

## Certificate of Analysis

**Client:** [REDACTED]

**Project:** 24071355

**Quote:** BEC240334583 V1.1

**Project Ref:** Scheduled Samples 07-2024

**Site:** Stoney Hill Discharge (Week 1)

**Contact:** [REDACTED]

**Address:** [REDACTED]  
[REDACTED]  
[REDACTED]

**E-Mail:** [REDACTED]

**Phone:** .

**No. Samples Received:** 1

**Date Received:** 10/07/2024

**Analysis Completed:** 16/07/2024

**Date Issued:** 18/07/2024

**Report Type:** Version 01 (Interim)

This report supersedes any versions previously issued by the laboratory

[REDACTED]  
Reported by Reporting Officer



**Project Number: 24071355**

**Client:** [REDACTED]

**Date Issued:** 18/07/2024

**Project Name:** Scheduled Samples 07-2024 - Stoney Hill Discharge (Week 1)

**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> |
|-----------------------|--------------------------------|-----------------------------|---------------------------|----------------------------------|
| 24071355-001          | Leachate Discharge             | 08/07/2024 13:00:00         | WATER                     | Landfill Leachate                |

**Analysis Results**

SOCOTEC Sample ID: 24071355-001  
 Sampling Date: 08/07/2024 13:00  
 Customer ID: Leachate Discharge

