


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

| | | |
|--|---|--|
|  <p>4041 Accredited to ISO/IEC 17025:2017</p> | I2 Analytical Ltd Issue No: 095 Issue date: 22 March 2021 | |
| | 7 Woodshots Meadow Croxley Park Croxley Green Hertfordshire WD18 8YS | Contact: Dr Claire Stone Tel: +44 (0)1923 225404 Fax: +44(0) 1923 237404 E-Mail: c.stone@i2analytical.com Website: www.i2analytical.com |
| Testing performed by the Organisation at the locations specified below | | |

Locations covered by the organisation and their relevant activities

Laboratory locations:

| Location details | Activity | Location code |
|--|---|---------------|
| Address 7 Woodshots Meadow Croxley Park Croxley Green Hertfordshire WD18 8YS Local contact Dr Claire Stone | Environmental Analysis | A |
| Address Sp. z o.o. ul. Pionerów 39 41-711 Ruda Ślaska Poland Local contact Mrs Marzena Babik Tel: 00 48 323 426 011 Fax: 00 48 323 426 012 E-Mail: m.babik@i2analytical.com | Environmental Analysis Environmental Sampling Health and Hygiene Aggregates: Physical Tests Soils: Mechanical & Physical tests Fuel Technology | B |
| Address Unit 8 Delta Court Sky Business Park Hayfield Lane Finningley Doncaster DN9 3GN Local contact Dr Claire Stone Tel: +44 (0) 1923 225404 | Sample storage, Preparation and administration Aggregates: Sampling from Stockpiles Soils: Mechanical & Physical tests | C |
| Address 8 Harrowden Road Brackmills Northampton Northamptonshire NN4 7EB Local contact Dr Claire Stone Tel: 44 (0) 1923 225404 | Sample storage, and Preparation and administration Aggregates: Sampling from Stockpiles; Physical Testing Soils Physical testing | D |
| Address 40 Carron Pl, East Kilbride, Glasgow G75 0YL Local contact Dr Claire Stone Tel: 44 (0) 1923 225404 | Sample receipt, Storage and Customer Service. Environmental and Geotechnical Samples | F |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Location details | Activity | Location code | |
|--|---|--|---|
| Address Unit E5 LarkfieldTrading Estate New Hythe Road Kent ME20 6SW | Local contact Dr Claire Stone Tel: 44 (0) 1923 225404 | Sample storage, and Preparation and administration Aggregates: Physical Testing Soils Physical testing | G |

Site activities performed away from the locations listed above:

| Location details | Activity | Location code | |
|--|--|--|------|
| All locations suitable for the activities listed | Local contact Dr Claire Stone Tel: 44 (0) 1923 225404 | Testing: Soils; physical tests; Concrete - Fresh | Site |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

