Basement Layout Basement 2 Plan

---- 1.4m offset



Orms + Beispiel. | **Project**: Former CSM Site, Holborn | **Presentation**: Client Presentation - Massing Update | **Date**: 15th October 2019

Basement Layout Basement 3 Plan



---- 1.4m offset

Migration Museum Study

Option 01 - Flatiron Model

Residential (Floors 2 - 9) total 3,330m² (including allowance for balcony spaces) (37% Affordable Housing provided on site)

Cultural (Basement - 1st Floor) total 1617m²

Proposed Migration Museum Area:

01:387m²

Grd: 250m²

B01: 980m²

Total: 1617m²

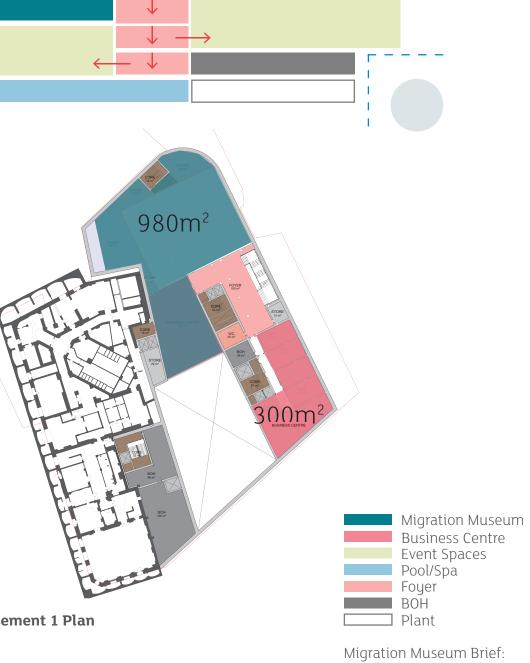


B2

В3

B4

400m² 900 m² 300m² **Business Centre:**



NIA: 1500 sq m which includes:

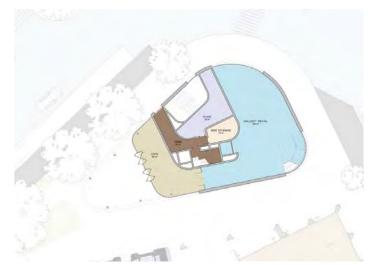
- Gallery space (1000 sq m)
- Education space(70 sq m)
- Community and event space (80 sq m)
- Café with street access (250 sq m)
- Shop (30 sq m)
- Storage (30 sq m)
- Office and meeting facilities (50 sq m)

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Residential Building Option 1

Summary

- Total GIA = 4,100m² / 44,000ft²
- Cultural GIA = $660m^2 / 7,000ft^2$
- Resi. GIA = 3,300m² / 36,000ft²
- Total number of apartments: 29
- 20% Apartments of 1b 2p (6)
- 11% Apartments of 2b 4p (3)
- 69% Apartments of 3b 6p (20)



Ground Floor Plan



7th Floor Plan



29

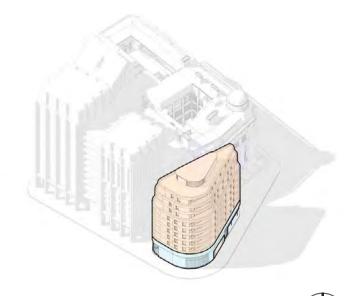
Roof Floor Plan



First Floor Plan



8th Floor Plan



2nd-6th Floor Plan

9th Floor Plan

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Residential Building Option 2

Summary

- Total GIA = 3,600m² / 39,000ft²
- Cultural GIA = 1,000m² / 11,000ft²
- Resi. GIA = 2,500m² / 28,000ft²
- Total number of apartments: 24
- 25% Apartments of 1b 2p (6)
- 37.5% Apartments of 2b 4p (9)
- 37.5% Apartments of 3b 6p (9)











30

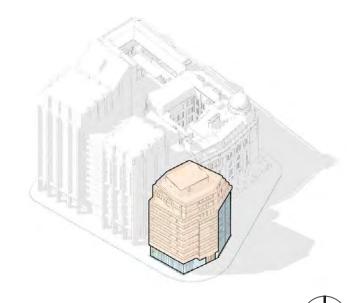
Roof Floor Plan







8th Floor Plan







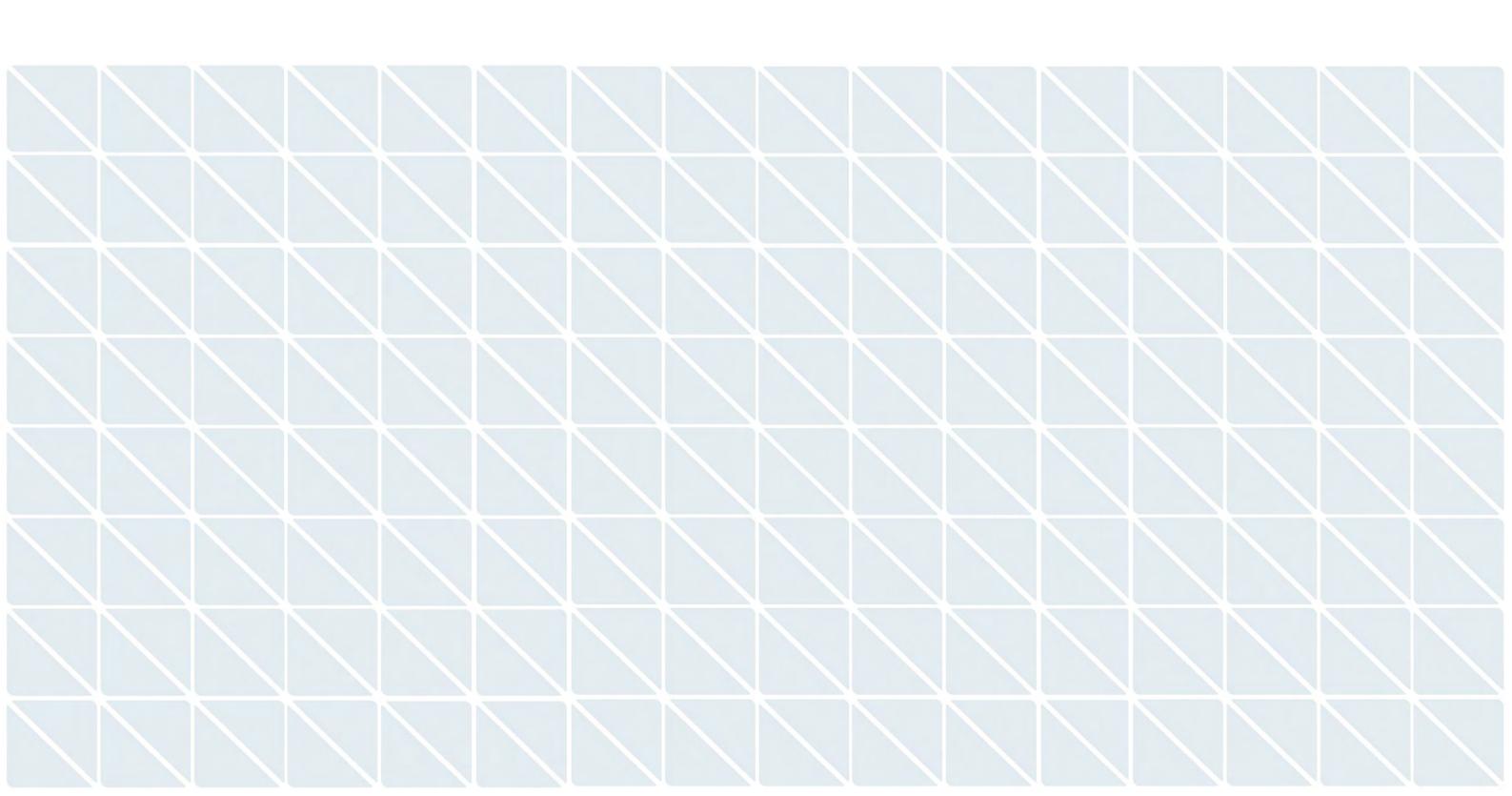
9th Floor Plan



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APPENDIX D TECHNICAL BACKGROUND

H1 Desk Study

Aquifer designation and Source protection zones

Principal aquifer: layers of rock or drift deposit that have high intergranular and/or fracture permeability (usually providing a high level of water storage). They may support water supply and/or river base flow on a strategic scale.

Secondary A aquifer: permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Secondary B aquifer: predominantly lower permeability layers that may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary undifferentiated aquifer: it has not been possible to attribute either a category A or B to a rock type. In most cases this means that it was previously designated as both a minor and non-aquifer in different locations owing to the variable characteristics.

Unproductive' strata: low permeability with negligible significance for water supply or river base flow.

The EA generally adopts a three-fold classification of source protection zones (SPZ) surround abstractions for public water supply. The Site is situated in an area defined as follows:

- Zone 1 or the 'inner protection zone' is located immediately adjacent to the groundwater source and is based on a 50-day travel time from any point below the water table to the source.
 It is designed to protect against the effects of human activity and biological/chemical contaminants that may have an immediate effect on the source
- Zone 2 or the 'outer protection zone' is defined by a 400-day travel time from a point below the water table to the source. The travel time is designed to provide delay and attenuation of slowly degrading pollutants
- Zone 3 or the 'total catchment' is the area around the source within which all groundwater recharge is presumed to be discharged at the source.

Preliminary risk assessment methodology

CLR11 outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. Under CLR11, three stages of risk assessment exist: preliminary, generic quantitative and detailed quantitative. An outline conceptual model should be formed at the preliminary risk assessment stage that collates all the existing information pertaining to a site in text, tabular or diagrammatic form. The outline conceptual model identifies potentially complete (termed possible) contaminant linkages (contaminant–pathway–receptor) and is used as the basis for the design of the site investigation. The outline conceptual model is updated as further information becomes available, for example as a result of the site investigation.



Production of a conceptual model requires an assessment of risk to be made. Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk. RSK has adopted guidance provided in CIRIA C552 for use in the production of conceptual models.

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem
- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure
 to resolve. Non-permanent human health effects easily prevented by use of personal
 protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequences have been classified, a risk category can be assigned according to the table below.



			Consec	quences	
		Severe	Medium	Mild	Minor
	Highly likely	Very high	High	Moderate	Moderate/low
Probability	Likely	High	Moderate	Moderate/low	Low
Prob	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required
- high: harm is likely to occur. Realisation of the risk is likely to present a substantial liability.
 Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term
- moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe
 and it is more likely that the harm would be relatively mild. Investigation is normally required
 to clarify the risk and determine the liability. Some remedial works may be required in the
 longer term
- low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild
- very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.

H2 Site Investigation Methodology

Ground gas monitoring

An infrared gas meter was used to measure gas flow, concentrations of carbon dioxide (CO_2), methane (CH_4) and oxygen (O_2) in percentage by volume, while hydrogen sulphide (H_2S) and carbon monoxide (CO) were recorded in parts per million. Initial and steady state concentrations were recorded. In addition, during the first monitoring round, all wells were screened with a PID to establish if there are any interferences and cross-sensitivity of other hydrocarbons with the infrared gas meter.

Low flow groundwater sampling

Groundwater samples were retrieved using a United States Environment Protection Agency (USEPA) approved low-flow purging and sampling methodology.



The low-flow method relies on moving groundwater through the well screen at approximately the same rate as it flows through the geological formation. This results in a significant reduction in the volume of water extracted before sampling and significantly reduces the amount of disturbance of the water in the monitoring well during purging and sampling. Drawdown levels in the monitoring well and water quality indicator parameters (pH, temperature, electrical conductivity, redox potential and dissolved oxygen) are monitored during low-flow purging and sampling, with stabilisation indicating that purging is complete and sampling can begin. As the flow rate used for purging, in most cases, is the same or only slightly higher than the flow rate used for sampling, and because purging and sampling are conducted as one continuous operation in the field, the process is referred to as low-flow purging and sampling.

H3 Site Investigation Methodology

Statistical assessment

Statistical analysis of the results has been conducted in accordance with *Guidance on Comparing Soil Contamination Data with a Critical Concentration* (CIEH and CL:AIRE, 2008) as detailed in Appendix D.

Statistical analysis is utilised to establish whether the land is suitable for the proposed use under the land use planning system by attempting to answer a key question. For a site being developed the key question is: 'can we confidently say that the level of contamination on this land is low relative to some appropriate measure of risk?' More specifically, this is expressed as 'Is there sufficient evidence that the true mean concentration of the contaminant (μ) is less than the critical concentration (C_c)?', where the critical concentration could be the GAC or a site-specific assessment criterion (SSAC). The true mean (μ) is unknown and therefore a conservative estimate, termed the upper confidence limit (UCL), of this value is derived from the data. The UCL is then compared against the GAC.

In statistical terms the question above is handled through the use of a formal hypothesis – the null hypothesis and the alternate hypothesis. The statistical tests are structured to show (with a defined level of confidence, in this case 95%) which of the two hypotheses is most likely to be true, by determining whether the null hypothesis can be rejected.

For consideration under the planning regime, the null (H_0) and alternative (H_1) hypotheses are presented below.

Null and alternative hypotheses

Hypothesis	Equation	Description
Null (H ₀)	µ ≥ C _c	The true mean concentration is equal to, or greater than, the critical concentration
Alternative (H ₁)	μ < C _c	The true mean concentration is less than the critical concentration

Therefore, if the null hypothesis is accepted for a certain contaminant it can be concluded that its concentration is high relative to the critical concentration, which in the case of this assessment is taken to be the GAC/SSAC and as such the whole site may be classed as being contaminated by a particular substance.



In addition, the statistical guidance provides an outlier test (Grubbs' test) that has been used within this assessment for the identification of 'outliers' or 'hotspots'. The 'outlier' test is conducted before undertaking statistical analysis (and 'outliers' may be removed from the dataset) but **only** where the conceptual model supports this.

The statistical tests applied to the dataset are selected based on whether the data is normally or non-normally distributed. The distribution of the dataset has been assessed using the Shapiro-Wilks normality test. Where the dataset has been found to be normally distributed the one sample t-test is undertaken. Where data has been found to be non-normally distributed Chebyshev's theorem is utilised.

Reuse of suitable materials

The Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011) (CoP) was developed in consultation with the Environment Agency and development industry to enable the re-use of materials under certain scenarios and subject to demonstrating that specific criteria are met. The current reuse scenarios covered by the CoP comprise

- reuse on the site of origin (with or without treatment)
- direct transfer of clean and natural soils between sites
- use in the development of land other than the site of origin following treatment at an authorised Hub site (including a fixed soil treatment facility).

The importation of made ground soils (irrespective of contamination status) or crushed demolition materials is not permitted currently under the CoP and requires either a standard rules environmental permit or a U1 waste exemption (see below).

