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Web: www.fitzsci.ie
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| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/01 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 44.6 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 8.1 | % | |
| % Moisture Content | 302 | Calculation | 55.4 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 52.0 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 6.9 | % | |
| % Moisture Content | 302 | Calculation | 48.0 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/02 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 53.82 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 1.72 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.03 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 5.78 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.031 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 91.47 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/02 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.517 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 34.29 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Customer* | *Eamonn Horgan* | Lab Report Ref. No. | 4570/2503119/02 |
| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 22.7 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.005 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 20.96 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 20.96 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 430 | us/cm @ 20C | |

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| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.015 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 17.04 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 104.3 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | | |
|---|---|---|---|
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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.9 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | <0.38 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0137 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 28.23 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| | | *Sampled On* | *04/03/2025* |
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| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.023 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 23.07 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 19.5 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 22.0 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 11.9 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | 5.3 | % Retained | |

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|---|---|---|---|
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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 28.1 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | 13.2 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.30 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.98 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2620 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 689.5 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 25.78 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 1.9 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.05 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 89.13 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 36.6 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 8.3 | % | |
| % Moisture Content | 302 | Calculation | 63.4 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/03 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 36.88 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 2.18 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.048 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 6.54 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.284 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 120.51 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.314 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 41.57 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 38.7 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.007 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 23.87 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 23.87 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 390 | us/cm @ 20C | |

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| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.019 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 18.39 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 112.8 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

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|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 1.4 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.62 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0444 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 29.66 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | 0.068 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.021 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 26.21 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 30.6 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 31.5 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 7.1 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | 1.2 | % Retained | |

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| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan* | Lab Report Ref. No. | 4570/2503119/03 |
| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 29.6 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | <1.0 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.34 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.89 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2500 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 573.1 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 154.34 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 2.1 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.071 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 119.42 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1.2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

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**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 47.3 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 6.9 | % | |
| % Moisture Content | 302 | Calculation | 52.7 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 47.55 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 1.73 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.023 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 4.63 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.594 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 90.35 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/04 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.508 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 28.91 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 24.9 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.003 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 16.29 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 16.29 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 540 | us/cm @ 20C | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.072 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 15.75 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 104.3 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.8 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.41 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0076 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 24.89 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.022 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 19.92 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 16.4 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 50.3 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 5.5 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 27.1 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | <1.0 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.17 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.83 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 3660 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 1134.9 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 132.77 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 2.0 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/04 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.043 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 89.20 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | Date of Receipt | 05/03/2025 |
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| | | Date Testing Commenced | 05/03/2025 |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L2* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

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**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 45.6 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 8.1 | % | |
| % Moisture Content | 302 | Calculation | 54.4 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

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|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 28.85 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 2.35 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.056 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 6.80 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 0.871 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 132.23 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.316 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 46.75 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

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|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 26.0 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.004 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 25.45 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 25.45 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 420 | us/cm @ 20C | |

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| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/05 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.029 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 21.92 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 126.9 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 1.1 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.54 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0223 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 35.83 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | 0.066 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.019 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 26.18 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 18.8 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 24.0 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 9.5 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 33.0 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | 14.7 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.23 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.91 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2800 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 720.3 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 17.73 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | <1.0 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.048 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 136.42 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L3* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

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**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 38.0 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 11.3 | % | |
| % Moisture Content | 302 | Calculation | 62.0 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 105.98 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 2.45 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.058 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 6.68 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.758 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 145.09 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.842 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 44.17 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 50.7 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.005 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 25.94 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 25.94 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 506 | us/cm @ 20C | |

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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.015 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 20.83 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 132.8 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.8 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | <0.38 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0169 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 31.89 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.025 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 28.62 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 32.6 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 21.1 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 7.4 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

**Signed:** A Harmon **Date: 03/06/2025**

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* Subcontracted *

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|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/06 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 38.2 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | <1.0 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.24 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.80 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2920 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 351.9 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 115.48 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 2.6 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.049 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 139.00 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/06 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L4* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L5* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 43.3 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 8.8 | % | |
| % Moisture Content | 302 | Calculation | 56.7 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L5* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L5* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 98.46 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 3.12 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.047 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 8.33 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.39 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 149.49 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L5* | *Sample Type* | *Solid* |
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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 2.071 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 47.86 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 39.1 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.004 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 27.85 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 27.85 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 481 | us/cm @ 20C | |