DETAIL OF ACCREDITATION

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|--|---------------|
| SOILS | <u>Chemical Tests</u> Inorganic Analysis: pH | Documented In-House Methods L005M using pH meter | A |
| SOILS | <u>Chemical Tests</u> Inorganic Analysis: pH | Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil L005M using pH meter | A |
| WATERS - Surface and potable waters | <u>Chemical Tests</u> Inorganic Analysis: pH | L005M using pH meter | A |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|--|------------------------------|
| Analysis at Site B | | | |
| ASBESTOS IN BULK MATERIALS including materials and products suspected of containing asbestos | <u>Health and Hygiene</u> Identification of: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite | Health and Safety Executive Asbestos: The analysts' guide for sampling, analysis and clearance procedures (HSG 248) HSG 248:February 2005 by Documented In-House Method A001 using stereo-microscopy, polarised light microscopy and dispersion staining | B |
| ASBESTOS IN SOILS AND SEDIMENTS (fibre screening and identification) | Asbestos Fibre Screening and Identification of: Amosite Chrysotile Crocidolite Fibrous Actinolite Fibrous Anthophyllite Fibrous Tremolite | Documented In-House Method A001 using stereo-microscopy, polarised light optical microscopy and dispersion staining | B |
| ASBESTOS in Soils (Quantification) | Abestos in Soils quantification (Gravimetric and Fibre Counting (PCM) Methodology) | Documented in house method A006 using Stereomicroscopy, Polarisling Light Microscopy, Gravmetric Analysis and Phase Contrast Microscopy | B |
| ASBESTOS in Soils (Dustiness) | Measurement of Dustiness | Documented in house method (A007B) based on BSEN15051- 2:2013 "Measurement of the dustiness of bulk materials; Part 2: Rotating drum method" | B |
| SOILS | <u>Chemical Tests</u> Inorganic Analysis: pH pH Electrical Conductivity Loss on Ignition (LOI) at 450 °C | L005B using pH electrode L099 using Automated pH meter L031B using automated EC meter L047B using gravimetry | B B B B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|--|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | | |
| | Inorganic Analysis: (cont'd) | | |
| | Metals: Arsenic Barium Beryllium Boron (total) Cadmium Chromium Cobalt Copper Iron Lead Manganese Mercury Molybdenum Nickel Selenium Tin Vanadium Zinc Antimony Sulphur (Total) Water-soluble boron Aluminium Calcium Potassium Magnesium Sodium Phosphorus | L038B using ICP-OES | B |
| | Water-soluble Sulphate (16hr extract) | L038B using ICP-OES | B |
| | Water-soluble Sulphate (1hr extract) | L038B using ICP-OES | B |
| | Total sulphate | L038B using ICP-OES | B |
| Hexavalent Chromium | L080B by segmented flow autoanalyser | B | |
| Calorific Value | Documented In-House Method L013B based upon : BS EN 15400:2011 and BS EN ISO 18125:2017-07 using Bomb Calorimetry | B | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) Inorganic Analysis: (cont'd) | | |
| | Monohydric phenols | L080B using continuous flow analyser | B |
| | Total cyanide Free Cyanide Complex Cyanide (By Calculation) | L080B using continuous flow analyser | B |
| | Sulphide | L010B using ISE | B |
| | Water Soluble Chloride Ammonia | L082B using Discrete Analyser | B |
| | Elemental Sulphur | L021B using HPLC | B |
| | Organic Matter Total Organic Carbon (by Calculation) | L009B using Potentiometric Detection | B |
| | Fraction Organic Carbon by Calculation (Expressed as fraction of TOC) | L009B using Potentiometric Titration | B |
| | Total organic carbon Organic matter | L023B using Titration | B |
| | Fraction Organic Carbon by Calculation (Expressed as fraction of TOC) | L023B using Titration | B |
| Petroleum Range Organics (C6-C12) (C6-C10) C6-C8 C8-C10 Banded aliphatic Fractions: C5-C6 C6-C8 C8-C10 Banded aromatic Fractions C5-C7 C7-C8 C8-C10 | L088 using headspace GCMS | B | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|--|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | | |
| | Total petroleum hydrocarbons (C ₁₀ -C ₄₀) with banding: - C12-C35 - C10-C25 - C25-C40 - C10-C12 - C12-C16 - C16-C21 - C21-C35 - C35-C40 - C10-C20 - C21-C40 | L076 using GC-FID | B |
| | Banded Pentane-Extractable Petroleum Hydrocarbons, as specified: | L076B using solid phase separation and GC-FID | B |
| | Banded Aliphatic Fraction: C8-C10 C10-C12 C12-C16 C16-C21 C21-C35 C35-C40 C16-C35 | | |
| | Banded Aromatic Fraction: C8-C10 C10-C12 C12-C16 C16-C21 C21-C35 | | |
| | Banded Aliphatic Fraction (By calculation) C5-C35 C5-C40 | L088 using HSGCMS and L076 using GCFID | B |
| Banded Aromatic Fraction (By Calculation) C5-C35 | | | |
| Total Pentane-Extractable Petroleum Hydrocarbons, C8-C35 | L076B using solid phase separation and GC-FID | B | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|---|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | | |
| | Polynuclear aromatic hydrocarbons: Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Benzo(ghi)perylene Chrysene Dibenzo(ah)anthracene Fluoranthene Fluorene Indeno(123-cd)pyrene Naphthalene Phenanthrene Pyrene Total PAH (sum of EPA 16) | L064B using GC-MS | B |
| | Semi-volatile organic compounds, specifically: Phenol 2-Chlorophenol Bis(2-chloroethyl)ether 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,4-Dichlorobenzene Bis(2-chloroisopropyl)ether 2-Methylphenol Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Bis(2-chloroethoxy)methane 1,2,4-Trichlorobenzene 2,4-Dichlorophenol Hexachlorobutadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene Dimethylphthalate 2,6-Dinitrotoluene 2,4-Dinitrotoluene Dibenzofuran | L064B using GC-MS | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|---|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | | |
| | Semi-volatile organic compounds: (cont'd) 4-Chlorophenyl phenyl ether Diethylphthalate 4-Nitroaniline Azobenzene Bromophenyl phenyl ether Hexachlorobenzene Carbazole Dibutylphthalate Anthraquinone Butylbenzylphthalate | L064B using GC-MS | B |
| | Volatile Organic Compounds, specifically: Chloromethane Bromomethane 1,1,2-Trichloro-1,2,2-trifluoroethane MTBE 1,1-Dichloroethane <i>cis</i> -Dichloroethene 2,2-Dichloropropane Chloroform 1,1,1-Trichloroethane 1,1-Dichloropropene Carbon tetrachloride 1,2-Dichloroethane Trichloroethene 1,2-Dichloropropane Dibromomethane Bromodichloromethane <i>cis</i> -1,3-Dichloropropene 1,3-Dichloropropane <i>trans</i> -1,3-Dichloropropene 1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane Dibromochloromethane 1,2-Dibromoethane Chlorobenzene 1,1,1,2-Tetrachloroethane Styrene Isopropylbenzene Bromobenzene <i>N</i> -Propylbenzene 2-Chlorotoluene | L073B using Head Space GC-MS (HS/GCMS) | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|---|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) Volatile Organic Compounds, specifically: (cont'd) 1,3,5-Trimethylbenzene 4-Chlorotoluene <i>tert</i> -Butylbenzene 1,2,4-Trimethylbenzene <i>sec</i> -Butylbenzene <i>p</i> -Isopropyltoluene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene Benzene Toluene Ethylbenzene (<i>m+p</i>)-Xylenes <i>o</i> -Xylene Total BTEX (By calculation) | L073B using Head Space GC-MS (HS/GCMS) | B |
| | Polychlorinated Biphenyls: PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138 PCB Congener 153 PCB Congener 180 Total of the seven PCB congeners listed above | L027 using GCMS | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|--|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil | |
