

Certificate of sampling

Sampling of soils

Sampled in accordance with documented IHTP



Laboratory Reference: **OCMT-5367- 01035**

Client: **Commercial Recycling (Southern Ltd)**

Client Address: **Canford Recycling Centre, Arena Way, Bournemouth, BH21 3BW**

Site: **Canford Recycling Centre**

Certificate Reference: **OCMT-5367-1035-S01**

Issue Number: **1.1 - BS8601**

Client Order Number: **J.Leach Clay/Tsoil**

Sample Reference: **Bulk Sample - 10mm Manufactured**

Source of Material: **Ex-Site**

Location: **Stockpile in Building**

Material Description: **10mm Manufactured Soil**

Clients Indicated Specification: **BS 3882/ BS 8601**

Site Sample Number: **DP213**

Date Sampled: **04/04/2023**

Time Sampled: **14:00**

Sampled By: **DP**

Date Received: **04/04/2023**

Maximum Dimension: **10mm**

Material Type: **Soil**

Sample Location Type: **Stockpile**

Sampling Plan: **S 1**

Variation to Sampling Procedure: **None**

Comments on Sample: **None**

Material Source Type: **Land Based**

Weather: **Sunny, Inside**

Sampling Sketch:

(if required)

Tests Required: **BS 8601 Topsoil Suite, General Contamination Suite (inc. GAC Report)**

Remarks: **None**

Approved by:



Martin Slater - Material Technologist

Date: **02/05/2023**

Sheet Reference: **S01-Rev3-Aug22**

Refer to the remarks section for any additions, deviations or exclusions from the stated test & preparation methods.

The results within this test report are representative of the samples submitted at the time of analysis.

This test report should not be reproduced, except in full, without the express permission of the issuing laboratory.

Bulk samples are retained for a period of 28 days from receipt

Oema Chem Limited

Unit 1 - Building 267A
Commercial Road
Bournemouth
Dorset
BH23 6NW

Certificate of test

Internal Laboratory Transfer Header



Laboratory Reference: **OCMT-5367-1035**

Certificate Reference: **OCMT-5367-1035-IntTran8601**

Client: **Commercial Recycling (Southern Ltd)**

Issue Number: **1**

Clients Address: **Canford Recycling Centre, Arena Way, Bournemouth, BH21 3BW**

Site: **Canford Recycling Centre**

Client Order Number: **J.Leach Clay/Tsoil**

Sample Reference: **Bulk Sample - 10mm Manufactured Soil**

Sample Certificate: **Yes - See enclosed**

Source: **Ex-Site**

Date Sampled: **04/04/2023**

Location of Sample on Site: **Stockpile in Building**

Sampled by: **DP**

Material Description: **10mm Manufactured Soil**

Date Received: **04/04/2023**

Clients Indicated Specification: **BS 3882/ BS 8601**

Analysis undertaken:

Test	Laboratory
BS 8601 Subsoil Suite	Oemachem, Unit 4 Trinity Court
General Contamination Suite (inc. GAC Report)	Oemachem, Unit 4 Trinity Court
Soil Suitability Report (GAC on General Contamination Suite)	Oemachem, Unit 4 Trinity Court

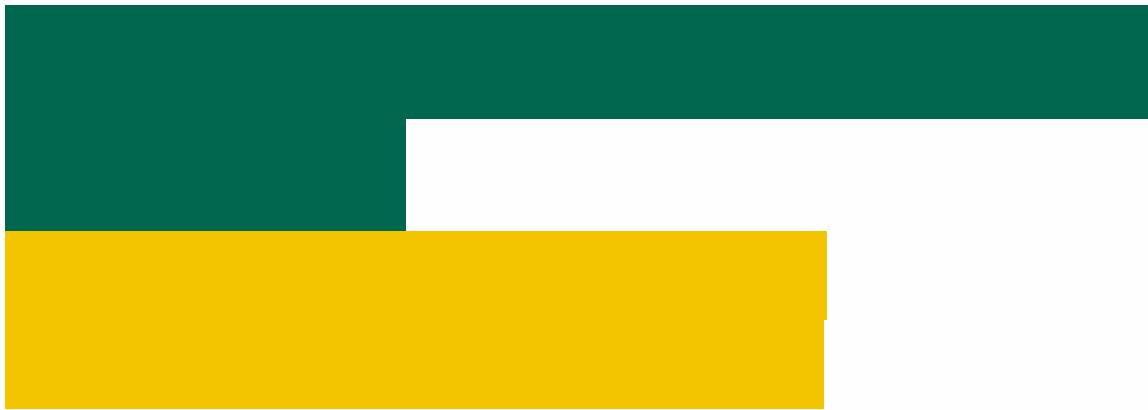
See attached interlaboratory certificate(s) of test OCLA - 5367 - C00289

