Certificate of Analysis

Client: ██████████████

Project: 24071355

Quote: BEC240334583 V1.1

Project Ref: Scheduled Samples 07-2024

Site: Stoney Hill Discharge (Week 1)

Contact: ████████████

Address: ████████████████
████
████

E-Mail: ███████████████████

Phone: .

No. Samples Received: 1

Date Received: 10/07/2024

Analysis Completed: 29/07/2024

Date Issued: 29/07/2024

Report Type: Version 02

This report supersedes any versions previously issued by the laboratory

Reported by Reporting Officer

SOCOTEC Environmental Chemistry, Bretby Business Park, Ashby Road, Burton-on-Trent, DE15 0YZ

Project Number: 24071355

Client: ▮▮▮▮▮▮▮▮▮▮▮▮

Date Issued: 29/07/2024

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

Samples Analysed

Text ID	Sample Reference	Sampling Date	Sample Type	Sample Description
24071355-001	Leachate Discharge	08/07/2024 13:00:00	WATER	Landfill Leachate

Project Number: 24071355

Client: ▮▮▮▮▮▮▮▮▮

Date Issued: 29/07/2024

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:	
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	N		<30
ICPMSWT (Total)	Zinc as Zn	0.002 mg/l	U		0.042
DISGAS	Dissolved Methane	0.02 mg/l	N		<0.02
	1,2,4-Trichlorobenzene	0.005 mg/l	N		<0.050
	1,2-Dichlorobenzene	0.005 mg/l	N		<0.050
	1,3-Dichlorobenzene	0.005 mg/l	N		<0.050
	1,4-Dichlorobenzene	0.005 mg/l	N		<0.050
	1-Methylnaphthalene	0.002 mg/l	N		<0.020
	2,4,5-Trichlorophenol	0.02 mg/l	N		<0.200
	2,4,6-Trichlorophenol	0.02 mg/l	N		<0.200
	2,4-Dichlorophenol	0.02 mg/l	N		<0.200
	2,4-Dimethylphenol	0.02 mg/l	N		<0.200
	2,4-Dinitrophenol	0.01 mg/l	N		<0.100
	2,4-Dinitrotoluene	0.005 mg/l	N		<0.050
	2,6-Dinitrotoluene	0.005 mg/l	N		<0.050
	2-Chloronaphthalene	0.002 mg/l	N		<0.020
	2-Chlorophenol	0.02 mg/l	N		<0.200
	2-Methylnaphthalene	0.002 mg/l	N		<0.020
	2-Methylphenol	0.005 mg/l	N		<0.050
	2-Nitroaniline	0.005 mg/l	N		<0.050
	2-Nitrophenol	0.02 mg/l	N		<0.200
	3- & 4-Methylphenol	0.02 mg/l	N		<0.200
	3-Nitroaniline	0.005 mg/l	N		<0.050
	4,6-Dinitro-2-methylphenol	0.05 mg/l	N		<0.500
	4-Bromophenyl-phenylether	0.005 mg/l	N		<0.050
	4-Chloro-3-methylphenol	0.005 mg/l	N		<0.050
	4-Chloroaniline	0.005 mg/l	N		<0.050
	4-Chlorophenol	0.02 mg/l	N		<0.200
	4-Chlorophenyl-phenylether	0.005 mg/l	N		<0.050
	4-Nitroaniline	0.005 mg/l	N		<0.050
	4-Nitrophenol	0.05 mg/l	N		<0.500
	Acenaphthene	0.002 mg/l	N		<0.020
	Acenaphthylene	0.002 mg/l	N		<0.020
	Anthracene	0.002 mg/l	N		<0.020
	Azobenzene	0.01 mg/l	N		<0.100
	Benzo[a]anthracene	0.002 mg/l	N		<0.020
	Benzo[a]pyrene	0.002 mg/l	N		<0.020
SVOCSW	Benzo[b]fluoranthene	0.002 mg/l	N		<0.020
	Benzo[g,h,i]perylene	0.002 mg/l	N		<0.020
	Benzo[k]fluoranthene	0.002 mg/l	N		<0.020
	Benzoic Acid	0.1 mg/l	N		<1.00
	Benzyl alcohol	0.005 mg/l	N		<0.050
	Biphenyl	0.002 mg/l	N		<0.020
	bis(2-Chloroethoxy)methane	0.005 mg/l	N		<0.050
	bis(2-Chloroethyl)ether	0.005 mg/l	N		<0.050
	bis(2-Chloroisopropyl)ether	0.005 mg/l	N		<0.050
	bis(2-Ethylhexyl)phthalate	0.005 mg/l	N		<0.050
	Butylbenzylphthalate	0.005 mg/l	N		<0.050
	Carbazole	0.01 mg/l	N		<0.100
	Chrysene	0.002 mg/l	N		<0.020
	Coronene	0.05 mg/l	N		<0.500
	Dibenzo[a,h]anthracene	0.002 mg/l	N		<0.020
	Dibenzofuran	0.005 mg/l	N		<0.050
	Diethylphthalate	0.005 mg/l	N		<0.050
	Dimethylphthalate	0.005 mg/l	N		<0.050
	Di-n-butylphthalate	0.005 mg/l	N		<0.050
	Di-n-octylphthalate	0.002 mg/l	N		<0.020
	Diphenyl ether	0.002 mg/l	N		<0.020
	Fluoranthene	0.002 mg/l	N		<0.020
	Fluorene	0.002 mg/l	N		<0.020
	Hexachlorobenzene	0.005 mg/l	N		<0.050
	Hexachlorobutadiene	0.005 mg/l	N		<0.050
	Hexachlorocyclopentadiene	0.005 mg/l	N		<0.050
	Hexachloroethane	0.005 mg/l	N		<0.050
	Indeno[1,2,3-cd]pyrene	0.002 mg/l	N		<0.020
	Isophorone	0.005 mg/l	N		<0.050
	Naphthalene	0.002 mg/l	N		<0.020
	Nitrobenzene	0.005 mg/l	N		<0.050
	N-Nitroso-di-n-propylamine	0.005 mg/l	N		<0.050
	N-Nitrosodiphenylamine	0.005 mg/l	N		<0.050
	Pentachlorophenol	0.05 mg/l	N		<0.500
	Phenanthrene	0.002 mg/l	N		<0.020

Project Number: 24071355

Client: ▮▮▮▮▮▮▮▮▮▮

Date Issued: 29/07/2024

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

UKAS TESTING
1252

Analysis Results

				SOCOTEC Sample ID:	24071355-001
				Sampling Date:	08/07/2024 13:00
				Customer ID:	Leachate Discharge
Method Code	Analysis	MDL	Accred.		
SVOCSW	Phenol	0.02 mg/l	N		<0.200 ▫
	Pyrene	0.002 mg/l	N		<0.020 ▫
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

LIMS-F029_V5.2_29JUL24- COA Section 2

SOCOTEC - VOC Unknowns Analysis Report

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

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

Project Number: 24071355

Client: ███████████████

Date Issued: 29/07/2024

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

Method Code	Method Description	Analysis Method
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:

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.

HWOL Acronym Key

Acronym	Description
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

SVOCSW - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine decomposes in the GC inlet and cannot be separated from diphenylamine. For this reason we will report a combined result for N-Nitrosodiphenylamine and Diphenylamine.

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 $105\,^{\circ}C$.

All Air Dried and Ground Samples (ADG) are oven dried at less than $35\,^{\circ}C$.

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