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

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

1227

Our Ref: 22-30001
Your Ref:
WEIGHPOR1812

Analysis Report

Client: L & S Waste Management Ltd
Laveys Lane
Pegham Industrial Park
Fareham
Hampshire
PO15 6SD

Sample Details: 1 soil sample for Top Soil Analysis

Date report issued: 29 April 2022

Number of pages (including this one): 4

Accreditation
All analytes marked **M** have been analysed under the scope of our MCERTS accreditation
All analytes marked **U** have been analysed under the scope of our UKAS accreditation
All analytes marked **m** have been subcontracted and analysed under the scope of their MCERTS accreditation
All analytes marked **u** have been subcontracted and analysed under the scope of their UKAS accreditation
All results labelled with an asterisk (*) are non-conforming due to incorrect sample storage or handling. The result may be invalid.
All comments are beyond the scope of our accrediation.
The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated.
This report shall not be reproduced except in full, without written approval of Envirochem.
Uncertainty of measurement is not accounted for in reported results

Signed on behalf of Envirochem by an authorised signatory

Dan Dockree

Authorised Signatory

Soil Analysis Report

(Analysed in accordance with BS 3882:2015)

Client:	L & S Waste Management Ltd		
Sample Lab Reference:	Job: 22-30001-Samp. 93735-1	**Submitted By:**	Client
Site Details:	Portsmouth Depot	**Date Received:**	20 April 2022
Sample Point:	Sample 1	**Date Analysis Started:**	20 April 2022
Date Sampled:	19 April 2022	**Date Completed:**	29 April 2022
Sampled By:	Client		
Sample Description:	Soil - Clay loam and stones		

Table 1 : Soil Texture (% m/m)

Texture	Method	Sample Result	*Multipurpose Topsoil Range*	*Specific Purpose Range*				
				Acidic	*Calcareous*	*Low Fertility*	*Low Fert.Acidic*	*Low Fert. Calc.*
Clay Content (%)	5.05	30	*5 - 35*					
Silt Content (%)	5.05	35	*0 - 65*					
Sand Content (%)	5.05	35	*30 - 85*					
Soil Texture Class	5.05	Clay loam	*Note: see soil texture triangle in BS3882:2015 for allowed soils*					

Table 2 : Mass Loss on Ignition (%)

Clay percentage	Method	Sample Result	*Multipurpose Topsoil Range*	*Specific Purpose Range*				
				Acidic	*Calcareous*	*Low Fertility*	*Low Fert.Acidic*	*Low Fert. Calc.*
Clay (5 - 20 %)	6.09	2.7	*3 - 20*	*3 - 30*	*3 - 30*	*2 - 20*	*2 - 20*	*2 - 20*
Clay (20 - 35 %)	6.09		*5 - 20*	*5 - 30*	*5 - 30*	*2 - 20*	*2 - 20*	*2 - 20*

Table 3 : Maximum Coarse Fragment Content (% (m/m))

Particle size	Sample Result	*Multipurpose Topsoil Range*	*Specific Purpose Range*				
			Acidic	*Calcareous*	*Low Fertility*	*Low Fert.Acidic*	*Low Fert. Calc.*
> 2 mm	22.2	*0 - 30*					
> 20 mm	0.0	*0 - 10*					
> 50 mm	0	*0*					

Table 4 : Chemical Analysis (air-dried, sieved (<2 mm) soil)

Analyte	Method	Sample Result	*Multipurpose Topsoil Range*	*Specific Purpose Range*				
				Acidic	*Calcareous*	*Low Fertility*	*Low Fert.Acidic*	*Low Fert. Calc.*
soil pH Value**M**	5.06 & 6.03	8.27 *	*5.5 - 8.5*	*3.5 - 5.5*	*7.5 - 9.0*	*3.5 - 9.0*	*3.5 - 5.5*	*7.5 - 9.0*
Calcium Carbonate (%)	6.07	2.8	-	-	*> 1*	-	-	*> 1*

