# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

NAIIS No Asbestos Identified in Sample NADIS No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204386 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4386

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	1 227 5 11 2 22	Does No.
CL/1981662 CL/1981663 CL/1981664	1-307 D 11 2.20 1-307 D 18 9.20 1-307 D 118 15.80	Brown CLAY Brown CLAY Brown CLAY
CL/1981663	1-307 D 18 9.20	Brown CLAY
CL/1981664	1-307 D 118 15.80	Brown CLAY
	The state of the s	

Appendix A Page 1 of 1 02/01/2020EFS/204386 Ver. 1

## TEST REPORT



Report No. EFS/204387 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 18-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 02-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 02-Jan-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S90588

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S204387

Report No

Date Logged 18-Dec-2019

In-House Report Due 06-Jan-2020

Please note the res	sults for any subcontracted analy	sis (identified	with	a '^' j	s like	ly to t	Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.
		MethodID	CustServ	ICPACIDS	ICPWSS	TSBRE1	WSLM50
ID Number	Description	Sampled	REPORT A	SO4 (acid sol)	SO4 (H2O sol) mg/l	Total Sulphur.	pH (BS1377)
				>	>		
CL/1981665	1-306 16.50-17.00	٥	۵	۵	۵	۵	Q
CL/1981666	1-306 1.20	О	۵	D	۵	۵	D
CL/1981667	1-306 5.00	О	۵	٥	٥	۵	Q
CL/1981668	1-306 9.25	Q	۵	D	D	D	D

The sample was received in an inappropriate container for this analysis Deviating Sample Key

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time No analysis scheduled Analysis Subcontracted - **Note: due date may vary** Headspace present in the sample container Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204387 Ver. 1

Report Number: EFS/204387

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204387 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4387

Note: major constituent in upper case

CL/1981665 CL/1981666 CL/1981667 CL/1981668	Client ID  1-306 D 11 16.50  1-306 D 113 1.20  1-306 D 123 5.00  1-306 D 134 9.25	Description Brown CLAY Brown Silt CLAY Brown CLAY Brown CLAY
CL/1981665 CL/1981666 CL/1981667 CL/1981668	1-306 D 11 16.50 1-306 D 113 1.20 1-306 D 123 5.00 1-306 D 134 9.25	Brown CLAY  Brown Silt CLAY  Brown CLAY  Brown CLAY
CL/1981666 CL/1981667 CL/1981668	1-306 D 113 1.20 1-306 D 123 5.00 1-306 D 134 9.25	Brown Silt CLAY Brown CLAY Brown CLAY
CL/1981667 CL/1981668	1-306 D 123 5.00 1-306 D 134 9.25	Brown CLAY Brown CLAY
CL/1981668	1-306 D 134 9.25	Brown CLAY

Appendix A Page 1 of 1 02/01/2020EFS/204387 Ver. 1

## TEST REPORT



Report No. EFS/204388 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 18-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 02-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 02-Jan-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

																nalysis		02-Jan-2020	EFS/204388	1	
																Sample Analysis	,	Date Printed	Report Number	Table Number	
														+				Dat	Re	Tat	
																			M2E 10+ 10	01 10	
																SOCOTEC UK Wokingham					
pH Units	WSLM50	2	рН (BS1377)	3.8	6.4	3.5	3.6									EC UK W	ags		7000 40		
%	I SBRE1	900.0 N	Potal Sulphur.	0.146	1.16	3.02	3.58									SOCOT	William Riggs		כ	ב	
l/gm		7es	SO4 (H2O sol) mg/l	93	258	268	541									ame					
mg/kg				3290	756	2030	1460									Client Name	Contact				
			Sample Date																		
	Meth	Method Reporting Limits: UKAS Accredited:	Client Sample Description	1-305 D 101 1.90	1-305 D 113 7.90	1-305 B 120 15.60	1-305 B 125 24.70									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1981669	1981670	1981671	1981672									V)		ď	ш		

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Date Logged 18-Dec-2019 Consignment No S90587

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S204388

Report No

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. In-House Report Due 06-Jan-2020

WSLM50	pH (BS1377)		۵	D	D	۵
TSBRE1	Total Sulphur.		a	D	Q	Q
ICPWSS	SO4 (H2O sol) mg/l	1	a	a	a	Q
ICPACIDS	SO4 (acid sol)	1	О	D	Q	Q
CustServ	REPORT A		۵	D	Q	۵
MethodID	Sampled		О	D	D	О
	Description		1-305 1.90	1-305 7.90	1-305 15.60-16.10	1-305 24.70-25.20
	ID Number		1981669	1981670	1981671	1981672

The sample was received in an inappropriate container for this analysis Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis withir olding time; however any delay could result in samples becoming

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time No analysis scheduled Analysis Subcontracted - **Note: due date may vary** Headspace present in the sample container Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204388 Ver. 1

Report Number: EFS/204388

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204388 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4388

Note: major constituent in upper case

· ·		Note: major constituent in upper case
Lab ID Number	Client ID	Description
		Prous Sand SILT Croud
CL/1981669	1-305 D 101 1.90	DIOWIL SAIN SEL GIAVE
CL/1981670	1-305 D 113 7.90	Brown Gravel SAND
CL/1981671	1-305 B 120 15.60	Brown CLAY
CL/1981671 CL/1981672	1-305 B 125 24.70	Brown Sand SILT Gravel Brown Gravel SAND Brown CLAY Brown CLAY

Appendix A Page 1 of 1 02/01/2020EFS/204388 Ver. 1

## **TEST REPORT**

Report No. EFS/204430 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 19-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 03-Jan-2020

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 03-Jan-2020

													lysis		03-Jan-2020	EFS/204430	-	
													Sample Analysis					
													Samp		inted	Report Number	Table Number	
												1			Date Printed	Report	Table N	
																4	2	
													ham			M25 1c+ 10	70 07	
													SOCOTEC UK Wokingham				_	
													OTEC UK	William Riggs		70000	90060	
$\parallel$												-	SOC	William		_		
%	ORGMAI	0.2	Organic Matter %	12.6									Client Name	Contact				
Units:	Codes :	g Limits :	Sample Date									1						
: Units	Metho	Method Reportin	Client Sample Description	1-533A B 5 1.00									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1981884														

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S87306

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S204430

Report No

Date Logged 19-Dec-2019

In-House Report Due 07-Jan-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ORGMAT	Organic Matter %	D
CustServ	REPORT A	D
MethodID	Sampled	D
	Description	1-533A 1.00-1.50
	ID Number	/1981884

The sample was received in an inappropriate container for this analysis Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis within

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time No analysis scheduled Analysis Subcontracted - **Note: due date may vary** Headspace present in the sample container Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204430 Ver. 1

Report Number: EFS/204430

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ORGMAT	Oven Dried	Acid Dichromate oxidation of the sample followed by colorimetric
		@ < 35°C	analysis of the extract

# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204430 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4430

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
CL/1981884	1-533A B 5 1.00	Brown SILT
CL/1901004	I-555A B 5 1.00	DIOWII SILI
	1	
	1	

Appendix A Page 1 of 1 03/01/2020EFS/204430 Ver. 1

## TEST REPORT



Report No. EFS/204481 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 20-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 07-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 07-Jan-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

	_		_		_		_					_	 _	 	 	_						_	
																			07-Jan-2020	EFS/204481	1		
																	lysis		0.	EF			
																	Sample Analysis						
																	Sam		ited	umber	mber		
																			Date Printed	Report Number	Table Number		
																				7	2		
																	ш				M25 Jct 10		
																	/okingha						
%	TSBRE1	0.005	No	Total Sulphur.	090.0												SOCOTEC UK Wokingham	iggs		70000			
pH Units	PHSOIL	25%	Yes	pH units (AR)	4.7												socoı	William Riggs		ב	בֿ		
mg/l		10	Yes	SO4 (H2O sol) mg/l	25												ame						
mg/kg	ICPACIDS	20	Yes	SO4 (acid sol)	625												Client Name	Contact					
Units:	od Codes:	ng Limits:	ccredited :	Sample Date	27-Sep-19																		
	Meth	Method Reporting Limits:	UKAS A	scription	50												8		iad	DE15 0YZ			
		Me		Client Sample Description	1-940 D 6 1.50												TEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	283 554400	283 554422	
				Q Gien	10												SOCOTEC		Bretby Busines	Burton-on-Trer	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422	
				LAB ID Number CL/	1982025																		

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S90681

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 20-Dec-2019

In-House Report Due 08-Jan-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S204481 Report No

TSBRE1	Total Sulphur.		
PHSOIL	pH units (AR)	>	EF
ICPWSS	SO4 (H2O sol) mg/l	>	Е
ICPACIDS	SO4 (acid sol)	>	
CustServ	REPORT A		
MethodID	Sampled		27/09/19
	Description		1-940 1.50
	ID Number		L/1982025

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204481 Ver. 1

Report Number: EFS/204481

# **Method Descriptions**

Matrix	MethodID	Method Description	
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using
			pH probe.
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection

# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204481 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4481

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/1982025	1-940 D 6 1.50	Brown Clay SILT
OL/1002020	1 040 B 0 1.00	Brown day digit

Appendix A Page 1 of 1 07/01/2020EFS/204481 Ver. 1

Our Ref: EFS/204526 (Ver. 1) Your Ref: D9008-19

January 7, 2020

Andrea Capon SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

For the attention of Andrea Capon

Dear Andrea Capon

#### Sample Analysis - D9008-19 M25 Jct 10

Samples from the above site have been analysed in accordance with the schedule supplied. The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Where appropriate the samples will be kept until 03/02/20 when they will be discarded. Please call 01283 554434 for an extension of this date.

Please be aware that our policy for the retention of paper based laboratory records and analysis reports is 6 years.