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|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.017 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 19.35 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | 27.85 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 150.6 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.9 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | <0.38 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0171 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 31.89 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.025 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 28.60 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 19.9 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 29.4 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 9.6 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 40.1 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | <1.0 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.26 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.96 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2600 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 531.4 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 27.44 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 1.7 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L5* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.055 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 140.80 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L5* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

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# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

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**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 46.6 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 8.0 | % | |
| % Moisture Content | 302 | Calculation | 53.4 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
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| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 61.85 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 2.11 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.04 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 6.87 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.269 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 123.91 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.781 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 44.91 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 37.6 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.007 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 27.29 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 27.29 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 467 | us/cm @ 20C | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.017 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 18.93 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 131.0 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.9 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.54 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0097 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 31.08 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.022 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 27.77 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 25.5 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 23.2 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 8.1 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | 4.4 | % Retained | |

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| *Customer Ref* | *L6* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 34.2 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | 4.5 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.53 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.99 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2940 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 825.9 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 26.65 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 2.3 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.046 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 123.33 | mg/kg | |

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| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

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**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 42.4 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 8.4 | % | |
| % Moisture Content | 302 | Calculation | 57.6 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 113.46 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 2.36 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.081 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 7.53 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.142 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 120.31 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
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| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.994 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 47.22 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 69.5 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.006 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 27.35 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 27.35 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 501 | us/cm @ 20C | |

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| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.012 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 18.40 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 121.7 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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| *Ref 2* | | | |
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# CERTIFICATE OF ANALYSIS

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|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.9 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.48 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.019 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 29.13 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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**Aoife Harmon - Laboratory Supervisor**

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| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan* | Lab Report Ref. No. | 4570/2503119/09 |
| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.021 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 27.64 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 24.7 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 23.5 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 9.3 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/09 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 42.0 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | <1.0 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.42 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 8.02 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2800 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 265.8 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 65.09 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 1.9 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.043 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 122.02 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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|---|---|---|---|
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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L7* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 40.3 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 9.1 | % | |
| % Moisture Content | 302 | Calculation | 59.7 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 107.99 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 2.46 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.071 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 8.11 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.576 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 148.83 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
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| | | Date Testing Commenced | 05/03/2025 |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 2.339 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 46.05 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 72.5 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.005 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 25.86 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 25.86 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 526 | us/cm @ 20C | |

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| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.012 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 19.96 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 96.3 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.7 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.49 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0102 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 30.51 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.022 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 27.92 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 30.7 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 24.1 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 5.6 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 39.6 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | <1.0 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.35 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.89 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2760 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 292.8 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 154.69 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 2.7 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.044 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 153.83 | mg/kg | |

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| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L8* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

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**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L9* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 54.1 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 4.6 | % | |
| % Moisture Content | 302 | Calculation | 46.0 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

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|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 11.58 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | 0.03 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.031 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 5.83 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 0.826 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 75.36 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | 0.20 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| *Customer Ref* | *L9* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | 0.4 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | 0.2 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.363 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 28.89 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
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| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L9* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 22.4 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.009 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 17.67 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 17.67 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | 0.2 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 390 | us/cm @ 20C | |

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| *Customer Ref* | *L9* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

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|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.04 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 23.52 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 97.6 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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# CERTIFICATE OF ANALYSIS

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|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 0.8 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.44 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | 0.2 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0409 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 36.89 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | 0.165 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| *Customer Ref* | *L9* | *Sample Type* | *Solid* |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.027 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 20.59 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | 1.2 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 22.1 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 21.8 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 9.2 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 31.0 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | 15.2 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.68 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 8.10 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2320 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 789.1 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 49.36 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 3.2 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

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|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.108 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 86.96 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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Email: info@fitzsci.ie

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Customer supplied information appear in italics.

| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/11 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L9* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

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|---|---|---|---|
| *Customer* | *Eamonn Horgan* | Lab Report Ref. No. | 4570/2503119/12 |
| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| % Dry Matter | 302 | Drying @ 104 C | 46.7 | % | |
| % Loss on Ignition | 310 | Ashing @ 550 C | 7.1 | % | |
| % Moisture Content | 302 | Calculation | 53.3 | % | |
| 1,1,1,2-tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,1-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2,2-Tetrachloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1,2-Trichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,1-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2 Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2 Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,3-Trichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,2,4-Trichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2,4-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromo-3-chloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,2-Dibromoethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 54.12 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 1.82 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.064 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 7.06 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 0.664 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 79.86 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 2.184 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 42.85 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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|---|---|---|---|
| *Customer* | *Eamonn Horgan* | Lab Report Ref. No. | 4570/2503119/12 |
| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 23.7 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.01 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 24.36 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 24.36 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 379 | us/cm @ 20C | |