Remarks: **This sample was transferred from Oema, Unit 1, Building 267A, Commercial Road, Christchurch, BH23 6NW**

Approved By: 
 Date Approved: **02/05/2023**
 Sheet Ref: **IntTran-Rev1-Oct22**

Refer to the remarks section for any additions, deviations or exclusions from the stated test & preparation methods.
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 Bulk samples are retained for a period of 28 days from receipt

Oemachem Limited
 Unit 4, Trinity Court
 Brunel Road
 Totton
 Southampton
 SO40 3WX



Customer: [REDACTED]

Customer Address: [REDACTED]

Report Date: [REDACTED]

Sample Received: [REDACTED]

PO number: [REDACTED]

Issue Number: [REDACTED]

Report Authorised By: [REDACTED]

Role: [REDACTED]

[Handwritten signature]

Report Authorised Date: [REDACTED]



Date of Report: [REDACTED]
 OCLA: [REDACTED]
 Client: [REDACTED]
 Client Address: [REDACTED]
 Issue Number: [REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Soil Texture	Results	Multipurpose Subsoil Range	Specific Purpose Subsoil Range		
			Acidic	Calcareous	
Sand * (%)	30		20 - 85		
Silt * (%)	10		0 - 65		
Clay * (%)	60		10 - 80		
Soil texture (<2mm) †	Sandy Clay Loam	Yes	BS 8601: 2013 Figure 1 - Textural Classification		
Mass Loss on Ignition					
Mass loss on Ignition (%)*	2.8	No	≤ 2		
Maximum Coarse Fragment Content					
Particle size > 2 mm * (%)	23.6	Yes	0 – 40		
Particle size > 20 mm * (%)	0	Yes	0 – 20		
Particle size > 75 mm * (%)	0	Yes	0		
Soil pH (Measured in Water)					
Soil pH*** (Nr.)	8.25	5.5 – 8.5 Yes	3.5 – 5.5 No	7.5 – 8.5 Yes	
Carbonate					
Carbonate (%)*	2.5	–	–	> 1 Yes	
Exchangeable Sodium Percentage (ESP)					
ESP ¹⁾ * (%)	3.06	Yes	< 15		
¹⁾ Limit only applies where soil electrical conductivity ≥ 2800µS-cm-1					
Electrical Conductivity					
Electrical conductivity* (µS-cm-1)	421	-			
Potentially Phytotoxic Elements (by soil pH)					
			All Subsoil Specifications		
			Soil pH <6.0	Soil pH 6.0 to 7.0	Soil pH >7.0
Zinc*** (mg/kg)	102	Yes	< 200	< 200	< 300
Copper*** (mg/kg)	23	Yes	< 100	< 135	< 200
Nickel*** (mg/kg)	8	Yes	< 60	< 75	< 110
Other Contaminants					
>2mm contaminants* (%)	0	Yes	< 0.5		
of which plastics * (%)	0	Yes	< 0.25		
of which sharps * (%)	0	Yes	Zero in 1 kg air-dried soil		

Compliance to the requirements of BS 8601: 2013 is as noted in the table below:

Compliance (Pass/Fail):	Multipurpose Subsoil Range	Specific Purpose Range	
		Acidic	Calcareous
[REDACTED]	Fail	Fail	Fail

Date of Report: [REDACTED]
 OCLA: [REDACTED]
 Client: [REDACTED]
 Client Address: [REDACTED]
 Issue Number: [REDACTED]

BTEX					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Benzene***	181A	0.01	< 0.01	mg/kg	DC4/DC5
Toluene***	181A	0.01	< 0.01	mg/kg	DC4/DC5
Ethylbenzene***	181A	0.01	< 0.01	mg/kg	DC4/DC5
m/p-Xylene***	181A	0.01	< 0.01	mg/kg	DC4/DC5
o-Xylene***	181A	0.01	< 0.01	mg/kg	DC4/DC5
MTBE*	181A	0.01	< 0.01	mg/kg	DC4/DC5