The work was carried out in accordance with SOCOTEC UK Limited (Multi-Sector Services) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for SOCOTEC UK Limited

K Smith

Project Co-ordinator 01283 554434



**Environmental Chemistry** 

SOCOTEC UK Limited Bretby Business Park Ashby Road Burton-on-Trent Staffordshire DE15 0YZ

Telephone: 01283 554400 Facsimile: 01283 554422

EFS/204526 Ver. 1

## TEST REPORT



Report No. EFS/204526 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 23-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 07-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 07-Jan-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected. SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

		· 94	-	7/0	o+iol			-		-					-	Γ
	Method Code	es: ICPACIDS	DS ICPWSS	+	WSLM50											
	Method Reporting Limits :	<b>ts</b> : 20														
	UKAS Accredite		Yes	No	No											
LAB ID Number CL/	Client Sample Description	SO4 (acid sol)	SO4 (H2O sol) mg/l	Total Sulphur.	pH (BS1377)											
1982271	1-210 D 104 3.00	1080	20	0.031	4.6											
1982272	1-210 D 115 6.00	11700	0 40	0.033	4.7											
1982273	1-210 D 122 14.50	526	386	1.36	3.9											
1982274	1-210 D 128 22.50	386	411	1.39	5.0											
		+	$\left  \right $	+				$\left. \right $	$\left  \right $	+				+		T
	SOCOTEC	Clien	Client Name	socol	SOCOTEC UK Woki	Vokingham	Ę				Sam	Sample Analysis	lysis			
		Contact	act	Andrea Capon	apon											
	Bretby Business Park, Ashby Road									Date Printed	inted		07-Ja	07-Jan-2020		
-	Burton-on-Trent, Staffordshire, DE15 0YZ			ב	חסחסת		M25 1c+ 10			Report	Report Number		EFS/2	EFS/204526		
	Tel +44 (0) 1283 554400			٤			2000			Table Number	umber			-		
	Fax +44 (0) 1283 554422	-														$\neg$

# Sample Analysis

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

Customer Site

Report No

D9008-19 M25 Jct 10

Date Logged 23-Dec-2019

Consignment No S90684

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. In-House Report Due 09-Jan-2020 S204526

WSLM50	pH (BS1377)		۵	D	۵	۵
TSBRE1	Total Sulphur.		۵	a	a	۵
ICPWSS	SO4 (H2O sol) mg/l	^	Ω	a	a	۵
ICPACIDS	SO4 (acid sol)	^	۵	a	a	۵
CustServ	REPORT A		О	a	a	۵
MethodID	Sampled		D	О	О	D
	Description		1-210 3.00	1-210 6.00	1-210 14.50-16.00	1-210 22.50-24.00
	ID Number		CL/1982271	CL/1982272	CL/1982273	CL/1982274

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Required

Analysis Subcontracted - Note: due date may vary

EFS/204526 Ver. 1

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Report Number: EFS/204526

# **Method Descriptions**

Matrix	MethodID	IID Analysis Method Description						
		Basis						
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric					
		@ < 35°C	Acid extraction followed by ICPOES detection					
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water					
		@ < 35°C	extraction followed by ICPOES detection					
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid					
		@ < 35°C	samples by high temperature combustion/infrared detection					
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using					
		@ < 35°C	pH probe.					

# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204526 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4526

Note: major constituent in upper case

Lab ID Number	Client ID	Description
	4 040 B 404 0 00	D. O. O. T.
CL/1982271	1-210 D 104 3.00 1-210 D 115 6.00 1-210 D 122 14.50	Brown Clay SILT Brown Clay SILT Brown Silt CLAY Brown Silt CLAY
CL/1982272	1-210 D 115 6.00	Brown Clay SILT
CL/1982273	1-210 D 122 14.50	Brown Silt CLAY
CL/1982272 CL/1982273 CL/1982274	1-210 D 128 22.50	Brown Silt CLAY

Appendix A Page 1 of 1 07/01/2020EFS/204526 Ver. 1

## TEST REPORT



Report No. EFS/204527 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 23-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 10-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

doca

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 10-Jan-2020

10-Jan-2020 EFS/204527

> Report Number **Table Number**

> > D9008-19 M25 Jct 10

Date Printed

Sample Analysis

% pH Units 3 TSBRE1 WSLM50 0.005 No

Mg/l mg/l mg/l KONECL KoneNO3 7 1 0.2 1 No

Units	mg/kg mg/l	
Method Codes	ICPACIDS	ICPWSS
Method Reporting Limits	20	10
UKAS Accredited	Yes	Yes

5.0 5.4 4.6

0.034 0.019 0.646

<0.2 <0.2 <0.2

43 17

180

12 7

22

312

842 64

1-339 D 125 10.20 1-339 D 135 19.20

1-339 D 114 5.10

1982275 1982276 1982277

pH (BS1377)

Total Sulphur.

Nitrate (BRE 2:1): mg/l

Chloride:(2:1)

SO4-- (H2O sol) mg/l

SO4-- (acid sol)

Sample Date

Client Sample Description

LAB ID Number CL/

	ad	Burton-on-Trent, Staffordshire, DE15 0YZ
	Bretby Business Park, Ashby Road	ire, [
	Ashl	ırdsl
	ark,	taffc
	SS.	t, S
1	sines	Te
	Bus	Ė
	etby	rton
	ä	B

SOCOTEC

**SOCOTEC UK Wokingham** 

Client Name

Andrea Capon

Contact

Burton-on-1

Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S90684

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 23-Dec-2019

In-House Report Due 15-Jan-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S204527 Report No

WSLM50	pH (BS1377)		۵	۵	D
TSBRE1	Total Sulphur.		۵	۵	۵
KoneNO3	Nitrate (BRE 2:1): mg/l		۵	۵	۵
KONECL	Chloride:(2:1)		۵	۵	٥
ICPWSS	SO4 (H2O sol) mg/l	^	a	۵	Q
ICPBRE	Magnesium (BRE)		a	۵	Q
ICPACIDS	SO4 (acid sol)	^	α	۵	Q
	DO NO3 if pH<5.5		a		
	DO Mg if SO4(W)>3000		۵		
Dep.Opt	DO CI if pH<5.5		О		
CustServ	REPORT A		a	۵	Q
MethodID	Sampled	o ISO17025	٥	٥	D
	Description	Test Method Accredited to ISO17025	1-339 5.10	1-339 10.20	1-339 19.20
	ID Number		CL/1982275	CL/1982276	CL/1982277

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Analysis Subcontracted - **Note: due date may vary** Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204527 Ver. 1

Report Number: EFS/204527

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204527 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_4527

Note: major constituent in upper case

		Note: major constituent in upper case
Lab ID Number	Client ID	Description
		D : OAND
CL/1982275	1-339 D 114 5.10	Beige SAND
CL/1982276	1-339 D 125 10.20	Brown Clay SILT
CL/1982276 CL/1982277	1-339 D 125 10.20 1-339 D 135 19.20	Beige SAND Brown Clay SILT Brown Clay SAND Gravel

Appendix A Page 1 of 1 10/01/2020EFS/204527 Ver. 1

#### TEST REPORT



Report No. EFS/204528 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 23-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 10-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 10-Jan-2020

	_			 	 		 			 		 					
														10-Jan-2020	EFS/204528	1	
												ysis		10.	EF		
												Sample Analysis					
												Samp		þé	nber	ber	
												-		Date Printed	Report Number	<b>Table Number</b>	
															<b>R</b>	<u> </u>	
												_					
												_				_	
pH (BS1377)	4.8	4.3	4.0									-			MOE LOT 40		
Total Sulphur.	0.021	0.038	0.412									ıgham			ACM	, CZIV	
											1	SOCOTEC UK Wokingham					
Nitrate (BRE 2:1): mg/l	<0.2	<0.2	<0.2								1	OTEC L	Andrea Capon		07000		
Chloride:(2:1)	34	15	55									soc	Andrea		Ī	•	
SO4 (H2O sol) mg/l	27	115	478									lame					
SO4 (acid sol)	1050	1970	240									Client Name	Contact				
Sample Date																	
ription	00	00	40											7	:15 0YZ		
Client Sample Description	1-417 D 108 3.00	1-417 D 117 7.00	1-417 D 124 11.40									EC		ark, Ashby Road	taffordshire, DE	554400	554422
Client S;	1-4	1-4	1-41									SOCOTEC (		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
LAB ID Number CL/	1982278	1982279	1982280									W		Ā	Bu	-	L

 Units:
 mg/kg
 mg/l
 mg/l
 mg/l
 PH Units

 Method Codes:
 ICPACIDS
 ICPACIDS
 ICPWSS
 KONECL
 KoneNO3
 TSBRE1
 WSLM50

 Method Reporting Limits:
 20
 10
 1
 0.2
 0.005
 No

 UKAS Accredited:
 Yes
 Yes
 No
 No
 No
 No

## SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S90730

SOCOTEC UK Wokingham

Customer

Site

Sample Analysis

D9008-19 M25 Jct 10

Report No

Date Logged 23-Dec-2019

In-House Report Due 15-Jan-2020

S204528

days.						
king.	WSLM50	pH (BS1377)		Q	a	۵
e wor	TSBRE1	Total Sulphur.		D	D	D
ıal fiv	KoneNO3	Nitrate (BRE 2:1): mg/l		D	D	۵
ditior	KONECL	Chloride:(2:1)		D	D	D
an ad	ICPWSS	SO4 (H2O sol) mg/l	A	Q	Q	Ω
up to	ICPBRE	Magnesium (BRE)		D	D	О
take ı	ICPACIDS	SO4 (acid sol)	A	Q	Q	Ω
ely to		DO NO3 if pH<5.5		D		
is like		DO Mg if SO4(W)>3000		Q		
a '^')	Dep.Opt	DO CI if pH<5.5		D		
with	CustServ	REPORT A		D	O	۵
sis (identified	MethodID	Sampled	o ISO17025	D	D	D
Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.		Description	Test Method Accredited to ISO17025	1-417 3.00-3.45	1-417 7.00-7.45	1-417 11.40
Please note the re		ID Number		CL/1982278	CL/1982279	CL/1982280

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container f sampling dates are missing or matrices unclassified then results will

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Requested Analysis Key Analysis Required

No analysis scheduled Analysis Subcontracted - **Note: due date may vary** 

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204528 Ver. 1

Report Number: EFS/204528

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204528 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_4528

Note: major constituent in upper case

Lab ID Number	Client ID	Description
		Brown Clay SILT
CL/1982278 CL/1982279 CL/1982280	1-417 D 108 3.00 1-417 D 117 7.00 1-417 D 124 11.40	Brown Clay SILT Brown Clay SILT Brown Silt CLAY
CL/1982279	1-417 D 117 7.00	DIOWII Cidy SIL I
CL/1982280	1-417 D 124 11.40	Brown Silt CLAY

Appendix A Page 1 of 1 10/01/2020EFS/204528 Ver. 1

#### TEST REPORT



Report No. EFS/204529 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 23-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 10-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected. SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 10-Jan-2020

## Sample Analysis

## Analytical and Deviating Sample Overview **SOCOTEC UK Ltd Environmental Chemistry**

Consignment No S90731

SOCOTEC UK Wokingham D9008-19 M25 Jct 10

Customer Site

Date Logged 23-Dec-2019

In-House Report Due 15-Jan-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S204529 Report No

-			
WSLM50	pH (BS1377)		Δ
TSBRE1	Total Sulphur.		۵
KoneNO3	Nitrate (BRE 2:1): mg/l		۵
KONECL	Chloride:(2:1)		۵
ICPWSS	SO4 (H2O sol) mg/l	>	۵
ICPBRE	Magnesium (BRE)		a
ICPACIDS	SO4 (acid sol)	>	a
	DO NO3 if pH<5.5		a
	DO Mg if SO4(W)>3000		a
Dep.Opt	DO CI if pH<5.5		۵
CustServ	REPORT A		۵
MethodID	Sampled	o ISO17025	٥
	Description	Test Method Accredited to ISO17025	1-422 1.50
	ID Number		L/1982281

Devi	Deviating Sample Key
A	The sample was received in an inappropriate container for this ana
α	The sample was received without the correct preservation for this s

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

The sample was received without the correct preservation for this analysis

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time 

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Subcontracted - **Note: due date may vary** 

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204529 Ver. 1

Report Number: EFS/204529

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	· ·
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **P** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204529 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_4529

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/1982281	1-422 D 10 1.50	Brown SAND
OL/100ZZO1	1 422 8 10 1.00	Significant States
	_	

Appendix A Page 1 of 1 10/01/2020EFS/204529 Ver. 1

#### TEST REPORT



Report No. EFS/204745 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 14-Jan-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 29-Jan-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 29-Jan-2020

