



Our Ref: 21-26982
Your Ref: PAID BY BACS

ENVIROCHEM

Analytical Laboratories Ltd.

12 The Gardens
Broadcut, Fareham
Hampshire
PO16 8SS



1227

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

Analysis Report

Client: S.A. Claffey Ltd
No. 11 Beverley Grove
Farlington
Hampshire
PO6 1BP
England

Sample Details: 6 soil samples for Waste Acceptance Criteria (WAC) analysis

Date report issued: 24 September 2021

Number of pages (including this one): 8

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.

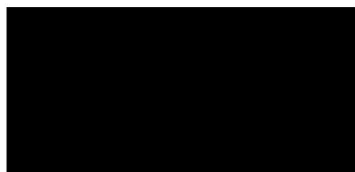
All comments are beyond the scope of our accreditation.

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



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	S.A. Claffey Ltd	Date Sampled:	Not Supplied
Site:	Not Supplied	Date Received:	15 September 2021
Sample Description:	Soil - WAC	Submitted by:	Client
Sample Details:	Sample 1 - 1.8 Side Wall	Date Analysis Started:	15 September 2021
Sampled By:	Client	Date Completed:	23 September 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80811	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	< 50.0	500	---	---
Loss on ignition (%)	5.01, 6.09	< 1.0	---	---	10 %
Total Organic Carbon (%)	6.07	< 0.1	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105ÅC)	6.01	20.5	---	---	---
% of material > 4mm	5.01	0.0	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80811	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	5.1	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	2.9	0.5	10	70
Copper U	5.04, 6.08	0.8	2	50	100
Lead U	5.04, 6.08	2.4	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	1.7	0.5	10	30
Nickel U	5.04, 6.08	0.5	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	4	4	50	200
Sulphate	5.04, 6.02	13.6	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	11.2	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	7.96	To be set	> 6	---
Total dissolved solids	5.04, 6.12	271	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	186	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	S.A. Claffey Ltd	Date Sampled:	Not Supplied
Site:	Not Supplied	Date Received:	15 September 2021
Sample Description:	Soil - WAC	Submitted by:	Client
Sample Details:	Sample 2 - Bottom of Tank 3	Date Analysis Started:	15 September 2021
Sampled By:	Client	Date Completed:	24 September 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80812	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	< 50.0	500	---	---
Loss on ignition (%)	5.01, 6.09	< 1.0	---	---	10 %
Total Organic Carbon (%)	6.07	< 0.1	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105ÅC)	6.01	15.8	---	---	---
% of material > 4mm	5.01	6.2	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80812	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	0.3	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	0.2	0.5	10	70
Copper U	5.04, 6.08	< 0.2	2	50	100
Lead U	5.04, 6.08	< 0.4	0.5	10	50
Mercury U	5.04, 6.08	0.13	0.01	0.2	2
Molybdenum	5.04, 6.08	0.8	0.5	10	30
Nickel U	5.04, 6.08	< 0.2	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	< 1	4	50	200
Sulphate	5.04, 6.02	9.9	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	8.0	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	9.45	To be set	> 6	---
Total dissolved solids	5.04, 6.12	174	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	59.2	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	S.A. Claffey Ltd	Date Sampled:	Not Supplied
Site:	Not Supplied	Date Received:	15 September 2021
Sample Description:	Soil - WAC	Submitted by:	Client
Sample Details:	Sample 3 - Bottom of Tank 2	Date Analysis Started:	15 September 2021
Sampled By:	Client	Date Completed:	24 September 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80813	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	< 50.0	500	---	---
Loss on ignition (%)	5.01, 6.09	< 1.0	---	---	10 %
Total Organic Carbon (%)	6.07	< 0.1	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105ÅC)	6.01	15.1	---	---	---
% of material > 4mm	5.01	2.0	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80813	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	0.9	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	1.0	0.5	10	70
Copper U	5.04, 6.08	< 0.2	2	50	100
Lead U	5.04, 6.08	0.9	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	0.3	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	1	4	50	200
Sulphate	5.04, 6.02	7.3	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	6.7	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	8.31	To be set	> 6	---
Total dissolved solids	5.04, 6.12	172	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	< 50.0	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	S.A. Claffey Ltd	Date Sampled:	Not Supplied
Site:	Not Supplied	Date Received:	15 September 2021
Sample Description:	Soil - WAC	Submitted by:	Client
Sample Details:	Sample 4 - 1.8 End Wall Tank 2	Date Analysis Started:	15 September 2021
Sampled By:	Client	Date Completed:	23 September 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80814	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	< 50.0	500	---	---
Loss on ignition (%)	5.01, 6.09	< 1.0	---	---	10 %
Total Organic Carbon (%)	6.07	< 0.1	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105ÅC)	6.01	18.8	---	---	---
% of material > 4mm	5.01	0.0	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80814	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	7.9	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	4.1	0.5	10	70
Copper U	5.04, 6.08	1.1	2	50	100
Lead U	5.04, 6.08	3.7	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	0.8	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	5	4	50	200
Sulphate	5.04, 6.02	6.2	1000	20000	50000
Fluoride	5.04, 6.02	3.7	10	150	500
Chloride	5.04, 6.02	7.7	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	7.65	To be set	> 6	---
Total dissolved solids	5.04, 6.12	130	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	223	500	800	1000

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Comments: (comments are beyond the scope of UKAS accreditation)



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	S.A. Claffey Ltd	Date Sampled:	Not Supplied
Site:	Not Supplied	Date Received:	15 September 2021
Sample Description:	Soil - WAC	Submitted by:	Client
Sample Details:	Sample 5 - Bottom of Tank 1	Date Analysis Started:	15 September 2021
Sampled By:	Client	Date Completed:	23 September 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80815	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	< 50.0	500	---	---
Loss on ignition (%)	5.01, 6.09	< 1.0	---	---	10 %
Total Organic Carbon (%)	6.07	< 0.1	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105ÅC)	6.01	15.0	---	---	---
% of material > 4mm	5.01	1.4	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80815	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	1.2	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	1.0	0.5	10	70
Copper U	5.04, 6.08	< 0.2	2	50	100
Lead U	5.04, 6.08	0.9	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	0.2	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	1	4	50	200
Sulphate	5.04, 6.02	7.8	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	9.4	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	8.06	To be set	> 6	---
Total dissolved solids	5.04, 6.12	127	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	< 50.0	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

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The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	S.A. Claffey Ltd	Date Sampled:	Not Supplied
Site:	Not Supplied	Date Received:	15 September 2021
Sample Description:	Soil - WAC	Submitted by:	Client
Sample Details:	Sample 6 - 1.8 Side of Tank 1	Date Analysis Started:	15 September 2021
Sampled By:	Client	Date Completed:	23 September 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80816	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	< 50.0	500	---	---
Loss on ignition (%)	5.01, 6.09	< 1.0	---	---	10 %
Total Organic Carbon (%)	6.07	< 0.1	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105ÅC)	6.01	16.5	---	---	---
% of material > 4mm	5.01	3.3	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-26982 Samp. 80816	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	4.8	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	2.6	0.5	10	70
Copper U	5.04, 6.08	0.6	2	50	100
Lead U	5.04, 6.08	2.0	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	0.5	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	3	4	50	200
Sulphate	5.04, 6.02	9.9	1000	20000	50000
Fluoride	5.04, 6.02	3.8	10	150	500
Chloride	5.04, 6.02	5.4	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	7.60	To be set	> 6	---
Total dissolved solids	5.04, 6.12	117	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	85.3	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



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 105°C.
- 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