

## Certificate of Analysis

**Client:** Land & Water Services Ltd

**Project:** 25091021

**Quote:** BEC240736207 V8.2

**Project Ref:** Land & Water Services Ltd

**Site:** Mon & Brec Fields

**Contact:** Avi Verber

**Address:** Redhill Farm  
Top Street  
Appleby Magna  
Derbyshire  
DE12 7AH  
DE12 7AH

**E-Mail:** avi.verber@land-water.co.uk

**Phone:** 0

**No. Samples Received:** 7

**Date Received:** 08/09/2025

**Analysis Completed:** 29/09/2025

**Date Issued:** 29/09/2025

**Report Type:** Version 01

This report supersedes any versions previously issued by the laboratory



Reported by Account Manager  
Lucy Bailey

Lucy.Bailey@socotec.co.uk

**Project Number: 25091021**

**Client:** Land & Water Services Ltd  
**Date Issued:** 29/09/2025  
**Project Name:** Land & Water Services Ltd - Mon & Brec Fields

**Samples Analysed**

| <b><u>Text ID</u></b> | <b><u>Sample Reference</u></b> | <b><u>Sampling Date</u></b> | <b><u>Sample Type</u></b> | <b><u>Sample Description</u></b> |
|-----------------------|--------------------------------|-----------------------------|---------------------------|----------------------------------|
| 25091021-001          | IV WG7                         | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |
| 25091021-002          | IV WG2                         | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |
| 25091021-003          | IV WG3                         | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |
| 25091021-004          | JJ                             | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |
| 25091021-005          | DM                             | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |
| 25091021-006          | CO 1                           | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |
| 25091021-007          | CO 2                           | 04/08/2025 00:00:00         | SOLID                     | Silt Sample                      |

### Analysis Results

| SOCOTEC Sample ID: |                                         |            |                | 25091021-001     | 25091021-002        | 25091021-003     | 25091021-004     | 25091021-005     |
|--------------------|-----------------------------------------|------------|----------------|------------------|---------------------|------------------|------------------|------------------|
| Sampling Date:     |                                         |            |                | 04/08/2025 00:00 | 04/08/2025 00:00    | 04/08/2025 00:00 | 04/08/2025 00:00 | 04/08/2025 00:00 |
| Customer ID:       |                                         |            |                | IV WG7           | IV WG2              | IV WG3           | JJ               | DM               |
| Method Code        | Analysis                                | MDL        | Accred.        |                  |                     |                  |                  |                  |
| CLANDPREP          | Total Moisture at 35°C                  | 0.1 %      | N              | 19.4             | 18.7                | 20.7             | 12.8             | 17.5             |
|                    | Major Constituents                      | -          | N              | SILT             | SILT                | SILT             | SILT             | SILT             |
|                    | Minor Constituents                      | -          | N              | None             | None                | None             | None             | None             |
|                    | Miscellaneous Constituents              | -          | N              | Organic Matter   | Organic Matter      | Organic Matter   | Organic Matter   | Organic Matter   |
|                    | Colour of Material                      | -          | N              | Brown            | Brown               | Brown            | Brown            | Brown            |
| PHSOIL             | pH (2.5:1 extraction)                   | 1 pH units | M <sup>A</sup> | 7.1              | >12.0* <sub>E</sub> | 4.8              | 6.6              | 7.5              |
| TSCONW             | Conductivity in 5:1 Water Extract       | 10 µS/cm   | N <sup>A</sup> | 149              | 42                  | 48               | 72               | 83               |
| ANC                | Carbonate Content (%CaCO <sub>3</sub> ) | 0.2 % m/m  | N <sup>A</sup> | 2.4              | 1.6                 | 3.2              | 1.6              | 3.2              |