																/sis		29-Jan-2020	EFS/204745	1	
																Sample Analysis					
																Sam		Date Printed	Report Number	Table Number	
																			<u>«</u>	<u> </u>	
						+														<b>-</b>	
pH Units	WSLM50		2	2	pH (BS1377)	3.2	5.0									Ę			7 1 2	US008-19 IMZ5 JCt 10	
%	TSBRE1	0.005	2	2	Total Sulphur.	0.814	0.051									SOCOTEC UK Wokingham				N IN	
l/gm	KoneN03	0.2	2	2	Nitrate (BRE 2:1): mg/l	<0.2										EC UK V	iggs		000	-000	
l/gm	KONECL	-	No.	2	Chloride:(2:1)	10										socoı	William Riggs		2	ב	
	<u></u>		Yes	3	SO4 (H2O sol) mg/l	1880	55									ame					
mg/kg		_	Yes		SO4 (acid sol)	9790	499									Client Name	Contact				
Units:	od Codes:	ng Limits:	ccredited:		Sample Date																
	Method Codes:	Method Reporti	UKAS		Client Sample Description	1-401 D 13 5.20	1-339 D 12 1.10									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
					LAB ID Number CL/	2083069	2083073									•					

# Sample Analysis

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S90955

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site Report No

Date Logged 14-Jan-2020

In-House Report Due 29-Jan-2020

Please note the results for any subcontracted analysis (identified with a  $^{1/1}$ ) is likely to take up to an additional five working days. S204745

WSLM50	pH (BS1377)		D	۵
TSBRE1	Total Sulphur.		D	D
KoneNO3	Nitrate (BRE 2:1): mg/l		D	۵
KONECL	Chloride:(2:1)		D	D
ICPWSS	SO4 (H2O sol) mg/l	1	D	۵
ICPBRE	Magnesium (BRE)		Q	D
CPACIDS	SO4 (acid sol)	^	D	D
	DO NO3 if pH<5.5		Q	
	DO Mg if SO4(W)>3000		a	
Dep.Opt	DO CI if pH<5.5		Q	
CustServ	REPORT A		a	D
MethodID	Sampled	o ISO17025	D	D
	Description	Test Method Accredited to ISO17025	1-401 5.20	1-339 1.10
	ID Number		CL/2083069	CL/2083073

	The sample was received in an inappropriate container for this analysis	The sample was received without the correct preservation for this analysis
ng Sample Key	iple was recei	ple was recei
Deviating San	A The sam	B The sam

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/204745 Ver. 1

Analysis Subcontracted - Note: due date may vary

Report Number: EFS/204745

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	· ·
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/204745 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_4745

Note: major constituent in upper case

Lab ID Number	Client ID	Description
	1-401 D 13 5.20	Brown Clay SILT Gravel Brown Gravel SILT
CL/2083069 CL/2083073	1-339 D 12 1.10	Brown Gravel SILT

Appendix A Page 1 of 1 29/01/2020EFS/204745 Ver. 1

#### TEST REPORT



Report No. EFS/205659 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 27-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 27-Apr-2020

			+																			
																			тө	T 6		
																			27-Apr-2020	EFS/205659	1	
																	lysis	ı	2	Ē		
																	Sample Analysis					
			†														Sampl			per	er	
F			$\dagger$																Date Printed	Report Number	Table Number	
			+																Dat	Ref	Tak	
			1											_								
																				7	2	
pH Units	WSLM50	:	8	pH (BS1377)	4.6	3.8	3.6	4.0									E			10	ion c	
%	TSBRE1	0.005	8	Total Sulphur.	0.041	0.266	0,310	0.460									Wokingham				N IN Z	
l/gm	8	0.2	9	Nitrate (BRE 2:1): mg/l	<0.2	<0.2	<0.2	<0.2										ids		7 000	U9008-19 MZ3 JCt 10	
l/gm	KONECL	- :	2	Chloride:(2:1)	92	23	8	13									SOCOTEC UK	William Riggs		כ	ב	
l/gm	CPWSS	10	Yes	SO4 (H2O sol) mg/l	89	746	563	459									ame					
mg/kg	S		Yes	SO4 (acid sol)	235	2140	1890	1690									Client Name	Contact				
		g Limits :	credited:	Sample Date																		
	Method Codes:	Method Reportin	UKAS Ac	Client Sample Description	1-741 D 2 0.70	1-741 D 110 4,00	1-741 D 116 8.60	1-741 D 123 12.90									SOCOTEC	5	Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086225	2086226	2086227	2086228									Š		Bret	Burt	Te	Fa

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

Sample Analysis

D9008-19 M25 Jct 10

Report No

Customer Site

Date Logged 04-Mar-2020

Consignment No S91982

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a  $^{1}$ ) is likely to take up to an additional five working days. S205659

WSLM50	pH (BS1377)		D	D	D	٥
TSBRE1	Total Sulphur.		D	D	D	D
KoneNO3	Nitrate (BRE 2:1): mg/l		a	Q	a	D
KONECL	Chloride:(2:1)		a	a	a	D
ICPWSS	SO4 (H2O sol) mg/l	^	ЫF	JО	дa	DF
ICPACIDS	SO4 (acid sol)	^	D	D	D	D
CustServ	REPORT A		a	Q	a	D
MethodID	Sampled	to ISO17025	О	Q	Q	D
	Description	Test Method Accredited to ISO17025	1-741 0.70	1-741 4.00	1-741 8.60	1-741 12.90-14.40
	ID Number		CL/2086225	CL/2086226	CL/2086227	CL/2086228

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Headspace present in the sample container sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

No analysis scheduled Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary EFS/205659 Ver. 2

Report Number: EFS/205659

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205659 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5659

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
Lab ib Nullibei	Offent ID	Description .
CL/2086225 CL/2086226 CL/2086227 CL/2086228	1-741 D 2 0.70 1-741 D 110 4.00 1-741 D 116 8.60 1-741 D 123 12.90	Brown SAND Grey Silt CLAY Grey Silt CLAY Grey Silt CLAY
CL/2086226	1-741 D 110 4.00	Grey Silt CLAY
CL/2086227	1-741 D 116 8.60	Grey Silt CLAY
CL/2086228	1-741 D 123 12.90	Grey Silt CLAY
		· ·

Appendix A Page 1 of 1 27/04/2020EFS/205659 Ver. 2

#### TEST REPORT



Report No. EFS/205660 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 27-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 27-Apr-2020

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S91979

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

In-House Report Due 23-Apr-2020

Date Logged 04-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205660 Report No

++			占				$\top$	1-747 4.00 1-747 9.00
о О	_	۵	DF	۵	۵	٥		1-747 1.20
			^	^		:o ISO17025	1 —	Test Method Accredited to ISO17025
pH (BS1377) Total Sulphur.	Nitrate (BRE 2:1): mg/l	Chloride:(2:1)	SO4 (H2O sol) mg/l	SO4 (acid sol)	REPORT A	Sampled		Description
WSLM50	KoneNO3	KONECL	ICPWSS	ICPACIDS	CustServ	MethodID		

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled

EFS/205660 Ver. 2

Report Number: EFS/205660

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description							
		Basis								
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric							
		@ < 35°C	Acid extraction followed by ICPOES detection							
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water							
		@ < 35°C	extraction followed by ICPOES detection							
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the							
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection							
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed							
		@ < 35°C	by colorimetric detection							
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid							
		@ < 35°C	samples by high temperature combustion/infrared detection							
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using							
		@ < 35°C	pH probe.							

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205660 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5660

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	4.747.0.14.4.00	Drawn CAND
CL/2086229 CL/2086230 CL/2086231	1-747 D 101 1.20 1-747 D 109 4.00 1-747 D 118 9.00	Brown SAND Brown SAND Brown CLAY
CL/2086230	1-747 D 109 4.00	Brown SAND
CL/2086231	1-747 D 118 9.00	Brown CLAY
		I .

Appendix A Page 1 of 1 27/04/2020EFS/205660 Ver. 2

#### TEST REPORT



Report No. EFS/205661 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

																			23-Apr-2020	EFS/205661	1	
																	ysis		23	EF		
																	Sample Analysis					
																	Samp		ted	ımber	nber	
																			<b>Date Printed</b>	Report Number	<b>Table Number</b>	
																				<u> </u>	2	
pH Units	WSLM50	:	oN N	рН (BS1377)	4.1	4.0	7.3	4.0									٤			0 M26 1c+ 10		
%	I SBRE1	500.5	δ Ν	Total Sulphur.	0.019	0,277	0.196	0,778									/okingha			CMO	3 IVI C	
l/gm	KoneNO3	7.0	2	Nitrate (BRE 2:1): mg/l	<0.2	<0.2		<0.2									SOCOTEC UK Wokingham	dgs		7 9000	-000	
l/gm	KONECL	- :	S.	Chloride:(2:1)	129	6		10									socor	William Riggs		ב	ב	
mg/l			Yes	SO4 (H2O sol) mg/l	20	405	515	422									ame					
mg/kg	CPACIDS	77	Yes	SO4 (acid sol)	85	1420	1130	1920									Client Name	Contact				
Units:	od Codes :		ccredited :	Sample Date																		
	: Method Benerting Limits	Method Nepoliti	UKAS A	Client Sample Description	1-749 D 101 1.20	1-749 D 112 5.00	1-749 D 124 11.50	1-749 D 131 15.50									SOCOTEC (		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086232	2086233	2086234	2086235									•		_	_		

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S91978

D9008-19 M25 Jct 10

**SOCOTEC UK Wokingham** 

Customer Site

Sample Analysis

In-House Report Due 23-Apr-2020

Date Logged 04-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205661 Report No

WSLM50	pH (BS1377)		۵	D	Ω	۵
TSBRE1	Total Sulphur.		٥	D	Q	D
KoneNO3	Nitrate (BRE 2:1): mg/l		٥	D		D
KONECL	Chloride:(2:1)		D	D		D
ICPWSS	SO4 (H2O sol) mg/l	1	ЫF	DF	JО	DF
CPACIDS	SO4 (acid sol)	^	D	D	Q	D
CustServ	REPORT A		a	Q	a	Q
MethodID	<b>Description</b> Sampled	Test Method Accredited to ISO17025	1-749 1.20	1-749 5.00	1-749 11.50	1-749 15.50 D
	ID Number		CL/2086232	CL/2086233	CL/2086234	CL/2086235

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time sampling dates are missing or matrices unclassified then results will

Headspace present in the sample container

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205661 Ver. 2

Report Number: EFS/205661

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

## **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205661 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5661

Note: major constituent in upper case

		Note: major constituent in upper case
Lab ID Number	Client ID	Description
		Provin Sand CLAV
CL/2086232	1-749 D 101 1.20	BIOWIT GAILU CLAY
CL/2086233	1-749 D 112 5.00	Brown Silt CLAY
CL/2086234	1-749 D 124 11.50	Brown Clay SAND
CL/2086233 CL/2086234 CL/2086235	1-749 D 131 15.50	Brown Sand CLAY Brown Silt CLAY Brown Clay SAND Grey/Brown CLAY
		·

Appendix A Page 1 of 1 23/04/2020EFS/205661 Ver. 2

### TEST REPORT



Report No. EFS/205662 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

Where individual results are flagged see report notes for status.