Table 5 : Available Plant Nutrient Content

Analyte	Method	Sample Result	Multipurpose Topsoil Range	*Specific Purpose Range*				
				Acidic	*Calcareous*	*Low Fertility*	*Low Fert.Acidic*	*Low Fert. Calc.*
Nitrogen (% m/m)		0.19	> 0.15	*> 0.15*	*> 0.15*	-	-	-
Extractable Phosphate (mg/l)	6.08	40.4	16 - 140	*16 - 140*	*16 - 140*	*< 20*	*< 20*	*< 20*
Extractable Potassium (mg/l)	6.08	157	121 - 1500	*121-1500*	*121-1500*	-	-	-
Extractable Magnesium (mg/l)	6.08	46.8	51 - 600	*51 - 600*	*51 - 600*	-	-	-
Carbon:Nitrogen Ratio		8.15	< 20:1	< 20:1	< 20:1	< 35:1	< 35:1	< 35:1
Soil Electrical Conductivity (µS/cm)		587.0	< 3300	-				
Exchangeable Sodium (%) **1)**	6.08	3.23	< 15					

1) Need be measured only if the electrical conductivity is greater than 2800 us/cm

Table 6 : Phytotoxic Contaminants (by soil pH) (mg/kg) analyses carried out on air dried samples

	Method	Sample	*Multipurpose and Specific purpose Topsoils*		
Soil pH Range			*< 6.0*	*6.0 - 7.0*	*> 7.0*
Zinc **M**	5.18 & 6.08	141 *	*< 200*	*< 200*	*< 300*
Copper**M**	5.18 & 6.08	36 *	*< 100*	*< 135*	*< 200*
Nickel **M**	5.18 & 6.08	14 *	*< 60*	*< 75*	*< 110*

Table 7 : Additional Physical characteristics

	Method	Sample
Water Content (%)	6.01	7.7
Total Organic Carbon (%)	6.07	1.2
Soil Organic Matter (%)	6.09	2.1
Visible Contaminants (%)	Total Visable contaminants	5.3
	Plastic Visable contaminants	0.0
	Sharps Visable contaminants	2.8

Comments: (including details of weeds and other visible contaminants - all comments are beyond the scope of our accreditation)

Results marked with an asterisk (*) are non conforming due to sampling handling time or conditions. Therefore,the result may be invalid.
All limits are taken from BS 3882:2015

Method Summaries:-

5.01 - Soil sample pre-treatment, air-drying, crushing, sieving and subdividing
5.02 - Solvent extraction (acetone/heptane) of soils for hydrocarbon analyses
5.04 - Aqueous leaching of soil and waste samples
5.05 - Soil texture classification
5.06 - Aqueous extraction of dried soils/sludges/waste in a ration of 2.5:1
5.18 - Digestion of solid samples in aqua-regia using hot-block for metals analysis
6.01 - Gravimetric determination of water content of solid samples by oven drying at 105ºC.
6.02 - Determination of anions by ion chromatography
6.03 - Determination of pH in aqueous samples and extracts by pH electrode.
6.04 - Determination of petroleum hydrocarbons by Gas chromatography of solvent extracts (FID)
6.05 - Determination of poly-aromatic- hydrocarbons by gas chromatography linked mass spectrometry (GC-MS)
6.06 - Determination of poly-chlorinated-biphenyls (PCBs) by gas chromatography linked mass spectrometry (GC-MS)
6.07 - Determination of dissolved organic carbon (DOC) and total organic carbon (TOC) by furnace combustion and infra-red detection of carbon dioxide.
6.08 - Determination of metals in digests and leachates by inductively coupled plasma optical emission spectrophotometry (ICP-OES)
6.09 - Determination of loss on ignition by gravimetry and combustion in muffle furnace

Reg. No. 2378228 England. Registered Office: Envirochem, 12 The Gardens, Broadcut, Fareham, Hampshire, PO16 8SS.