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|---|---|---|---|
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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.022 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 15.49 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 117.2 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

Acc. : Accredited Parameters by ISO/IEC 17025:2017

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* Subcontracted *

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| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/12 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 1.0 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | <0.38 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0368 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 24.37 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.022 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 24.80 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 29.2 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 20.4 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 11.1 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | <1.0 | % Retained | |

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| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan* | Lab Report Ref. No. | 4570/2503119/12 |
| | *Waterways Ireland* | Date of Receipt | 05/03/2025 |
| | *Dock Road* | *Sampled On* | *04/03/2025* |
| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 37.1 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | 2.2 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.67 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 8.25 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2200 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 331.5 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 37.28 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 1.8 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.00 | mg/kg | |

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| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.076 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 87.01 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L10* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

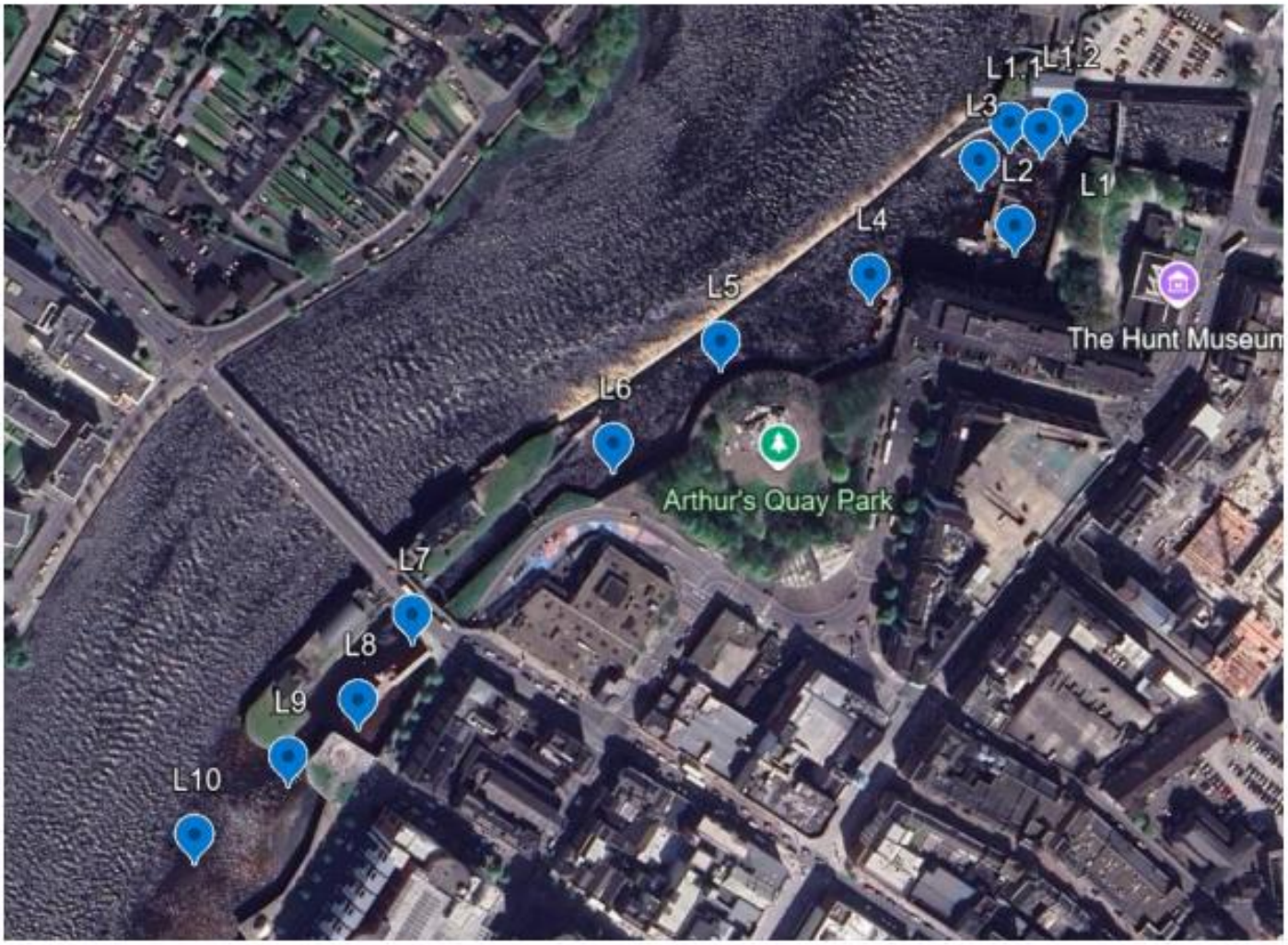
**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.