Method Reporting Linits : 100   10	y Yes	No No	0.2 No	20							
Sample Date			N S	200	-		_				
Sample Date			2	2	S						
Sample Date				202	000						T
	SO4 (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.	pH (BS1377)						
	89			0.043	6.1						
	4 486	5 62	<0.2	0.293	3.8						
	196	6	<0.2	0.089	3.5						
	+										
	+										
SOCOTEC	Client Name	soco	SOCOTEC UK Wokingham	Vokingha	E	-	Sa	Sample Analysis	ysis	-	
Contact	tact	William Riggs	Riggs								
Bretby Business Park, Ashby Road							Date Printed		23-Apr-2020		
Burton-on-Trent, Staffordshire, DE15 0YZ		Ć	, 0000		MOE LOT 40		Report Number	_	EFS/205662		
Tel +44 (0) 1283 554400		<b>ב</b>	D3000-13			<b>-</b>	Table Number		-		
Fax +44 (0) 1283 554422											

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S91983

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site Report No

Sample Analysis

Date Logged 04-Mar-2020

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205662

WSLM50	pH (BS1377)		a	a	a
TSBRE1	Total Sulphur.		a	a	a
KoneNO3	Nitrate (BRE 2:1): mg/l			a	a
KONECL	Chloride:(2:1)			a	a
ICPWSS	SO4 (H2O sol) mg/l	>	DF	DF	DF
ICPACIDS	SO4 (acid sol)	>	D	Q	Q
CustServ	REPORT A		a	a	a
MethodID	Sampled	:o ISO17025	D	D	D
	Description	Test Method Accredited to ISO17025	1-722 0.60	1-722 6.00	1-722 14.50
	ID Number		CL/2086236	CL/2086237	CL/2086238

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205662 Ver. 2

Report Number: EFS/205662

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

## **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205662 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5662

Note: major constituent in upper case

CL/2086237 1-722 D 10 8 Brown SAND CL/2086237 1-722 D 115 00 Brown CLAY CL/2086236 1-722 D 124 14.50 BrownClAY BrownGrey SAND	Note: major constituent in upper case  Description	Client ID	Lab ID Number
CL/2086237 1-722 D 1/1 6.00 Brown CLAY CL/2086238 1-722 D 1/2 1.4.50 Brown Gray SAND	Brown SAI	1 722 D 1 0 60	
CUZ2086238 1-1722 D 124 14.50 Brown'Grey EAND  CUZ2086238 1-1722 D 124 14.50 Brown'Grey EAND	Brown SAI	1-722 D 1 0.60	CL/2086236
LL/JUSEASS 1-7/2/ UT 1/2 11-50 ETOMITIC-TETY S-AINU	Brown CL/	1-722 D 111 6.00	CL/2086237
	Brown/Grey S	1-722 D 124 14.50	CL/2086238

Appendix A Page 1 of 1 23/04/2020EFS/205662 Ver. 2

### TEST REPORT



**Report No. EFS/205663 (Ver. 2)** 

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

Where individual results are flagged see report notes for status.

																_			23-Apr-2020	EFS/205663	-	
																	Sample Analysis					
																	Sample		inted	Report Number	mhor	
																+			Date Printed	Report	Tahla Nimbar	
																				<b>7</b>	2	
pH Units	+		ο <sub>N</sub>	pH (BS1377)	3.9	5.2	4.5										am			. 101	MZ5 JC1 10	
%	_	\$00.0	ο <u>ν</u>	Total Sulphur.	0.044	0.057	0.029										SOCOTEC UK Wokingham					
l/gm	$\rightarrow$	0.2	oN −	Nitrate (BRE 2:1): mg/l	<0.2	0.5	<0.2										OTEC UK	Riggs			D2008-13	
l/gm	+	- :	2	Chloride:(2:1)	101	26	26									_	SOCC	William Riggs		כ	נ	
l/gm g	- 1		Yes	SO4 (H2O sol) mg/l	85	346	09									$\left  \right $	Client Name	3ct				
s: mg/kg	s: ICPACIE	207		SO4 (acid sol)	399	269	338									$\frac{1}{1}$	Client	Contact				-
Units:	lethod Code	orting Limit	S Accredite	Sample Date	<u> </u>											-						
	Method Codes:	Method Kep	UKA	Client Sample Description	1-724 D 101 1.20	1-724 D 109 4.00	1-724 D 117 8.00										SOCOTEC C		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tol +44 (0) 1283 554400	
				LAB ID Number CL/	2086239	2086240	2086241										Ň		Brei	Bur	Ļ	

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10

Report No

Customer Site

Sample Analysis

In-House Report Due 23-Apr-2020 Date Logged 04-Mar-2020

Consignment No S91977

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205663

WSLM50	pH (BS1377)		۵	a	۵
TSBRE1	Total Sulphur.		D	a	Q
KoneNO3	Nitrate (BRE 2:1): mg/l		a	a	۵
KONECL	Chloride:(2:1)		a	a	a
ICPWSS	SO4 (H2O sol) mg/l	1	дQ	дQ	DF
ICPACIDS	SO4 (acid sol)	^	D	Q	۵
CustServ	REPORT A		Q	a	۵
MethodID	Sampled	to ISO17025	О	О	О
	Description	Test Method Accredited to ISO17025	1-724 1.20	1-724 4.00	1-724 8.00
	ID Number		CL/2086239	CL/2086240	CL/2086241

The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

The sample was received without the correct preservation for this analysis Headspace present in the sample container The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Sample processing did not commence within the appropriate handling time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205663 Ver. 2

Report Number: EFS/205663

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

## **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205663 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5663

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	A TOUR DAY A CO	D. Cili Oli Av
CL/2086239 CL/2086240 CL/2086241	1-724 D 101 1.20 1-724 D 109 4.00 1-724 D 117 8.00	Brown Silt CLAY Brown Silt CLAY Brown SAND
CL/2086240	1-724 D 109 4.00	Brown Silt CLAY
CL/2086241	1-724 D 117 8.00	Brown SAND
	1	
	+	
	+	
	+	

Appendix A Page 1 of 1 23/04/2020EFS/205663 Ver. 2

### TEST REPORT



Report No. EFS/205664 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

Where individual results are flagged see report notes for status.

																					23-Apr-2020	23-Apr-2020 EFS/205664	23-Apr-2020 EFS/205664
																			Sample Analysis			mple Analysis	mple Analysis
																			Sam	Sam	Sam <sub>I</sub>	Sam	Sam  Report Number Table Number
pH (BS1377) Total Sulphur.																						pH (BS1377) 9. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	
Total Sulphur.  Nitrate (BRE 2:1): mg/l  Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l 20 00 00 00 00 00 00 00 00 00 00 00 00	Nitrate (BRE 2:1): mg/l 2000	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l 2000	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l 20 00	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l 20 00	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l 20 00 00 00 00 00 00 00 00 00 00 00 00	Nitrate (BRE 2:1): mg/l 200 000000000000000000000000000000000	Nitrate (BRE 2:1): mg/l	Total Sulphur.   13   13   14   15   15   16   16   16   16   16   16	Total Sulphur.   100   1	Nitrate (BRE 2:1): mg/l	Nitrate (BRE 2:1): mg/l
(2:1) sol) mg/l d sol)	sol) mg/l	sol) mg/l 9	865 4 4 46 1420	sol) mg/l 46	955 46 Hospital (los	sol) mg/l 49 49 1450	sol) mg/l 9 6 9 1 1 4 50 1 1 4 50 1 1 4 50 1 1 4 50 1 1 1 4 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	sol) mg/l 49 49 41450	sol) mg/l 98 68 14 150	sol) mg/l 9 9 2 2 1 1 7 5 0 1 1 1 7 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	sol) mg/l 46 9 55 5 1 1 1 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	sol) mg/l 98 68 1450	sol) mg/l 9 4 9 4 9 4 9 9 9 4 9 9 9 9 9 9 9 9 9	sol) mg/l 99 86 87 1750	sol) mg/l 9 9 2 2 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2	sol) mg/l 46 8 955 1750	sol) mg/l 9 8 6 7 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	sol) mg/l 9 22 75 150 160 160 160 160 160 160 160 160 160 16	sol) mg/l 49 49 49 49 1/200   14750	sol) mg/l 4 5 2 2 4	sol) mg/l 4 9 8 8 9 4 9 1/gm (los	sol) mg/l 4 9 7 1450 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/2	sol) mg/l 4 9 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
		190																					
																			8000		Soccial Sheliby Busin	SOCC Bretby Busin	1-739 D 113 3.00 1-739 D 127 9.00 1-739 D 138 15.40 1-739 D 138 15.40 SOCOTEC  SOCOTEC  Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 077 Tel +44 (0) 1283 554400
	0,000	2086242	2086242 2086243 2086244	2086242 2086243 2086244	2086242 2086243 2086244	2086242 2086243 2086244	2086242 2086243 2086244	2086242 2086243 2086244	2086242 2086244 2086244	2086243 2086244 2086244	2086243 2086244	2086242 2086243 2086244	2086242 2086244	2086243 2086244	2086242 2086244 2086244	2086242 2086243 2086244	2086242 2086244 2086244	2086242 2086244 2086244	2086243 2086244 2 2086244 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2086243 2086244 2086244 4	2086242 2086244 2086244 2086244 8	2086242 2086244 2086244 1	2086242 2086244 2086244 1

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Sample Analysis

Consignment No S91987

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Report No

Customer Site

In-House Report Due 23-Apr-2020 Date Logged 04-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205664

۵ ۵	٥٥	٥٥	۵ ۵					
	۵			PF	٥	D	20	
				>	^		Test Method Accredited to ISO17025	to ISC
pH (BS1377)	Total Sulphur.	Nitrate (BRE 2:1): mg/l	Chloride:(2:1)	SO4 (H2O sol) mg/l	SO4 (acid sol)	REPORT A	Sampled	Sai
WSLM50	TSBRE1	KoneNO3	KONECL	ICPWSS	ICPACIDS	CustServ	MethodID	Met

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container

> sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205664 Ver. 2

Report Number: EFS/205664

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

## **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205664 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5664

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	1 720 D 112 2 00	Proup CAND
CL/2086242 CL/2086243 CL/2086244	1-739 D 113 3.00 1-739 D 127 9.00 1-739 D 138 15.40	Brown SAND Brown SAND Brown SAND
CL/2086243	1-739 D 127 9.00	Brown SAND
CL/2086244	1-739 D 138 15.40	Brown SAND
	+	
	+	

Appendix A Page 1 of 1 23/04/2020EFS/205664 Ver. 2

### TEST REPORT



Report No. EFS/205665 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 10-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 10-Mar-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

			T																			
																	Sample Analysis		10-Mar-2020	EFS/205665	-	
			$\downarrow$												_		nple A				_	4
																	San		Date Printed	Report Number	Table Number	
																				Į.		
																				10	2	
																	E			M25 Ict 10	ر 2	
pH Units	WSLM50	2	02	pH (BS1377)	6.7		3.2	5.8									/okingha					
%			ON ON	Total Sulphur.	0.135		0,652	0.649									SOCOTEC UK Wokingham	sßß		D0008_10		
%	ORGMAT	0.2	ON NO	Organic Matter %		15,2											SOCOT	William Riggs		2	3	
l/bш	ICPWSS	01.	Yes	SO4 (H2O sol) mg/l	249		1510	1130									ame					
mg/kg	CPACIDS	07	Yes	SO4 (acid sol)	953		3950	2620									Client Name	Contact				
Units:	od Codes :	ing Limits :	credited :	Sample Date														•				
Units:	Metho	Method Reportii	UKAS A	Client Sample Description	1-237 D 104 2.20	1-237 D 109 3.50	1-237 D 124 10.00	1-237 D 134 16.00									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086245	2086246	2086247	2086248														

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S91976

**SOCOTEC UK Wokingham** 

Customer

Site

Sample Analysis

D9008-19 M25 Jct 10

S205665

Report No

Date Logged 04-Mar-2020

In-House Report Due 12-Mar-2020

tional five working days.