In the context of excavated materials used on-sites undergoing development, four factors are considered to be of particular relevance in determining if the material is a waste or when it ceases to be waste:

- the aim of the Waste Framework Directive is not undermined, i.e. if the use of the material will create an unacceptable risk of pollution of the environment or harm to human health it is likely to be waste
- the material is certain to be used
- the material is suitable for use both chemically and geotechnically
- only the required quantity of material will be used.

The CoP requires the preparation of a materials management plan (MMP) that confirms the above factors will be met. This plan needs to be reviewed by a 'Qualified Person' (QP) who will then issue a declaration form to the EA. As the project progresses, data must be collated and on completion a verification report produced that shows the MMP was followed and describes any changes.

The MMP establishes whether specific materials are classified as waste and how excavated materials will be treated and/or reused in line with the CoP. The MMP is likely to form part of the site waste management plan.



APPENDIX E EXPLORATORY HOLE RECORDS



BOREHOLE LOG

						011				
Contract:		. 0	tual Cainti	N //4		Client:	Ot Martina Hatal Ltd	Boreho	ole:	DUA
		e Cen	tral Saint				St. Martins Hotel Ltd	01 1		BH1
Contract Ref			Start:			Ground Level (m AOD):	Co-ordinates:	Sheet:		_
3	72	042	End:						1	of 2
	les a		tu Tests Results	Water	Backfill & Instru-mentation		Description of Strata		Depth (Thick	Graphic
Depth	INO	Туре	Nesuits	_			t brown / orange yeny candy and	ular to	ness)	Legend
-					000000	rounded fine to coarse G	t brown / orange very sandy angu RAVEL of flint with low cobble content obles are angular concrete. (PRES	. Sand	(1.50)	
- - -									1.50	
- - 1.50-1.95	1	SPT(c)	2,2/2,2,2,4				own / orange brown very sandy ang		- 1.30	
1.50	1	В	N=10			rounded fine to coarse (PRESUMED BACKFILL	GRAVEL of flint. Sand is fine to c)	coarse.	- - - -	
- - 2.30-2.75	2	SPT(c)	2,3/4,5,5,7						[-(1.95)	
2.30	2	В	N=21							
3.10-3.55	3	SPT(c)	2,4/5,5,6,8 N=24	1					-	
3.40	3	В	11-2-4	<u> </u>		Medium dense orange k	prown very sandy angular to rounded	fine to	3.45	
-						coarse GRAVEL of flint.		iiiic to	(0.55) 4.00	0.0.0
4.00-4.45	4	SPT(c)	3,4/3,4,4,5 N=16			Medium dense orange	brown very gravelly fine to coarse ded fine to coarse of flint.	SAND.	4.20	·
4.00 4.30 - 4.50	4 1 2	B D D				Firm brown, locally light	brown / orange, slightly sandy slighty gular to rounded fine to coarse of flint. S	ravelly Sand is	4.60	
-						Stiff to very stiff closely f	ssured dark grey CLAY.		-	
- - 5.00-5.45 -	1	UT _(UT100)	45 blows 100% recovery						- - -	
5.45	3	D							- - -	
- 6.00 -	4	D							- - - -	
- 6.50-6.95	5	SPT	1,2/2,3,4,5			6.50m Rare light	grey silt partings and rare fine sand	sized	Ė.	
6.50 -	5	D	N=14			selenite crystals.			- - - -	
- - - 7.50	6	D				7.30m to 7.50m Ban	d of light brown / light grey claystone.		- - - - -	

		Boring Pro	gress and	Water C	bservations	S	Chisel	ling / Slow F	Progress	Conoral Pamarka				
, -	Date	Time	Borehole	U	Diameter	Water	From	То	Duration (hh:mm)	General Remarks				
ģ			Depth	Depth	(mm)	Depth			(1111.111111)	1. Location cleared by others during trial pitting excavations and				
mem ruy io rioginore i										prior to backfilling pit to ground level. 2. Down borehole checks for buried ferrous objects carried out during drilling by specialist unexploded ordnance (UXO) officer using magnetometer at regular intervals. 3. Borehole drilled in 150mm tools and cased to 4.50m. 4. Groundwater added from 1.50m to 4.20m (200 litres) to assist drilling. 5. Groundwater encountered at 3.40m. 6. Standpipe installed to 4.50m.				
										All dimensions in metres Scale: 1:44				
100	Method Used:	Cable p	ercussio	Pla Use		do 100 (down)	cut	Drilled By:	DR	Logged SAIhilly Checked By: AGS				

GINT LIBRARY V8 07.GLB LibVersion: v8 07 001 PrjVersion: v8 07 | Log CABLE PERCUSSION LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - v8 07.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 28/04/20 - 16:22 | ADJT1 |



BOREHOLE LOG

	Contract:				Client:	Boreho	ole:					
	Grange Central Saint Martins					Grange	Hotel Ltd			В	H1	
	Contract Ref:	Start:	Start: 23.04.20 Ground		nd Level (m AOD):	Co-ordinates:		Sheet:				
372042 End: 24.0 4		4.20						2	of	2		
	Samples and In-situ Tests	;	fer	≓ - Hion						Depth	Ма	ateria

	5/2	J42	End:	24.04.					2	of Z
	_	1	tu Tests	Water	Instru- mentation		Description of Strata		Depth (Thick	Material Graphic
Depth	No		Results	Ba <	ne n				ness)	Legend
8.00-8.45	2	UT _(UT100)	45 blows 100% recovery			Stiff to very stiff closely fi (stratum copied from 4.6	ssured dark grey CLAY. Om from previous sheet)		= = = -	
8.45	7	D							- - -	
9.00	8	D				9.00m Increase Reduction in fissuring.	in bioturbation, silt and fine sand co	ntent.	- - -	
9.50-9.95	6	SPT	3,4/5,6,7,7			Reduction in lissuring.			- - -	
9.50	9	D	N=25		***				(10.40)	
-									- - -	
10.50	10	D							- - -	
									-	
11.00-11.45	3	UT _(UT100)	50 blows 89% recovery						 - -	
11.45	11	D							- - -	
12.00	12	D							- - -	
· ·									- - -	
12.80-13.25	7	SPT	3,5/6,7,8,8 N=29						- - -	
12.80	13	D	N=29						- - -	
13.50	14	D							- - -	
-									- - - -	
14.50-14.95	4	UT _(UT100)	55 blows 89% recovery						- - -	
- - 14.95	15	D	89% recovery			Danahala da Colo da	5 00m doubt		15.00	
						Borehole terminated at 1	b.UUm depth.		= = - -	
:									- - -	

<u> </u>		Boring Pro	gress and	Water O	bservations	3	Chiselling / Slow Progress			General Remarks				
a, nei	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	То	Duration (hh:mm)	General Remarks				
lionment Ltd, To Froginore Ko			Bopui	Борит	()	Bopui				7. Borehole commenced through TP14 undertaken by others. Detailed logging was not possible prior to the location being backfilled. It is understood that prior to backfill the pit was excavated to some 3.45m before encountering groundwater. 8. SPT hammer DR02-2019 (<i>E_r</i> = 63.47%) used. All dimensions in metres Scale:				
707 	Method Used:	Cable p	ercussio	Pla Use		do 100 (down)	(cut	Drilled By:	DR	Logged SAIhilly Checked By: AGS				

GINT LIBRARY V8 07.GLB LibVersion: v8 07 001 PrjVersion: v8 07 | Log CABLE PERCUSSION LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - v8 07.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 28/04/20 - 16:22 | ADJT1 |



Contract:				Client:	Window Sample:				
Grange Central S	aint l	Martins		Grange	St. Martins Hotel Ltd			V	VS1
Contract Ref:	Start:	18.02.20	Groun	nd Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	18.02.20					1	of	1

Progress		Sam	oles / T	ests	ē	■		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	-						MADE GROUND: Concrete.	0.70	
-	- - -						Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to medium. (LYNCH HILL GRAVEL MEMBER)	- - -	
-	-						1.27m Mackintosh Probe: 86 blows for 150mm	(1.70)	
-	1.90 - -	1	D				1.90m to 2.10m Band of light brown find to medium SAND with rare fine to medium subangular gravel of flint 2.30m Groundwater noted in sample tubes 2.40m Mackintosh Probe: 100 blows for 75mm	2.40	
-	- - - - -						Borehole terminated at 2.40m due to density of materials.		
	- - - -							- - - -	
- - - -	- - - -							- - - -	

	Drilling Pr	ogress and	l Water Ob	servations		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. V
						2. 0

General Remarks

Window sample undertaken through base of trial pit TP11. Groundwater encountered at 2.30m depth.

Hand held Method Used: window sampling

GINT LIBRARY V8 07.GLB LibVersion: V8 07 001 PrjVersion: V8 07 | Log WINDOW SAMPLE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN. GPJ - v8 07. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:30 | ADJT1 |

Hand held window Plant Used: sampler

All dimensions in metres Drilled Ву: **RSK**

Scale: **ATyler** Logged

Checked By:

1:25



Contract:			Client:	Window Sample:				
Grange Central S	aint Mart	tins	Grange			V	VS2	
Contract Ref:	Start: 18.0	2.20 Groun	nd Level (m AOD):	Co-ordinates:	Sheet:			
372042	End: 18.0	2.20				1	of	1

017	<u> </u>		LIIU.	10.02.20					OI 1
Progress		Sam	oles / T	ests	_	∞ ₋ 5		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill & Instru- mentation	Description of Strata	(Thick ness)	
							MADE GROUND: Concrete.	0.45	
-	-						Very dense light brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)	- 0.15	
	-							- - -(2.15) - -	
	- - - - -						1.62m Mackintosh Probe: 120 blows for 150mm	2.30	0 S
-	-						2.30m Mackintosh Probe: 100 blows for 86mm Borehole terminated at 2.30m depth due to density of materials.	-	
-	- - -							- - -	
-	-							- - -	
- - -	- - -							- - -	
-	-							-	

		Drilling Pro	ogress and	Water Obs	servations				Con	oroll	Remarks		
	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth			Gen	C IAI I	Temaiks		
וכוו דימי יכן יכן יכן יכן			(m)	(m)	(mm)	(m)	2. No gr 3. 19mn	oundwater n diameter :	encountered. standpipe (cor	nplete v	ase of trial pit TP vith flush protective s zone 0.30m to 2	ve cover) installed	to
							, A	All dimension	ns in metres		Scale:	1:25	
	Method Used:		d held samplin	Plant Used		held wir sampler	ndow	Drilled By:	RSK	Logged By:	d ATyler	Checked By:	AGS

GINT_LIBRARY_W8_07.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN GPJ - v8_07.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:30 | ADJT1 |



Contract:			Client:		Window	Sam	ole:		
Grange Central S	aint Martins		Grange	St. Martins Hotel Ltd			V	VS3	}
Contract Ref:	Start: 26.02.20	Groun	nd Level (m AOD):	Co-ordinates:	Sheet:				
372042	End: 26.02.20					1	of	1	

Window Run Depth No Type Results MADE GROUND: Concrete. Very dense brown very sandy subangular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER) 1.20-1.51 1 SPT(c) 7,13/17,27,6 for 10mm			31 <u>2</u> 0-			-	20.02.20									01 1
Drilling Progress and Water Observations 120-1.51 1 SPT(c) 7,1347,27,6 for 10mm						· 		ater	ackfill		Descript	ion of S	Strata		Depth (Thick	Graph
Drilling Progress and Water Observations Date Time Specified Casing Demoter Depth (m) Date Time Depth Demoter Depth Demoter (m) All dimensions in metres Scale: 1:25 Method Modular Dynamic Plant Modular Dynamic Demoter Demoter Demoter Demoter Depth Demoter Described Depth Demoter Depth Depth Demoter Depth Depth Demoter	Wi	ndow Ru	un l	Depth	No	Туре	Results	>	m XXXXXX	MADE OD	-				ness)	Lege
Drilling Progress and Water Observations Depth Indiana D	-		-							MADE GR	JUND: Concreti	e.		-		
Drilling Progress and Water Observations Drilling Progress and Water Observations Borehole terminated at 1.80m. Continued with (super heavy) dynamic probe.			-							Very dense	brown very sar	ndv eub	angular to round	led fine	0.23	h (S
Drilling Progress and Water Observations Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe. Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe.	-		ı							to coarse G	RAVEL of flint.	Sand is	fine to coarse.	led lille		.0 .
Dilling Progress and Water Observations Date Time Borehole Casing Borehole With (super (mm) (mm) (mm) (mm) (mm) (mm) (mm) (mm			Ī							(LYNCH HI	LL GRAVEL MI	EMBEF	₹)	Ī		0.0
Drilling Progress and Water Observations Date Time Specifical Chaining Sciencial Water (mm) Date Time Specifical Chaining Specifical Specifical	-													Ī		0.0
Dilling Progress and Water Observations Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe.			[[.0
Drilling Progress and Water Observations Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe.	_		-											=		0.0
Drilling Progress and Water Observations Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe.	-		-											-	(1.37)	0.0
Drilling Progress and Water Observations Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe.	_		-											-		0
Drilling Progress and Water Observations Borehole terminated at 1.60m. Continued with (super heavy) dynamic probe.	-		-											-		0.2
Drilling Progress and Water Observations Date Time Depth (m) Depth (-		12	20-1 51	1	SPT(c)	7 13/17 27 6	,						-		0.0
Drilling Progress and Water Observations Date Time Depth (en)	_		'	.0 1.01	ļ '	0. 1(0)		´						-		0.
Drilling Progress and Water Observations Date Time Depth (en)	-		-											ŀ		0.0
Drilling Progress and Water Observations Date Time Depth Dep	-		-											t	1 60	Ö.Ö.
Drilling Progress and Water Observations Depth D			Ī						XXXXXX	Borehole t	erminated at 1	.60m.	Continued with	(super	1.00	
Date Time Depth (m) Depth	-		Ī							heavy) dyn	amic probe.					
Date Time Depth (m) Depth	_		[[
Date Time Depth (m) Depth	_													_		
Date Time Depth (m) Depth	_		-											-		
Date Time Depth (m) Depth	-		-											-		
Date Time Depth (m) Depth	-		-											-		
Date Time Depth (m) Depth	-		-											-		
Date Time Depth (m) Depth	-		-											+		
Date Time Depth (m) Depth	-		-											ŀ		
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Date Time Depth (m) Depth	_		-											-		
Date Time Depth (m) Depth	-		-											-		
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Date Time Depth (m) Depth	-		-											-		
Date Time Depth (m) Depth	-		-											ŀ		
Date Time Depth (m) Depth	-		-											t		
Date Time Depth (m) Depth	_													=		
Date Time Depth (m) Depth			[[
Date Time Depth (m) Depth																
Date Time Depth (m) Depth	-		-											-		
Date Time Depth (m) Depth																
Date Time Depth (m) Depth (m) Diameter (mm) Depth (m) Time Depth (m)		Dı	rilling P	-							Can	oro! [Domorko			
1. Window sample undertaken through base of that pit 1P2. 2. Down borehole checks for buried ferrous objects carried out during drilling by specialist unexploded ordnance (UXO) officer using magnetometer at regular intervals to 3.00m depth. 3. No groundwater encountered. All dimensions in metres Scale: 1:25 Method Modular Dynamic Plant Modular Dynamic Drilled Dynamic Logged SAlhilly Checked	D	ate	Time	Depth	<u>C</u>	Depth	Diameter	Depth			Gene	cıaı I	Temarks			
specialist unexploded ordnance (UXO) officer using magnetometer at regular intervals to 3.00m depth. 3. No groundwater encountered. All dimensions in metres Method Modular Dynamic Plant Modular Dynamic Drilled Dynamic Logged SAlhilly Checked		_		(m)	+	(m)	(mm)	(m)	- 1. W	indow sampl	e undertaken thi	rough b	ase of trial pit TP	2.	,	
intervals to 3.00m depth. 3. No groundwater encountered. All dimensions in metres Method Modular Dynamic Plant Modular Dynamic Drilled Dynamic Logged SAlhilly Checked									2. D	own borehole becialist unex	cnecks for buri ploded ordnance	ea terro e (UXO)	us objects carrie) officer using ma	a out durir agnetomet	ng drillir er at re	ng by eaular
All dimensions in metres Scale: 1:25 Method Modular Dynamic Plant Modular Dynamic Drilled Dynamic Logged SAlhilly Checked									l in	tervals to 3.0	Om depth.	- (5/10)	,			.J
Method Modular Dynamic Plant Modular Dynamic Drilled Dynamic Logged SAlhilly Checked									3. N	o groundwate	r encountered.					
Method Modular Dynamic Plant Modular Dynamic Drilled Dynamic Logged SAlhilly Checked																
				1	- 1		1 1									
	1.6					le:			<u> </u>							