| Method Code                | Analysis                    | MDL        | Accred. | Leachate Discharge |
|----------------------------|-----------------------------|------------|---------|--------------------|
| Visual Exam for TPH        | Visual TPH                  | -          | N       | Absent             |
| PHCONDW                    | pH                          | 1 pH units | U       | 8.1                |
| WSLM11                     | COD (Settled)               | 5 mg/l     | U       | 310                |
| WSLM10                     | Total Suspended Solids      | 5 mg/l     | U       | 29*                |
| KONENS                     | Ammoniacal Nitrogen as N    | 0.01 mg/l  | U       | 216                |
| SFAPI                      | Phenol Index                | 0.05 mg/l  | U       | <0.05              |
| SFAPI                      | Sulphide as S               | 0.02 mg/l  | U       | 0.06               |
| ICPWATVART (Total)         | Aluminium as Al             | 0.01 mg/l  | U       | <0.10 °            |
| ICPWATVART (Total)         | Iron as Fe                  | 0.01 mg/l  | U       | 2.81               |
| ICPWATVART (Total)         | Phosphorus as P             | 0.1 mg/l   | N       | <1.0 °             |
| ICPWATVART (Total)         | Total Sulphur as SO4        | 3 mg/l     | U       | <30 °              |
| ICPMSWT (Total)            | Zinc as Zn                  | 0.002 mg/l | U       | 0.042              |
| DISGAS                     | Dissolved Methane           | 0.02 mg/l  | N       | <0.02              |
| SVOCSW                     | 1,2,4-Trichlorobenzene      | 0.005 mg/l | N       | Pending            |
|                            | 1,2-Dichlorobenzene         | 0.005 mg/l | N       | Pending            |
|                            | 1,3-Dichlorobenzene         | 0.005 mg/l | N       | Pending            |
|                            | 1,4-Dichlorobenzene         | 0.005 mg/l | N       | Pending            |
|                            | 1-Methylnaphthalene         | 0.002 mg/l | N       | Pending            |
|                            | 2,4,5-Trichlorophenol       | 0.02 mg/l  | N       | Pending            |
|                            | 2,4,6-Trichlorophenol       | 0.02 mg/l  | N       | Pending            |
|                            | 2,4-Dichlorophenol          | 0.02 mg/l  | N       | Pending            |
|                            | 2,4-Dimethylphenol          | 0.02 mg/l  | N       | Pending            |
|                            | 2,4-Dinitrophenol           | 0.01 mg/l  | N       | Pending            |
|                            | 2,4-Dinitrotoluene          | 0.005 mg/l | N       | Pending            |
|                            | 2,6-Dinitrotoluene          | 0.005 mg/l | N       | Pending            |
|                            | 2-Chloronaphthalene         | 0.002 mg/l | N       | Pending            |
|                            | 2-Chlorophenol              | 0.02 mg/l  | N       | Pending            |
|                            | 2-Methylnaphthalene         | 0.002 mg/l | N       | Pending            |
|                            | 2-Methylphenol              | 0.005 mg/l | N       | Pending            |
|                            | 2-Nitroaniline              | 0.005 mg/l | N       | Pending            |
|                            | 2-Nitrophenol               | 0.02 mg/l  | N       | Pending            |
|                            | 3- & 4-Methylphenol         | 0.02 mg/l  | N       | Pending            |
|                            | 3-Nitroaniline              | 0.005 mg/l | N       | Pending            |
|                            | 4,6-Dinitro-2-methylphenol  | 0.05 mg/l  | N       | Pending            |
|                            | 4-Bromophenyl-phenylether   | 0.005 mg/l | N       | Pending            |
|                            | 4-Chloro-3-methylphenol     | 0.005 mg/l | N       | Pending            |
|                            | 4-Chloroaniline             | 0.005 mg/l | N       | Pending            |
|                            | 4-Chlorophenol              | 0.02 mg/l  | N       | Pending            |
|                            | 4-Chlorophenyl-phenylether  | 0.005 mg/l | N       | Pending            |
|                            | 4-Nitroaniline              | 0.005 mg/l | N       | Pending            |
|                            | 4-Nitrophenol               | 0.05 mg/l  | N       | Pending            |
|                            | Acenaphthene                | 0.002 mg/l | N       | Pending            |
|                            | Acenaphthylene              | 0.002 mg/l | N       | Pending            |
|                            | Anthracene                  | 0.002 mg/l | N       | Pending            |
|                            | Azobenzene                  | 0.01 mg/l  | N       | Pending            |
|                            | Benzo[a]anthracene          | 0.002 mg/l | N       | Pending            |
|                            | Benzo[a]pyrene              | 0.002 mg/l | N       | Pending            |
|                            | Benzo[b]fluoranthene        | 0.002 mg/l | N       | Pending            |
|                            | Benzo[g,h,i]perylene        | 0.002 mg/l | N       | Pending            |
|                            | Benzo[k]fluoranthene        | 0.002 mg/l | N       | Pending            |
|                            | Benzoic Acid                | 0.1 mg/l   | N       | Pending            |
|                            | Benzyl alcohol              | 0.005 mg/l | N       | Pending            |
|                            | Biphenyl                    | 0.002 mg/l | N       | Pending            |
|                            | bis(2-Chloroethoxy)methane  | 0.005 mg/l | N       | Pending            |
|                            | bis(2-Chloroethyl)ether     | 0.005 mg/l | N       | Pending            |
|                            | bis(2-Chloroisopropyl)ether | 0.005 mg/l | N       | Pending            |
|                            | bis(2-Ethylhexyl)phthalate  | 0.005 mg/l | N       | Pending            |
|                            | Butylbenzylphthalate        | 0.005 mg/l | N       | Pending            |
|                            | Carbazole                   | 0.01 mg/l  | N       | Pending            |
|                            | Chrysene                    | 0.002 mg/l | N       | Pending            |
|                            | Coronene                    | 0.05 mg/l  | N       | Pending            |
|                            | Dibenzo[a,h]anthracene      | 0.002 mg/l | N       | Pending            |
|                            | Dibenzofuran                | 0.005 mg/l | N       | Pending            |
|                            | Diethylphthalate            | 0.005 mg/l | N       | Pending            |
|                            | Dimethylphthalate           | 0.005 mg/l | N       | Pending            |
|                            | Di-n-butylphthalate         | 0.005 mg/l | N       | Pending            |
|                            | Di-n-octylphthalate         | 0.002 mg/l | N       | Pending            |
|                            | Diphenyl ether              | 0.002 mg/l | N       | Pending            |
|                            | Fluoranthene                | 0.002 mg/l | N       | Pending            |
| Fluorene                   | 0.002 mg/l                  | N          | Pending |                    |
| Hexachlorobenzene          | 0.005 mg/l                  | N          | Pending |                    |
| Hexachlorobutadiene        | 0.005 mg/l                  | N          | Pending |                    |
| Hexachlorocyclopentadiene  | 0.005 mg/l                  | N          | Pending |                    |
| Hexachloroethane           | 0.005 mg/l                  | N          | Pending |                    |
| Indeno[1,2,3-cd]pyrene     | 0.002 mg/l                  | N          | Pending |                    |
| Isophorone                 | 0.005 mg/l                  | N          | Pending |                    |
| Naphthalene                | 0.002 mg/l                  | N          | Pending |                    |
| Nitrobenzene               | 0.005 mg/l                  | N          | Pending |                    |
| N-Nitroso-di-n-propylamine | 0.005 mg/l                  | N          | Pending |                    |
| N-Nitrosodiphenylamine     | 0.005 mg/l                  | N          | Pending |                    |