ın additi							
up to	WSLM50	pH (BS1377)		۵		D	۵
take u	TSBRE1	Total Sulphur.		Q		Q	Q
ely to	ORGMAT	Organic Matter %			D		
is like	ICPWSS	SO4 (H2O sol) mg/l	>	Q		D	Q
a '^')	ICPACIDS	SO4 (acid sol)	>	Ω		O	Ω
with	CustServ	REPORT A		Q	Q	Q	Q
sis (identified	MethodID	Sampled		D	D	D	D
Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additi		Description		1-237 2.20	1-237 3.50	1-237 10.00	1-237 16.00
Please note the res		ID Number		CL/2086245	CL/2086246	CL/2086247	CL/2086248

The sample was received in an inappropriate container for this analysis Deviating Sample Key

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Analysis Subcontracted - Note: due date may vary

EFS/205665 Ver. 1

Report Number: EFS/205665

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	ORGMAT	Oven Dried	Acid Dichromate oxidation of the sample followed by colorimetric
		@ < 35°C	analysis of the extract
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

## **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205665 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5665

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
		Province CLAV
CL/2086245	1-237 D 104 2.20 1-237 D 109 3.50	Brown Gravel CLAY Brown CLAY
CL/2086246	1-237 D 109 3.50	Brown CLAY
CL/2086247	1-237 D 124 10.00	Brown Sand CLAY
CL/2086248	1-237 D 124 10.00 1-237 D 134 16.00	Brown Sand CLAY Brown CLAY

Appendix A Page 1 of 1

### TEST REPORT



**Report No. EFS/205666 (Ver. 2)** 

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

																			23-Apr-2020	EFS/205666	1	
																	/sis		23	EF		
																	Sample Analysis					ì
																	Samp		pe	ımber	nber	
																			<b>Date Printed</b>	Report Number	Table Number	
																				_	>	
pH Units	WSLM50		<sub>S</sub>	pH (BS1377)	4,4	4.0	3.9	4.2									٤			0 M26 1c+ 10		
%	I SBRE1	con n	o N	Total Sulphur.	0,121	0.228	0.702	0.070									okingha'			CMO	7 1 0	
l/gm	KoneNO3	0.2	N <sub>o</sub>	Nitrate (BRE 2:1): mg/l	0.2	<0.2	<0.2	0.2									SOCOTEC UK Wokingham	dgs		7 0000		
l/gm	_	-	<sub>S</sub>	Chloride:(2:1)	20	40	16	13									socot	William Riggs		כ	ב	
/bw			Yes	SO4 (H2O sol) mg/l	83	49	266	101									ame					
mg/kg	CPACIDS	77	Yes	SO4 (acid sol)	2890	5470	16600	1370									Client Name	Contact				
Units:	od Codes :	ng Limits :	ccredited :	Sample Date																		
1	: Method Codes :	Method Reportin	UKAS AC	Client Sample Description	1-311 D 7 1.20	1-311 D 18 3.80	1-311 D 41 11.20	1-311 D 49 13.80									SOCOTEC (		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			-	LAB ID Number CL/	2086249	2086250	2086251	2086252									V/		ш	ш		

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10

Customer Site

Sample Analysis

In-House Report Due 23-Apr-2020 S205666

Date Logged 04-Mar-2020 Consignment No S91984

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. Report No

WSLM50	pH (BS1377)		۵	D	D	D	
TSBRE1	Total Sulphur.		۵	Q	Q	D	
KoneNO3	Nitrate (BRE 2:1): mg/l		D	a	a	Q	
KONECL	Chloride:(2:1)		۵	a	a	Q	
ICPWSS	SO4 (H2O sol) mg/l	/	DF	дa	дa	DF	
CPACIDS	SO4 (acid sol)	1	۵	a	a	Q	
CustServ	REPORT A		Q	a	a	Q	
MethodID	<b>Description</b> Sampled	Test Method Accredited to ISO17025	1-311 1.20 D	1-311 3.80	1-311 11.20	1-311 13.80	
	ID Number		CL/2086249	CL/2086250	CL/2086251	CL/2086252	

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205666 Ver. 2

Report Number: EFS/205666

## **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

## **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- **I.S(g)** Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205666 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5666

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
Lab IB Italiibei	Ollett ID	Description
CL/2086249 CL/2086250 CL/2086251 CL/2086252	1-311 D 7 1.20 1-311 D 18 3.80 1-311 D 41 11.20 1-311 D 49 13.80	Brown CLAY Brown CLAY Brown Clay SILT Brown Silt CLAY
CL/2086250	1-311 D 18 3.80	Brown CLAY
CL/2086251	1-311 D 41 11.20	Brown Clay SILT
CL/2086257	1-311 D 49 13 80	Brown Silt CLAY
CL/2000232	1-311 D 49 13.00	DIOWIT SIX CEAT

Appendix A Page 1 of 1 23/04/2020EFS/205666 Ver. 2

### TEST REPORT



Report No. EFS/205667 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 11-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 11-Mar-2020

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S91981

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 04-Mar-2020

In-House Report Due 12-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205667 Report No

WSLM50	pH (BS1377)		۵
rsbre1	Total Sulphur.		٥
CPWSS	SO4 (H2O sol) mg/l	>	Ω
CPACIDS	SO4 (acid sol)	>	٥
CustServ	REPORT A		D
MethodID	Sampled		D
	Description		1-419 1.00
	ID Number		CL/2086253

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205667 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205667 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5667

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/2086253	1-419 D 5 1.00	Brown CLAY
02/2000200	1 410 0 0 1.00	BIOTHI GETT

Appendix A Page 1 of 1 11/03/2020EFS/205667 Ver. 1



Report No. EFS/205668 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 10-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 10-Mar-2020

_	_	_			 ,	 			_			 	 	_						_
																	10-Mar-2020	EFS/205668	-	
															ysis		10.	EF		
															Sample Analysis					
															Samp		þ	nber	per	
																	<b>Date Printed</b>	Report Number	Table Number	
																		<u> </u>	<u> </u>	
																		_	•	
																		M2E Ic+ 10		
															kingham					
pH Units	WSLM50	oN ON	pH (BS1377)	6.1											SOCOTEC UK Wokingham	ags		D0008 10	-000	
%		0N ON	Total Sulphur.	0,021											SOCOT	William Riggs		פ	ב	
l/gm	CPWSS	Yes	SO4 (H2O sol) mg/l	47											ame					
mg/kg	ICPACIDS	ľ		123											Client Name	Contact				
Units:	od Codes :	ccredited :	Sample Date																	
Units	Method Donouti	Method Report	Client Sample Description	1-366 D 110 1,20											ic S		ς, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	54400	54422
			Client Sar	1-366											SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Stat	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	2086254											- •					

Consignment No S91985

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Report No

Customer Site

Sample Analysis

Date Logged 04-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. In-House Report Due 12-Mar-2020 S205668

WSLM50	pH (BS1377)		D
TSBRE1	Total Sulphur.		D
ICPWSS	SO4 (H2O sol) mg/l	>	٥
ICPACIDS	SO4 (acid sol)	>	٥
CustServ	REPORT A		D
MethodID	Sampled		О
	Description		1-366 1.20-1.65
	ID Number		CL/2086254

Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis within olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time The sample was received in an inappropriate container for this analysis Analysis Subcontracted - Note: due date may vary Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205668 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205668 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5668

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
CL/2086254	1-366 D 110 1.20	Brown SILT

Appendix A Page 1 of 1



Report No. EFS/205669 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 11-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 11-Mar-2020

		_		_	,	 			_			 	 	_						_
																	11-Mar-2020	EFS/205669	1	
															ysis		11	EF		
															Sample Analysis					
															Samp		p€	mber	per	
																	Date Printed	Report Number	Table Number	
																		LE.	_	
																		_	•	
																		M2E 104 40		
															ingham			_		
pH Units		No	pH (BS1377)	9.9											SOCOTEC UK Wokingham	S		07 0000	0-00	
TSBRF1 V		No	Total Sulphur.	0.007											SOCOTE	William Riggs			בא	
mg/l	-	Yes	SO4 (H2O sol) mg/l	98																
mg/kg	20	ľ	SO4 (acid sol)	75											Client Name	Contact				
Units:	Ig Limits :	credited :	Sample Date																	
Units : Method Codes ·	Method Reportin	UKAS Ac	Description	3.2.40											O		v Road	re, DE15 0YZ		
			Client Sample Description	1-258 D 6 2,40											SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	2086255											Vì		Ā	ă	.=	-

Consignment No S91980

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 04-Mar-2020

In-House Report Due 12-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205669 Report No

WSLM50	pH (BS1377)		۵
TSBRE1	Total Sulphur.		۵
ICPWSS	SO4 (H2O sol) mg/l	>	۵
ICPACIDS	SO4 (acid sol)	>	۵
CustServ	REPORT A		۵
MethodID	Sampled		D
	Description		1-258 2.40
	ID Number		CL/2086255

å	Deviating Sample Key
⋖	The sample was received in an inappropriate container for this analysi
۵	The common for this position of the first beautiful and the first billion for this

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

The sample was received without the correct preservation for this analysis

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time Headspace present in the sample container 

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205669 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205669 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5669

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/2086255	1-258 D 6 2.40	Brown SILT
	-	
	The state of the s	

Appendix A Page 1 of 1 11/03/2020EFS/205669 Ver. 1



Report No. EFS/205670 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 04-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

	in D	_	mg/l	%		pH Units							
	Mothod Bonorting Limits	es: ICPACIDS	CPWSS 10	ORGMAT	TSBRE1	WSLM50							
	Weiner & Geyn	_	2 3	2.0	500.0	14							
	UKAS Accredit	ed: Yes	Yes	ON ON	9	ON No							
LAB ID Number CL/	Client Sample Description	SO4 (acid sol)	SO4 (H2O sol) mg/l	Organic Matter %	Total Sulphur.	рН (BS1377)							
2086256	1-239 D 8 0.75			7.0									
2086257	1-239 D 21 3.50	277	112		0,140	7.7							
2086258	1-239 D 28 6.45	4670	1920		1.14	3.2							
2086259	1-239 D 36 10.70	631	250		0.516	9.9							
		_											
	SOCOTEC	Client Name	Name	SOCOTI	EC UK W	SOCOTEC UK Wokingham				Samp	Sample Analysis	sis	
		Contact	*	William Riggs	SBI								
	Bretby Business Park, Ashby Road								Date Printed	ted		23-Apr-2020	
	Burton-on-Trent, Staffordshire, DE15 0YZ			פֿ	D0008_10		M25 1c+ 10		Report Number	umber		EFS/205670	
	Tel +44 (0) 1283 554400			ב	-000				Table Number	mber		~	
	Fax +44 (0) 1283 554422	-											