		Drilling Pro	ogress and			I			Gen	aral l	Remarks		
,	Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	4 10/:					20	
							2. Dowr speci	n borehole ialist unex als to 3.0	checks for bur ploded ordnanc	ied ferro	ase of trial pit TF us objects carrie) officer using m	22. ed out during drilling b agnetometer at regula	y ır
							,	All dimens	ions in metres		Scale:	1:25	
	Method Used:		r Dynami npling	Plan Used		lar Dyna npling R		Drilled By:	Dynamic Sampling	Logged By:	SAlhilly	Checked By:	AGS



Contract:			Client:		Window	Sam	ple:	
Grange Central S	aint Martins		Grange	St. Martins Hotel Ltd			V	VS4
Contract Ref:	Start: 26.02.20	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End: 26.02.20					1	of	1

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Progress		Sam	ples / T	ests	<u></u>	≅ - Ligi		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill & Instrumentation	Description of Strata	(Thick ness)	Graphic Legend
_	-						MADE GROUND: Paving Slabs.	0.05	
-	-						MADE GROUND: Concrete.	0.13	
-	-					<u>;∘;</u> ⊟∘;∘	MADE GROUND: Orange brown very gravelly medium to coarse SAND. Gravel is angular to subrounded fine to coarse brick, flint and rare clinker.	- -	
-	-							- - - (1.37) -	
-	-							- - -	
-	-							1.50	
-	1.60-2.05	1	SPT(c)	1,0/0,1,0,4 N=5			MADE GROUND: Dark grey brown gravelly fine to coarse SAND. Gravel is angular to roudned fine to coarse brick flint and clinker.	1.70	
-	- 1.60 - 1.90	2	ES D				Very dense brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	-	
-	-						(ETTOTT ILLE OF COLUMN TO THE MEMORITY)	(0.90)	
-	2.30-2.53	2	SPT(c)	11,14/30,20 for 40mm				-	
_	-					 		2.60	0.0.0
-	-						Borehole terminated at 2.60m depth. Continued with (super heavy) dynamic probe.	-	
-	-							-	
-	-							-	
-	-							-	
-	-							-	
-	-							- -	
-	_ -							-	
-	-							-	

ral Remarks

ugh base of trial pit TP3. I ferrous objects carried out during drilling by UXO) officer using magnetometer at regular

plete with flush protective cover) installed to ponse zone 0.50m to 2.50m depth.

Scale:

Checked **SAlhilly** Dynamic Sampling Logged Drilled Ву: By: By:



1:25



Contract:			Client:		V	Window S	Samp	ole:	
Grange Central S	aint Martins		Grange	St. Martins Hotel Ltd				٧	VS5
Contract Ref:	Start: 26.02.20	Ground	d Level (m AOD):	Co-ordinates:	5	Sheet:			
372042	End: 26.02.20						1	of	1

Progress		Sam	oles / T	ests	_	=		Depth	Material
					Water	Backfill	Description of Strata	(Thick	
Window Run	Depth	No	Туре	Results	l≋	Ba	Bood prior of Grand	ness)	Legend
	· · · · · ·				Ė	******	MADE CROUND: Concrete	,	XXXX
							MADE GROUND: Concrete.	0.15	
							MADE GROUND: Orange brown very gravelly medium to	0.15	
						\bowtie	coarse SAND. Gravel is angular to subrounded fine to		\bowtie
•	•					\bowtie	coarse flint and brick.	-	\bowtie
-						\bowtie	Coarse fill t and brick.	(0.65)	$\otimes \otimes \otimes$
						\bowtie		(0.03)	$\otimes \otimes \otimes$
						\bowtie			\bowtie
	•					\bowtie			\bowtie
•						\bowtie		- 000	$\otimes \otimes \otimes$
						\bowtie		0.80	Č Ž
						\bowtie	Very dense orange brown very sandy angular to subangular fine to coarse GRAVEL of flint. Sand is	L	٥. ٠
						\bowtie	subangular fine to coarse GRAVEL of filint. Sand is		· · · · · · ·
_	_					\bowtie	medium to coarse.	(0.60)	
						\bowtie	(LYNCH HILL GRAVEL MEMBER)	(0.00)	0.00
						\bowtie		-	٥. ٥
						\bowtie		L	5 72 6
						\bowtie		1.40	
·	•						Borehole terminated at 1.40m depth. Continued with		
-	•						(super heavy) dynamic probe.	ŀ	
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		Ι	ogress and Borehole	Casing	Borehole	Water			Gen	eral l	Remarks		
יייי ייייייייייייייייייייייייייייייייי	Date	Time	Depth (m)	Depth (m)	Diameter (mm)	Depth (m)	2. Dow spec	n borehole ialist unexp als to 3.00	checks for bur bloded ordnanc	ied ferro	pase of trial pit TF ous objects carrie) officer using ma	24. ed out during drilling agnetometer at regu	J by
5								All dimensi	ons in metres		Scale:	1:25	
1	Method Used:		Dynami	ic Plan Use		amic pro paratus		Drilled By:	SAlhilly	Logged By:	d SAIhilly	Checked By:	AGS

GINT LIBRARY V8 07. GLB LibVersion: V8 07 001 PrjVersion: V8 07 | Log WINDOW SAMPLE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN. GPJ - v8 07. RSY Environment Ltd. 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:31 | ADJT1 |



Contract:			Client:		Window	Sam	ple:	
Grange Central S	Saint Martins		Grange	St. Martins Hotel Ltd			V	VS6
Contract Ref:	Start: 26.02.20	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End: 26.02.20					1	of	1

Progress		Sam	ples / T	ests	e			Depth	Material
Window Run	Depth	No	Туре	Results	Wat	Back	Description of Strata	(Thick ness)	Graphic Legend
					Water	Backfill	Description of Strata MADE GROUND: Paving Slab. MADE GROUND: Yellow fine to medium SAND. MADE GROUND: Concrete. MADE GROUND: Dark grey sandy GRAVEL of fine to coarse angular limestone. MADE GROUND: Concrete. Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is medium to coarse. (LYNCH HILL GRAVEL MEMBER)	(Thick	Graphic
- - - - - - - -	- - - - - - - - - -						Borehole terminated at 2.10m. Continued with (super heavy) dynamic probe.	2.10	
-	- - - - - - - - - - -							- - - - - - - - - - -	

	Drilling Pro	ogress and \	Water Ob	servations				0-1-	I [7 a ma a mi ca		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)					Remarks		
		V	yJ	(cont)	()	2. Down specinters 3. No gr	n borehole alist unexp vals to 3.00 coundwate	checks for bur loded ordnanc	ied ferro e (UXO)		P5. ad out during drill agnetometer at re	
Method Used:		r Dynami npling	C Plan		amic proparatus		Drilled By:	SAlhilly	Logged By:	SAlhilly	Checked By:	AGS

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Contract:			Client:		Window	Sam	ple:	
Grange Central S	Saint Martins		Grange	St. Martins Hotel Ltd			V	VS7
Contract Ref:	Start: 27.02.20	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End: 27.02.20					1	of	1

	Progres	ss		Sam	ples / T	ests	<u> </u>						Dep	th Ma
١	Window I	Run	Depth	No	Туре	Results	Water	Backfill		Descript		trata	(Th	ck Gr
		- - - - - - - -							Very dense fine to coars	orange brown se GRAVEL of t LL GRAVEL MI	very sar flint. Sar	ndy angular to ro nd is fine to coars)	0.3 ounded se	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		- - - - - - -	1.20-1.55	1	SPT(c)	5,7/16,19,15 for 50mm			Borehole to (super heav	erminated at ¹ y) dynamic prot	1.70m c oe.	depth. Conitnue	1.7 d with	
		-											-	
		-											-	
-		-											-	
	1	Drilling	Progress a	e C	asing	Borehole W	ater			Gene	eral F	Remarks		
	Date	Time			Depth (m)	Diameter (mm)	epth m)	sp int 2. No	ecialist unexp tervals to 2.00 o groundwate	checks for burioloded ordnance Om depth. or encountered.	ed ferrou e (UXO)	us objects carried officer using ma	gnetometer a	rilling by
									All dimensi	ons in metres		Scale:	1:25	
	Method Jsed:	Modu	lar Dyna ampling	mic	Plan	Modular Sampl	Dyn	amic	Drilled By:	Dynamic Sampling	Logged By:		Checked By:	

	Drilling Pr	ogress and	Water O	bservations				Con	oral [Domorko	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)					Remarks	
			` '			spec interv 2. No g 3. Wind	alist unex vals to 2.0 roundwate low sampl	ploded ordnanc 0m depth. er encountered. e undertaken th	e (UXO)		
							All dimens	ions in metres		Scale:	1:25
Method		r Dynam	ic Pla		llar Dyna		Drilled By:	Dynamic	Logged	SAlhilly	Checked ACS



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WINDOW SAMPLE LOG

Contract:			Client:		Window	Sam	ple:	
Grange Central S	Saint Martins		Grange	St. Martins Hotel Ltd			V	VS8
Contract Ref:	Start: 27.02.20	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End: 27.02.20					1	of	1

Progress		Sam	oles / T	ests	ē	tion tion		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill & Instru- mentation	Description of Strata	(Thick ness)	Graphic Legend
- - - - - - - - - - - - - - - - - - -	Depth 2.00-2.31		SPT(c)	16,9/20,17,15 for 75mm	W .	8ac	Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to medium. (LYNCH HILL GRAVEL MEMBER) Borehole terminated at 2.37m depth.	ness) - (0.70) - 0.70 - (1.67) (1.67)	Legend

	Drilling Pro	ogress and	Water Ob	servations		
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth	
		(m)	(m)	(mm)	(m)	1. Window
						2. Down b specialis intervals 3. Ground 4. 19mm c 2.30m c
						All

General Remarks

- 1. Window sample undertaken through base of TP11.
- Down borehole checks for buried ferrous objects carried out during drilling by specialist unexploded ordnance (UXO) officer using magnetometer at regular intervals to 3.00m depth.
- 3. Groundwater encountered at 2.30m depth.

dimensions in metres

4. 19mm diameter standpipe (complete with flush protective cover) installed to 2.30m depth on completion. Response zone 0.30m to 2.30m depth.

Scale:

Method Used: Nodular Dynamic Sampling Plant Used: Nodular Dynamic Sampling Plant Used: Nodular Dynamic Sampling Plant Used: Nodular Dynamic By: Nodular Dynamic Sampling Plant Used: Sampling Plant Used: Nodular Dynamic By: Checked By: Nodular Dynamic Sampling Plant Used: Nodular Dynamic By: Nodular Dynamic



1:25



Contract:				Client:			Trial Pit:			
Grange Central S	aint Ma	artins		Grange	St. Martins	Hotel Ltd			7	ГР1
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:		Sheet:			
372042	End:	???						1	of	1

ა	720	142	End:		???				1	of 1
			tu Tests	Water	Backfill		Description of Strata		Depth (Thick	Material Graphic
Depth	No	Туре	Results	>	m	MADE GROUND: Concre			ness)	Legend
							very sandy angular to rounded fine to omedium to coarse.	coarse	0.15 - - - - - - - - - - - - - - - - - - -	
1.00 1.00 1.00	1 2	D ES PID	0.0ppm						- - - -	
1.60	3	D				Trial pit terminated at 1.60)m depth.		1.60	
1.60	4	ES PID	0.0ppm						- -	
									- -	
									- -	
									- -	
									- -	
									- - -	
									- -	
-									- -	
									-	

General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

			All dimens	ions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	ATyler	Checked By:	AGS

GINT LIBRARY V8 07.GLB LibVersion: v8 07 001 PrjVersion: v8 07 | Log TRIAL PIT LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - v8 07. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:33 | ADJT1 |



Contract:				Client:		Trial Pit:			
Grange Central S	aint Ma	artins		Grange	St. Martins Hotel Ltd			٦	ГР2
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					1	of	1

•	<i>31 </i>	<i>,</i> ¬~	Eliu.		:::			01 1
Sam	ples a	nd In-si	tu Tests	Water	Backfill	Description of Strata	Depth (Thick	Material Graphic
Depth	No	Туре	Results	Š	Ba		ness)	Legend
-						MADE GROUND: Concrete.	- 0.23	
0.50	1	D				Very dense brown very sandy subangular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	- - -	
- 0.50 - 0.50 -	2	ES PID	0.0ppm				(1.20)	
							- - -	
							- - 1.43	
-						Trial pit terminated at 1.43m depth.	- 1.43	0
-							-	
-							-	
-							_	
-							-	
							-	
-							-	
-							-	
-							-	
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				1				

General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

			All dimen	sions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	ATyler	Checked By:	AGS

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:33 | ADJT1 |



Contract:				Client:		Trial Pit:			
Grange Central S	aint Mar	tins		Grange	St. Martins Hotel Ltd			7	ГР3
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					1	of	1

