stockpile 2	Stockpile 2 (See Drawing)	26/01/2018	DP/TM	26/01/2018	Crushed Concrete & Fines	SHW: Series 600: Class 6F2	O04	Presence of Asbestos

This summary relates to analysis sub-contracted to Envirochem Analytical Laboratories Ltd (see attached certificates)

Issued by ACS Testing Limited 02/02/2018

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office@envirochem.co.uk

Our Ref: J137048 FI: 1
Your Ref: H/18-90287/787
Date: 02/02/2018

Asbestos Fibre Identification Report

Client: ACS Testing Ltd
Unit 14 Blackhill Road West, Holton Heath Trading Park, Poole, Dorset, BH16 6LE

Site Address: 384848,

Sampled By: ACS Testing Ltd

Date sampled/received: 30th January 2018

Date analysed: 1st February 2018

Analyst/s: Stefan Kitchener

Analysis Location: 12 The Gardens, Broadcut, Fareham, Hampshire, PO16 8SS

ANALYTICAL PROCEDURE

Fibre identification was carried out in accordance with the documented `in-house' methods based on the HSE Guidance Note HSG 248. These employed stereo microscopy, polarized microscopy and dispersion staining techniques.

RESULTS

Sample No.	Sample Ref.	Location	Asbestos Detected	Asbestos Type
384848	BS462701	Crushed concrete and fines	No	

NOTES:
1. Sample(s) were examined for the presence of 6 types of asbestos fibres: crocidolite (blue), amosite (brown), chrysotile (white), anthophyllite, actinolite and tremolite.
2. Samples collected by the client are evaluated using information provided by the client. For samples collected by the client the date of receipt is deemed to be the same as the date sampled.
3. Envirochem is a UKAS accredited laboratory for sampling and identification of asbestos containing materials.
4. Comments, observations and opinions are outside the scope of UKAS accreditation.
5. The analytical method in the HSG248 does not quantify the amount of asbestos present, therefore UKAS accreditation does not permit quantification.
6. If, during fibre identification, only 1 or 2 fibres are seen and identified as asbestos, then the term 'trace asbestos identified' is used.

SIGNATURE:  Authorised signatory PRINT NAME: Stefan Kitchener

ACS TESTING LIMITED SUMMARY OF ANALYSIS for Job No.18-90287

Client : **R. Collard Limited**

Site : **Greystar Greenford Green Development**

Certificate Address
R. Collard Limited
Eversley Haulage Park
Brickhouse Hill
Eversley
Hook

Contact Colin Knight
Contact Telephone No. :
Contact e-mail colin@rcollard.com

Sample No.	Material Source	Clients Reference	Sample Location	Date Sampled	Sampled By	Date Received	Material Description	Clients Specification	Test Ref	Test Name
384849	Ex-Site	Sample 35-40 Stockpile 4	Stockpile 4 (See Drawing)	26/01/2018	DP/TM	26/01/2018	Crushed Concrete & Fines	SHW: Series 600: Class 6F2	O04	Presence of Asbestos

This summary relates to analysis sub-contracted to Envirochem Analytical Laboratories Ltd (see attached certificates)

Issued by ACS Testing Limited 02/02/2018

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Broadcut, Fareham
Hampshire
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www.envirochem.co.uk
office@envirochem.co.uk

Our Ref: J137049 FI: 1
Your Ref: H/18-09287/787
Date: 02/02/2018

Asbestos Fibre Identification Report

Client: ACS Testing Ltd
Unit 14 Blackhill Road West, Holton Heath Trading Park, Poole, Dorset, BH16 6LE

Site Address: 384849,

Sampled By: ACS Testing Ltd

Date sampled/received: 30th January 2018

Date analysed: 1st February 2018

Analyst/s: Stefan Kitchener

Analysis Location: 12 The Gardens, Broadcut, Fareham, Hampshire, PO16 8SS

ANALYTICAL PROCEDURE

Fibre identification was carried out in accordance with the documented `in-house' methods based on the HSE Guidance Note HSG 248. These employed stereo microscopy, polarized microscopy and dispersion staining techniques.