Consignment No S91986

**SOCOTEC UK Wokingham** 

Customer Site

Sample Analysis

D9008-19 M25 Jct 10

Date Logged 04-Mar-2020

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205670 Report No

WSLM50	pH (BS1377)			Q	D	Q
TSBRE1	Total Sulphur.			a	Q	a
ORGMAT	Organic Matter %		a			
ICPWSS	SO4 (H2O sol) mg/l	1		JО	DF	JО
ICPACIDS	SO4 (acid sol)	1		a	D	a
CustServ	REPORT A		a	a	a	a
MethodID	Sampled	to ISO17025	П	О	D	а
	Description	Test Method Accredited to ISO17025	1-239 0.75	1-239 3.50	1-239 6.45-6.50	1-239 10.70
	ID Number		CL/2086256	CL/2086257	CL/2086258	CL/2086259

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container sampling dates are missing or matrices unclassified then results will

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Requested Analysis Key

not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205670 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	ORGMAT	Oven Dried	Acid Dichromate oxidation of the sample followed by colorimetric
		@ < 35°C	analysis of the extract
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205670 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5670

Note: major constituent in upper case

Lab ID Number  CL/2086256  CL/2086257  CL/2086258  CL/2086259	Client ID 1-239 D 8 0.75 1-239 D 21 3.50	Description  Brown CLAY  Brown SILT
CL/2086257	1-239 D 8 0.75 1-239 D 21 3.50	Brown CLAY Brown SILT
CL/2086257	1-239 D 21 3.50	Brown SILT
CL/2086258 CL/2086259	1 220 D 21 6.66	
CL/2086259		Brown SILT
CL/2086259	1-239 D 28 6.45 1-239 D 36 10.70	Brown SILT
	1-239 D 36 10.70	Brown SIL1
-		

Appendix A Page 1 of 1 23/04/2020EFS/205670 Ver. 2



Report No. EFS/205722 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 12-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 12-Mar-2020

Consignment No S92034

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S205722

Report No

Date Logged 06-Mar-2020

In-House Report Due 16-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. TS ICF

SLM50	pH (BS1377)		D
SBRE1	Total Sulphur.		٥
PWSS	SO4 (H2O sol) mg/l	>	D
PACIDS	SO4 (acid sol)	^	Ω
ustServ	REPORT A		Q
MethodID	Sampled		D
	Description		1-113A 3.00-3.45
	ID Number		CL/2086394

The sample was received in an inappropriate container for this analysis Deviating Sample Key

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time Analysis Subcontracted - Note: due date may vary Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205722 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205722 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5722

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/2086394	1-113A D 105 3.00	Brown CLAY

Appendix A Page 1 of 1 12/03/2020EFS/205722 Ver. 1



Report No. EFS/205723 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 5 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

										Fax +44 (0) 1283 554422	
1	Table Number					Ì				Tel +44 (0) 1283 554400	
EFS/205723	Report Number		D9008-19 M25 Jc+ 10	19 M2	9006	ב				Burton-on-Trent, Staffordshire, DE15 0YZ	
23-Apr-2020	Date Printed									Bretby Business Park, Ashby Road	
					Riggs	William Riggs	<b>.</b>	Contact			
Sample Analysis	Sample		Æ	Wokingham	SOCOTEC UK	Soco	Vame	Client Name		SOCOTEC	
		4,4	0,376		<0.2	5	95	775			2086399
		4.8	0.389		0.2	5	65	542		1-150 D 123 10.00	2086398
		5.5	0,023		<0.2	25	1	09		1-150 D 112 4.00	2086397
				33.1						1-150 D 105 2,60	2086396
		5.6	0,148				52	397		1-150 D 103 1.90	2086395
		pH (BS1377)	Total Sulphur.	Organic Matter %	Nitrate (BRE 2:1): mg/l	Chloride:(2:1)	SO4 (H2O sol) mg/l	SO4 (acid sol)	Sample Date	Client Sample Description	LAB ID Number CL/
		ON	o N	9 2	2	2	Yes		Accredited	UKAS	
			0.005	0.2		-			ting Limits	Method Reporting Limits:	
		WSLM50	TSBRE1	ORGMAT		KONECL	CPWSS	CPACIDS	hod Codes	Meti	
		1 Units	%	%	/bu	-			Units		

Consignment No S92033

**SOCOTEC UK Wokingham** 

Customer Site

Sample Analysis

D9008-19 M25 Jct 10

Date Logged 06-Mar-2020

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205723 Report No

WSLM50	pH (BS1377)		D		D	D	D
TSBRE1	Total Sulphur.		٥		D	D	Ω
ORGMAT	Organic Matter %			a			
KoneNO3	Nitrate (BRE 2:1): mg/l				a	D	D
KONECL	Chloride:(2:1)				a	O	Q
ICPWSS	SO4 (H2O sol) mg/l	1	a		a	D	D
ICPACIDS	SO4 (acid sol)	1	a		a	O	Q
CustServ	REPORT A		a	a	Q	O	۵
MethodID	Sampled	to ISO17025	D	D	D	D	D
	Description	Test Method Accredited to ISO17025	1-150 1.90	1-150 2.60	1-150 4.00	1-150 10.00	1-150 17.50
	ID Number		CL/2086395	CL/2086396	CL/2086397	CL/2086398	CL/2086399

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205723 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	·
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	ORGMAT	Oven Dried	Acid Dichromate oxidation of the sample followed by colorimetric
		@ < 35°C	analysis of the extract
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205723 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5723

Note: major constituent in upper case

CL/2086395 CL/2086396 CL/2086397 CL/2086398	Client ID 1-150 D 103 1.90 1-150 D 105 2.60	<b>Description</b> Brown Silt CLAY Brown Silt CLAY
CL/2086396 CL/2086397 CL/2086398	1-150 D 103 1.90 1-150 D 105 2.60	Brown Silt CLAY
CL/2086396 CL/2086397 CL/2086398	1-150 D 105 2.60	
CL/2086397 CL/2086398		Brown Silt CLAY
CL/2086398	1-150 D 112 4.00	Drouge CLAY
CL/2086398	1-150 D 112 4.00	Brown CLAY
	1-150 D 123 10.00	Brown CLAY
CL/2086399	1-150 D 131 17.50	Brown CLAY Brown CLAY Brown CLAY
02/2000000	1 100 2 101 11100	

Appendix A Page 1 of 1 23/04/2020EFS/205723 Ver. 2



Report No. EFS/205725 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

																								le Analysis	le Analysis	le Analysis		
																								Sample Analysis	Sample An	Sample An	Sample An	Sample An
																										Dad	Dai	
	0	0				1 2	1 2 1	1 2 1	1 2 1	1 2 1	1 2 1	1 2 1			1 2 1	1 2 1												ct 10
0.005 No No				pH (BS1377)  Total Sulphur.	0.029 7.1																						0.029 7. 0.958 5.7 0.126 5.4	
0.2 No				Nitrate (BRE 2:1): mg/l			<0.2																		<0.2 <0.2	<0.2 <0.2 EC UK Wol	<0.2 <0.2	-0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.3 -0.3 -0.3 -0.3 -0.3 -0.3 -0.3 -0.3
- N				Chloride:(2:1)			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	00	10		10 , SOCOTEC William Riggs	socot	SOCOT William Ri	SOCOT William Ri
Yes Yes				SO4 (H2O sol) mg/l	96	96	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	96 517 197	am a		a a a a a a a a a a a a a a a a a a a	l
Zo Zo Yes				SO4 (acid sol)	263	263	263 1240 488	263 8 1240 5 488 1	263 1240 488 Contact	263 1240 488 Client N	263 1240 488 Client N	263 1240 488 Client N																
Method Reporting Limits: UKAS Accredited:	ing Limits : Accredited :	Accredited :		Sample Date																								
Method Report	Method Report	Nodes Bellieu	UKAS #	Client Sample Description	1-170A D 109 2.20	1-170A D 109 2.20 1-170A D 121 7.20	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11,70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11,70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11,70	1-170A D 109 2.20 1-170A D 125 11.70 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 125 11.70 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	1-170A D 109 2.20 1-170A D 125 11.70 1-170A D 125 11.70  SOCOTEC	1-170A D 109 2.20 1-170A D 125 11.70 1-170A D 125 11.70  SOCOTEC  Bretby Business Park, Ashby Road Buton-on-Trent, Staffordshire, DE15 072	1-170A D 109 2.20 1-170A D 125 11.70 1-170A D 125 11.70  SOCOTEC  Surfor-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 55400
-	-	-		LAB ID Number CL/	2086402	2086402	2086402 2086403 2086404	086402 086403 086404	.086402 .086403	086402 086403 086404	086402 086403 086404	086402 086403 086404	086402 086403 086404	086402 086403 086404	086402	086402	086402	086402 086403 086404	086402	086402	086402	086402 086404 086404	086402	086402 086403 086404	\$086402 \$086403 \$086404	\$2086402 2086404 2086404 \$\$	2086402 2086404 2086404 8 Bretby	2086402 2086404 2086404 8 Pretby 1

**SOCOTEC UK Wokingham** Customer

Sample Analysis

D9008-19 M25 Jct 10

Site

Date Logged 06-Mar-2020

Consignment No S92036

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205725 Report No

WSLM50	pH (BS1377)		Q	Q	۵
TSBRE1	Total Sulphur.		a	a	Q
KoneNO3	Nitrate (BRE 2:1): mg/l				۵
KONECL	Chloride:(2:1)				a
ICPWSS	SO4 (H2O sol) mg/l	/	a	a	a
ICPACIDS	SO4 (acid sol)	/	a	a	a
CustServ	REPORT A		a	a	a
MethodID	Sampled	:o ISO17025	D	D	D
	Description	Test Method Accredited to ISO17025	1-170A 2.20	1-170A 7.20	1-170A 11.70
	ID Number		CL/2086402	CL/2086403	CL/2086404

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time

Sample processing did not commence within the appropriate holding time

Requested Analysis Key sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to rovide missing information in order to reinstate accreditation.