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	_		tu Tests	Water	Backfill		Description of Strata		Depth (Thick	Materia Graphic
Depth	No	Type	Results	>	Ba		2		ness)	Legend
						_MADE GROUND: Pavinզ			√0.05∠	XXXX
						MADE GROUND: Concre			0.13	
0.50 0.50	1 1	ES D				MADE GROUND: Orar SAND. Gravel is angular rare clinker.	nge brown very gravelly medium to r to subrounded fine to coarse brick, f	coarse ilint and	-	
0.50		PID	0.0ppm							
).75	2 2	ES							(1.37)	XXX
0.75 0.75	2	D PID	0.0ppm						- -	
									- -	
									4.50	XXX
1.50 1.50	3	ES D				MADE GROUND: Dark Gravel is angular to roudr	grey brown gravelly fine to coarse led fine to coarse brick flint and clinker.	SAND.	1.50	
1.50 1.50		PID	0.0ppm			Craver le urigular le redai	ica inicito codi co brick initi dila cirillor.		1.70	$\times\!\!\times\!\!\times$
									-	
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General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:34 | ADJT1 |

			All dimen	sions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	SAlhilly	Checked By:	AGS



Contract:				Client:		Trial Pit	:		
Grange Central S	aint Ma	ırtins		Grange	St. Martins Hotel Ltd			7	TP4
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					_1	of	_1

•	3/20)42	End:		???				1	of 1
	_		tu Tests	Water	Backfill		Description of Strata		Depth (Thick	Material Graphic
Depth	No	Туре	Results	>	Ba				ness)	Legend
						MADE GROUND: Concre	ete.		0.15	
0.50	1	ES				MADE GROUND: Orar SAND. Gravel is angular	ge brown very gravelly medium to to subrounded fine to coarse flint and bri	coarse ck.	(0.65)	
0.50 0.50	2	D PID	0.0ppm						0.80	
1.00	3	ES				Very dense orange brow coarse GRAVEL of flint. S (LYNCH HILL GRAVEL N	vn very sandy angular to subangular Sand is medium to coarse. MEMBER)	fine to	-	
1.00 1.00	4	D PID	0.0ppm						- (0.60)	
						T: 1 :: 1 1 4 40			1.40	5. 50
						Trial pit terminated at 1.40	om deptn.		-	
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General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:34 | ADJT1 |

			All dimen	sions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	SAlhilly	Checked By:	AGS



Contract:				Client:		Trial Pit:			
Grange Central S	aint Ma	ırtins		Grange	St. Martins Hotel Ltd			7	TP5
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					1	of	1

	<i>312</i> (/ T L	Eliu.					01 1
	_		tu Tests	Water	Backfill	Description of Strata	Depth (Thick	Material Graphic
Depth	No	Туре	Results	Š	Ba		ness)	Legend
-						MADE GROUND: Paving Slab.	0.05	
-						MADE GROUND: Yellow fine to medium SAND.	\0.10/ 0.27	\bowtie
-						MADE GROUND: Concrete. MADE GROUND: Dark grey sandy GRAVEL of fine to coarse angular	√0.30 ∕	
-						limestone.	(0.29)	
-						MADE GROUND: Concrete.	0.59	
-						Very dense orange brown very sandy angular to rounded fine to coarse	0.53	6.00
0.70	1	ES				Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is medium to coarse.	-	0.0.0
0.70		PID	0.0ppm			(LYNCH HILL GRAVEL MEMBER)	<u> </u>	
-								00
_							(1.01)	500
_							(,	· • • • •
-							-	0.0.0
-							-	000
_								. 50.0
-						Trial pit terminated at 1.60m depth.	1.60	0.0.0
-						That pit terminated at 1.00m depth.	-	
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General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:34 | ADJT1 |

			All dimens	ions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	SAlhilly	Checked By:	AGS



Contract:				Client:		Trial Pit:			
Grange Central S	aint Ma	artins		Grange	St. Martins Hotel Ltd			7	ГР6
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					1	of	1

01	20	74	Ena:		""			I	or I
			tu Tests	Water	Backfill		Description of Strata	Depth (Thick	Graphic
Depth N	No	Туре	Results	>	ш			ness)	Legend
-						MADE GROUND: Concre	ete.	(0.35)	
-								0.35	
0.60	1	ES PID	0.0ppm			MADE GROUND: Brow angular to rounded fine to	n gravelly fine to coarse SAND. Gra coarse flint, brick and clinker.	vel is - - -	
- - -								(0.95)	
-						Trial pit terminated at 1.30	Im denth	1.30	XXXX
						That pit terminated at 1.30			
- - - -								- - - - -	

General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:35 | ADJT1 |

			All dime	nsions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	SAlhilly	Checked By:	AGS



Contract:				Client:		Trial Pit:			
Grange Central S	aint Ma	rtins		Grange	St. Martins Hotel Ltd			7	ГР7
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					1	of	1

Sam	ples a	and In-si	tu Tests	- G	Ī		Depth	Material
Depth	No		Results	Water	Backfill	Description of Strata	(Thick ness)	Material Graphic Legend
-						MADE GROUND: Concrete. Very dense orange brown very sandy angular to rounded fine to coarse	(0.30)	
0.50 - 0.50 - 0.50 - 0.50	1 2	D ES PID	0.0ppm			Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	(0.92)	
-						Trial pit terminated at 1.22m depth.	-	
- - -							- - -	
-							- - -	
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General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
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			All dimens	sions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	SAlhilly	Checked By:	AGS



Contract:				Client:		Trial	Pit:			
Grange Central S	aint Ma	ırtins		Grange	St. Martins Hotel Ltd				T	ГР9
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Shee	t:			
372042	End:	???						1_	of	1

Samples and In-situ Tests Barrier Depth Mol Type Results Samples Description of Strata Depth Capture Cap		3/2	J4Z	Ena:		""				OT I
MADE GROUND: Concrete. (0.63) Very dense orange brown very sandy angular to rounded fine to coarse (LYNCH HILL GRAVEL MEMBER) (0.83) Very dense orange brown very sandy angular to rounded fine to coarse (LYNCH HILL GRAVEL MEMBER)		_			Vater	3ackfill		Description of Strata	(Thick	Graphic
Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	Беріп	INO	туре	Results	>	Ш			ness)	Legend
Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	- - -						MADE GROUND: Concre	ete.	(0.63)	
Very dense orange brown very sandy angular to rounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (LYNCH HILL GRAVEL MEMBER)	-								0.63	
C.90 2 ES PID 0.0ppm							Very dense orange brown GRAVEL of flint. Sand is (LYNCH HILL GRAVEL N	n very sandy angular to rounded fine to of fine to coarse. MEMBER)	coarse _	
	□ 0.90	1 2	l ES	0.0ppm					(0.87)	
Trial pit terminated at 1.50m depth.	-								1 50	
	<u> </u>						Trial pit terminated at 1.50	m depth.	1.50	
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General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

			All dimen	sions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	SAlhilly	Checked By:	AGS

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN; GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:35 | ADJT1 |



Contract:				Client:		Trial Pit			
Grange Central S	aint Ma	artins		Grange	St. Martins Hotel Ltd			TF	P11
Contract Ref:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:	Sheet:			
372042	End:	???					1	of	1

	3/2	U42	End:		???				1	of 1
			tu Tests Results	Water	Backfill	-	Description of Strata		Depth (Thick	Material Graphic
Depth	No		Results	Wat	Back	MADE GROUND: Concre		coarse	(Thick ness) (0.70) 0.70 (0.50)	Graphic Legend
- 1.20 - 1.20 - 1.20 - 1.20	1 2	D ES PID	0.0ppm			Trial pit terminated at 1.20		-	1.20	
- - - - - -								-	. — — — — — — — — — — — — — — — — — — —	
- - - - -								-	- - -	
- - - - - -								-	- - - -	
-								}		

General Remarks

- Trial pit was dry and stable on inspection.
 Trial pit excavated by others.

GINT_LIBRARY_V8_07.GLB LibVersion; v8_07_001 PrjVersion; v8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN.GPJ - v8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web; www.rsk.co.uk, | 06/05/20 - 14:36 | ADJT1 |

			All dimer	nsions in metres	Scale:	1:25	
Method Used:	Hand dug	Plant Used:	Hand tools	Logged By:	ATyler	Checked By:	AGS



Contract:					Client:			Trial Pit:			
Gra	ange Central S	aint Ma	artins		Grange	St. Martins	Hotel Ltd			TF	P12
Contract Re	f:	Start:	???	Groun	d Level (m AOD):	Co-ordinates:		Sheet:			
3	372042	End:	???						1	of	1

			, <u>-</u> ,	Ι.			I	<u> </u>
Sam Depth	_	Type	tu Tests Results	Water	Backfill	Description of Strata	Depth (Thick ness)	Material Graphic Legend
· ·		71				MADE GROUND: Concrete.	(0.30)	
0.40	1	ES				MADE GROUND: Brown gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse brick, flint and concrete.	0.30	
							0.70	
						Orange brown gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint.	-(2.00)	
						Trial pit terminated at 2.70m depth.	-	

General Remarks

- 1. Trial pit shored using traditional sheeting and strutting method. 2. Trial pit was dry and stable on inspection.

GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PrjVersion: V8_07 | Log_TRIAL_PIT_LOG - NO PLAN - A4P | 372042 GRANGE CENTRAL_ST MARTIN.GPJ - V8_07. RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk | 06/05/20 - 14:36 | ADJT1 |

			All dimensi	ons in metres	Scale:	1:25	
ethod sed: Ha	nd dug	Plant Used:	Hand tools and shoring	Logged By:	SAlhilly	Checked By:	AG



WHAMIC DDODE I

Contract:			Client:		_	Probe ref:	_
	Grange Central			St. Martins Hotel Ltd			VS
Contract		Date: Gro	ound Level (m AOD):	Co-ordinates:		Sheet:	
	372042	18.02.20				1 of	
DEPTH	READING		DIAGRAM (N200 VAL	_UES)	TORQUE ON RODS (Nm)	REMARKS	,
(m)	(Blows/200mm)	0, , , , 5 , , , , 10 , , , , 15	5, , , , 20, , , , 25, , , , 3	0, , , , 35, , , , 40, , , , 45, , , 50	ON R (Nm)	NEWARKS	
_							
-							
0.5							
-							
_							
- 1.0 -							
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-							
1.5 -							
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2.0							
_							
2.5 -		Dynamic probe hole tern	ninated at 2.40m depth.				_
2.5							
-							
3.0							
_							
-							
3.5 -							
-							
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4.0							
-							
-							
4.5							
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-							
		I					_
	ent conforms to appa	aratus in BS EN ISO 22476	6-2:2005 + A1 (2011)			Checked	_

All dir	mensions in metres
Scale	1:25





DYNAMIC PROBE LOG

					יווט	NAIVIIC P	RODE LOG
Contract	t:			Client:			Probe ref:
	Grange Central	Saint Martins		Grange St. Martins Hotel Ltd			WS2
Contract		Date:	Grour	nd Level (m AOD):	Co-ordinates:		Sheet:
	372042	18.02.20					1 of 1
DEPTH	READING		•	IAGRAM (N200 VAL	UES)	= - = - = - = - = - = - = - = - = - = -	
(m)	(Blows/200mm)	0, 10, 10, 10, 10, 10, 10, 10, 10, 10, 1		` , , , 20 , , , 25 , , , , 3(10RQUE 142 124 12 12 12 12 12	REMARKS
			•				
-							
- 0.5 -							
-							
1.0							
-							
- 1.5 -							
-							
2.0							
-		Dynamic probe hole	termin	nated at 2.30m depth.			
2.5							
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3.0							
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3.5							
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4.0							
[]							
-							
- 4.5 -							

Equipment conforms to apparatus in BS EN ISO 22476-2:2005 + A1 (2011)

All dimensions in metres
Scale 1:25

GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PriVersion: V8_07 | Log DYNAMIC PROBE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - V8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14440 | ADJT1 |

Method:

Tested By: Checked By:





GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PrjVersion: V8_07 | Log DYNAMIC PROBE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - V8_07.
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DYNAMIC PROBE LOG

Contrac	+ •		Client:			Probe ref:
		Saint Martine		St. Martins Hotel Ltd		WS3
Contrac	Grange Central	Date:	Ground Level (m AOD):	Co-ordinates:		Sheet:
Contrac	372042	26.02.20		===		1 of 1
DEDTU	READING	20.02.20			(0	1 01 1
DEPTH		0 5 10	DIAGRAM (N100 VAL		TORQUE ON RODS (Nm)	REMARKS
(m)	(Blows/100mm)	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	15 20), , , , 35 , , , , 40 , , , , 45 , , , 50	P62	
-						
-						
-						
0.5						
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-						
1.0 -						
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_	2					
-	3 35					
1.5	50					
-		Dynamic probe hole	terminated at 1.60m depth.			
-						
2.0 -	-					
-						
-						
-						
2.5						
-						
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3.0 -						
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4.0 -						
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4.5						
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Equipment Information: Type of cone used: **Disposable**. Type of anvil used: **Loose**.

Equipment conforms to apparatus in BS EN ISO 22476-2:2005 + A1 (2011)

		· ,
All dime	ensions in metres	Method:
Scale	1:25	Eurocode - DPSH (super heavy) [DPSH-A]



GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PrjVersion: V8_07 | Log DYNAMIC PROBE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - V8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:40 | ADJT1 |

DYNAMIC PROBE LOG

					DIIIA		VODL		
Contrac	t:			Client:			Probe ref:		
	Grange Central	Saint Martins		Grange	St. Martins Hotel	Ltd		WS	34
Contrac		Date:	Groun	nd Level (m AOD):	Co-ordinates:		Sheet:		
00	372042								
		26.02.20					1	of *	!
DEPTH	READING		DI	IAGRAM (N100 VAL	.UES)	TORQUE (Nm)	REMA	DVC	
(m)	(Blows/100mm)	0 10 10	15	20253(),,,,35,,,,40,,,,45,	1 20 D S (m)	KEIVIP	KKNO	
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- 1.5 -									
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2.0 -	-								
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-	4								
- 2.5 -	7 50					11111			
-	00	Dynamic probe hole	termin	ated at 2.60m depth.					
-									
- 3.0 -	-								
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-									
- 3.5 -									
-									
-									
- 4.0 -	-								
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]									
- 4.5 -									
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-									
[]									
							1		

Equipment Information: Type of cone used: **Disposable**. Type of anvil used: **Loose**.

Equipment conforms to apparatus in BS EN ISO 22476-2:2005 + A1 (2011)

All di	mensions in metres	Method:
Scale	1:25	Eurocode - DPSH (super heavy) [DPSH-A]



DYNAMIC PROBE LOG

				DINAMIC	•		_00
Contrac	t:		Client:			Probe ref:	
	Grange Central	Saint Martins	Grange	St. Martins Hotel Ltd			WS5
Contrac		Date:	Ground Level (m AOD):	Co-ordinates:		Sheet:	
	372042	26.02.20				1	of 1
DEPTH	READING			LUEC)	ŭ		
			DIAGRAM (N100 VA		TORQUE ON RODS (Nm)	REMAR	KS
(m)	(Blows/100mm)		1,15,,,,20,,,,25,,,,	30 , , , , 35 , , , , 40 , , , , 45 , , , 50	P62		
-							
-							
- 0.5 -							
-							
-							
[-							
1.0 -							
-							
	50						
- 1.5 -		Dynamic probe noie	terminated at 1.40m depth				
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Equipment Information: Type of cone used: **Disposable**. Type of anvil used: **Loose**.