| | Speciated Phenols, specifically: Resorcinol Catechol Phenol 2,3,5-Trimethylphenol 2-Isopropylphenol Total Cresols: (Sum of: 2-Methylphenol, 4-Methylphenol and 3-Methylphenol) | L030 using HPLC | B |
| | Total Xylenols and Ethylphenols: (Sum of: 3,4-Dimethylphenol, 2,6-Dimethylphenol, 4-Ethylphenol and 2,4-Dimethylphenol) | L030 using HPLC | B |
| | Total Naphthols: (Sum of: 1-Naphthol and 2-Naphthol) | | |
| | pH | L005B using pH meter | B |
| | pH | L099 using Automated pH meter | B |
| | Electrical Conductivity | L031B using automated EC meter | B |
| | Loss on Ignition (LOI) at 450 °C | L047B using gravimetry | B |
| | Water-soluble Sulphate (16hr extract) Water-soluble Sulphate (1hr extract) Total sulphate (acid soluble) | L038B using ICP-OES | B |
| | Hexavalent Chromium | L080B by segmented flow autoanalyser | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|--|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil | |
| | Sulphide | L010B using ISE | B |
| | Metals: Barium Beryllium Chromium Cobalt Copper Lead Manganese Molybdenum Nickel Vanadium Zinc Arsenic Boron Cadmium Iron Mercury Selenium Tin | L038B using ICP-OES | B |
| | Sulphur (Total) | L038B using ICP-OES | B |
| | Water-soluble boron | L038B using ICP-OES | B |
| | Monohydric phenols | L080B using continuous flow analyser | B |
| | Total cyanide Free Cyanide Complex Cyanide (By Calculation) | L080B using continuous flow analyser | B |
| | Water Soluble Chloride Ammonia | L082B using Discrete Analyser | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|--|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil | |
| | Elemental Sulphur | L021B using HPLC | B |
| | Organic Matter Total Organic Carbon (by Calculation) | L009B using Potentiometric Detection | B |
| | Fraction Organic Carbon by Calculation (Expressed as fraction of TOC) | L009B using Potentiometric Titration | B |
| | Total organic carbon Organic matter | L023B using Titration | B |
| | Fraction Organic Carbon by Calculation (Expressed as fraction of TOC) | L023B using Titration | B |
| | Total petroleum hydrocarbons (C ₁₀ -C ₄₀) with banding: - C12-C35 - C10-C25 - C25-C40 - C10-C12 - C12-C16 - C16-C21 - C21-C35 - C35-C40 - C10-C20 - C21-C40 | L076 using GC-FID | B |
| | Banded Pentane-Extractable Petroleum Hydrocarbons, as specified: | L076B using solid phase separation and GC-FID | B |
| | Banded Aliphatic Fraction: C8-C10 C10-C12 C12-C16 C16-C21 C21-C35 C35-C40 C16-C35 | | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) | Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil | |
| | Banded Pentane-Extractable Petroleum Hydrocarbons, as specified: | L076B using solid phase separation and GC-FID | B |
| | Banded Aromatic Fraction: C8-C10 C10-C12 C12-C16 C16-C21 C21-C35 | L076B using solid phase separation and GC-FID | B |
| | Total Pentane-Extractable Petroleum Hydrocarbons, C8-C35 | | |
| | Petroleum Range Organics (C6-C10) C6-C8 C8-C10 | L088 using headspace GCMS | B |
| | Banded aliphatic Fractions: C5-C6 C6-C8 C8-C10 | L088 using headspace GCMS | B |
| | Banded aromatic Fractions C5-C7 C7-C8 C8-C10 | | |
| | Banded Aliphatic Fraction (By calculation) C5-C35 C5-C40 | L088 using HSGCMS and L076 using GCFID | B |
| Banded Aromatic Fraction (By Calculation) C5-C35 | | | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------------|--|--|---------------|
| SOILS (cont'd) | <u>Chemical Tests</u> (cont'd) Volatile Organic Compounds, specifically: (cont'd) 1,3,5-Trimethylbenzene 4-Chlorotoluene <i>tert</i> -Butylbenzene <i>sec</i> -Butylbenzene 1,4-Dichlorobenzene Butylbenzene 1,2-Dichlorobenzene 1,2,4-Trichlorobenzene Hexachlorobutadiene Benzene Toluene Ethylbenzene (<i>m+p</i>)-Xylenes <i>o</i> -Xylene Total BTEX (By calculation) | Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil L073B using Head Space GC-MS (HS/GCMS) | B |
| | Polychlorinated Biphenyls: PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138 PCB Congener 153 PCB Congener 180 Total of the seven PCB congeners listed above | L027 using GCMS | B |
| RECYCLED WASTE Trommel Fines | Loss on Ignition at 440°C | Documented in house method ref L011B – using Gravimetric Analysis in accordance with HMRC Excise Notice LFT1 27 March 2015 | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| <p>WATERS - surface water, groundwater, potable (non-regulatory) and prepared leachate)</p> <p>Surface water, groundwater, potable (non-regulatory) and prepared leachate), final sewage effluent and Landfill Leachate</p> <p>Surface water, groundwater, potable (non-regulatory) and prepared leachate), Landfill Leachate and final sewage effluent</p> | <u>Chemical Tests</u> | | |
| | pH | L005B using pH electrode | B |
| | Biochemical Oxygen Demand | L086B by DO meter | B |
| | Alkalinity Chloride Nitrite Thiocyanate | L082 using discrete analyser | B |
| | Sulphate Boron | L039B using ICP-OES | B |
| | Hardness | L045 by calculation | B |
| Metals (total & dissolved): Aluminium Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Phosphorus | L039B using ICP-OES | B | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|---|---------------|
| Surface water, groundwater, potable (non-regulatory) and prepared leachate), Landfill Leachate and final sewage effluent | <u>Chemical Tests</u> Metals (total & dissolved)CTD: Potassium Selenium Sodium Tin Vanadium Zinc | L039B using ICP-OES | B |
| Landfill Leachate and final sewage effluent | Silver (total & dissolved) | L039B using ICP-OES | B |
| WATERS – Process Water | Metals (total and Dissolved): Aluminium Copper Iron Sulphate Zinc | L039B using ICP-OES | B |
| WATERS - surface water, groundwater, potable (non-regulatory) and prepared leachate | Metals: Cadmium Arsenic Selenium Beryllium Cobalt Copper Molybdenum Tin Zinc Nickel Vanadium Antimony Chromium Lead Manganese Barium Phosphorous Iron Sodium Magnesium Potassium | Metals Analysis by In house method L012B using ICPMS analysis | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|---|---------------|
| WATERS - surface water and potable water (non-regulatory) | <u>Chemical Tests</u> Mercury | Metals Analysis by In house method L012B using ICPMS analysis | B |
| WATERS - surface water, groundwater and prepared leachate | Boron | Metals Analysis by In house method L012B using ICPMS analysis | B |
| WATERS - surface water, potable (non-regulatory and prepared leachate | Aluminium | Metals Analysis by In house method L012B using ICPMS analysis | B |
| WATERS - surface water, groundwater, potable (non-regulatory) and prepared leachate | Mercury | In house method L085B using Atomic Fluorescence Spectroscopy | B |
| Surface water, groundwater, potable (non-regulatory) and prepared leachate, final sewage effluent and landfill leachate | Monohydric phenols Total cyanide Cyanide (free) Complex cyanide (by Calculation) | L080B using continuous flow analyser | B |
| Surface water, groundwater, potable (non-regulatory) and prepared leachate, final sewage effluent and landfill leachate | Chemical Oxygen Demand (COD) | Hach DR/890 Colorimeter by in house method L065 | B |
| WATERS - Surface water, groundwater and potable (non-regulatory) Water, final sewage effluent and landfill leachate | Ammonia Phosphate | L082 using discrete analyser | B |
| - Surface water, groundwater and potable (non-regulatory) Water, final sewage effluent landfill leachate and prepared Leachate | Hexavalent Chromium | L080B by segmented flow autoanalyser | B |
| Surface water, groundwater and potable (non-regulatory) water | Fluoride | L033 by ion selective electrode | B |