| LOI(%MM)           | LOI @ 550°C                             | 0.2 % m/m  | N <sup>A</sup> | 6.4              | 9.2                 | 7.3              | 7.5              | 9.9              |
| WSLM59             | Total Organic Carbon                    | 0.02 % m/m | U <sup>A</sup> | 3.23             | 3.36                | 2.09             | 2.31             | 2.48             |
| WSLM60             | Extractable Phosphorus as P             | 2 mg/l (s) | U              | 15.8             | 5.7                 | 26.5             | 37.0             | 22.0             |
| ISEFSS             | Fluoride as F                           | 0.2 mg/kg  | U <sup>A</sup> | 0.2              | <0.2                | <0.2             | <0.2             | <0.2             |
| ICPMSS             | Arsenic as As                           | 0.3 mg/kg  | M <sup>A</sup> | 10.6             | 9.3                 | 9.9              | 12.3             | 11.0             |
| ICPMSS             | Cadmium as Cd                           | 0.2 mg/kg  | M <sup>A</sup> | 0.3              | 0.3                 | 0.4              | 0.3              | 0.3              |
| ICPMSS             | Total Chromium as Cr                    | 1.2 mg/kg  | M <sup>A</sup> | 23.3             | 21.7                | 25.1             | 21.4             | 20.2             |
| ICPMSS             | Copper as Cu                            | 1.6 mg/kg  | M <sup>A</sup> | 12.2             | 20.4                | 10.9             | 11.9             | 11.0             |
| ICPMSS             | Lead as Pb                              | 0.7 mg/kg  | M <sup>A</sup> | 32.5             | 29.9                | 26.0             | 34.6             | 33.5             |
| ICPMSS             | Mercury as Hg                           | 0.5 mg/kg  | M <sup>A</sup> | <0.5             | <0.5                | <0.5             | <0.5             | <0.5             |
| ICPMSS             | Molybdenum as Mo                        | 0.5 mg/kg  | M <sup>A</sup> | 0.5              | <0.5                | <0.5             | 0.6              | 0.7              |
| ICPMSS             | Nickel as Ni                            | 2 mg/kg    | M <sup>A</sup> | 16.5             | 16.9                | 16.2             | 14.1             | 14.2             |
| ICPMSS             | Selenium as Se                          | 0.5 mg/kg  | M <sup>A</sup> | 0.6              | <0.5                | 0.6              | 0.5              | 0.6              |
| ICPMSS             | Zinc as Zn                              | 16 mg/kg   | M <sup>A</sup> | 93.8             | 59.0                | 67.5             | 66.6             | 57.6             |
| ICPBOR             | Boron as B                              | 0.5 mg/kg  | M <sup>A</sup> | 0.7              | 0.6                 | 0.6              | 0.6              | 0.6              |
| ICPEXCH            | Magnesium as Mg (mg/l)                  | 5 mg/l (s) | N              | 148              | 88                  | 101              | 110              | 96               |
|                    | Potassium as K (mg/l)                   | 5 mg/l (s) | N              | 157              | 115                 | 113              | 146              | 153              |
| PICALC             | Magnesium Index                         | -          | N              | 3                | 2                   | 3                | 3                | 2                |
|                    | Phosphorus Index                        | -          | N              | 1                | 0                   | 3                | 3                | 2                |
|                    | Potassium Index                         | -          | N              | <0               | 1                   | 1                | <0               | <0               |
| SUB022             | Total Nitrogen as N                     | 0.08 %     | U              | 0.30*            | 0.23*               | 0.21*            | 0.22*            | 0.29*            |
| Grid Reference     | Eastings                                | -          | N              | 316382           | 316977              | 317140           | 315922           | 315854           |
|                    | Northings                               | -          | N              | 219508           | 219516              | 19549            | 219812           | 219597           |