Equipment conforms to apparatus in BS EN ISO 22476-2:2005 + A1 (2011)

All dimensions in metres	Method:
Scale 1:25	Eurocode - DPSH (super heavy) [DPSH-A]

Tested Checked By: SAlhilly By:



GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PrjVersion: V8_07 | Log DYNAMIC PROBE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - V8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:41 | ADJT1 |



GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PrjVersion: V8_07 | Log DYNAMIC PROBE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - V8_07.
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DYNAMIC PROBE LOG

				DINAMIC				
Contrac	t:		Client:			Probe ref:		
	Grange Central	Saint Martins	Grange	St. Martins Hotel Ltd			W	/ S6
Contrac		Date:	Ground Level (m AOD):	Co-ordinates:		Sheet:		
	372042	26.02.20				1	of	1
DEPTH	READING		DIAGRAM (N100 VAL	LIEC)	ы S			
		0 5 40			TORQUE ON RODS (Nm)	REMA	RKS	
(m)	(Blows/100mm)			0, , , , 35, , , , 40, , , , 45, , , 50	P62			
-								
_								
[-								
- 0.5 -								
-								
-								
- 1.0 -	-							
_								
-								
-								
1.5								
-								
-								
2.0 -	50							
-		Dynamic probe hole	terminated at 2.10m depth.					
-								
- 2.5 -								
-								
- 3.0 -								
-								
-								
- 3.5 -								
_								
-								
-								
4.0	-							
-								
-								
- 4.5 -								
4.5								
-								
-								

Equipment Information: Type of cone used: **Disposable**. Type of anvil used: **Loose**.

Equipment conforms to apparatus in BS EN ISO 22476-2:2005 + A1 (2011)

All dimensions in metres	Method:
Scale 1:25	Eurocode - DPSH (super heavy) [DPSH-A]

Tested Checked By: SAlhilly By:





DYNAMIC PROBE LOG

- C	Grange Central	I Saint Martins	Grange	St. Martins	Hotel Ltd			WS
Contract		Date:	Ground Level (m AOD):	Co-ordinates:		S	heet:	
	372042	27.02.20					1	of '
DEPTH	READING		DIAGRAM (N100 VA	LUES)		SOS		
(m)	(Blows/100mm)	0, , , , 5, , , , 10, ,	15 20 25	•	45 50	TORQUE ON RODS (Nm)	REMA	RKS
- -								
0.5								
- 1.0 -								
1.5	10							
	50	Dynamic probe hole	terminated at 1.70m depth					
- 2.0 -								
-								
-								
2.5 -								
3.0								
- - -								
3.5 -								
4.0								
· - · -								
4.5								
-								
Equipme	ent Information:	e of cone used: Dispo s	sable. Type of anvil used: I	_oose.				
Equipme	ent conforms to app	aratus in BS EN ISO 2	2476-2:2005 + A1 (2011)					
All d	limensions in metres 1:25	Method:	DPSH (super heavy) [DP	Tested By:		Che By:	ecked	A

I All dir	mensions in metres	Method:
/ / III GII	Horiotorio il Friotroo	Woulde.
Caala	1:25	Furnanda DDCU (sumar basar) IDDCU A1
Scale	1.25	Eurocode - DPSH (super heavy) [DPSH-A]



DYNAMIC PROBE LOG

					DII		ГП	ODE LUG
Contract	t:			Client:				Probe ref:
	Grange Central	Saint Martins		Grange	St. Martins	Hotel Ltd		WS8
Contract		Date:	Groui	nd Level (m AOD):	Co-ordinates:			Sheet:
	372042	27.02.20						1 of 1
DEPTH	READING		•	IAGRAM (N200 VAL	UES)	<u> </u>	SO	
(m)	(Blows/200mm)	,0, , , , 5 , , , , 10 , ,		20 25			ON RODS (Nm)	REMARKS
-								
0.5								
- 0.5								
-								
- 1.0 -								
-								
-								
- 1.5 -								
2.0								
-								
		Domestic control to be	4					
- 2.5 -		Dynamic probe noie	termin	nated at 2.37m depth.				
- 3.0 -								
3.5								
3.5								
-								
- 4.0 -								
-								
-								
- 4.5 -								
[]								
-								

Equipment conforms to apparatus in BS EN ISO 22476-2:2005 + A1 (2011)

All dimensions in metres
Scale 1:25

GINT_LIBRARY_V8_07.GLB LibVersion: V8_07_001 PriVersion: V8_07 | Log DYNAMIC PROBE LOG - A4P | 372042 GRANGE CENTRAL ST MARTIN.GPJ - V8_07.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk. | 06/05/20 - 14:41 | ADJT1 |

Method:

Tested By: Checked By:



INDICATIVE BOREHOLE SOAKAWAY TEST Location Grange Central St. Martins Test No Internal Borehole Diameter (m) Client Grange St. Martins Hotels Ltd 0.042 Job Number Date Water level at start (mbgl) Depth to Base of Test (m) WS4 1.25 26-Feb-20 2.50 Operator SA

Γime (Secs)	Water level (mbgl)		E	stimated	Boreh	ole S	∩akav	av Tes	st Results	3
0	1.25		_	J	D 0. 0	0.0	-	u, .c.	Jt 11000	•
60	1.29									
120	1.30	1.00	1							
240	1.31									
480	1.34									
960	1.36									
3000	1.60									
5400	1.75									
7200	1.93	4.00								
		1.20	1							
			•							
		1.40								
										75
										/ 3
		1.60	1							
		Depth (m)								
		ے								
		둗								
		eb								
		1.80	1				\rightarrow			
										46
								•		
		2.00	+							
		2.20	1							
		2.20								
		2.40								
		2.40								
				0000	404	00	000		0000	1000
			0	2000	400	00	600	10	8000	1000
					Tim	ne (sed	conds)			
						,	/			

Results

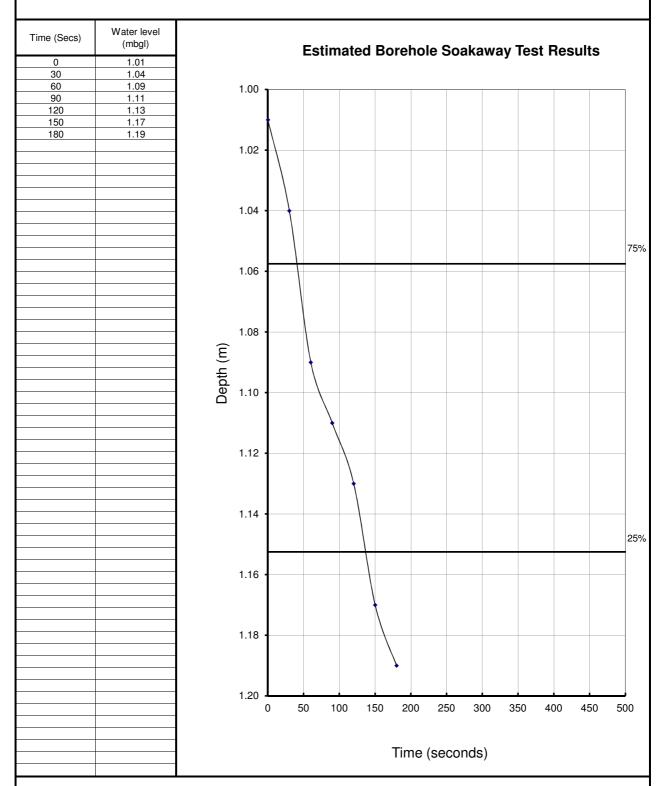
Vp 75-46 (m3)	0.000105
ap 60.5 (m2)	0.101
tp 75-46 (s)	4500.00
Infiltration Rate (m/s)	2.31E-07

30% porosity assumed for filter

Value to be determined from graph



INDICATIVE BOREHOLE SOAKAWAY TEST Location Grange Central St. Martins Internal Borehole Diameter (m) Client Grange St. Martins Hotels Ltd 0.150 Job Number TP7 Water level at start (mbgl) 1.01 Date 26-Feb-20 Depth to Base of Test (m) 1.20 Operator SA



Results

Vp 75-25 (m3)	0.000492
ap 50 (m2)	0.062
tp 75-25 (s)	100.00
Infiltration Rate (m/s)	7.88E-05

30% porosity assumed for filter

Value to be determined from graph





APPENDIX F GROUND GAS MONITORING DATA

	Weather	Ground Conditions	Wind Conditions	Air Temperature (°C)	Equipment Used & Remarks
Round 1	-	-	-	-	Dipmeter
Round 2	-	-	-	-	Dipmeter
Round 3	Overcast	Dry	Medium	7	Dipmeter + GA5000
Round 4	Sunny	Dry	Medium	16	Dipmeter + GA5000
	,	•			·

Exploratory Position ID	Pipe Ref	Pipe Diameter	Monitoring Round / Test Number	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring	Water Depth (mbgl)	Remarks
TP13	1	32	2/1	4.50	4.50	1.00 to 4.50	17/03/2020	3.32	
TP13	1	32	3 / 1	4.50	3.67	1.00 to 4.50	01/04/2020 11:18	3.36	
TP13	1	32	4/1	4.50	3.67	1.00 to 4.50	07/04/2020 10:37	3.37	General Remarks: Readings cut short to prioritise samples. Slightly murky becoming clear, no oil, no odour. 48 seconds to fill 40ml vial. Offset = 0.800 m.
TP14	1	32	2/1	3.60	3.60	1.00 to 3.60	17/03/2020	3.26	
TP14	1	32	3 / 1	3.60	3.54	1.00 to 3.60	01/04/2020 12:04	3.35	
TP14	1	32	4/1	3.60	3.54	1.00 to 3.60	07/04/2020 09:36	3.33	General Remarks: Readings cut short to prioritise samples. Slightly murkey becoming clear, no oil, no odour. 48 seconds to fill 40ml vial. Offset = 0.030 m.
WS2	1	19	1/1	2.30	2.30	0.30 to 2.30	10/03/2020	DRY	
WS2	1	19	2/1	2.30	2.30	0.30 to 2.30	17/03/2020	DRY	
WS4	1	40	1/1	2.50	2.50	0.50 to 2.50	10/03/2020	DRY	
WS4	1	40	2/1	2.50	2.50	0.50 to 2.50	17/03/2020	2.46	
WS8	1	19	1/1	2.30	2.30	0.30 to 2.30	10/03/2020	DRY	
WS8	1	19	2/1	2.30	2.30	0.30 to 2.30	17/03/2020	DRY	

Key: NDA denotes 'no data available'.

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			1	1 10334103		
	Start Date	End Date	Previous	During	Start End	Equipment Used & Remarks
Round 3	01/04/2020	01/04/2020	-	-	- 1022	Dipmeter GA5000 Weather: Overcast Ground: Dry Wind: Medium Air Temp: 7°C Summary: Gas and Water
Round 4	07/04/2020	07/04/2020	-	-	- 1028	Dipmeter GA5000 Weather: Sunny Ground: Dry Wind: Medium Air Temp: 16°C Summary: Gas and Water

Exploratory Position ID	Core run depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	
TP13	3.68	01/04/2020 11:18:14	-	1022	0.0(1)	3.36	0.1	0.0	20.9	0.1	0	0	
TP13		14 secs	-	-	0.0 _(SS)	-	0.1	0.0	21.0	0.1	0	0	
TP13		29 secs	-	-	-	-	0.1	0.0	21.0	0.1	0	0	
TP13		60 secs	-	-	-	-	0.1	0.0	21.0	0.1	0	0	
TP13		91 secs	-	-	-	-	0.1	0.0	21.0	0.1	0	0	
TP13		122 secs	-	-	-	-	0.1	0.0	21.0	0.1	0	0	
TP13		183 secs	-	-	-	-	0.1	0.0	21.0	0.1	0	0	
TP13		243 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13		303 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13	3.68	07/04/2020 09:56:05	-	1028	0.0(1)	3.37	0.1	0.0	21.0	0.1	0	0	
TP13		15 secs	-	-	0.0 _(SS)	-	0.1	0.0	20.8	0.1	0	0	
TP13		30 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13		61 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13		92 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13		122 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13		182 secs	-	-	-	-	0.0	0.0	20.8	0.1	0	0	
TP13		242 secs	-	-	-	-	0.0	0.0	20.7	0.1	0	0	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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Exploratory Position ID	Core run depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)		
TP13		302 secs	-	-	-	-	0.0	0.0	20.7	0.1	0	0		
TP14	3.54	01/04/2020 12:04:08	-	1022	0.0 _(I)	3.31	0.1	0.0	20.9	0.1	0	0		
TP14		45 secs	-	-	0.0 _(SS)	-	0.1	0.0	21.0	0.1	0	0		
TP14		75 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14		105 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14		135 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14		165 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14		225 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14		285 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14		346 secs	-	-	-	-	0.1	0.0	20.9	0.1	0	0		
TP14	3.54	07/04/2020 09:14:42	-	1028	0.0(1)	3.33	0.1	0.0	20.8	0.1	0	0		
TP14		15 secs	-	-	0.0 _(SS)	-	0.1	0.0	20.8	0.1	0	0		
TP14		30 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
TP14		60 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
TP14		90 secs	-	-	-	-	0.1	0.0	20.7	0.1	0	0		
TP14		120 secs	-	-	-	-	0.1	0.0	20.7	0.1	0	0		
TP14		180 secs	-	-	-	-	0.1	0.0	20.7	0.1	0	0		
TP14		240 secs	-	-	-	-	0.1	0.0	20.7	0.1	0	0		
TP14		301 secs	-	-	-	-	0.1	0.0	20.7	0.1	0	0		
WS2		01/04/2020	-	-	-	-	-	-	-	-	-	-		
WS2	2.25	07/04/2020 09:44:26	-	1028	0.0 _(I)	DRY	0.1	0.0	21.0	0.4	0	0		