Polyaromatic Hydrocarbon					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Naphthalene*	181	0.01	0.04	mg/kg	-
Acenaphthylene*	181	0.01	0.04	mg/kg	-
Acenaphthene*	181	0.01	0.01	mg/kg	-
Fluorene*	181	0.01	0.02	mg/kg	-
Phenanthrene*	181	0.01	0.34	mg/kg	-
Anthracene*	181	0.01	0.17	mg/kg	-
Fluoranthene*	181	0.01	1.57	mg/kg	-
Pyrene*	181	0.01	1.3	mg/kg	-
Benzo(a)anthracene*	181	0.01	0.6	mg/kg	-
Chrysene*	181	0.01	0.6	mg/kg	-
Benzo(b)fluoranthene*	181	0.01	0.36	mg/kg	-
Benzo(k)fluoranthene*	181	0.01	0.44	mg/kg	-
Benzo(a)pyrene*	181	0.01	0.45	mg/kg	-
Indeno(1,2,3-cd)pyrene*	181	0.01	0.26	mg/kg	-
Dibenzo(a,h)anthracene*	181	0.01	0.08	mg/kg	-
Benzo[g,h,i]perylene*	181	0.01	0.4	mg/kg	-
Total PAH(16)*	181	0.04	6.64	mg/kg	-

TPH					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
TPH aromatic C ₅ -C ₇ *	181	0.01	< 0.01	mg/kg	DC4/DC5
TPH aromatic C ₇ -C ₈ *	181	0.01	< 0.01	mg/kg	DC4/DC5
TPH aromatic C ₈ -C ₁₀ *	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aromatic C ₁₀ -C ₁₂ *	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aromatic C ₁₂ -C ₁₆ **	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aromatic C ₁₆ - C ₂₁ *	181	1.0	2.8	mg/kg	DC4/DC5
TPH aromatic C ₂₁ -C ₃₅ *	181	1.0	16.9	mg/kg	DC4/DC5
TPH aromatic C ₃₅ -C ₄₀ *	181	1.0	13.0	mg/kg	DC4/DC5
TPH aliphatic C ₅ -C ₆ *	181	0.01	< 0.01	mg/kg	DC4/DC5
TPH aliphatic C ₆ -C ₈ *	181	0.01	< 0.01	mg/kg	DC4/DC5
TPH aliphatic C ₈ -C ₁₀ *	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aliphatic C ₁₀ -C ₁₂ *	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aliphatic C ₁₂ -C ₁₆ *	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aliphatic C ₁₆ - C ₂₁ *	181	1.0	< 1.0	mg/kg	DC4/DC5
TPH aliphatic C ₂₁ -C ₃₅ *	181	1.0	5.8	mg/kg	DC4/DC5
TPH aliphatic C ₃₅ -C ₄₀ *	181	1.0	8.3	mg/kg	DC4/DC5



Report No: OCLA-5367

Sample ID: C00289

PO: OCMT 5367



In partnership with



Soils Suitability Report
Suitability Assessment Report
Soil Compliance Table
2nd May 2023

MTS Environmental Ltd

Contact: Luke Bridges, Director
luke.bridges@mtsenvironmental.co.uk
0117 3704250

OEMA

Contact: Martin Slater, Material
Technologist
martins@oema.co.uk

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Suitability Assessment Comments

This soils suitability report is purely based on the sample data received from OEMA laboratory for a soils sample (Report Number: OCLA 5367) analysed on the 25th April 2023 and issued to MTS on the 2nd May 2023. Only one sample was taken and tested, therefore this report is based on these results. Amplified sampling is required to give the suitability assessment and potential uses outlined in this report continued certainty.

The sample comprises a bulk sample of 10mm manufactured soil; the source of the material is unknown. The source site is the recycling centre, and the sample is taken from the stockpile in the building. Exact details of the site location are unknown so no site investigation or desk study into the site has been done. It is unknown if there have been any pollution incidents at the site.

The sample has been tested based on a standard soils suite.

The sample analysis has been assessed by MTS against a number of criteria to determine potential uses. The criteria that have been assessed are:

- Category 4 Screening Levels (C4SLs) – based on 6% Soil Organic Matter
- Suitable 4 Use Levels (S4ULs)
- Environment Agency Soil Guideline Values
- EIC/AGS/CL:AIRE or ATRISKSOIL Limits

A waste classification has not been conducted as the material is not waste.