4041

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|--|--|---------------|
| WATERS (Cont'd) Surface water, groundwater, potable (non-regulatory) water and prepared leachates final sewage effluent and landfill leachate | Chemical Tests Fluoride | L033B by Metrohm Analyser with ion selective electrode | B |
| Surface water, groundwater and potable (non-regulatory) water final sewage effluent and landfill leachate | Nitrate | L078 by spectrophotometry | B |
| Surface water, groundwater and potable (non-regulatory) water final sewage effluent and landfill leachate | Calcium | In house method L12B using ICPMS analysis | B |
| Surface water, groundwater and potable (non-regulatory) water final sewage effluent and landfill leachate | Total Organic Carbon (TOC) Dissolved Organic Carbon (DOC) | L037B by TOC analyser | B |
| Surface and groundwater, potable (non-regulatory) water, Sewage Effluent, Landfill Leachate and prepared Leachates | pH | L099 using Automated pH meter | B |
| Surface water, groundwater, potable (non-regulatory) water, Sewage Effluent, and prepared Leachates | Electrical Conductivity Total Dissolved Solids (By Calculation) | L031B using automated EC meter | B |
| - Surface water, groundwater and potable (non-regulatory) water (cont'd) | Volatile Organic Compounds, specifically: Chloromethane Bromomethane Chloroethane 1,1,2-Trichloro-1,2,2-trifluoroethane 1,1-Dichloroethylene MTBE <i>trans</i> -Dichloroethylene 1,1-Dichloroethane <i>cis</i> -Dichloroethylene 2,2-Dichloropropane Chloroform 1,1,1-Trichloroethane 1,1-Dichloropropene | L073B using Head Space GC-MS (HS/GCMS) | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|--|--|---------------|
| <p>WATERS (cont'd)</p> <p>- Surface water, groundwater and potable (non-regulatory) water (cont'd)</p> | <p><u>Chemical Tests</u> (cont'd)</p> <p>Volatile Organic Compounds, specifically: (cont'd)</p> <p>Carbon tetrachloride 1,2-Dichloroethane Trichloroethylene 1,2-Dichloropropane Dibromomethane Bromodichloromethane <i>cis</i>-1,3-Dichloropropene 1,3-Dichloropropane <i>trans</i>-1,3-Dichloropropene 1,1,2-Trichloroethane <i>n</i>-Propylbenzene 2-Chlorotoluene 1,3,5-Trimethylbenzene 4-Chlorotoluene <i>tert</i>-Butylbenzene 1,2,4-Trimethylbenzene <i>sec</i>-Butylbenzene <i>p</i>-Isopropyltoluene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Butylbenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Hexachlorobutadiene Naphthalene 1,2,3-Trichlorobenzene 1,1,2,2-Tetrachloroethane Tetrachloroethylene Dibromochloromethane 1,2-Dibromoethane Chlorobenzene 1,1,1,2-Tetrachloroethane Styrene Bromoform Isopropylbenzene Bromobenzene</p> | <p>L073B using Head Space GC-MS (HS/GCMS)</p> | <p>B</p> |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| WATERS (cont'd) | <u>Chemical Tests</u> (cont'd) | | |
| - Surface water, groundwater and potable (non-regulatory) water and prepared leachates | Benzene Toluene Ethylbenzene (<i>m+p</i>)-Xylenes <i>o</i> -Xylene Total BTEX (By calculation) | L073B using Head Space GC-MS (HS/GCMS) | B |
| | Total Petroleum Hydrocarbons (C10-C40) and (C12-C35) | L070B using GC-MS | B |
| | Polyaromatic Hydrocarbons: Naphthalene Acenaphthene Acenaphthylene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Polyaromatic Hydrocarbons: Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benz(a)pyrene | L102B using GCMS | B |
| Waters -Surface, Ground and potable (non-regulatory) | Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene | L102B using GCMS | B |
| | Total PAH (Sum of 16 individuals) | | |
| - Surface water, groundwater and potable (non-regulatory) water and prepared leachates (cont'd) | Petroleum Range Organics (C6-C12) (C6-C10) C6-C8 C8-C10 Banded aliphatic Fractions: C5-C6 C6-C8 C8-C10 Banded aromatic Fractions C5-C7 C7-C8 C8-C10 | L088 using headspace GCMS | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|--|---------------|
| WATERS (cont'd) - Surface water, groundwater and potable (non-regulatory) water, prepared leachates, final sewage effluent and landfill leachate | <u>Chemical Tests</u> (cont'd) Anions, specifically: Fluoride Chloride Nitrite Bromide Nitrate Phosphate Sulphate | L008B using Ion Chromatography | B |
| Surface water, groundwater and potable (non-regulatory) water and prepared leachates | Bromate | L008B using Ion Chromatography | B |
| Potable water (non regulatory), surface water, groundwater, final sewage effluent, process water (closed system heating and cooling waters), landfill leachate | Total Suspended Solids at 105°C | L004B By gravimetric analysis | B |
| | Total Dissolved Solids at 180°C | L004B By gravimetric analysis | B |
| | Volatile Suspended Solids at 550°C | L004B By gravimetric analysis | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|--|---------------|
| <p>WATERS (cont'd)</p> <p>- Surface water, groundwater and potable (non-regulatory) water and prepared leachates</p> | <p><u>Chemical Tests</u> (cont'd)</p> <p>Total petroleum hydrocarbons (C10-C40) and (C12-C35) with banding:</p> <p>Banded Aliphatic Fraction: C10-C12 C12-C16 C16-C21 C21-C35</p> <p>Banded Aromatic Fraction: C10-C12 C12-C16 C16-C21 C21-C35</p> | L101 using GC/GC FID | B |