RESULTS

Sample No.	Sample Ref.	Location	Asbestos Detected	Asbestos Type
384849	BS462702	Crushed concrete and fines	No	

NOTES:
1. Sample(s) were examined for the presence of 6 types of asbestos fibres: crocidolite (blue), amosite (brown), chrysotile (white), anthophyllite, actinolite and tremolite.
2. Samples collected by the client are evaluated using information provided by the client. For samples collected by the client the date of receipt is deemed to be the same as the date sampled.
3. Envirochem is a UKAS accredited laboratory for sampling and identification of asbestos containing materials.
4. Comments, observations and opinions are outside the scope of UKAS accreditation.
5. The analytical method in the HSG248 does not quantify the amount of asbestos present, therefore UKAS accreditation does not permit quantification.
6. If, during fibre identification, only 1 or 2 fibres are seen and identified as asbestos, then the term 'trace asbestos identified' is used.

SIGNATURE:  Authorised signatory PRINT NAME: Stefan Kitchener

Appendix G

Waste Duty of Care records

G1 Remediation excavation waste transfer notes

Contract: **1105**
Client: **Brookfield Multiplex**
VO: **101**

keltbray
St Andrews House Portsmouth Road Esher, KT10 9TA
Tel: 0207 643 1000 Fax: 0207 643 1001
www.keltbray.com

Daywork Reference: **4**
Week Ending: **FEBRUARY 2018**

Site Instruction reference: **MPX-SI-000454**

Brief description of the works:

Water/Spoil Removed from site and sent to remediation due to high levels of contamination

LABOUR

Name	Trade	M	T	W	Th	F	S	NPO	S	NPO	Total HRS	Rate	Total £p

Sub Total
OH&P %
Total Incl

PLANT

Description	Unit	M	T	W	Th	F	S		S		Total HRS	Rate	Total £p

Sub Total
OH&P %
Total Incl

MATERIALS / SUBCONTRACT

Description	Unit	Qty	Rate	Total £p
Haulage to Tip	Load	81.0		
			Sub Total **Total**	

Labour
Plant
Material

SUB-TOTAL AMOUNT

DAILY BULK SHEET

DEMOLITION & CIVIL ENGINEERING CONTRACTORS

Site Name: 80 Charlotte Street

Project No: 1105

Month: Feb'18

Date	Haulier Ticket No	Keltbray Ticket No	Haulier Company Name	Vehicle Reg	Container Type/Size	Time In	Time Out	Material	Destination / Collection	EWC2/11
05/02/18		C519114	Keltbray	EA62HLU	15	0930	0940	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519115	Keltbray	SN64TXH	15	0950	1000	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519116	Keltbray	SN64TXL	15	1010	1025	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519117	Primagrange	EF61GNV	15	1100	1120	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519118	Keltbray	EA62HLU	15	1120	1130	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519119	Keltbray	EY12YGL	15	1125	1140	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519120	Keltbray	SN64TXL	15	1125	1155	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519121	Primagrange	KM65XYA	15	1130	1145	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519122	Keltbray	SN64TXH	15	1215	1225	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519123	Evolution	EU06EEF	15	1255	1310	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519124	Primagrange	EF61GNV	15	1300	1315	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519125	Hoban	KX14LOH	15	1315	1325	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519126	Keltbray	EY12YGL	15	1330	1340	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519128	Keltbray	EA62HLU	15	1340	1350	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519129	Keltbray	SN64TXH	15	1355	1405	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519130	Primagrange	KM65XYD	15	1410	1420	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519131	Keltbray	SN64TXL	15	1425	1440	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519132	Keltbray	EA62HLU	15	1515	1525	Contaminated Materials	Mohawk Wharf	OTHER
05/02/18		C519133	Keltbray	EY12YGL	15	1520	1535	Contaminated Materials	Mohawk Wharf	OTHER
06/02/18		C519134	AJ UK	EJ65TOA	15	0800	0810	Contaminated Materials	Mohawk Wharf	OTHER
06/02/18		C519135	Evolution	EU06EEF	15	0800	0820	Contaminated Materials	Mohawk Wharf	OTHER
06/02/18		C519136	Hoban	KX14LOH	15	0800	0830	Contaminated Materials	Mohawk Wharf	OTHER
06/02/18		C519137	AJ UK	VC63UYV	15	0800	0840	Contaminated Materials	Mohawk Wharf	OTHER
07/02/18		C519138	Evolution	EU06EEF	15	0800	0815	Contaminated Materials	Mohawk Wharf	OTHER
07/02/18		C519139	Silverbourne	SJ59HBL	15	0800	0820	Contaminated Materials	Mohawk Wharf	OTHER
07/02/18		C519140	AJ UK	YC63UYV	15	0800	0825	Contaminated Materials	Mohawk Wharf	OTHER