**Project Number: 24071355**

**Client:** [REDACTED]

**Date Issued:** 18/07/2024

**Project Name:** Scheduled Samples 07-2024 - Stoney Hill Discharge (Week 1)



**Analysis Results**

SOCOTEC Sample ID: 24071355-001  
 Sampling Date: 08/07/2024 13:00  
 Customer ID: Leachate Discharge

| Method Code               | Analysis                    | MDL        | Accred.      | Leachate Discharge |
|---------------------------|-----------------------------|------------|--------------|--------------------|
| SVOCSW                    | Pentachlorophenol           | 0.05 mg/l  | N            | Pending            |
|                           | Phenanthrene                | 0.002 mg/l | N            | Pending            |
|                           | Phenol                      | 0.02 mg/l  | N            | Pending            |
|                           | Pyrene                      | 0.002 mg/l | N            | Pending            |
| VOCHSAW                   | 1,1,1,2-Tetrachloroethane   | 1 µg/l     | U            | <1*                |
|                           | 1,1,1-Trichloroethane       | 1 µg/l     | U            | <1*                |
|                           | 1,1,2,2-Tetrachloroethane   | 1 µg/l     | N            | <1                 |
|                           | 1,1,2-Trichloroethane       | 1 µg/l     | U            | <1*                |
|                           | 1,1-Dichloroethane          | 1 µg/l     | U            | <1*                |
|                           | 1,1-Dichloroethene          | 1 µg/l     | U            | <1*                |
|                           | 1,1-Dichloropropene         | 1 µg/l     | U            | <1*                |
|                           | 1,2,3-Trichlorobenzene      | 5 µg/l     | U            | <5*                |
|                           | 1,2,3-Trichloropropane      | 1 µg/l     | U            | <1*                |
|                           | 1,2,4-Trichlorobenzene      | 5 µg/l     | U            | <5*                |
|                           | 1,2,4-Trimethylbenzene      | 1 µg/l     | U            | <1*                |
|                           | 1,2-Dibromo-3-chloropropane | 5 µg/l     | U            | <5*                |
|                           | 1,2-Dibromoethane           | 1 µg/l     | U            | <1*                |
|                           | 1,2-Dichlorobenzene         | 5 µg/l     | U            | <5*                |
|                           | 1,2-Dichloroethane          | 1 µg/l     | U            | <1*                |
|                           | 1,2-Dichloropropane         | 1 µg/l     | U            | <1*                |
|                           | 1,3,5-Trimethylbenzene      | 0.6 µg/l   | U            | <0.6*              |
|                           | 1,3-Dichlorobenzene         | 1 µg/l     | U            | <1*                |
|                           | 1,3-Dichloropropane         | 1 µg/l     | N            | <1                 |
|                           | 1,4-Dichlorobenzene         | 1 µg/l     | U            | <1*                |
|                           | 2,2-Dichloropropane         | 1 µg/l     | N            | <1                 |
|                           | 2-Chlorotoluene             | 1 µg/l     | U            | <1*                |
|                           | 4-Chlorotoluene             | 1 µg/l     | U            | <1*                |
|                           | Benzene                     | 1 µg/l     | U            | <1*                |
|                           | Bromobenzene                | 1 µg/l     | U            | <1*                |
|                           | Bromochloromethane          | 1 µg/l     | U            | <1*                |
|                           | Bromodichloromethane        | 1 µg/l     | U            | <1*                |
|                           | Bromoform                   | 1 µg/l     | U            | <1*                |
|                           | Bromomethane                | 5 µg/l     | N            | <5                 |
|                           | Carbon Tetrachloride        | 1 µg/l     | U            | <1*                |
|                           | Chlorobenzene               | 1 µg/l     | U            | <1*                |
|                           | Chloroethane                | 5 µg/l     | U            | <5*                |
|                           | Chloroform                  | 5 µg/l     | U            | <5*                |
|                           | Chloromethane               | 1 µg/l     | U            | <1*                |
|                           | cis 1,2-Dichloroethene      | 1 µg/l     | U            | <1*                |
|                           | cis 1,3-Dichloropropene     | 1 µg/l     | N            | <1                 |
|                           | Dibromochloromethane        | 1 µg/l     | U            | <1*                |
|                           | Dibromomethane              | 1 µg/l     | U            | <1*                |
|                           | Dichlorodifluoromethane     | 1 µg/l     | N            | <1                 |
|                           | Ethylbenzene                | 0.5 µg/l   | U            | <0.5*              |
|                           | Hexachlorobutadiene         | 5 µg/l     | U            | <5*                |
|                           | iso-Propylbenzene           | 1 µg/l     | U            | <1*                |
|                           | m and p-Xylene              | 1 µg/l     | U            | <1*                |
|                           | MTBE                        | 1 µg/l     | N            | <1                 |
|                           | Naphthalene                 | 5 µg/l     | U            | <5*                |
|                           | n-Butylbenzene              | 1 µg/l     | U            | <1*                |
|                           | o-Xylene                    | 1 µg/l     | U            | <1*                |
|                           | p-Isopropyltoluene          | 1 µg/l     | U            | <1*                |
|                           | Propylbenzene               | 1 µg/l     | U            | <1*                |
|                           | sec-Butylbenzene            | 1 µg/l     | U            | <1*                |
|                           | Styrene                     | 1 µg/l     | U            | <1*                |
|                           | tert-Butylbenzene           | 1 µg/l     | U            | <1*                |
| Tetrachloroethene         | 5 µg/l                      | U          | <5*          |                    |
| Toluene                   | 1 µg/l                      | U          | <1*          |                    |
| trans 1,2-Dichloroethene  | 1 µg/l                      | U          | <1*          |                    |
| trans 1,3-Dichloropropene | 1 µg/l                      | U          | <1*          |                    |
| Trichloroethene           | 5 µg/l                      | U          | <5*          |                    |
| Trichlorofluoromethane    | 1 µg/l                      | U          | <1*          |                    |
| Vinyl Chloride            | 1 µg/l                      | U          | <1*          |                    |
| TIC List                  | 5 µg/l                      | N          | See Attached |                    |