| <p>- Surface water, groundwater and potable (non-regulatory) water and prepared leachates</p> | <p>Banded Aliphatic Fraction (By calculation C5-C35</p> <p>Banded Aromatic Fraction (By Calculation) C5-C35</p> | L088 using HSGCMS and L101B using GC/GC FID | B |
| <p>- Surface water, groundwater and potable (non-regulatory) water and prepared leachates</p> | <p>Speciated Phenols, specifically: Resorcinol Catechol Phenol 2,3,5-Trimethylphenol 2-Isopropylphenol Total Cresols: (Sum of: 2-Methylphenol, 4-Methylphenol and 3-Methylphenol) Total Xylenols and Ethylphenols: (Sum of: 3,4-Dimethylphenol, 2,6-Dimethylphenol, 4-Ethylphenol and 2,4-Dimethylphenol) Total Naphthols: (Sum of:1-Naphthol and 2-Naphthol)</p> | L030 using HPLC | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| AIR Ambient Air and Soil Vapour (in pre-collected in Summa Gas Cannisters) | <u>Chemical Tests</u> Volatile Organic Compounds: 1,1,1-trichloroethane 1,1,2,2-tetrachloroethane 1,1,2-trichloroethane 1,1-dichloroethane 1,1-dichloroethene 1,2,4-trichlorobenzene 1,2,4-trimethyl benzene 1,2-dibromoethane 1,2-dichlorobenzene 1,2-dichloroethane 1,2-dichloropropane 1,3,5-trimethyl benzene 1,3-butadiene 1,3-dichlorobenzene 1,4-dichlorobenzene 1,4-dioxane 2-hexanone (MBK) 4-ethyl toluene acetone acrolein benzene benzyl chloride bromodichloromethane bromoform bromomethane carbon disulphide carbon tetrachloride chlorobenzene chloroethane chloroform chloromethane cis-1,2-dichloroethene cis-1,3-dichloropropene cyclohexane dibromochloromethane dichloromethane dichlorodifluoromethane dichlorotetrafluoroethane ethanol ethyl acetate ethyl benzene | In house method L106B based on TO-15 using Thermal desorption and GCMS detection methodology | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|--|--|---------------|
| AIR Ambient Air and Soil Vapour (in pre-collected in Summa Gas Cannisters) | <u>Chemical Tests</u> Volatile Organic Compounds Ctd: heptane hexachlorobutadiene hexane isopropyl alcohol m/p-xylene MEK methyl methacrylate MIBK MTBE naphthalene o-xylene propene styrene tetrachloroethene THF toluene trans-1,2-dichloroethene trans-1,3-dichloropropene trichloroethene trichlorofluoromethane trichlorotrifluoroethane vinyl acetate vinyl chloride | In house method L106B based on TO-15 using Thermal desorption and GCMS detection methodology | B |
| Ambient Air and Soil Vapour (in pre-collected in Summa Gas Cannisters) | Petrol Range Organics including banding: Benzene toluene ethyl benzene m/p-xylene o-xylene >C5-C6 >C6-C8 >C8-C10 >C10-C12 >C5-C10 >C6-C10 >C6-C12 Total >C5-C12 Total | In house method L107B based on TO-15 using Thermal desorption and GCMS detection methodology | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| <p>AIR</p> <p>Ambient Air and Soil Vapour (in pre-collected in Tedlar Bags)</p> | <p><u>Chemical Tests</u></p> <p>Bulk Gases:</p> <p>hydrogen ethylene propane propylene i-butane n-butane propadiene ethane acetylene t-2-butene 1-butene i-butylene c-2-butene i-pentane n-pentane methane 1,3-butadiene methyl-acetylene carbon monoxide t-2-pentene 1-pentene 2-methyl-2-butene c-2-pentene</p> | <p>In house method L108B using GCFID detection</p> | <p>B</p> |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|---|---------------|
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | <u>Chemical Tests</u> (cont'd) Sample Preparation and Moisture Content | Documented in house method L015 based on BS EN 15413:2011, BS EN ISO 14780:2017-07, BS EN 15414-3:2011 and BS EN ISO 18134-3:2015-11 using gravimetry | B |
| | Moisture Content | Documented in house method L015 based on BS EN 15413:2011, BS EN ISO 14780:2017-07, BS EN 15414-3:2011 and BS EN ISO 18134-3:2015-11 using gravimetry | B |
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | Ash Content | Documented in house method L018B based on BS EN 15403: 2011 and BS EN ISO 18122: 2015 using Gravimetry | B |
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | Biomass and Non-biomass content | Documented in house method L022B based on EN 15440: 2011 using selective dissolution method | B |
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | <u>Sulphur</u> Fluorine Chlorine Bromine | Documented In-House Method L008B based upon BS EN 15408:2011 and BS EN ISO 16994:2016-10 using Ion Chromatography | B |
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | <u>Metals:</u> Aluminium Arsenic Cadmium Cobalt Chromium Copper Mercury Manganese Nickel Lead Antimony Tin Vanadium Zinc | Documented in house method L038B based on BS EN 15411:2011, BS EN ISO 16968:2015 and BS EN ISO 16967:2015 using ICP-OES | B |