Table 1 below details which criteria the material complies with and highlights the potential uses. It must be noted that there are a number of determinants that are missing from the analysis suite and therefore not all of the limits could be assessed. The conclusions of this report are based on the results provided and no ground investigation has been completed; it cannot be confirmed if the material complies with determinant levels that have not been tested.

It is advised that further testing is completed to ensure the material complies with all the available guidance limits for each set of criteria.

Table 1 – Suitable for use compliance

Criteria		Suitable for Use
C4SLs	Residential (with homegrown products)	Yes (providing further testing/confirmation)
	Residential (without homegrown products)	Yes (providing further testing/confirmation)
	Allotment	No
	Commercial	Yes (providing further testing/confirmation)
	Public Open Space (residential)	Yes (providing further testing/confirmation)
	Public Open Space (park)	Yes (providing further testing/confirmation)
S4ULs	Residential (with homegrown products)	Yes (providing further testing/confirmation)
	Residential (without homegrown products)	
	Allotment	

	Commercial	
	Public Open Space (residential)	
	Public Open Space (park)	
EA Soil Guideline Values	Residential	Yes (providing further testing/confirmation)
	Allotment	
	Commercial	
EIC/AGS/CL:AIRE or ATRISKSOIL	Residential (with homegrown products)	No determinants tested
	Residential (without homegrown products)	Yes (providing further testing/confirmation)
	Allotment	No
	Commercial	Yes (providing further testing/confirmation)

The missing determinants from the results and relating criteria are as follows:

Mercury (Inorganic/Methyl) - S4UL / EA SGV

Vinyl Chloride, Trichloroethene, Tetrachloroethene, 1,2-Dichloroethane – C4SL

It should be noted that no testing of asbestos was undertaken but none was observed in the stockpile and none is known to be present in the material.

A WAC test is required if the material is intended to be sent to landfill to determine if it should be sent to an inert, non-hazardous or hazardous facility.

*Disclaimer: This report has been produced solely based on the results provided and further testing is required to confirm the suitability for use of this soil material depending on the intended project. This has been produced to the best knowledge and available guidance at the time of writing this report. An agronomist may need to be consulted before moving the material to confirm these findings and a full ground investigation conducted. If material is to be moved, then a Materials Management Plan should be followed.

As highlighted, there are missing determinants from this sample analysis which require testing to confirm the suitability for use under the criteria.