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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Exploratory Position ID	Core run depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)		Gas Flow (I/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)		
WS2		15 secs	-	-	0.1 _(SS)	-	0.1	0.0	21.0	0.4	0	0		
WS2		31 secs	-	-	-	-	0.1	0.0	21.0	0.4	0	0		
WS2		61 secs	-	-	-	-	0.1	0.0	20.9	0.4	0	0		
WS2		92 secs	-	-	-	-	0.1	0.0	20.9	0.4	0	0		
WS2		122 secs	-	-	-	-	0.1	0.0	20.9	0.4	0	0		
WS2		182 secs	-	-	-	-	0.1	0.0	20.9	0.4	0	0		
WS2		242 secs	-	-	-	-	0.1	0.0	20.8	0.4	0	0		
WS2		302 secs	-	-	-	-	0.1	0.0	20.8	0.4	0	0		
WS4	2.50	01/04/2020 10:53:28	-	1022	0.0 _(I)	DRY	0.1	0.0	20.8	0.6	0	0		
WS4		15 secs	-	-	0.0 _(SS)	-	0.1	0.0	20.8	0.6	0	0		
WS4		30 secs	-	-	-	-	0.1	0.0	20.8	0.6	1	0		
WS4		61 secs	-	-	-	-	0.1	0.0	20.8	0.6	0	0		
WS4		91 secs	-	-	-	-	0.1	0.0	20.7	0.6	0	0		
WS4		121 secs	-	-	-	-	0.1	0.0	20.7	0.6	0	0		
WS4		181 secs	-	-	-	-	0.1	0.0	20.7	0.6	0	0		
WS4		241 secs	-	-	-	-	0.1	0.0	20.7	0.6	0	0		
WS4		301 secs	-	-	-	-	0.1	0.0	20.7	0.6	0	0		
WS4	2.50	07/04/2020 09:25:43	-	1028	0.0(1)	DRY	0.1	0.0	20.7	0.4	0	0		
WS4		15 secs	-	-	0.1 _(SS)	-	0.1	0.0	20.7	0.4	1	0		
WS4		31 secs	-	-	-	-	0.1	0.0	20.7	0.4	0	0		
WS4		62 secs	-	-	-	-	0.1	0.0	20.7	0.4	0	0		
WS4		92 secs	-	-	-	-	0.1	0.0	20.7	0.4	0	0		
WS4		123 secs	-	-	-	-	0.1	0.0	20.7	0.4	0	0		

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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Exploratory Position ID	Core run depth (mbgl)	Date & Time of Monitoring (elapsed time)	Borehole Pressure I (mb)		Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)		
WS4		183 secs	-	-	-	-	0.1	0.0	20.7	0.4	0	0		
WS4		244 secs	-	-	-	-	0.1	0.0	20.8	0.4	0	0		
WS4		304 secs	-	-	-	-	0.1	0.0	20.8	0.4	0	0		
WS8	2.20	01/04/2020 11:32:53	-	1022	0.0(1)	DRY	0.1	0.0	20.9	0.1	0	0		
WS8		15 secs	-	-	0.1 _(SS)	-	0.1	0.0	20.9	0.1	0	0		
WS8		30 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8		60 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8		90 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8		120 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8		180 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8		240 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8		301 secs	-	-	-	-	0.1	0.0	20.8	0.1	0	0		
WS8	2.20	07/04/2020 10:12:49	-	1029	0.0(1)	DRY	0.1	0.0	21.0	0.2	0	0		
WS8		15 secs	-	-	0.1 _(SS)	-	0.1	0.0	21.0	0.2	0	0		
WS8		31 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0		
WS8		60 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0		
WS8		90 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0		
WS8		120 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0		
WS8		181 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0		
WS8		242 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0		
WS8		302 secs	-	-	-	-	0.1	0.0	21.0	0.2	0	0	 	

Key: I = Initial, Min = Minimum, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



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APPENDIX G LABORATORY CERTIFICATES FOR SOIL AND WATER ANALYSIS



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

Final Test Report

Envirolab Job Number: 20/01781

Issue Number: 1 Date: 5-Mar-20

Client: RSK Environment Ltd Hemel

18 Frogmore Road Hemel Hempstead Hertfordshire

UK HP3 9RT

Project Manager: Andrew Tyler

Project Name: Grange Central St Martins

Project Ref: 372042 Order No: N/A

Date Samples Received: 21-Feb-20
Date Instructions Received: 21-Feb-20
Date Analysis Completed: 5-Mar-20

Notes - Soil analysis

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones > 10mm are removed or excluded from the sample prior to analysis and reported results corrected to a whole sample basis.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis.

Notes - Genera

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Subscript "A" indicates analysis performed on the sample as received. "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve, unless asbestos is found to be present in which case all analysis is performed on the sample as received.

All analysis is performed on the dried and crushed sample for samples with Matrix Code 7 and this supercedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples from outside the European Union and this supercedes any "D" subscripts

For complex, multi-compound analysis, quality control results do not always fall within chart limits for every compound and we have criteria for reporting in these situations

If results are in italic font they are associated with such quality control failures and may be unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid

Predominant Matrix Codes: 1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample

Secondary Matrix Codes: A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible and NAD indicates No Asbestos Detected.

Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

Please contact us if you need any further information.

Prepared by:

Melanie Marshall

Laboratory Coordinator

Marshall

Approved by:

lain Haslock

Analytical Consultant

Haslock



Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

thod	ISO17025	MCERTS	20/01781/1 3 TP3		Landfill W	aste Acceptance Crite	eria Limits
			_				
			TD3				
			IFJ				
			1.5			Stable Non-reactive	11 1 14/
					Inert Waste Landfill	Hazardous Waste in Non-Hazardous	Hazardous Waste Landfill
			18/02/2020)		Landfill	Landini
			Soil - ES				
			5A				
-031	N	Ν	8.36		-	>6	-
ANC	Ν	Ν	0.55		-	to be evaluated	to be evaluated
ANC	Ν	Ν	0.07		-	to be evaluated	to be evaluated
-030	N	Ν	15.4		-	-	10
-032	N	N	7.03		3	5	6
-019	N	N	2.41		100	-	-
	N	_			500	-	-
-004		_			1	-	-
		_				-	-
<u> </u>				10:1		for compliance leaching	a test usina
						•	-
-025	N	Ν	0.049	0.490	0.5	2	25
-025	N	N	0.074	0.740	20	100	300
-025	N	Ν	<0.001	<0.01	0.04	1	5
-025	N	N	0.003	0.030	0.5	10	70
-025	Ν	Ν	0.432	4.320	2	50	100
-025	Ν	Ν	0.0132	0.1320	0.01	0.2	2
-025	Ν	Ν	<0.001	<0.01	0.5	10	30
-025	Ν	Ν	0.006	0.060	0.4	10	40
-025	Ν	Ν	4.358	43.580	0.5	10	50
	Ν	Ν	0.005	0.050	1 1 1	***	5
-025	Ν		0.001	0.010	0.1	0.5	7
-025		_	0.108	1.080	•		200
			15	152			25000
	_	_	0.5	5.0			500
	_	_	_	335			50000
-035	_	_		530	111	60000	100000
				<0.1		-	-
-032	N	Ν	<0.2	<200	500	800	1000
				ı			
-031		_	_				
-037	Ν	N	106				
			0.221				
-044	N	N	79.3				
	-031 -ANC -030 -032 -019 -007 -004 -022 -025 -025 -025 -025 -025 -025 -025	-ANC N -ANC N -ANC N -O30 N -O32 N -O19 N -O22 N -O25 N -O	-ANC N N N - ANC N N N N - ANC N N N N N N N N N N N N N N N N N N	ANC N N 0.55 ANC N N 0.07 -030 N N 15.4 -032 N N 7.03 -019 N N 2.41 -007 N N 17 -004 N N <0.007 -022 N N <0.001 -025 N N 0.049 -025 N N 0.074 -025 N N 0.001 -025 N N 0.003 -025 N N 0.003 -025 N N 0.0132 -025 N N 0.0132 -025 N N 0.001 -025 N N 0.005 -026 N N 0.001 -027 -028 N N 0.001 -029 N N 0.001 -029 N N 0.001 -020 N N 0.001	-031 N N 8.36 -ANC N N 0.55 -ANC N N 0.05 -ANC N N 0.07 -030 N N 15.4 -032 N N 7.03 -019 N N 2.41 -007 N N 17 -004 N N <0.007 -022 N N <0.001 -022 N N 0.004 -025 N N 0.074 -025 N N 0.074 -025 N N 0.001 -025 N N 0.003 -025 N N 0.001 -025 N N 0.001 -025 N N 0.001 -025 N N 0.001 -025 N N 0.000 -025 N N 0.0000 -025 N N 0.000 -025 N N 0.00	-031 N N 8.36	-031 N N S .36

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Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

	ample Detai	IS						
Lab Sample ID	Method	ISO17025	MCERTS	20/01781/2	!	Landfill W	aste Acceptance Crite	eria Limits
Client Sample Number				1				
Client Sample ID				TP4		1		
Depth to Top				0.5			Stable Non-reactive	Hammalana Masta
Depth to Bottom						Inert Waste Landfill	Hazardous Waste in Non-Hazardous	Hazardous Waste Landfill
Date Sampled				18/02/2020			Landfill	Landini
Sample Type				Solid				
Sample Matrix Code				7				
Solid Waste Analysis								
pH (pH Units) _D	A-T-031	N	Ν	10.18		-	>6	-
ANC to pH 4 (mol/kg) _D	A-T-ANC	N	Ν	0.11		-	to be evaluated	to be evaluated
ANC to pH 6 (mol/kg) _D	A-T-ANC	Ν	Ν	0.06		-	to be evaluated	to be evaluated
Loss on Ignition (%) _D	A-T-030	N	N	2		-	-	10
Total Organic Carbon (%) _D	A-T-032	N	N	0.15		3	5	6
PAH Sum of 17 (mg/kg) A	A-T-019	N	N	1.68		100	-	-
Mineral Oil (mg/kg) _A	A-T-007	N	N	19		500	-	-
Sum of 7 PCBs (mg/kg) _A	A-T-004	N	N	0.071		1	_	
Sum of BTEX (mg/kg) _A	A-T-022	N	N			6	_	_
Odin of BTEX (mg/kg)A	A-1-022	IN	IN	<0.01 10:1	10:1	-	for compliance leachin	- - 4004
Eluate Analysis				mg/l	mg/kg		i 12457-2 at L/S 10 l/kg (r	-
Arsenic	A-T-025	N	N	0.015	0.150	0.5	2	25
Barium	A-T-025	N		0.010	0.100	20	100	300
Cadmium	A-T-025	N	N	<0.001	<0.01	0.04	1	5
Chromium	A-T-025	N	N	0.014	0.140	0.5	10	70
Copper	A-T-025	N	N	0.007	0.070	2	50	100
Mercury	A-T-025	N	N	<0.0005	<0.005	0.01	0.2	2
Molybdenum	A-T-025	N	N	<0.001	<0.01	0.5	10	30
	A-T-025	N	N	<0.001	<0.01	0.4	10	40
Nickel			٠.	0.012	0.120	0.5	40	
Nickel Lead	A-T-025	N	Ν	0.012		0.5	10	50
		N N	N	0.001	0.010	0.06	0.7	50 5
Lead	A-T-025				0.010 <0.01			
Lead Antimony	A-T-025 A-T-025	N	N	0.001		0.06	0.7	5
Lead Antimony Selenium Zinc	A-T-025 A-T-025 A-T-025	N N	N N	0.001 <0.001	<0.01	0.06 0.1	0.7 0.5	5 7
Lead Antimony Selenium Zinc Chloride	A-T-025 A-T-025 A-T-025 A-T-025	N N N	N N N	0.001 <0.001 0.009	<0.01 0.090	0.06 0.1 4	0.7 0.5 50	5 7 200
Lead Antimony Selenium Zinc Chloride Fluoride	A-T-025 A-T-025 A-T-025 A-T-025 A-T-026	N N N	N N N	0.001 <0.001 0.009 2	<0.01 0.090 18	0.06 0.1 4 800	0.7 0.5 50 15000	5 7 200 25000
Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO ₄	A-T-025 A-T-025 A-T-025 A-T-025 A-T-026 A-T-026	N N N N	N N N N	0.001 <0.001 0.009 2 0.3	<0.01 0.090 18 3.0	0.06 0.1 4 800	0.7 0.5 50 15000	5 7 200 25000 500
Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO ₄ Total Dissolved Solids	A-T-025 A-T-025 A-T-025 A-T-025 A-T-026 A-T-026	N N N N	N N N N	0.001 <0.001 0.009 2 0.3 10	<0.01 0.090 18 3.0 97	0.06 0.1 4 800 10 1000	0.7 0.5 50 15000 150 20000	5 7 200 25000 500 5000
Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO ₄ Total Dissolved Solids Phenol Index	A-T-025 A-T-025 A-T-025 A-T-025 A-T-026 A-T-026 A-T-026 A-T-035	N N N N N	N N N N N	0.001 <0.001 0.009 2 0.3 10 56	<0.01 0.090 18 3.0 97 560	0.06 0.1 4 800 10 1000 4000	0.7 0.5 50 15000 150 20000	5 7 200 25000 500 5000
Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO ₄ Total Dissolved Solids Phenol Index Dissolved Organic Carbon	A-T-025 A-T-025 A-T-025 A-T-025 A-T-026 A-T-026 A-T-026 A-T-035 A-T-050	N N N N N N	N N N N N N N N N N N N N N N N N N N	0.001 <0.001 0.009 2 0.3 10 56 <0.01	<0.01 0.090 18 3.0 97 560 <0.1	0.06 0.1 4 800 10 1000 4000	0.7 0.5 50 15000 150 20000 60000	5 7 200 25000 500 5000 100000
Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO ₄ Total Dissolved Solids Phenol Index Dissolved Organic Carbon Leach Test Information	A-T-025 A-T-025 A-T-025 A-T-025 A-T-026 A-T-026 A-T-026 A-T-035 A-T-050	N N N N N N	N N N N N N N N N N N N N N N N N N N	0.001 <0.001 0.009 2 0.3 10 56 <0.01	<0.01 0.090 18 3.0 97 560 <0.1	0.06 0.1 4 800 10 1000 4000	0.7 0.5 50 15000 150 20000 60000	5 7 200 25000 500 5000 100000
Lead Antimony Selenium Zinc Chloride Fluoride Sulphate as SO ₄ Total Dissolved Solids Phenol Index Dissolved Organic Carbon Leach Test Information pH (pH Units)	A-T-025 A-T-025 A-T-025 A-T-026 A-T-026 A-T-026 A-T-026 A-T-035 A-T-030 A-T-032	N N N N N N N	N N N N N N	0.001 <0.001 0.009 2 0.3 10 56 <0.01 <0.2	<0.01 0.090 18 3.0 97 560 <0.1	0.06 0.1 4 800 10 1000 4000	0.7 0.5 50 15000 150 20000 60000	5 7 200 25000 500 5000 100000
Lead Antimony Selenium	A-T-025 A-T-025 A-T-025 A-T-026 A-T-026 A-T-026 A-T-026 A-T-035 A-T-030 A-T-031	N N N N N N	N N N N N N	0.001 <0.001 0.009 2 0.3 10 56 <0.01 <0.2	<0.01 0.090 18 3.0 97 560 <0.1	0.06 0.1 4 800 10 1000 4000	0.7 0.5 50 15000 150 20000 60000	5 7 200 25000 500 5000 100000

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FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 20/01781/1

Amendments: Request for Additional Analysis

Envirolab Job Number: 20/01781

Issue Number: 2 Date: 15 April, 2020

Client: RSK Environment Ltd Hemel

18 Frogmore Road Hemel Hempstead Hertfordshire

UK

HP3 9RT

Project Manager: Andrew Tyler

Project Name: Grange Central St Martins

Project Ref: 372042
Order No: N/A
Pote Semples Reseived: 34/03/20

Date Samples Received:21/02/20Date Instructions Received:21/02/20Date Analysis Completed:15/04/20