## Overview Map of the 12 Sampling Locations









## Coordinates of Sampling Locations

| Station | Latitude | Longitude |
|---|---|---|
| L1 | 52.66681 | -8.62514 |
| L1.1 | TBC - Close to point location identified above | |
| L1.2 | TBC - Close to point location identified above | |
| L2 | 52.66639 | -8.62534 |
| L3 | 52.66671 | -8.62554 |
| L4 | 52.66615 | -8.6263 |
| L5 | 52.66593 | -8.62736 |
| L6 | 52.66551 | -8.62811 |
| L7 | 52.66473 | -8.62958 |
| L8 | 52.66439 | -8.62993 |
| L9 | 52.66415 | -8.63047 |
| L10 | 52.66377 | -8.63116 |

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|---|---|---|---|
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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| 1,2-Dichloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3,5-Trimethylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,3-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,3-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 1,4-Dichlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,2-Dichloropropane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2,4-Dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2,6-dinitrotoluene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chloronaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| 2-Methylnaphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 2-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 3-Nitroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Bromophenylpheny ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chloroaniline (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorodiphenyl ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| 4-Chlorotoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Acenaphthene (Solid) | 200 | GCMS | <0.1 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Acenaphthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acenaphthylene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Acenapthylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Acid Neutralisation capacity (pH4) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Neutralisation Capacity (pH7) | 314 | Titrimetry | <0.5 | mol/Kg | |
| Acid Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Alkali Reserve | 582 | Titrimetry | <0.05 | g NaOH/100g | |
| Ammonia (Leachate) | 114 | Colorimetry | 64.57 | mg/Kg as N | |
| Anthracene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Antimony (Leachate) | 177 | ICPMS | <0.02 | mg/kg | |
| Antimony Solid (Other) | 224 | ICP-OES | 1.91 | mg/kg | |
| Arsenic (Leachate) | 177 | ICPMS | 0.035 | mg/kg | |
| Arsenic Solid (Other) | 224 | ICP-OES | 7.32 | mg/kg | |
| Asbestos Identification | 574 | Microscopy | Not Detected | NA | |
| Barium (Leachate) | 177 | ICPMS | 1.257 | mg/kg | |
| Barium Solid (Other) | 224 | ICP-OES | 136.26 | mg/kg | |
| Benzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Benzo(a)anthracene (Solid) | 200 | GCMS | <0.05 | mg/kg | |
| Benzo(a)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |

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| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Benzo(a)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(a)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(b)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(b)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(g,h,i)perylene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(g,h,i)perylene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzo(k)fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Benzo(k)fluorathene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Benzyl alcohol (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloro-1-methylethyl) ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethoxy)methane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-chloroethyl)ether (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| bis (2-ethylhexyl)phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Boron (Leachate) | 177 | ICPMS | 1.425 | mg/kg | |
| Boron Solid (Other) | 224 | ICP-OES | 40.10 | mg/kg | |
| Bromobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromodichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromoform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Bromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |

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| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| BTEX Total (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Butyl benzyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Cadmium (Leachate) | 177 | ICPMS | <0.001 | mg/kg | |
| Cadmium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Carbon tetrachloride (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Carbonate (Leachate) | 102 | Colorimetry | <5.5 | mg/Kg CaCO3 | |
| Chloride (Leachate WAC) | 190 | IC | 32.8 | mg/Kg | |
| Chlorobenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloroform (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Chromium (Leachate) | 177 | ICPMS | 0.005 | mg/kg | |
| Chromium III (Solid) | 177 | Calculation | 24.26 | mg/kg | |
| Chromium Solid (Other) | 224 | ICP-OES | 24.26 | mg/kg | |
| Chromium VI (Solid) | 645 | Flow analysis | <0.6 | mg/kg | |
| Chrysene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Chrysene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| cis-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| cis-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Conductivity (Leachate) (Solid)(at 20C) | 112 | Electrometry | 458 | us/cm @ 20C | |