# SOCOTEC - VOC Unknowns Analysis Report



Sample Name: 24071355-001-5+1

| Component RT | Compound Name | Match Score | CAS# | Estimated Concentration |
|--------------|---------------|-------------|------|-------------------------|
|              | None Detected |             |      |                         |



**Project Number: 24071355**

**Client:** [REDACTED]

**Date Issued:** 18/07/2024

**Project Name:** Scheduled Samples 07-2024 - Stoney Hill Discharge (Week 1)

Deviating Sample Report

All samples received in an appropriate condition with no deviancies noted with the samples.

Analysis Method

| <u>Method Code</u>  | <u>Method Description</u>             | <u>Analysis Method</u> |
|---------------------|---------------------------------------|------------------------|
| DISGAS              | Dissolved Methane                     | Unfiltered             |
| ICPMSWT (Total)     | Zinc (Tot.) in Water by ICPMS         | Unfiltered             |
| ICPWATVART (Total)  | Aluminium (Tot.) in Water by ICPOES   | Unfiltered             |
| ICPWATVART (Total)  | Iron (Tot.) in Water by ICPOES        | Unfiltered             |
| ICPWATVART (Total)  | Phosphorus (Tot.) in Water by ICPOES  | Unfiltered             |
| ICPWATVART (Total)  | Total Sulphur as SO4 (Tot.) in Water  | Unfiltered             |
| KONENS              | Ammoniacal Nitrogen as N              | Filtered               |
| PHCONDW             | pH                                    | Unfiltered             |
| SFAPI               | Phenol Index (Total) by SFA           | Unfiltered             |
| SFAPI               | Sulphide by SFA                       | Unfiltered             |
| SVOCSW              | SVOCs (Target List) by GCMS           | Unfiltered             |
| Visual Exam for TPH | TPH (Visual Exam)                     | Unfiltered             |
| VOCHSAW             | VOCs (Target List and TICs) by GCMS   | Unfiltered             |
| WSLM10              | TSS: Total Suspended Solids           | Unfiltered             |
| WSLM11              | COD: Chemical Oxygen Demand (Settled) | Unfiltered             |

Result Report Notes

Letters alongside results signify that the result has associated report notes.

The report notes are as follows:

| <u>Letter</u> | <u>Note</u>  |
|---------------|--|
| 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: 24071355**

**Client:** [REDACTED]

**Date Issued:** 18/07/2024

**Project Name:** Scheduled Samples 07-2024 - Stoney Hill Discharge (Week 1)

[HWOL Acronym Key](#)

| <u>Acronym</u> | <u>Description</u>  |
|----------------|---|
| 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                |

[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 105° 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.

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**