Prepared by: Approved by:

Holly Neary-King Danielle Brierley

Administration & Client Services Supervisor Client Manager







				0.101.11.10	ject Kei. 37	-01-			
Lab Sample ID	20/01781/1	20/01781/2							
Client Sample No	3	1							
Client Sample ID	TP3	TP4							
Depth to Top	1.50	0.50							
Depth To Bottom								ion	
Date Sampled	18-Feb-20	18-Feb-20						Limit of Detection	*
Sample Type	Soil - ES	Solid						t of D	Method ref
Sample Matrix Code	5A	7					Units	Limi	Meth
% Moisture at <40C _A	25.3	8.4					% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1	<0.1					% w/w	0.1	A-T-044
Arsenic _D ^{M#}	53	12					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5	<0.5					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	650	36					mg/kg	1	A-T-024s
Chromium _D ^{M#}	18	68					mg/kg	1	A-T-024s
Lead _D ^{M#}	4680	225					mg/kg	1	A-T-024s
Mercury _D	26.5	0.52					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	23	49					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	209	192					mg/kg	5	A-T-024s



Lab Sample ID	20/01781/1	20/01781/2					
Client Sample No	3	1					
Client Sample ID	TP3	TP4					
Depth to Top	1.50	0.50					
Depth To Bottom						ion	
Date Sampled	18-Feb-20	18-Feb-20				Detection	Je .
Sample Type	Soil - ES	Solid			,,		
Sample Matrix Code	5A	7			Units	Limit of	Method
Asbestos in Soil (inc. matrix)							
Asbestos in soil _D #	NAD	NAD					A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A					A-T-045



				0.101.11.10	ject Kei: 37			
Lab Sample ID	20/01781/1	20/01781/2						
Client Sample No	3	1						
Client Sample ID	TP3	TP4						
Depth to Top	1.50	0.50						
Depth To Bottom							u O	
Date Sampled	18-Feb-20	18-Feb-20					etect	_
Sample Type	Soil - ES	Solid					Limit of Detection	Method ref
Sample Matrix Code	5A	7				Units	Limit	Meth
PAH-16MS plus Coronene								
Acenaphthene _A ^{M#}	<0.01	<0.01				mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02				mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A M#	<0.04	0.10				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	0.08				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	0.11				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	0.08				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	0.11				mg/kg	0.06	A-T-019s
Coronene _A	0.04	0.03				mg/kg	0.01	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	0.13				mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.04	0.07				mg/kg	0.03	A-T-019s
Naphthalene A ^{M#}	<0.03	<0.03				mg/kg	0.03	A-T-019s
Phenanthrene A ^{M#}	<0.03	0.05				mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	0.10				mg/kg	0.07	A-T-019s
Total PAH-16MS plus Coronene _A	0.08	0.86				mg/kg	0.01	A-T-019s



				Onene i io	ject Ref: 37			
Lab Sample ID	20/01781/1	20/01781/2						
Client Sample No	3	1						
Client Sample ID	TP3	TP4						
Depth to Top	1.50	0.50						
Depth To Bottom							ion	
Date Sampled	18-Feb-20	18-Feb-20					etect	J.
Sample Type	Soil - ES	Solid					Limit of Detection	Method ref
Sample Matrix Code	5A	7				Units	Limit	Meth
TPH CWG								
Ali >C5-C6 _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C6-C8 _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1				mg/kg	1	A-T-055s
Ali >C10-C12 _A M#	<1	<1				mg/kg	1	A-T-055s
Ali >C12-C16 _A M#	<1	<1				mg/kg	1	A-T-055s
Ali >C16-C21 _A M#	<1	<1				mg/kg	1	A-T-055s
Ali >C21-C35 _A	12	3				mg/kg	1	A-T-055s
Total Aliphatics _A	12	3				mg/kg	1	A-T-055s
Aro >C5-C7 _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C7-C8 _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1				mg/kg	1	A-T-055s
Aro >C10-C12 _A M#	<1	<1				mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	<1				mg/kg	1	A-T-055s
Aro >C16-C21 _A M#	9	<1				mg/kg	1	A-T-055s
Aro >C21-C35 _A M#	129	3				mg/kg	1	A-T-055s
Total Aromatics _A	139	3				mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)A	151	7				mg/kg	1	A-T-055s
BTEX - Benzene [#]	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Toluene _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - o Xylene _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s
MTBE _A #	<0.01	<0.01				mg/kg	0.01	A-T-022s



REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900μS/cm @ 25°C / 11550μS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

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

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample. Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.



21/02/2020 (am)

Envirolab Deviating Samples Report

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

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead,

Hertfordshire, UK, HP3 9RT

Project: Grange Central St Martins

Clients Project No: 372042

Project No: 20/01781

Cool Box Temperatures (°C): 8.3

Date Received:

Lab Sample ID	20/01781/1	20/01781/2
Client Sample No	3	1
Client Sample ID/Depth	TP3 1.50m	TP4 0.50m
Date Sampled	18/02/20	18/02/20
Deviation Code		
F	✓	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/01781/1	20/01781/2
Client Sample No	3	1
Client Sample ID/Depth	TP3 1.50m	TP4 0.50m
Date Sampled	18/02/20	18/02/20
PAH (total 17)	√	✓
EPHCWG	✓	✓
VPHCWG	√	✓
PAH-16MS plus Coronene	✓	✓

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



Mottram Road, Hyde, Cheshire, SK14 3AR

Final Test Report

Envirolab Job Number: 20/02615

Issue Number: 1 Date: 24-Mar-20

Client: RSK Environment Ltd Hemel

18 Frogmore Road Hemel Hempstead Hertfordshire

UK HP3 9RT

Project Manager: Andrew Tyler/Sammy Al Hilly Project Name: Grange Central, St. Martins

Project Ref: 372042 Order No: N/A

Date Samples Received: 16-Mar-20
Date Instructions Received: 16-Mar-20
Date Analysis Completed: 24-Mar-20

Notes - Soil analysis

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones >10mm are removed or excluded from the sample prior to analysis and reported results corrected to a whole sample basis.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis.

Notes - General

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Subscript "A" indicates analysis performed on the sample as received. "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve, unless asbestos is found to be present in which case all analysis is performed on the sample as received.

All analysis is performed on the dried and crushed sample for samples with Matrix Code 7 and this supercedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples from outside the European Union and this supercedes any "D" subscripts

For complex, multi-compound analysis, quality control results do not always fall within chart limits for every compound and we have criteria for reporting in these situations.

If results are in italic font they are associated with such quality control failures and may be unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid

Predominant Matrix Codes: 1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample

Secondary Matrix Codes: A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible and NAD indicates No Asbestos Detected.

Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

Please contact us if you need any further information.

Prepared by:

Melanie Marshall Laboratory Coordinator

Manshall

Approved by:

Sophie France

Client Service Manager



Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

	ls						
Method	ISO17025	MCERTS	20/02615/1		Landfill W	aste Acceptance Crite	eria Limits
			TP12				
			0.4				Hamanda va Maata
					Inert Waste Landfill		Hazardous Waste Landfill
			27/02/2020)		Landfill	Lunami
			Solid				
			7				
A-T-031	N	Ν	9.02		-	>6	-
A-T-ANC	Ν	Ν	0.13		-	to be evaluated	to be evaluated
A-T-ANC	N	N	0.05		-	to be evaluated	to be evaluated
A-T-030	N	N	1.2		-	-	10
A-T-032	N	N	0.08		3	5	6
	_	_			100	-	-
	_	_				_	_
	_	_				_	-
	_	_					
A-1-022	IN	IN		10.1			
A-T-025	N	N	0.004	,	0.5	2	25
A-T-025	_			0.280	20	100	300
	_	_			0.04	1	5
A-T-025	N	N	0.003	0.030	0.5	10	70
A-T-025	N	N	0.007	0.070	2	50	100
A-T-025	N	Ν	<0.0005	<0.005	0.01	0.2	2
A-T-025	Ν	Ν	<0.001	<0.01	0.5	10	30
A-T-025	N	Ν	0.003	0.030	0.4	10	40
A-T-025	N	Ν	0.037	0.370	0.5	10	50
A-T-025	N	Ν	<0.001	<0.01	0.06	0.7	5
A-T-025	N	Ν	<0.001	<0.01	0.1	0.5	7
A-T-025	Ν	Ν	0.074	0.740	4	50	200
A-T-026	Ν	Ν	4	41	800	15000	25000
A-T-026	Ν	Ν	0.4	4.0	10	150	500
A-T-026	Ν	Ν	18	183	1000	20000	50000
A-T-035	N	N	27	270	4000	60000	100000
	Ν	Ν	<0.01	<0.1	1	-	-
A-T-050	N						
A-T-050 A-T-032	N	N	<0.2	<200	500	800	1000
	_		<0.2	<200	500	800	1000
	N N	N N	<0.2 8.7	<200	500	800	1000
A-T-032	N	N		<200	500	800	1000
A-T-032 A-T-031	N N	N N	8.7	<200	500	800	1000
	A-T-ANC A-T-ANC A-T-ANC A-T-030 A-T-032 A-T-004 A-T-025	A-T-ANC N A-T-ANC N A-T-O30 N A-T-032 N A-T-019 N A-T-004 N A-T-022 N A-T-025 N	A-T-ANC N N A-T-ANC N N N A-T-030 N N N A-T-019 N N N A-T-004 N N N A-T-022 N N N A-T-025 N N N A-T-026 N N N N N N N N N N N N N N N N N N N	A-T-031 N N 0.05 A-T-030 N N 0.05 A-T-030 N N 0.05 A-T-032 N N 0.08 A-T-019 N N <0.08 A-T-004 N N <0.007 A-T-025 N N 0.028 A-T-025 N N 0.004 A-T-025 N N 0.003 A-T-025 N N 0.001 A-T-025 N N 0.0074 A-T-026 N N 0.074		No. No.	No.4 Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill

Page 2 of 2



FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 20/02615/1

Amendments: Request for Additional Analysis

Envirolab Job Number: 20/02615

Issue Number: 2 Date: 16 April, 2020

Client: RSK Environment Ltd Hemel

18 Frogmore Road Hemel Hempstead

Hertfordshire

UK

HP3 9RT

Project Manager: Andrew Tyler/Sammy Al Hilly **Project Name:** Grange Central, St. Martins

Project Ref: 372042 Order No: N/A

Date Samples Received: 16/03/20
Date Instructions Received: 16/03/20
Date Analysis Completed: 16/04/20

Prepared by: Approved by:

Holly Neary-King Danielle Brierley

Administration & Client Services Supervisor Client Manager



			Cilent Fio	ject Ref: 37	2042			
Lab Sample ID	20/02615/1							
Client Sample No								
Client Sample ID	TP12							
Depth to Top	0.40							
Depth To Bottom							ion	
Date Sampled	27-Feb-20						Limit of Detection	je e
Sample Type	Solid					l _s	t of D	Method ref
Sample Matrix Code	7					Units	Limi	Meth
% Moisture at <40C _A	2.2					% w/w	0.1	A-T-044
% Stones >10mm _A	<0.1					% w/w	0.1	A-T-044
Arsenic _D ^{M#}	5					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5					mg/kg	0.5	A-T-024s
Copper _D M#	8					mg/kg	1	A-T-024s
Chromium _D ^{M#}	24					mg/kg	1	A-T-024s
Lead _D ^{M#}	15					mg/kg	1	A-T-024s
Mercury _D	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	12					mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	36					mg/kg	5	A-T-024s



Lab Sample ID	20/02615/1						
Client Sample No							
Client Sample ID	TP12						
Depth to Top	0.40						
Depth To Bottom						ion	
Date Sampled	27-Feb-20					of Detection	Je
Sample Type	Solid				S S	t of D	Method ref
Sample Matrix Code	7				Units	Limit	Meth
Asbestos in Soil (inc. matrix)							
Asbestos in soil _D #	NAD						A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A						A-T-045



			Cilent Pro	ject Ref: 37	2042			
Lab Sample ID	20/02615/1							
Client Sample No								
Client Sample ID	TP12							
Depth to Top	0.40							
Depth To Bottom							ion	
Date Sampled	27-Feb-20						etect	<u>ب</u>
Sample Type	Solid					,	Limit of Detection	Method ref
Sample Matrix Code	7					Units	Limi	Meth
PAH-16MS plus Coronene								
Acenaphthene _A ^{M#}	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.03					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.08					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.05					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.07					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A M#	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.07					mg/kg	0.06	A-T-019s
Coronene _A	<0.01					mg/kg	0.01	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.24					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A M#	0.03					mg/kg	0.03	A-T-019s
Naphthalene A ^{M#}	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.16					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.16					mg/kg	0.07	A-T-019s
Total PAH-16MS plus Coronene _A	0.89	 				mg/kg	0.01	A-T-019s



			Onem 110	ject Ref: 37	2072			
Lab Sample ID	20/02615/1							
Client Sample No								
Client Sample ID	TP12							
Depth to Top	0.40							
Depth To Bottom							ion	
Date Sampled	27-Feb-20						etect	*
Sample Type	Solid					,	Limit of Detection	Method ref
Sample Matrix Code	7					Units	Limit	Meth
TPH CWG								
Ali >C5-C6 _A #	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8 _A #	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1					mg/kg	1	A-T-055s
Ali >C10-C12 _A M#	<1					mg/kg	1	A-T-055s
Ali >C12-C16AM#	<1					mg/kg	1	A-T-055s
Ali >C16-C21 _A M#	<1					mg/kg	1	A-T-055s
Ali >C21-C35 _A	<1					mg/kg	1	A-T-055s
Total Aliphatics _A	<1					mg/kg	1	A-T-055s
Aro >C5-C7 _A #	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8 _A #	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1					mg/kg	1	A-T-055s
Aro >C10-C12 _A ^{M#}	<1					mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1					mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1					mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1					mg/kg	1	A-T-055s
Total Aromatics _A	<1					mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)A	<1					mg/kg	1	A-T-055s
BTEX - Benzene _A #	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene _A #	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A #	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A #	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene _A #	<0.01	 				mg/kg	0.01	A-T-022s
MTBE _A #	<0.01					mg/kg	0.01	A-T-022s



REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900μS/cm @ 25°C / 11550μS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

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

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample. Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.