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| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Copper (Leachate) | 177 | ICPMS | 0.012 | mg/kg | |
| Copper Solid (Other) | 224 | ICP-OES | 19.06 | mg/kg | |
| Coronene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Dibenzo(a,h)anthracene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibenzofuran (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Dibromochloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dibromomethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Dibutyltin (Solid)* | 0 | By Subcontractor | <5.0 | ug/Kg | |
| Dichlorodifluoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Dichloromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| di-ethyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-methyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-butyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| di-n-octyl phthalate (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| DOC (Leachate) | 316 | TOC Analyser | 113.3 | mg/Kg | |
| Ethylbenzene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Fluoranthene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Fluoranthene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluorene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |

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| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Fluorene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Fluoride (Leachate WAC) | 190 | IC | 1.0 | mg/Kg | |
| *gamma-HCH (Lindane) (Solid)* | 0 | By Subcontractor | 0.87 | ug/kg | |
| Hexachlorobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachlorobutadiene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Hexachlorocyclopentadiene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Hexachloroethane (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-c,d)pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Indeno(1,2,3-cd)pyrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Isophorone (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Isopropylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Lead (Leachate) | 177 | ICPMS | 0.0106 | mg/kg | |
| Lead Solid (Other) | 224 | ICP-OES | 29.60 | mg/kg | |
| m- + p-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| Mercury (Leachate) | 178 | ICPMS | <0.001 | mg/kg | |
| Mercury Solid (OES) | 229 | ICP-OES | <0.0025 | mg/kg | |
| Mineral Oil (Solid) C10-40 | 572 | GC x GC-FID | <10 | mg/kg | |
| Molybdenum (Leachate) | 226 | ICPMS | <0.05 | mg/kg | |
| Molybdenum Solid (OES) | 228 | ICP-OES | <0.005 | mg/kg | |

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| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
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# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| MtBE (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Naphthalene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Naphthalene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Naphthalene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| n-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Nickel (Leachate) | 177 | ICPMS | 0.018 | mg/kg | |
| Nickel Solid (Other) | 224 | ICP-OES | 26.73 | mg/kg | |
| Nitrobenzene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| N-nitrosodi-n-propylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-nitrosodiphenylamine (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| n-Propylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| o-Xylene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| *p,p-DDD (Solid)* | 0 | By Subcontractor | <0.58 | ug/kg | |
| *p,p-DDE (Solid)* | 0 | By Subcontractor | <0.75 | ug/kg | |
| *p,p-DDT (Solid)* | 0 | By Subcontractor | <0.31 | ug/kg | |
| PAHs Solid (Sum of 17) | 200 | GCMS | <0.1 | mg/Kg | |
| Particle Size < 125um | 498 | Mechanical Shaker | 21.6 | % retained | |
| Particle Size > 125um | 498 | Mechanical Shaker | 18.0 | % Retained | |
| Particle Size > 2mm | 498 | Mechanical Shaker | 17.2 | % Retained | |
| Particle Size > 4mm | 498 | Mechanical Shaker | 2.8 | % Retained | |

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| | *Drewsborough* | Date Testing Commenced | 05/03/2025 |
| | *Scariff* | Received or Collected | By Fitz: Pick up Derek Somerville |
| | *Co Clare* | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Particle Size > 500um | 498 | Mechanical Shaker | 33.3 | % Retained | |
| Particle Size > 5mm | 498 | Mechanical Shaker | 7.2 | % Retained | |
| PCB 101 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 118 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 138 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 153 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 180 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 28 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCB 52 (Solid) | 323 | GCMS | <0.005 | mg/Kg | |
| PCBs Solid (Sum of 7) | 323 | GCMS | <0.005 | mg/Kg | |
| pH (Leachate) | 110 | Electrometry | 7.09 | pH Units | INAB |
| pH (Solid) | 110 | Electrometry | 7.84 | pH Units | |
| Phenanthrene (Solid) | 200 | GCMS | <0.1 | mg/Kg | |
| Phenanthrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| Phenol Index (Leachate) | 128 | Colorimetry | <0.01 | mg/Kg | |
| p-Isopropyltoluene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Pyrene (Solid) | 200 | GCMS | <0.1 | mg/kg | |
| Pyrene (Solid) SVOC | 155 | GCMS | <2.5 | mg/kg | |
| sec-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Selenium (Leachate) | 177 | ICPMS | <0.03 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

Acc. : Accredited Parameters by ISO/IEC 17025:2017

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* Subcontracted *

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A copy of this certificate is available on www.fitzsci.ie. Customer supplied information appear in italics.