07/02/18		C519141	Hoban	KX14LOH	15	0800	0830	Contaminated Materials	Mohawk Wharf	OTHER
07/02/18		C519142	AJ UK	EJ65TOA	15	0800	0840	Contaminated Materials	Mohawk Wharf	OTHER
07/02/18		C519143	Keltbray	EU67WWF	15	0800	0850	Contaminated Materials	Mohawk Wharf	OTHER
09/02/18		C519174	Keltbray	LX14CGG	15	0945	0955	Contaminated Materials	Mohawk Wharf	OTHER
09/02/18		C519175	Keltbray	SN64TXO	15	0955	1010	Contaminated Materials	Mohawk Wharf	OTHER
09/02/18		C519176	Keltbray	EY12YGU	15	1000	1015	Contaminated Materials	Mohawk Wharf	OTHER
09/02/18		C519177	Keltbray	EU67WWG	15	1005		Contaminated Materials	Silvertown	OTHER
09/02/18		C519178	Keltbray	EA62HLU	15	1025	1040	Contaminated Materials	Silvertown	OTHER
09/02/18		C519179	Keltbray	EU67WVZ	15	1030	1045	Contaminated Materials	Silvertown	OTHER
09/02/18		C519180	Keltbray	SN64TXP	15	1035	1100	Contaminated Materials	Silvertown	OTHER
09/02/18		C519181	Keltbray	EA63UWN	15	1040	1110	Contaminated Materials	Silvertown	OTHER
09/02/18		C519182	Keltbray	EA63UWT	15	1100	1120	Contaminated Materials	Silvertown	OTHER
09/02/18		C519183	Primagrange	GN11APO	15	1100	1125	Contaminated Materials	Silvertown	OTHER
09/02/18		C519184	Primagrange	EU13VHF	15	1100	1140	Contaminated Materials	Silvertown	OTHER
09/02/18		C519185	Keltbray	LX14CGE	15	1155	1205	Contaminated Materials	Silvertown	OTHER
09/02/18		C519186	Keltbray	EY12YGU	15	1245	1300	Contaminated Materials	Silvertown	OTHER
09/02/18		C519187	Keltbray	EU67WWG	15	1255	1340	Contaminated Materials	Silvertown	OTHER
09/02/18		C519188	Keltbray	LX14CGG	15	1245	1350	Contaminated Materials	Silvertown	OTHER
09/02/18		C519189	Keltbray	SN64TXO	15	1330	1400	Contaminated Materials	Silvertown	OTHER
09/02/18		C519190	Primagrange	GN11APO	15	1330	1410	Contaminated Materials	Silvertown	OTHER
09/02/18		C519191	Keltbray	EA63UWS	15	1330	1410	Contaminated Materials	Silvertown	OTHER
09/02/18		C519192	Keltbray	EA63UWN	15			Contaminated Materials	Silvertown	OTHER
09/02/18		C519193	Keltbray	EA62HLU	15	1350	1420	Contaminated Materials	Silvertown	OTHER
09/02/18		C519194	Keltbray	EA63UWT	15	1350	1435	Contaminated Materials	Silvertown	OTHER
09/02/18		C519195	Keltbray	EU67WVZ	15	1350	1440	Contaminated Materials	Silvertown	OTHER
09/02/18		C519196	Keltbray	LX14CGE	15	1400	1445	Contaminated Materials	Silvertown	OTHER
09/02/18		C519197	Keltbray	EU67WWG	15	1520	1615	Contaminated Materials	Silvertown	OTHER
16/02/18		C519211	Primagrange	GN61BLK	15	1000	1010	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519212	Primagrange	EU63EZA	15	1020	1030	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519213	Primagrange	GN11APK	15	1025	1035	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519214	Primagrange	KM65XYD	15	1040	1045	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519215	Keltbray	EU67WVS	15	1045	1155	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519216	Primagrange	GN61BLK	15	1240	1250	Contaminated Materials	Mohawk Wharf	OTHER