OEMA Soil Classification - OCLA 5166	
Sample ID	C00289
Date Analysed	4/25/2023

Determinant	Units	OEMA Analysis Result	C4SL - based on 6% SOM						Current S4UL						EA Soil Guideline Value			EIC/AGS/CL:AIRE or ATRISKSOIL			
			Residential		Allotment	Commercial	POS resi	POS park	Residential		Allotment	Commercial	POS resi	POS park	Residential	Allotment	Commercial	Residential		Allotment	Commercial
			With homegrown products	Without homegrown products					With homegrown products	Without homegrown products								With homegrown products	Without homegrown products		
Total Organic Carbon	%	1.1																			
Loss on Ignition	%	3.19																			
Soil Organic Matter	%	2																			
Total Inorganic Carbon	%	0.8																			
Total Carbon	%	2.1																			
% Water, air dried (<30°)	%																				
Water Content 105C	%																				
pH	pH Units	8.3																			
Antimony	mg/kg	2.3																			
Arsenic	mg/kg	19.2	37	40	49	640	79	170	37	40	43	640	79	170	37	43	640	550	ND	7500	
Barium	mg/kg	149																			
Beryllium	mg/kg	0.6																			
Cadmium	mg/kg	0.4	22	150	3.9	410	220	880	11	85	1.9	190	120	560	10	1.8	230				
Cobalt	mg/kg	0.2																			
Chromium	mg/kg	18.6							910	910	18000	8600	1500	33000							
Chromium VI	mg/kg	<0.8	21	21	170	49	21	250	6	6	1.8	33	7.7	220							
Copper	mg/kg	43.4							2400	7100	520	68000	12000	44000							
Mercury	mg/kg	0.1							1.2	1.2	21	58	16	30	1	26	26				
Mercury (Inorganic)	mg/kg																				
Mercury (Methyl)	mg/kg																				
Molybdenum	mg/kg	1.2																670	ND	17000	
Nickel	mg/kg	10.4							130	180	53	980	230	800							
Lead	mg/kg	118	200	310	80	2300	630	1300													
Selenium	mg/kg	<1.0							250	430	88	12000	1100	1800	350	120	13000				
Thallium	mg/kg	<0.2																			
Vanadium	mg/kg	21							410	1200	91	9000	2000	5000							
Zinc	mg/kg	136							3700	40000	620	730000	81000	170000							
Water Soluble Boron	mg/kg	0.6							290	11000	45	240000	21000	46000							
Total Cyanide	mg/kg	<1.0																34	34	34	
PAH (total)	mg/kg	6.64																			
Acenaphthylene	mg/kg	0.04							920	6000	160	100000	15000	30000							
Acenaphthene	mg/kg	0.01							1100	6000	200	100000	15000	30000							
Fluorene	mg/kg	0.02							860	4500	160	71000	9900	20000							
Anthracene	mg/kg	0.17							11000	37000	2200	540000	74000	150000							
Phenanthrene	mg/kg	0.34							440	1500	90	22000	3100	6300							
Flouranthene	mg/kg	1.57							890	1600	290	23000	3100	6400							
Pyrene	mg/kg	1.3							2000	3800	620	54000	7400	15000							
Benz(a)anthracene	mg/kg	0.6							13	15	13	180	29	62							
Chrysene	mg/kg	0.6							27	32	19	350	57	120							
Benzo(b)fluoranthene	mg/kg	0.36							3.7	4	3.9	45	7.2	16							
Benzo(k)fluoranthene	mg/kg	0.44							100	110	130	1200	190	440							
Benzo(a)pyrene	mg/kg	0.45	5	5.3	5.7	77	10	21	3	3.2	3.5	36	5.7	13	2.4	2.7	36				
Indeno(1,2,3-c,d)pyrene	mg/kg	0.26							41	46	39	510	82	180							
Dibenz(a,h)anthracene	mg/kg	0.08							0.3	0.32	0.43	3.6	0.58	1.4							
Benzo(g,h,i)perylene	mg/kg	0.4							350	360	640	4000	640	1600							
Napthalene	mg/kg	0.04							13	13	24	1100	4900	3000							
TPH Total	mg/kg	53.91																			
TPH aromatic C5-C7	mg/kg	<0.01							300	1400	57	86000	56000	92000							
TPH aromatic C7-C8	mg/kg	<0.01							660	3900	120	180000	56000	100000							
TPH aromatic C8-C10	mg/kg	<1.0							190	270	51	17000	5000	10000							
TPH aromatic C10-C12	mg/kg	<1.0							380	1200	74	34000	5000	10000							
TPH aromatic C12-C16	mg/kg	<1.0							660	2500	130	38000	5000	10000							
TPH aromatic C16-C21	mg/kg	2.8							930	1900	260	28000	3800	7800							
TPH aromatic C21-C35	mg/kg	16.9							1700	1900	1600	28000	3800	7900							
TPH aromatic C35-C44	mg/kg	13							1700	1900	1600	28000	3800	7900							
TPH aliphatic C5-C6	mg/kg	<0.01							160	160	3900	12000	600000	18000							
TPH aliphatic C6-C8	mg/kg	<0.08							530	530	13000	40000	620000	320000							
TPH aliphatic C8-C10	mg/kg	<1.0							150	150	1700	11000	13000	21000							
TPH aliphatic C10-C12	mg/kg	<1.0							760	770	7300	47000	13000	24000							
TPH aliphatic C12-C16	mg/kg	<1.0							4300	4300	13000	90000	13000	26000							
TPH aliphatic C16-C35	mg/kg	6.8							110000	110000	270000	1800000	250000	490000							
TPH aliphatic C35-C44	mg/kg	8.3							110000	110000	270000	1800000	250000	490000							
BTEX	mg/kg	<0.01																			
Benzene	mg/kg	<0.01	0.37	1.4	0.075	90	73	110	0.37	1.4	0.075	90	73	110	0.33	0.07	95				
Toluene	mg/kg	<0.01							660	3900	120	180000	56000	100000	610	120	4400				
Ethylbenzene	mg/kg	<0.01							260	440	91	27000	25000	27000	350	90	2800				
Xylene	mg/kg	<0.02																			
MTBE	mg/kg	<0.01																160	220	90	24000