| | | | |
|---|---|---|---|
| *Customer* | *Eamonn Horgan*<br>*Waterways Ireland*<br>*Dock Road*<br>*Drewsborough*<br>*Scariff*<br>*Co Clare* | Lab Report Ref. No. | 4570/2503119/01 |
| | | Date of Receipt | 05/03/2025 |
| | | *Sampled On* | *04/03/2025* |
| | | Date Testing Commenced | 05/03/2025 |
| | | Received or Collected | By Fitz: Pick up Derek Somerville |
| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| Selenium Solid (Other) | 224 | ICP-OES | <0.01 | mg/kg | |
| Solids (Total Dissolved) Leachate | 105 | Evaporation/ Gravimetry | 2860 | mg/Kg | INAB |
| Styrene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Sulphate (Leachate WAC) | 190 | IC | 732.0 | mg/Kg | |
| Sulphate (Solid) | 119 | Colorimetry | 139.3 | mg/Kg as SO4 | |
| tert-Butylbenzene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Tetrachloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| TOC (Solid) | 315 | TOC Analyser | 2.4 | % | |
| Toluene (Solid) VOC | 203 | GCMS | <1.00 | mg/kg | |
| TPH Solid Aliphatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aliphatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C10-C12) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C12-C16) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C16-C21) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C21-C35) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Aromatics (>C35-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

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| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

| Test Parameter | SOP | Analytical Technique | Result | Units | Acc. |
|---|---|---|---|---|---|
| TPH Solid Aromatics (C8-C10) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aliphatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| TPH Solid Total Aromatics (C8-C40) | 572 | GC x GC-FID | <10.0 | mg/kg | |
| trans-1,2-Dichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| trans-1,3-Dichloropropene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| *Tributyltin (Solid)* | 0 | By Subcontractor | <2.0 | ug/Kg | |
| Trichloroethene (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Trichlorofuoromethane (Solid) VOC | 203 | GCMS | <1 | mg/kg | |
| Vinyl Chloride (Solid) | 203 | GCMS | <1 | mg/kg | |
| Zinc (Leachate) | 177 | ICPMS | 0.03 | mg/kg | |
| Zinc Solid (Other) | 224 | ICP-OES | 136.74 | mg/kg | |

**Signed:** A Harmon **Date: 03/06/2025**

**Aoife Harmon - Laboratory Supervisor**

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| | | *Sampled On* | *04/03/2025* |
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| | | Condition on Receipt | Acceptable |
| *Customer PO* | *250023551* | Date of Report | 03/06/2025 |
| *Customer Ref* | *L1* | *Sample Type* | *Solid* |
| *Ref 2* | | | |
| *Ref 3* | | | |

# CERTIFICATE OF ANALYSIS

# NOTES

**Note 1:** The customer is responsible for taking a representative sample. Where drying is required, solid samples are dry crushed to a uniform 2 mm particle size. All pebbles, stones, glass and wood are included, unless removal is requested by by the customer. Metal pieces are excluded.

**Note 2:** Please refer to the certificate of analysis for details relating to sample deviation. If samples have been classed as deviating, data may not be representative of the sample at the time of sampling and it is possible that results may be compromised.

**Note 3:** Group LODs are reported as less than the lowest individual LOD.

**Note 4:** Samples are retained for 14 days after the certificate date and will then be disposed of.

**Note 5:** Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

**Note 6:** Results shall not be reproduced, except in full, without the approval of Fitz Scientific.

**Note 7:** Results contained in this report relate only to the samples tested.

**Note 8:** Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.

**Note 9:** The stability period for a test is defined as the time elapsed between sampling and the start of sample preparation. Testing completed any time after this period will be deemed deviant.

**Note 10:** Elemental analysis for soil and construction & demolition waste samples is reported on a dry weight basis.

**Note 11:** Our Total TPH method is a GC X GC method. We do not currently complete a clean up stage. Reported TPH results may include humics and other non TPH organics.

**Note 12:** Please refer to the relevant waste licence conditions at the proposed disposal site.

**Note 13:** Samples are leached in accordance with EN 12457-2:2002.

**Note 14:** Leachate results are reported as L/S 10. These results have been calculated in accordance with EN 12457-2:2002.

**Note 15:** Asbestos analysis is carried out as only a qualitative method, which means we determine either presence or absence.

**Note 16:** All organic results are analysed as received and all results are corrected for dry weight at 104 C

**Note 17:** In accordance with EN 12457-2:2002, conductivity analysis is performed after the leachate preparation is completed.