16/02/18		C519217	Primagrange	GN11APK	15	1245	1300	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519218	Primagrange	EU63EZA	15	1250	1305	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519219	Primagrange	KM65WYD	15	1305	1320	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519220	Keltbray	EU67WVS	15	1315	1325	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519221	Keltbray	EY12YHN	15	1320	1330	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519222	Primagrange	LB08JZR	15	1340	1350	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519223	Primagrange	EU13VHF	15	1345	1400	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519224	Primagrange	EF61GNV	15	1355	1410	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519225	Primagrange	GN61BLK	15	1423	1435	Contaminated Materials	Mohawk Wharf	OTHER
16/02/18		C519226	Keltbray	EA62VHR	15	1425	1440	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519239	Primagrange	LB08JZR	15	0800	0815	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519240	Primagrange	KM65XYD	15	0800	0820	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519241	Primagrange	GN11APO	15	0930	0940	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519242	Primagrange	GN61BLK	15	1010	1020	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519243	Primagrange	KM65XYD	15	1015	1025	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519245	Primagrange	GN11APK	15	1055	1125	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519246	Primagrange	GN11APO	15	1205	1220	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519247	Primagrange	GN61BLK	15	1255	1310	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519248	Primagrange	KM65XYD	15	1310	1325	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519249	Primagrange	GN11APK	15	1345	1400	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519250	Primagrange	GN11APO	15	1355	1455	Contaminated Materials	Mohawk Wharf	OTHER
20/02/18		C519501	Primagrange	KM65XYA	15	1400	1505	Contaminated Materials	Mohawk Wharf	OTHER

St Andrew's House
Portsmouth Road, Esher
Surrey KT10 9TA

Telephone: 020 7643 1000
Facsimile: 020 7643 1001
Email: office@keltbray.com

keltbray

Conveyance Note (Form C Combined Weight and Volume)

Weights and Measures Act 1963, Schedule 5, Paragraph 7

Job No.

No. C 519134

Keltbray Group

Waste Carriers Licence No. CBDU84378

LOADED AT	DATE OF LEAVING PLACE OF LOADING
WIT 4AX	06/02/18

Name & Address of Site: 90 Charlotte Street, London

Time on Site: 08.a **Time off Site:** 0810 **Load No.** 1

REGISTERED NO. OF VEHICLE	NAME OF PERSON IN CHARGE OF VEHICLE
FJ65 TOA	Sean

CUBIC METRES (IN WORDS)	DESCRIPTION OF MATERIAL	TONNES		
15m	non HAZ	GROSS		
		TARE		
		NETT		

N.B. To customers, authorised agents, representatives, or responsible persons signing this delivery ticket. This is in your interest. Please read this ticket carefully, and inspect material, agreeing quantity, quality and that everything is to your satisfaction before finally signing this receipt note. We regret we cannot under any circumstances entertain any claims concerning quantity or quality, once the vehicle has left the site and a clear signature has been given.

Customers ordering vehicles off the public road do so entirely on their own responsibility. We cannot accept responsibility for damage caused by our vehicles while delivering to your site.

All materials delivered to site remain the property of the vendor until paid for in full.

Certified that the above particulars are true and relate to the aggregates, sub-based materials and arising materials being conveyed or disposed of in pursuance of the sale.