**Analysis Results**

|                |                                         | SOCOTEC Sample ID: |                | 25091021-006     | 25091021-007     |
|----------------|-----------------------------------------|--------------------|----------------|------------------|------------------|
|                |                                         | Sampling Date:     |                | 04/08/2025 00:00 | 04/08/2025 00:00 |
|                |                                         | Customer ID:       |                | CO 1             | CO 2             |
| Method Code    | Analysis                                | MDL                | Accred.        |                  |                  |
| CLANDPREP      | Total Moisture at 35°C                  | 0.1 %              | N              | 22.2             | 18.9             |
|                | Major Constituents                      | -                  | N              | SILT             | SILT             |
|                | Minor Constituents                      | -                  | N              | None             | None             |
|                | Miscellaneous Constituents              | -                  | N              | Organic Matter   | Organic Matter   |
|                | Colour of Material                      | -                  | N              | Brown            | Brown            |
| PHSOIL         | pH (2.5:1 extraction)                   | 1 pH units         | M <sup>A</sup> | 8.2              | 8.6              |
| TSCONW         | Conductivity in 5:1 Water Extract       | 10 µS/cm           | N <sup>A</sup> | 61               | 36               |
| ANC            | Carbonate Content (%CaCO <sub>3</sub> ) | 0.2 % m/m          | N <sup>A</sup> | 2.4              | 4.8              |
| LOI(%MM)       | LOI @ 550°C                             | 0.2 % m/m          | N <sup>A</sup> | 9.4              | 9.8              |
| WSLM59         | Total Organic Carbon                    | 0.02 % m/m         | U <sup>A</sup> | 2.94             | 2.32             |
| WSLM60         | Extractable Phosphorus as P             | 2 mg/l (s)         | U              | 11.9             | 7.6              |
| ISEFSS         | Fluoride as F                           | 0.2 mg/kg          | U <sup>A</sup> | <0.2             | <0.2             |
| ICPMSS         | Arsenic as As                           | 0.3 mg/kg          | M <sup>A</sup> | 11.9             | 10.4             |
| ICPMSS         | Cadmium as Cd                           | 0.2 mg/kg          | M <sup>A</sup> | 0.3              | 0.3              |
| ICPMSS         | Total Chromium as Cr                    | 1.2 mg/kg          | M <sup>A</sup> | 26.7             | 22.3             |
| ICPMSS         | Copper as Cu                            | 1.6 mg/kg          | M <sup>A</sup> | 12.0             | 9.2              |
| ICPMSS         | Lead as Pb                              | 0.7 mg/kg          | M <sup>A</sup> | 40.6             | 30.1             |
| ICPMSS         | Mercury as Hg                           | 0.5 mg/kg          | M <sup>A</sup> | <0.5             | <0.5             |
| ICPMSS         | Molybdenum as Mo                        | 0.5 mg/kg          | M <sup>A</sup> | 0.5              | <0.5             |
| ICPMSS         | Nickel as Ni                            | 2 mg/kg            | M <sup>A</sup> | 15.6             | 14.4             |
| ICPMSS         | Selenium as Se                          | 0.5 mg/kg          | M <sup>A</sup> | 0.6              | 0.5              |
| ICPMSS         | Zinc as Zn                              | 16 mg/kg           | M <sup>A</sup> | 67.9             | 68.0             |
| ICPBOR         | Boron as B                              | 0.5 mg/kg          | M <sup>A</sup> | 0.8              | 0.6              |
| ICPEXCH        | Magnesium as Mg (mg/l)                  | 5 mg/l (s)         | N              | 138              | 84               |
|                | Potassium as K (mg/l)                   | 5 mg/l (s)         | N              | 143              | 87               |
|                | Magnesium Index                         | -                  | N              | 3                | 2                |
| PICALC         | Phosphorus Index                        | -                  | N              | 1                | 0                |
|                | Potassium Index                         | -                  | N              | <0               | 1                |
|                | Total Nitrogen as N                     | 0.08 %             | U              | 0.26*            | 0.30*            |
| Grid Reference | Eastings                                | -                  | N              | 316242           | 316379           |
|                | Northings                               | -                  | N              | 219490           | 219509           |



**Project Number: 25091021**

**Client:** Land & Water Services Ltd

**Date Issued:** 29/09/2025

**Project Name:** Land & Water Services Ltd - Mon & Brec Fields

## Deviating Sample Report

| <u>Sample Reference</u> | <u>Text ID</u> | <u>Method Code</u> | Incorrect Container | Incorrect Label | Headspace | Incorrect/No Preservative | No Sampling Date | Holding Time |
|-------------------------|----------------|--------------------|---------------------|-----------------|-----------|---------------------------|------------------|--------------|
| IV WG7                  | 25091021-001   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| IV WG7                  | 25091021-001   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| IV WG7                  | 25091021-001   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| IV WG7                  | 25091021-001   | WSLM59             |                     |                 |           |                           |                  | ✓            |
| IV WG2                  | 25091021-002   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| IV WG2                  | 25091021-002   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| IV WG2                  | 25091021-002   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| IV WG2                  | 25091021-002   | WSLM59             |                     |                 |           |                           |                  | ✓            |
| IV WG3                  | 25091021-003   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| IV WG3                  | 25091021-003   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| IV WG3                  | 25091021-003   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| IV WG3                  | 25091021-003   | WSLM59             |                     |                 |           |                           |                  | ✓            |
| JJ                      | 25091021-004   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| JJ                      | 25091021-004   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| JJ                      | 25091021-004   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| JJ                      | 25091021-004   | WSLM59             |                     |                 |           |                           |                  | ✓            |
| DM                      | 25091021-005   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| DM                      | 25091021-005   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| DM                      | 25091021-005   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| DM                      | 25091021-005   | WSLM59             |                     |                 |           |                           |                  | ✓            |
| CO 1                    | 25091021-006   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| CO 1                    | 25091021-006   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| CO 1                    | 25091021-006   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| CO 1                    | 25091021-006   | WSLM59             |                     |                 |           |                           |                  | ✓            |
| CO 2                    | 25091021-007   | CLANDPREP          |                     |                 |           |                           |                  | ✓            |
| CO 2                    | 25091021-007   | ICPBOR             |                     |                 |           |                           |                  | ✓            |
| CO 2                    | 25091021-007   | PHSOIL             |                     |                 |           |                           |                  | ✓            |
| CO 2                    | 25091021-007   | WSLM59             |                     |                 |           |                           |                  | ✓            |

## Analysis Method

### Method Code

ANC  
CLANDPREP  
CLANDPREP  
Grid Reference

### Method Description

ANC: Acid Neutralisation Capacity as CaCO<sub>3</sub>  
CLand Prep and Dry Weight Correction to 35°C  
Solid Material Description  
Custom Report- Grid Reference (Eastings-Northings)