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | <u>Metals Oxides:</u> SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, Na ₂ O, K ₂ O, TiO ₂ , SO ₃ , P ₂ O ₅ , MnO ₂ , BaO, SrO | Documented in house method L038B based on BS EN 15411:2011, BS EN ISO 16968:2015 and BS EN ISO 16967:2015 using ICP-OES | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|--|---|---|---------------|
| | <u>Chemical Tests</u> (cont'd) | | |
| SRF (Solid Recovered fuel) and RDF (Refuse Derived Fuel) and Soild Biofuel | Calorific value | Documented In-House Method L013B based upon : BS EN 15400:2011 and BS EN ISO 18125:2017-07 using Bomb Calorimetry | B |
| Soils | <u>Sampling</u> Soil Sampling | In Compliance with ISO 10381-4:2003 and ISO 10381-5:2005 | B |
| Rivers and Streams | Water Sampling | In Compliance with ISO 5667-6:2014 | B |
| Underground Water | Water Sampling | In Compliance with ISO 5667-11:2009 | B |
| SOILS for civil engineering purposes | <u>Geotechnical Testing</u> | | |
| | Sample Preparation | In house method G043 | B,C,D,G |
| | Sampling earthworks materials - from stockpiles - laid materials - excavations | Documented In-House Method SS05 - Sampling Earthworks | Site |
| | Moisture content - oven drying method | BS 1377-2:1990 | B, C, D,G |
| | Liquid limit - cone penetrometer | BS 1377-2:1990 | B |
| | Liquid limit - cone penetrometer - one point | BS 1377-2:1990 | B |
| | Plastic limit | BS 1377-2:1990 | B |
| | Plasticity index | BS 1377-2:1990 | B |
| | Particle density - gas jar | BS 1377-2:1990 | B |
| | Linear Shrinkage | BS 1377-2:1990 | B |
| | Particle size distribution - wet sieving | BS 1377-2:1990 | B |
| | Particle size distribution - dry sieving | BS 1377-2:1990 | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| SOILS for civil engineering purposes (cont'd) | <u>Geotechnical Testing</u> (cont'd) | | |
| | Particle size distribution - sedimentation - hydrometer method | BS 1377-2:1990 | B |
| | Dry density/moisture content relationship (2.5 kg rammer) | BS 1377-4:1990 | B |
| | Dry density/moisture content relationship (4.5 kg rammer) | BS 1377-4:1990 | B |
| | Dry density/moisture content relationship(vibrating hammer) | BS 1377-4:1990 | B |
| | Moisture condition value(MCV) | BS 1377-4:1990 | B, D, Site |
| | MCV - natural moisture content | BS 1377-4:1990 | B, D, Site |
| | MCV/moisture content relation | BS 1377-4:1990 | B, D |
| | California Bearing Ratio (CBR) | BS 1377-4:1990 | B |
| | Swelling of soaked CBR specimen | BS1377-4:1990 | B |
| | Undrained shear strength - triaxial compression without measurement of pore pressure | BS 1377-7:1990 | B |
| | Undrained shear strength - triaxial compression with multistage loading and without measurement of pore pressure | BS 1377-7:1990 | B |
| | Shear strength by direct shear (small shearbox apparatus) | BS1377-7:1990 | B |
| Effective shear strength – consolidated-undrained triaxial compression test with measurement of pore pressure | BS1377-8:1990 | B | |
| Effective shear strength – consolidated-drained triaxial compression test with measurement of volume change | BS 1377- 8:1990 | B | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| SOILS for civil engineering purposes (cont'd) | <u>Geotechnical Testing</u> (cont'd) | | |
| | Effective shear strength – consolidated drained multistage triaxial compression test with measurement of volume change | Documented in House method G084 | B |
| | Effective shear strength – consolidated undrained multistage triaxial compression test with measurement of pore pressure | Documented in House method G084 | B |
| | Saturation Moisture of Chalk | BS 1377-2:1990 | B |
| | One-dimensional consolidation properties | BS 1377-5:1990, clause 3 | B |
| | Determination of Swelling and collapse Characteristics | BS 1377-5:1990, clause 4 | B |
| | In-situ density - sand replacement method (small pouring cylinder) | BS 1377-9:1990 | Site |
| | In-situ density - sand replacement method (large pouring cylinder) | BS 1377-9:1990 | Site |
| | In-situ density - core cutter method | BS 1377-9:1990 | Site |
| | In-situ California Bearing Ratio (CBR) | BS 1377-9:1990 | Site |
| | Vertical deformation and strength characteristics by the plate loading test | BS 1377-9:1990 | Site |
| Calculation of equivalent CBR values using the plate loading test | Specification for Highway Works: Design Guidance for Road Pavement Foundations Interim Advice Note 73/06 rev1 | Site | |
| Dynamic Cone Penetration | Specification for Highway Works: Design Guidance for Road Pavement Foundations Interim Advice Note 73/06 rev1 Design Manual for Roads and Bridges, HMSO, HD 29/08 | Site | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|--|---|---------------|
| SOILS for civil engineering purposes (cont'd) | <u>Geotechnical Testing</u> (cont'd) | | |
| | Hand shear vane | Guideline for handheld shear vane test: New Zealand Geotechnical Society Inc, August 2001 | Site |
| | Permeability constant head in a rigid wall permeameter | BS EN ISO 17892-11:2019 | B |
| | Permeability - Filtration Coefficient for 1x10 ⁻³ to 1 x 10 ⁻⁶ m/s USBCS (0.01<D ₂₀ <2.00mm) | Hydrogeologia Ogolna: 1990 by Z. Pazdro and B. Kozerski | B |