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205725 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205725 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5725

Note: major constituent in upper case

Lab ID Number	Client ID	Description
	4 470A D 400 0 00	Decum Clay Cli T Canvol
CL/2086402 CL/2086403 CL/2086404	1-170A D 109 2.20 1-170A D 121 7.20 1-170A D 125 11.70	Brown Clay SILT Gravel Brown CLAY Brown Clay SILT
CL/2086403	1-170A D 121 7.20	Brown CLAY
CL/2086404	1-170A D 125 11.70	Brown Clay SILT

Appendix A Page 1 of 1 23/04/2020EFS/205725 Ver. 2



Report No. EFS/205726 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92037

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205726 Report No

WSLM50	pH (BS1377)		a	a	۵
TSBRE1	Total Sulphur.		a	a	Q
KoneNO3	Nitrate (BRE 2:1): mg/l		a	a	۵
KONECL	Chloride:(2:1)		a	a	a
ICPWSS	SO4 (H2O sol) mg/l	^	a	a	Q
ICPACIDS	SO4 (acid sol)	^	a	a	۵
CustServ	REPORT A		a	a	Q
MethodID	Sampled	o ISO17025	D	D	۵
	Description	Test Method Accredited to ISO17025	1-703 1.20	1-703 7.00	1-703 11.75-12.50
	ID Number		CL/2086405	CL/2086406	CL/2086407

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Sample processing did not commence within the appropriate handling time Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled

Analysis Subcontracted - Note: due date may vary

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205726 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5726

Note: major constituent in upper case

Lab ID Number         Client ID         Description           C.2288468         1-7030 119 7 00         Brown CLAY           C.4288467         1-7030 119 7 00         Brown CLAY           C.4288468         1-7030 119 7 00         Brown CLAY           C.4288467         1-7030 125 11.79         Biown CLAY	1 1 15 15	AU	Note. major constituent in upper case
CL/2086405 1-70 D 195 7:00 Berwan CLAY CL/2086400 1-70 D 195 7:00 Berwan CLAY CL/2086407 1-703 D 126 11.75 Berwan CLAY	Lab ID Number	Client ID	Description
C1/2386407 1-703 D 110 7-701 Brown CLAY C1/2386407 1-703 D 126 11.75 Brown CLAY	CL/2086405	1-703 D 105 1 20	Brown CLAY
CC2000407 1-703 D 129 11-79 Brown CLAV	CL/2000400	1-700 D 100 1.20	Brown CLAY
CLZUBRAUY  1.7/33 D 125 11.75  GROWN CLAY  1.7/33 D 125 11.75  GROWN CLAY  1.7/33 D 125 11.75  GROWN CLAY	CL/2086406	1-703 D 119 7.00	BIOWILCEAT
	CL/2086407	1-703 D 125 11.75	Brown CLAY
		!	

Appendix A Page 1 of 1 23/04/2020EFS/205726 Ver. 2



Report No. EFS/205728 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham Ope

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

	Units:	mg/kg	mg/l	mg/l	$\rightarrow$		pH Units	$\frac{1}{1}$						
	Method Codes:	ICPACIDS	ICPWSS	-	KoneNO3	TSBRE1	WSLM50	+						
	Method Reporting Limits				$\rightarrow$	c00.0								
	UKAS Accredited	: Yes	Yes	o N	٥ ۷	o N	oN N							
LAB ID Number CL/	Client Sample Description		SO4 (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.	pH (BS1377)							
2086409	1-149 0.50	463	56			0.052	8.4							
2086410	1-149 6.00	807	356	36	<0.2	0.112	4.1							
2086411	1-149 8.50	2990	842	20	<0.2	0.619	3.2							
2086412	1-149 14.25	2270	499	11	<0.2	1.80	4.3							
								+						
	SOCOTEC	Client Name	ıme	SOCOT	SOCOTEC UK Wokingham	okinghan				San	Sample Analysis	alysis		
		Contact		William Riggs	sbi									
	Bretby Business Park, Ashby Road								Date	Date Printed		23-4	23-Apr-2020	
	Burton-on-Trent, Staffordshire, DE15 0YZ			6	D9008-19		M25 Jet 10		Rep	Report Number		EF	EFS/205728	
	Tel +44 (0) 1283 554400			3					Tab	Table Number			-	
	Fax +44 (0) 1283 554422													

# Sample Analysis

## **SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview**

**SOCOTEC UK Wokingham** 

Customer Site

D9008-19 M25 Jct 10

Date Logged 06-Mar-2020

Consignment No S92024

In-House Report Due 23-Apr-2020

lease note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205728 Report No

WSLM50	pH (BS1377)		٥	D	D	D
TSBRE1	Total Sulphur.		a	a	Q	D
KoneNO3	Nitrate (BRE 2:1): mg/l			a	Q	Q
KONECL	Chloride:(2:1)			a	Q	Q
ICPWSS	SO4 (H2O sol) mg/l	1	a	a	a	Q
ICPACIDS	SO4 (acid sol)	1	a	a	Q	Q
CustServ	REPORT A		a	a	Q	D
MethodID	Sampled	o ISO17025	D	D	D	D
	Description	Test Method Accredited to ISO17025	1-149 0.50	1-149 6.00	1-149 8.50	1-149 14.25
	ID Number		CL/2086409	CL/2086410	CL/2086411	CL/2086412

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Headspace present in the sample container

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide

nissing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

deviant whilst being processed in the laboratory.

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary No analysis scheduled

Analysis dependant upon trigger result - Note: due date may be affected if triggered

EFS/205728 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### Waters Analysis

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Reg Analysis requested, see attached sheets for results

**Þ** Raised detection limit due to nature of the sample

- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205728 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number : \$20\_5728

Note: major constituent in upper case

		Note: major constituent in upper case
Lab ID Number	Client ID	Description
CL/2086409	1-149 0.50 1-149 6.00 1-149 8.50 1-149 14.25	Brown Gravel SILT Brown CLAY Beige CLAY Brown CLAY
CL/2086410 CL/2086411 CL/2086412	1-149 6 00	Brown CLAY
CL/2000410	1 140 9 50	Reina CLAV
CL/2000411	1-149 0.30	Brown CLAV
CL/2000412	1-149 14.25	BIOWII CLAT
	1	
	-	
	-	
	-	
	-	
	1	
	-	
	†	
	1	

Appendix A Page 1 of 1 23/04/2020EFS/205728 Ver. 2



Report No. EFS/205730 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 12-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 12-Mar-2020

															alysis		12-Mar-2020	EFS/205730	1	
															Sample Analysis		rinted	Report Number	Table Number	
																	Date Printed	Report	Table	
																		4	2	
															cingham			M25 Ic+ 10		
pH Units	WSLM50	o <sub>N</sub>	PH (BS1377)	6.4	7.0	7.0	7.5								SOCOTEC UK Wokingham	liggs		D0008 10	0000c	
$\vdash$	4	0.005 No	Total Sulphur.	0,057	0,342	0.601	0.773								SOCOI	William Riggs		ב	ັ	
l/gm	_	7es	SO4 (H2O sol) mg/l	78	253	135	190								Name	ct				
: mg/kg				250	845	555	634								Client Name	Contact				
Units:	thod Codes	Reporting Limits: UKAS Accredited:	Sample Date																	
	: Method Codes	Method Report		1-252A D 105 1.20	1-252A D 111 5,70	1-252A D 121 10.70	1-252A D 126 16.50								SOCOTEC (		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	2086414	2086415	2086416	2086417													

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92025

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site Report No

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 16-Mar-2020 S205730

up to an additional five working days.	
take L	WSLM5
ely to	TSBRE
is like	ICPWS
a '^')	ICPACID
with	CustSer
sis (identified	MethodID
Please note the results for any subcontracted analy.	

WSLM50	pH (BS1377)		Q	a	Q	D
rsbre1	Total Sulphur.		Ω	a	a	D
CPWSS	SO4 (H2O sol) mg/l	1	Q	a	Q	D
CPACIDS	SO4 (acid sol)	1	Ω	a	a	Q
CustServ	REPORT A		Q	a	a	D
MethodID	Sampled		D	a a	D	D
	Description		1-252A 1.20	1-252A 5.70	1-252A 10 70-11 25	1-252A 16.50-18.00
	ID Number		CL/2086414	CL/2086415	CL/2086416	CL/2086417

The sample was received in an inappropriate container for this analysis Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis within

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time Analysis Subcontracted - Note: due date may vary Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required Ω

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205730 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205730 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5730

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
CL/2086414	1-252A D 105 1.20	Brown CLAY Brown Gravel SILT
CL/2086415	1-252A D 111 5.70	Brown Gravel SILT
CL/2086416	1-252A D 121 10.70	Brown CLAY
CL/2086417	1-252A D 121 10.70 1-252A D 126 16.50	Brown CLAY Brown CLAY

Appendix A Page 1 of 1 12/03/2020EFS/205730 Ver. 1



Report No. EFS/205731 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

L																							
																		Sample Analysis		23-Apr-2020	EFS/205731	-	
																		ple Ar					
																		Sam		Date Printed	Report Number	Table Number	
																				_		<u>1.</u>	
																					(	<u>1</u>	
pH Units	WSLM50		Z	0	pH (BS1377)	4.5	4.0	3.7	3.5									E			-	5 JCt	
%	TSBRE1	0.005	20.2	0 N	Total Sulphur.	0.068	0.339	0.185	0,898									Wokingham			(	S MZ	
ma/l	KoneN03	0.2	Z Q	ON.	Nitrate (BRE 2:1): mg/l	<0.2	<0.2	2.4	0.5										ggs		7	D9008-19 MZ5 Jct 10	
ma/I	KONECL		- 2	ON.	Chloride:(2:1)	12	12	23	22									SOCOTEC UK	William Riggs			<u>ກ</u>	
ma/	ICPWSS	10	2 / 2	res	SO4 (H2O sol) mg/l	114	270	232	505									ıme					
ma/ka	밍	20	ľ	1	SO4 (acid sol)	400	1280	708	1970									Client Name	Contact				
Units:	d Codes :	a Limits :	croditod .	credited :	Sample Date																		
	Method Codes :	Method Reportin	LIKAS Accredited	UNAS AC	Client Sample Description	1-746 D 123 2.20	1-746 D 128 7.20	1-746 D 118 11.70	1-746 D 121 16.20									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
					LAB ID Number CL/	2086418	2086419	2086420	2086421									S		Bre	Bū	<u> </u>	. ı <u>r</u>

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92026

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205731 Report No

WSLM50	pH (BS1377)		D	Q	D	Q
TSBRE1	Total Sulphur.		D	D	D	Q
KoneNO3	Nitrate (BRE 2:1): mg/l		٥	Q	D	Q
KONECL	Chloride:(2:1)		D	Q	D	Q
ICPWSS	SO4 (H2O sol) mg/l	>	D	D	D	Q
ICPACIDS	SO4 (acid sol)	>	D	D	D	Q
CustServ	REPORT A		D	D	D	Q
MethodID	Sampled	ited to ISO17025	D	a a	D	Q
	Description	Test Method Accredited to ISO17025	1-746 2.20	1-746 7.20	1-746 11.70	1-746 16.20
	ID Number		CL/2086418	CL/2086419	CL/2086420	CL/2086421

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205731 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205731 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5731

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	4 740 7 400 0 00	2000
CL/2086418	1-746 D 123 2.20 1-746 D 128 7.20 1-746 D 118 11.70 1-746 D 121 16.20	Brown CLAY Brown CLAY
CL/2086419	1-746 D 128 7.20	Brown CLAY
CL/2086420	1-746 D 118 11.70	Brown SILT
CL/2086421	1-746 D 121 16.20	Brown SILT Brown CLAY

Appendix A Page 1 of 1 23/04/2020EFS/205731 Ver. 2



Report No. EFS/205732 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 5 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