20/02615

16/03/2020 (am)

Date Received:

Envirolab Deviating Samples Report

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

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Project No:

Hertfordshire, UK, HP3 9RT

Project: Grange Central, St. Martins Cool Box Temperatures (°C): 7.9

Clients Project No: 372042

Lab Sample ID	20/02615/1
Client Sample No	
Client Sample ID/Depth	TP12 0.40m
Date Sampled	27/02/20
Deviation Code	
F	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	20/02615/1
Client Sample No	
Client Sample ID/Depth	TP12 0.40m
Date Sampled	27/02/20
EPHCWG	✓
VPHCWG	✓
PAH-16MS plus Coronene	✓
PAH (total 17)	✓
BTEX (total)	✓

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



FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 20/03264

Issue Number: Date: 21 April, 2020

Client: **RSK Environment Ltd Hemel**

> 18 Frogmore Road Hemel Hempstead

Hertfordshire

UK

HP3 9RT

Project Manager: Andrew Tyler

Project Name: Grange Central St Martins

Project Ref: 372042 Order No: N/A

Date Samples Received: 09/04/20 **Date Instructions Received:** 09/04/20 **Date Analysis Completed:** 20/04/20

Prepared by: Approved by:

Danielle Brierley

John Gustafson Client Manager **Managing Director**





				Cilent Fio	ject Ref: 37	2042			
Lab Sample ID	20/03264/1	20/03264/2							
Client Sample No									
Client Sample ID	TP13	TP14							
Depth to Top	4.47	3.56							
Depth To Bottom								ion	
Date Sampled	07-Apr-20	07-Apr-20						etec	70
Sample Type	Water - EW	Water - EW					Units	Limit of Detection	Method ref
Sample Matrix Code	N/A	N/A						Limi	Meth
pH (w) _A #	7.53	7.43					рН	0.01	A-T-031w
Sulphate (w) _A #	49	195					mg/l	1	A-T-026w
Arsenic (dissolved) _A #	<1	<1					μg/l	1	A-T-025w
Cadmium (dissolved) _A #	<0.2	<0.2					μg/l	0.2	A-T-025w
Copper (dissolved) _A #	2	4					μg/l	1	A-T-025w
Chromium (dissolved) _A #	6	6					μg/l	1	A-T-025w
Lead (dissolved) _A #	<1	<1					μg/l	1	A-T-025w
Mercury (dissolved) _A #	<0.1	<0.1					μg/l	0.1	A-T-025w
Nickel (dissolved) _A #	3	4					μg/l	1	A-T-025w
Selenium (dissolved) _A #	<1	2					μg/l	1	A-T-025w
Zinc (dissolved) _A #	3	7					μg/l	1	A-T-025w



				 ject Kei. 37			
Lab Sample ID	20/03264/1	20/03264/2					
Client Sample No							
Client Sample ID	TP13	TP14					
Depth to Top	4.47	3.56					
Depth To Bottom						ion	
Date Sampled	07-Apr-20	07-Apr-20				etect	*
Sample Type	Water - EW	Water - EW			,	Limit of Detection	Method ref
Sample Matrix Code	N/A	N/A			Units	Limi	Meth
PAH 16MS (w)							
Acenaphthene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Acenaphthylene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Anthracene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Benzo(a)anthracene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Benzo(a)pyrene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Benzo(ghi)perylene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Chrysene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Fluoranthene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Fluorene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Naphthalene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Phenanthrene (w) _A #	<0.01	<0.01			μg/l	0.01	A-T-019w
Pyrene (w) [#]	0.03	<0.01			μg/l	0.01	A-T-019w
Total PAH 16MS (w) _A #	0.03	<0.01			μg/l	0.01	A-T-019w



				Onene i re	ject Kei. 37	20.2			
Lab Sample ID	20/03264/1	20/03264/2							
Client Sample No									
Client Sample ID	TP13	TP14							
Depth to Top	4.47	3.56							
Depth To Bottom								ion	
Date Sampled	07-Apr-20	07-Apr-20						etect	J .
Sample Type	Water - EW	Water - EW						of D	od re
Sample Matrix Code	N/A	N/A					Units	Limit of Detection	Method ref
VOC (w)									
Dichlorodifluoromethane _A	<1	<1					μg/l	1	A-T-006w
Chloromethane _A	<10	<10					μg/l	10	A-T-006w
Vinyl Chloride _A #	<1	<1					μg/l	1	A-T-006w
Bromomethane _A #	<1	<1					μg/l	1	A-T-006w
Chloroethane _A #	<1	<1					μg/l	1	A-T-006w
Trichlorofluoromethane _A #	<1	<1					μg/l	1	A-T-006w
trans 1,2-Dichloroethene _A #	<1	<1					μg/l	1	A-T-006w
Dichloromethane _A	<5	<5					μg/l	5	A-T-006w
Carbon Disulphide _A #	<1	<1					μg/l	1	A-T-006w
1,1-Dichloroethene _A #	<1	<1					μg/l	1	A-T-006w
1,1-Dichloroethane _A #	<1	<1					μg/l	1	A-T-006w
cis 1,2-Dichloroethene _A #	<1	<1					μg/l	1	A-T-006w
Bromochloromethane _A #	<5	<5					μg/l	5	A-T-006w
Chloroform _A #	<1	<1					μg/l	1	A-T-006w
2,2-Dichloropropane _A #	<1	<1					μg/l	1	A-T-006w
1,2-Dichloroethane _A #	<2	<2					μg/l	2	A-T-006w
1,1,1-Trichloroethane _A #	<1	<1					μg/l	1	A-T-006w
1,1-Dichloropropene _A #	<1	<1					μg/l	1	A-T-006w
Benzene _A #	<1	<1					μg/l	1	A-T-006w
Carbon Tetrachloride _A #	<1	<1					μg/l	1	A-T-006w
Dibromomethane _A #	<1	<1					μg/l	1	A-T-006w
1,2-Dichloropropane _A #	<1	<1					μg/l	1	A-T-006w
Bromodichloromethane _A #	<10	<10					μg/l	10	A-T-006w
Trichloroethene _A #	<1	<1					μg/l	1	A-T-006w
cis 1,3-Dichloropropene _A #	<1	<1					μg/l	1	A-T-006w
trans 1,3-Dichloropropene _A #	<1	<1					μg/l	1	A-T-006w
1,1,2-Trichloroethane _A #	<1	<1	 				μg/l	1	A-T-006w
Toluene _A #	<1	<1					μg/l	1	A-T-006w
1,3-Dichloropropane _A #	<1	<1					μg/l	1	A-T-006w
Dibromochloromethane _A #	<3	<3					μg/l	3	A-T-006w
1,2-Dibromoethane _A #	<1	<1					μg/l	1	A-T-006w
Tetrachloroethene _A	<1	<1		<u> </u>			μg/l	1	A-T-006w



				Ciletit FIO	ject Ref: 37	2042			
Lab Sample ID	20/03264/1	20/03264/2							
Client Sample No									
Client Sample ID	TP13	TP14							
Depth to Top	4.47	3.56							
Depth To Bottom								tion	
Date Sampled	07-Apr-20	07-Apr-20						eteci	je
Sample Type	Water - EW	Water - EW					v	Limit of Detection	Method ref
Sample Matrix Code	N/A	N/A					Units	Ë	Meth
1,1,1,2-Tetrachloroethane _A	<1	<1					μg/l	1	A-T-006w
Chlorobenzene _A #	<1	<1					μg/l	1	A-T-006w
Ethylbenzene _A #	<1	<1					μg/l	1	A-T-006w
m & p Xylene _A #	<1	<1					μg/l	1	A-T-006w
Bromoform _A #	<1	<1					μg/l	1	A-T-006w
Styrene _A #	<1	<1					μg/l	1	A-T-006w
1,1,2,2-Tetrachloroethane _A	<1	<1					μg/l	1	A-T-006w
o-Xylene _A #	<1	<1					μg/l	1	A-T-006w
1,2,3-Trichloropropane _A #	<1	<1					μg/l	1	A-T-006w
Isopropylbenzene _A #	<1	<1					μg/l	1	A-T-006w
Bromobenzene _A #	<1	<1					μg/l	1	A-T-006w
2-Chlorotoluene _A #	<1	<1					μg/l	1	A-T-006w
n-propylbenzene _A #	<1	<1					μg/l	1	A-T-006w
4-Chlorotoluene _A #	<1	<1					μg/l	1	A-T-006w
1,2,4-Trimethylbenzene _A #	<1	<1					μg/l	1	A-T-006w
4-Isopropyltoluene _A #	<1	<1					μg/l	1	A-T-006w
1,3,5-Trimethylbenzene _A #	<1	<1					μg/l	1	A-T-006w
1,2-Dichlorobenzene _A #	<1	<1					μg/l	1	A-T-006w
1,4-Dichlorobenzene _A #	<1	<1					μg/l	1	A-T-006w
sec-Butylbenzene _A #	<1	<1					μg/l	1	A-T-006w
tert-Butylbenzene _A #	<2	<2					μg/l	2	A-T-006w
1,3-Dichlorobenzene _A #	<1	<1					μg/l	1	A-T-006w
n-butylbenzene _A #	<1	<1					μg/l	1	A-T-006w
1,2-Dibromo-3-chloropropane _A #	<2	<2					μg/l	2	A-T-006w
1,2,4-Trichlorobenzene _A #	<3	<3					μg/l	3	A-T-006w
1,2,3-Trichlorobenzene _A #	<3	<3					μg/l	3	A-T-006w
Hexachlorobutadiene _A #	<1	<1					μg/l	1	A-T-006w



				Onent i io	ject Ref: 37	20-72			
Lab Sample ID	20/03264/1	20/03264/2							
Client Sample No									
Client Sample ID	TP13	TP14							
Depth to Top	4.47	3.56							
Depth To Bottom								ion	
Date Sampled	07-Apr-20	07-Apr-20						etect	*
Sample Type	Water - EW	Water - EW						Limit of Detection	Method ref
Sample Matrix Code	N/A	N/A					Units	Limit	Meth
TPH CWG (w)									
Ali >C5-C6 (w) _A #	<1	<1					μg/l	1	A-T-022w
Ali >C6-C8 (w) _A #	<1	<1					μg/l	1	A-T-022w
Ali >C8-C10 (w) _A #	<5	<5					μg/l	5	A-T-055w
Ali >C10-C12 (w) _A #	<5	<5					μg/l	5	A-T-055w
Ali >C12-C16 (w) _A #	<5	<5					μg/l	5	A-T-055w
Ali >C16-C21 (w) _A #	<5	<5					μg/l	5	A-T-055w
Ali >C21-C35 (w) _A #	<5	<5					μg/l	5	A-T-055w
Total Aliphatics (w) _A #	<5	<5					μg/l	5	A-T-055w
Aro >C5-C7 (w) _A #	<1	<1					μg/l	1	A-T-022w
Aro >C7-C8 (w) _A #	<1	<1					μg/l	1	A-T-022w
Aro >C8-C10 (w) _A	<5	<5					μg/l	5	A-T-055w
Aro >C10-C12 (w) _A #	<5	<5					μg/l	5	A-T-055w
Aro >C12-C16 (w) _A #	<5	<5					μg/l	5	A-T-055w
Aro >C16-C21 (w) _A #	<5	<5					μg/l	5	A-T-055w
Aro >C21-C35 (w) _A #	<10	<10					μg/l	10	A-T-055w
Total Aromatics (w) _A	<10	<10					μg/l	10	A-T-055w
TPH (Ali & Aro >C5-C35) (w) _A	<10	<10					μg/l	10	A-T-055w
BTEX - Benzene (w) _A #	<1	<1					μg/l	1	A-T-022w
BTEX - Toluene (w) _A #	<1	<1					μg/l	1	A-T-022w
BTEX - Ethyl Benzene (w) _A #	<1	<1					μg/l	1	A-T-022w
BTEX - m & p Xylene (w) _A #	<1	<1					μg/l	1	A-T-022w
BTEX - o Xylene (w) _A #	<1	<1					μg/l	1	A-T-022w
MTBE (w) _A #	<1	<1					μg/l	1	A-T-022w



REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900μS/cm @ 25°C / 11550μS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

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

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample. Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

Kοv-

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected. N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.



Envirolab Deviating Samples Report

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

Client: RSK Environment Ltd Hemel, 18 Frogmore Road, Hemel Hempstead, Project No:

Hertfordshire, UK, HP3 9RT

Project: Grange Central St Martins

Clients Project No: 372042

roject No: 20/03264

Date Received: 09/04/2020 (am)

Cool Box Temperatures (°C): 10.2

NO DEVIATIONS IDENTIFIED

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



APPENDIX H LABORATORY CERTIFICATES FOR GEOTECHNICAL ANALYSIS



STRUCTURAL SOILS LTD TEST REPORT



Report No. 584233-01 (00) 1774

Date 19-March-2020 Contract Grange Central St Martins

Client RSK

Address 18 Frogmore Rd

Apsley

Hemel Hempstead Hertfordshire HP3 9RT

For the Attention of Sammy Al Hilly

Samples submitted by client 04-March-2020 Client Reference 372042 Testing Started 05-March-2020 Client Order No. n/a Instruction Type Written

Tests marked 'Not UKAS Accredited' in this report are not included in the UKAS Accreditation Schedule for our Laboratory.

UKAS Accredited Tests

1.10 Particle Size Distribution wet sieve method BS1377:Part 2:1990,clause 9.2 (superseded)*

Please Note: Remaining samples will be retained for a period of one month from today and will then be disposed of . Test were undertaken on samples 'as received' unless otherwise stated.

Opinions and interpretations expressed in this report are outside the scope of accreditation for this laboratory.

Structural Soils Ltd 18 Frogmore Rd Hemel Hempstead HP3 9RT Tel.01442 416661 e-mail dimitris.xirouchakis@soils.co.uk

^{*} This clause of BS1377 is no longer the most up to date method due to the publication of ISO17892

GINT_LIBRARY V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07_0 I GricText L - LAB VERIFICATION REPORT - V02 - A4P | 584233 GRANGE CENTRAL ST MARTINS RSK 372042.GPJ - v10_01. Structural Solis Lid, Branch Office - Hemel Hempstead: 18 Frogmore Road, Hemel Hempstead, Herfordshire, HP3 9RT. Tel: 01442 262323, Fax: 01442 262683, Web: www.solis.co.uk, Email: ask@solis.co.uk, | 19/03/20 - 13:14 | SC1 |

TESTING VERIFICATION CERTIFICATE



1774

The test results included in this report are certified as:-

ISSUE STATUS: FINAL

In accordance with the Structural Soils Ltd Laboratory Quality Management System, results sheets and summaries of results issued by the laboratory are checked by an approved signatory. The integrity of the test data and results are ensured by control of the computer system employed by the laboratory as part of the Software Verification Program as detailed in the Laboratory Quality Manual.

This testing verification certificate covers all testing compiled on or before the following datetime: 19/03/2020 13:11:27.

Testing reported after this date is not covered by this Verification Certificate.

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Approved Signatory

Sharon Cairns (Laboratory Manager)

(Head Office)
Bristol Laboratory
Unit 1A, Princess Street
Bedminster
Bristol
BS3 4AG

Castleford Laboratory
The Potteries, Pottery Street
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Hemel Laboratory 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT Tonbridge Laboratory
Anerley Court, Half Moon Lane
Hildenborough
Tonbridge
TN11 9HU



STRUCTURAL SOILS LTD

Contract:

Job No:

Grange Central St Martins

584233