### Analysis Method

Air Dried & Ground  
As Received  
As Received



## Project Number: 25091021

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**Project Name:** Land & Water Services Ltd - Mon & Brec Fields

|          |                                          |                    |
|----------|------------------------------------------|--------------------|
| ICPBOR   | Boron (Water Soluble) by ICPOES          | Air Dried & Ground |
| ICPEXCH  | Extractable Magnesium by ICPOES (BS3882) | Air Dried & Ground |
| ICPEXCH  | Extractable Potassium by ICPOES (BS3882) | Air Dried & Ground |
| ICPMSS   | Arsenic in Solids by ICPMS               | Air Dried & Ground |
| ICPMSS   | Cadmium in Solids by ICPMS               | Air Dried & Ground |
| ICPMSS   | Chromium in Solids by ICPMS              | Air Dried & Ground |
| ICPMSS   | Copper in Solids by ICPMS                | Air Dried & Ground |
| ICPMSS   | Lead in Solids by ICPMS                  | Air Dried & Ground |
| ICPMSS   | Mercury in Solids by ICPMS               | Air Dried & Ground |
| ICPMSS   | Molybdenum in Solids by ICPMS            | Air Dried & Ground |
| ICPMSS   | Nickel in Solids by ICPMS                | Air Dried & Ground |
| ICPMSS   | Selenium in Solids by ICPMS              | Air Dried & Ground |
| ICPMSS   | Zinc in Solids by ICPMS                  | Air Dried & Ground |
| ISEFSS   | Fluoride (2:1) by ISE                    | Air Dried & Ground |
| LOI(%MM) | LOI: Loss on Ignition @ 550°C            | Air Dried & Ground |
| PHSOIL   | pH (2.5:1)                               | As Received        |
| PICALC   | DEFRA Index Scale                        | Air Dried & Ground |
| SUB022   | Nitrogen (Total)                         | Air Dried & Ground |
| TSCONW   | Electrical Conductivity (5:1)            | Air Dried & Ground |
| WSLM59   | TOC: Total Organic Carbon                | Air Dried & Ground |
| WSLM60   | Extractable Phosphorus                   | Air Dried & Ground |

### Project Report Notes

25091021-002 As part of method development the upper calibration limit for the PHSOIL/PHCONDW method has been reduced from pH 13 to pH 12. A result of 12.05 pH units was obtained for this sample. This is outside the new working range of the method and should therefore be used for guidance purposes only. Any accreditation has been removed where applicable.

### Result Report Notes

Letters alongside results signify that the result has associated report notes.  
The report notes are as follows:

| Letter | Note                                                                                                                                                                                                                                                                                                                         |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A      | Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data.                                                |
| B      | The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised.                                      |
| C      | Due to matrix interference, the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data.                                                                                                                                                        |
| D      | A non-standard volume or mass has been used for this test which has resulted in a raised detection limit.                                                                                                                                                                                                                    |
| E      | Due to the parameter value being beyond our calibration range (and following the maximum size of dilution allowed, where applicable), the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only. |
| F      | Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only.                           |
| G      | The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only.                                                                                                                                                   |



**Project Number: 25091021**

**Client:** Land & Water Services Ltd

**Date Issued:** 29/09/2025

**Project Name:** Land & Water Services Ltd - Mon & Brec Fields

#### HWOL Acronym Key

##### Acronym

|       |                                                                       |
|-------|-----------------------------------------------------------------------|
| HS    | Headspace Analysis                                                    |
| EH    | Extractable Hydrocarbons - i.e everything extracted by the solvent(s) |
| CU    | Clean up - e.g. by florisil, silica gel                               |
| 1D    | GC - Single coil gas chromatography                                   |
| Total | Aliphatics & Aromatics                                                |
| AL    | Aliphatics only                                                       |
| AR    | Aromatics only                                                        |
| +     | Operator to indicate cumulative e.g. EH_CU+HS_1D_Total                |

##### Description

#### Additional Information

This report refers to samples as received. SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

The accreditation codes are as follows:

U = UKAS accredited analysis  
M = MCERT accredited analysis  
N = Unaccredited analysis

Any accreditation marked with ^ signify results are reported on a dry weight basis of 35° c.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° c.

This report shall not be reproduced except in full, without written approval of the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any results marked with \* are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis  
NA = Sample is not amenable for the required analysis  
ND = Results cannot be determined

Items listed with a 'SUB' method code prefix have been carried out by another SOCOTEC department or by an external subcontracted laboratory. Further information is available upon request.

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the subcontracted lab for information regarding any deviancies for this analysis.

Summaries of analysis methods are available upon request.

## **End of Certificate of Analysis**