| | Shear strength by direct shear (large shearbox apparatus) | BS 1377-7:1990 | B |
| | Determination of effective angle of internal friction and effective cohesion of earthworks materials (using 300 mm shearbox) | Specification for Highway Works, HMSO November 2009 Clause 636 | B |
| | MCV/moisture content relation | BS 1377-4:1990 | B |
| | In-situ bulk density - nuclear method - absolute tests - compliance tests | BS 1377-9:1990 | Site |
| | In-situ moisture density - nuclear method - absolute tests - compliance tests | BS 1377-9:1990 | Site |
| | In-situ density - dielectric method | Documented In-House Method SS17 | Site |
| Hydraulically Bound and Stabilized materials for Civil Engineering Purposes | Moisture Condition Value (MCV) | BS EN 13826-46:2003 | D,Site |
| | Laboratory reference density and water content - proctor compaction | BS EN 13286-2:2010 | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code | |
|---------------------------|---|---|-------------------------------------|---------|
| AGGREGATES | <u>Geotechnial Testing (Ctd)</u> | | | |
| | Hydraulically Bound and Stabilized materials for Civil Engineering Purposes | Laboratory reference density and water content - vibrating hammer | BS EN 13286-4:2003 | B |
| | | Moisture condition value (MCV) | BS EN 13286-46:2003 | B |
| | | California bearing ratio, immediate bearing index and linear swelling | BS EN 13286-47:2012 | B |
| | | Sampling aggregates - from stockpiles | BS EN 932-1:1997 | Site |
| | | Particle size distribution - sieving method | EN 933-1:2012 BS EN 933-1:2012 | B |
| | | Water Content | EN 1097-5:2008 BS EN 1097-5:2008 | B,C,D,G |
| | | Sample Reduction by quartering | EN 932-2:1999 BS EN 932-2:1999 | B,C,D,G |
| | | Sample reduction using a riffle box | EN 932-2:1999 BS EN 932-2:1999 | B,C,D,G |
| | | Uniformity Coefficient | BS EN ISO 14688-2: 2004 +A1: 2013 | B |
| | | Coefficient of Curvature | BS EN ISO 14688-2: 2004 +A1: 2013 | B |
| | | Resistance to fragmentation by the Los Angeles test method | EN 1097-2:2010 BS EN 1097-2:2010 | B |
| | Classification test for the constituents of coarse recycled Aggregates | EN 933-11:2009 BS EN 933-11:2009 | B | |
| | Particle shape – Flakiness Index | BS EN 933-3:2012 | B | |
| | Particle shape – Shape Index | BS EN 933-4:2008 | B | |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|--|--|---------------|
| AGGREGATES | <u>Geotechnial Testing (Ctd)</u> | | |
| | Percentage of crushed and broken surfaces in coarse aggregate | BS EN 933-5:1998 | B |
| | Resistance to wear (Micro-Deval) | BS EN 1097-1:2011 | B |
| | Loose Bulk Density and voids | BS EN 1097-3:1998 | B |
| | Particle density and water absorption - wire basket method for aggregate particles between 31.5 and 63 mm | BS EN 1097-6:2013 | B |
| | Particle density and water absorption - pycnometer method for aggregate particles between 4 mm and 31.5 mm | BS EN 1097-6:2013 | B |
| | Particle density and water absorption - pycnometer method for aggregate particles between 0.063 mm and 4 mm | BS EN 1097-6: 2013 | B |
| | Methods for determination of aggregate crushing value | BS 812-110:1990 | B |
| | Methods for determination of ten per cent fines value | BS 812-111:1990 | B |
| | Magnesium Sulphate test | BS EN 1367-2:2009 | B |
| GEOTECHNICAL INVESTIGATION and TESTING - Laboratory testing of soil | Sample Preparation | In house method G043 | B,C,D,G |
| | Water Content | BS EN ISO 17892-1:2014 | B,C,D,G |
| | Bulk Density – immersion in fluid method | BS EN ISO 17892-2:2014 | B |
| | Bulk Density – Linear measurement method | BS EN ISO 17892-2:2014 | B |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| GEOTECHNICAL INVESTIGATION and TESTING - Laboratory testing of soil | <u>Geotechnical Testing (Ctd)</u> | | |
| | Determination of particle density - fluid pycnometer method | BS EN ISO 17892-3:2015 | B |
| | Determination of particle size distribution - Sieving method | BS EN ISO 17892-4:2016 | B |
| | Determination of particle size distribution - Hydrometer method | BS EN ISO 17892-4:2016 | B |
| | Determination of liquid limit (fall cone method) | BS EN 17892-12:2018 | B |
| | Determination of liquid limit (one-point fall cone method) | BS EN 17892-12:2018 | B |
| | Determination of plastic limit | BS EN 17892-12:2018 | B |
| | Determination of plasticity limit | BS EN 17892-12:2018 | B |
| Rock and Natural Stone | Determination of point load strength and anisotropy indices | The Complete ISRM Suggested Methods – Rock Characterization Testing and Monitoring 1974 – 2006, Editors: R Ulusay & J A Hudson | B |
| | Determination of Uniaxial Compressive Strength | ISRM Commission on Testing Methods, Suggested Method for Determining Uniaxial Compressive Strength 1985 | B |
| Concrete - Hardened | Compressive strength of cubes - including curing | BS EN 12390-1:2012, BS EN 12390-2:2019, BS EN 12390-3:2019 | G |
| | Density | BS EN 12390-7:2019 | G |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd

Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---|---|--|---------------|
| <u>Bituminous Mixtures for Road and other Paved Areas</u> | <u>Geotechnial Testing (Ctd)</u> | | |
| | Sampling - from the material around the augers of the paver, | BS EN 12697-27:2017 | Site |
| <u>Bituminous Mixtures for Road and other Paved Areas</u> | Preparation of samples for determining binder content, water content and grading | BS EN 12697-28:2001 | Site |
| | Temperature measurement by contact measuring device - in a lorry - of material after it has been laid and before rolling - in a heap, | BS EN 12697-13:2017 | Site |
| Bituminous Road Surfacing | Temperature measurement by infrared measuring device - in a paver | BS EN 12697-13:2017 | Site |
| | Bulk density dry - saturated surface dry (SSD) - sealed specimen | BS EN 12697-6:2012 | Site |
| Bituminous Road Surfacing | Air voids content (Vm) | BS EN 12697-8:2018 | Site |
| | In-Situ Density – Nuclear Method | BS 594987:2015+A1:2017 and Documented In-House Method SS16 | Site |
| Pavement Surface | In-Situ Density – Dielectric Method | BS 594987:2015+A1:2017 and Documented In-House Method SS15 | Site |
| | Pavement surface macrotexture depth using a volumetric patch technique | BS EN 13036-1:2010 | Site |
| Unbound and Hydraulically bound Materials | Texture depth by the sand-patch method | BS 598-105:2000 (withdrawn) | Site |
| | Degree of Pulverization | BS EN 13286-48 – 2005 | Site |



4041
Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

I2 Analytical Ltd
Issue No: 095 Issue date: 22 March 2021

Testing performed by the Organisation at the locations specified

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used | Location Code |
|---------------------------|---|--|---------------|
| Concrete - Fresh | <u>Geotechnial Testing (Ctd)</u> | | |
| | Sampling - composite sample - spot sample | BS EN 12350-1:2009 | Site |
| | Slump Test | BS EN 12350-2:2019 | Site |
| | Making and curing specimens for strength tests | BS EN 12390-2:2019 | Site |
| | Air Content – pressure guage method | BS EN 12350-7:2019 | Site |
| END | | | |