Received By *Print Name*

Signed for and on behalf of the seller

Date 06/2/18

Print Name

PRODUCER/CURRENT HOLDER OF WASTE

Full Name keltbray

Address St Andrew's House
Portsmouth Road Esher
Surrey KT10 9TA

The waste hierarchy has been considered in deciding the most appropriate waste management option.

SIC Code: 43 / 110 WIT 0941

WASTE CARRIER'S DETAILS

Registered Carriers Name CITY 101553

Address AS UK

Registered Carriers No. Issued By

DESCRIPTION OF WASTE

☐ 17.01.01 Concrete ☐ 17.01.02 Bricks ☐ 17.01.07 Hardcore ☐ Brown Clay/Blue Clay

☐ 17.04.07 Mixed Metals ☐ 17.05.04 Soil & Stones ☐ 17.02.01 Wood

☐ 17.09.04 Mixed Demolition/Construction ☐ Other

DISPOSAL FACILITY DETAILS

Site Operator's Signature

Print Name

Site Name

Address

Date and Time of Transfer

keltbray

St Andrew's House
Portsmouth Road, Esher
Surrey KT10 9TA
Telephone: 020 7643 1000
Facsimile: 020 7643 1001
Email: office@keltbray.com

Conveyance Note (Form C Combined Weight and Volume)
Weights and Measures Act 1963, Schedule 5, Paragraph 7

Job No. 1299 **No. C 519135**

Keltbray Group

Waste Carriers Licence No. CBDU84378

LOADED AT	DATE OF LEAVING PLACE OF LOADING
W1T4AX	~~FU66FEF~~ 06/02/18

Name & Address of Site: 80 Charlotte Street, London

Time on Site: 08:00 **Time off Site:** 08:20 **Load No.** 2

REGISTERED NO. OF VEHICLE	NAME OF PERSON IN CHARGE OF VEHICLE
FU66FEF	John

CUBIC METRES (IN WORDS)	DESCRIPTION OF MATERIAL	TONNES		
15m	non-HAZ	GROSS		
		TARE		
		NETT		

N.B. To customers, authorised agents, representatives, or responsible persons signing this delivery ticket. This is in your interest. Please read this ticket carefully, and inspect material, agreeing quantity, quality and that everything is to your satisfaction before finally signing this receipt note. We regret we cannot under any circumstances entertain any claims concerning quantity or quality, once the vehicle has left the site and a clear signature has been given.

Customers ordering vehicles off the public road do so entirely on their own responsibility. We cannot accept responsibility for damage caused by our vehicles while delivering to your site.

All materials delivered to site remain the property of the vendor until paid for in full.

Certified that the above particulars are true and relate to the aggregates, sub-based materials and arising materials being conveyed or disposed of in pursuance of the sale.

Received By [signature] *Print Name* J Vallas

Signed for and on behalf of the seller [signature] Date 06/02/18

Print Name Robel

PRODUCER/CURRENT HOLDER OF WASTE

Full Name Keltbray

Address St Andrew's House
Portsmouth Road, Esher
Surrey KT10 9TA

The waste hierarchy has been considered in deciding the most appropriate waste management option.

SIC Code: 43 / 110 w/f 0941

WASTE CARRIER'S DETAILS

Registered Carriers Name Evolution Haulage

Address CB/GE53466R

Registered Carriers No. Issued By

DESCRIPTION OF WASTE

- [ ] 17.01.01 Concrete
- [ ] 17.01.02 Bricks
- [ ] 17.01.07 Hardcore
- [ ] Brown Clay/Blue Clay
- [ ] 17.04.07 Mixed Metals
- [ ] 17.05.04 Soil & Stones
- [ ] 17.02.01 Wood
- [ ] 17.09.04 Mixed Demolition/Construction
- [ ] Other non-HAZ

DISPOSAL FACILITY DETAILS

Site Operator's Signature

Print Name Mohawk Wharf

Site Name Bradfield Road

Address Silvertown E16 2AX
EP3692LL

Date and Time of Transfer