															_					
																	23-Apr-2020	05732	7	
															sis		23-Ap	EFS/205732		
															Sample Analysis					
															Samp		Date Printed	Report Number		
																	Date	Repo	-	-
																			_	
pH Units WSLM50		No	pH (BS1377)	7.4	5.9	5.3	5.0	7.4							ے			07 TO 10 TO 10		
% TSBRE1	$\vdash$	No	Total Sulphur.	0.061	0.028	0.023	0,031	0,625							SOCOTEC UK Wokingham			_		•
mg/l KoneNO3	0.2	<sub>S</sub>	Nitrate (BRE 2:1): mg/l			<0.2	<0.2								EC UK W	iggs			10001	
mg/l KONECL	-	<sub>S</sub>	Chloride:(2:1)			13	8								SOCOT	William Riggs		2	ביי	)
<u>                                   </u>	10	Yes	SO4 (H2O sol) mg/l	86	72	10	28	322							lame					
п ICP	20			1040	204	44	315	884							Client Name	Contact				
Units : hod Codes :	ting Limits:	Accredited:	Sample Date																	
Met	Method Report	UKAS Accredited :	Client Sample Description	1-948 D 5 1,00	1-948 D 107 3.00	1-948 D 115 6.00	1-948 D 121 9.00	1-948 D 135 20.45							SOCOTEC (3)	l	Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ		1 -44 /0\ 1089 FE4400
			LAB ID Number CL/	2086422	2086423	2086424	2086425	2086426							Ň		Bre	Bur		_

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10

Sample Analysis

Report No

Customer Site

Date Logged 06-Mar-2020 Consignment No S92027

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a  $^{1}$ ) is likely to take up to an additional five working days. S205732

WSLM50	pH (BS1377)		۵	٥	D	D	D
TSBRE1	Total Sulphur.		۵	Q	D	D	D
KoneNO3	Nitrate (BRE 2:1): mg/l				Q	Q	
KONECL	Chloride:(2:1)				a	a	
ICPWSS	SO4 (H2O sol) mg/l	A	Q	a	a	a	D
ICPACIDS	SO4 (acid sol)	1	Q	a	D	D	D
CustServ	REPORT A		Q	a	a	Q	D
MethodID	Sampled	d to ISO17025	О	D	D	D	О
	Description	Test Method Accredited to ISO17025	1-948 1.00	1-948 3.00	1-948 6.00	1-948 9.00	1-948 20.45
	ID Number		CL/2086422	CL/2086423	CL/2086424	CL/2086425	CL/2086426

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205732 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205732 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5732

Note: major constituent in upper case

Lab ID Number CL2086422 1-948 D 107 3 00 CL2086424 1-948 D 107 3 00 CL2086425 1-948 D 127 9 00 CL2086426 1-948 D 127 9 00 Brown CLAY CL2086426 1-948 D 125 20 45 Brown CLAY CL2086427 CL2086428	
CL/2086423 1-948 D 107 3.00 Brown CLAY CL/2086424 1-948 D 115 6.00 Brown CLAY	
CL/2086423 1-948 D 107 3.00 Brown CLAY CL/2086424 1-948 D 115 6.00 Brown CLAY	
CL/2086424 1-948 D 115 6.00 Brown CLAY	
CL/2008425 1-948 D 121 9:00 Brown CLAY CL/2008426 1-948 D 135 20.45 Brown CLAY	
CL/208425 1-948 D 125 20,45 Brown CLAY  CL/208426 1-948 D 135 20,45 Brown CLAY	
CL/2086426 1.948 D 135 20.45 Brown CLAY	

Appendix A Page 1 of 1 23/04/2020EFS/205732 Ver. 2



Report No. EFS/205733 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 12-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 12-Mar-2020

ŀ																					
																		2020	5733	-	
F																<u>.s</u>		12-Mar-2020	EFS/205733		
																Sample Analysis					
ŀ																nple /					
																Sar		inted	Report Number	umber	
																		Date Printed	Report	Table Number	
																			•	<b>&gt;</b>	
ŀ																			101	וועבט שבר ווע	
																ingham			ACM	(7IN	
pH Units	WSLM50		N <sub>o</sub>	pH (BS1377)	4.7	4.6	4.4									SOCOTEC UK Wokingham	gs		700	D3000-13	
$\vdash$	TSBRE1	$\vdash$	2	Total Sulphur.	0,052	0,272	1,79									SOCOTE	William Riggs		2	בֿאַ	
l/bm	ICPWSS	10	Yes	SO4 (H2O sol) mg/l	422	157	163									me					
mg/kg	CPACIDS	20	Yes	SO4 (acid sol)	928	794	1290									Client Name	Contact				
				·																	
Units :	Metho	Method Reportin	UKAS Ac	Client Sample Description	1-152 D 7 1.20	1-152 D 17 6.00	1-152 D 30 13.00									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Eax +44 (0) 1283 554422
				LAB ID Number CL/	2086427	2086428	2086429									V)		B	ğ		ш

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92035

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 16-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205733 Report No

WSLM50	pH (BS1377)		D	Q	Q
TSBRE1	Total Sulphur.		Q	a	Q
ICPWSS	SO4 (H2O sol) mg/l	>	۵	a	۵
ICPACIDS	SO4 (acid sol)	>	۵	۵	۵
CustServ	REPORT A		۵	۵	۵
MethodID	Sampled		D	Q	D
	Description		1-152 1.20	1-152 6.00	1-152 13.00
	ID Number		CL/2086427	CL/2086428	CL/2086429

The sample was received in an inappropriate container for this analysis Deviating Sample Key

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time Headspace present in the sample container Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered

Analysis Subcontracted - Note: due date may vary

No analysis scheduled

Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205733 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205733 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5733

Note: major constituent in upper case

Lab ID Novebre		Note: major constituent in upper case
Lab ID Number	Client ID	Description
CL/2086427 CL/2086428 CL/2086429	1-152 D 7 1.20 1-152 D 17 6.00 1-152 D 30 13.00	Beige CLAY Brown CLAY Brown CLAY
CL/2086428	1-152 D 17 6 00	Brown CLAY
CL/2000420	1-132 D 17 0.00	Brown CLAY
CL/2086429	1-152 D 30 13.00	Brown CLAY

Appendix A Page 1 of 1 12/03/2020EFS/205733 Ver. 1



Report No. EFS/205734 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 5 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 16-Mar-2020

																			16-Mar-2020	EFS/205734	-	
																	alysis		1	ш		
																	Sample Analysis					
																	Sam		inted	Report Number	umber	
																			Date Printed	Report	Table Number	
																				7	2	
																	am			MOE LOT 40	200	
																	Vokingh					
pH Units	WSLM50		<sub>o</sub> N	рН (BS1377)	S.I	8.9	4.8	9.9	5.5								SOCOTEC UK Wokingham	Riggs		40	9000	
%	Г	Н	ο <sub>N</sub>	Total Sulphur.		0,379	0,503	0,649	1.29								soco	William Riggs		Č	ڎ	
_	ICPWSS		Yes	SO4 (H2O sol) mg/l	S.I	325	208	428	628								lame					
ma/ka			_	SO4 (acid sol)	S.I	1220	738	1240	2070								Client Name	Contact				
Units:	hod Codes :	ting Limits:	UKAS Accredited:	Sample Date																		
	Meth	Method Reporting Limits:	UKAS A	Client Sample Description	1-253 D 5 1.10	1-253 D 112 7,20	1-253 D 121 13,00	1-253 D 128 19,00	1-253 D 135 23,50								SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086430	2086431	2086432	2086433	2086434								••		_	<b></b>		

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92028

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site Report No

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 16-Mar-2020

dditional five working days. S205734

p to an ado								
take u	WSLM50	pH (BS1377)		۵	۵	۵	D	_
ly to	TSBRE1	Total Sulphur.		۵	۵	۵	Q	_
is like	ICPWSS	SO4 (H2O sol) mg/l	^	۵	۵	۵	a	_
a '^'	ICPACIDS	SO4 (acid sol)	>	۵	۵	۵	Q	_
with	CustServ	REPORT A		۵	۵	۵	a	ے
sis (identified	MethodID	Sampled		D	О	О	О	_
Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an add		Description		1-253 1.10-1.20	1-253 7.20	1-253 13.00	1-253 19.00	1-253 23 50
Please note the resu		ID Number		CL/2086430	CL/2086431	CL/2086432	CL/2086433	CI /2086434

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time

Sample processing did not commence within the appropriate holding time

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

No analysis scheduled Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205734 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205734 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5734

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/2086430	1-253 D 5 1.10	Brown COBBLES
CL/2086431	1-253 D 112 7.20	Brown CLAY
CL/2000431	1-253 D 112 1.20	Brown Silt CLAY
CL/2086432	1-253 D 121 13.00	Brown Slit CLAY
CL/2086433	1-253 D 128 19.00	Brown CLAY
CL/2086434	1-253 D 135 23.50	Brown CLAY Brown CLAY

Appendix A Page 1 of 1 16/03/2020EFS/205734 Ver. 1



Report No. EFS/205736 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

			1																		
																		23-Apr-2020	EFS/205736	-	
																ysis		23-	EF		
																Sample Analysis					
																Samp		ted	umber	mber	
																		Date Printed	Report Number	Table Number	
																			<b>7</b>	2	
pH Units	NSLINION NSLINION	14	ON No	pH (BS1377)	4.6	3.5	3.8									E			701	01 12C CZINI	
$\perp$		c00.0	o <sub>N</sub>	Total Sulphur.	0.019	0.347	1.92									Vokingha					
l/gm	Noneivos	0.2	2	Nitrate (BRE 2:1): mg/l	9.0	<0.2	<0.2									SOCOTEC UK Wokingham	liggs		7 000	D2006-12	
l/gm	+	- 1	oN N	Chloride:(2:1)	131	29	25									socol	William Riggs		ב	ک	
l/gm		2 5	Yes	SO4 (H2O sol) mg/l	39.3	255	244									lame					
mg/kg		77		SO4 (acid sol)	139	953	700									Client Name	Contact				
Units:	lod Codes :	ing Limits :	Accredited :	Sample Date																	
3	: Method Codes	Method Report	UKAS A	Client Sample Description	1-719 D 106 1.20	1-719 D 116 8.00	1-719 D 125 14,50									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	
				LAB ID Number CL/	2086438	2086439	2086440									S		Bre	Bui	ř	

# **SOCOTEC UK Ltd Environmental Chemistry**

# Analytical and Deviating Sample Overview

Consignment No S92032

**SOCOTEC UK Wokingham** 

Customer Site

Sample Analysis

D9008-19 M25 Jct 10

Report No

Date Logged 06-Mar-2020

In-House Report Due 23-Apr-2020

re working days. S205736

tional five						
an addi	WSLM50	pH (BS1377)		D	D	٥
p to	TSBRE1	Total Sulphur.		۵	Q	٥
take u	KoneNO3	Nitrate (BRE 2:1): mg/l		Q	a	Q
ly to	KONECL	Chloride:(2:1)		a	a	Ω
is like	ICPWSS	SO4 (H2O sol) mg/l	^	DF	ЫF	DF
a '^')	ICPACIDS	SO4 (acid sol)	>	۵	a	۵
with	CustServ	REPORT A		۵	a	۵
sis (identified	MethodID	Sampled	:o ISO17025	D	D	D
Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five		Description	Test Method Accredited to ISO17025	1-719 1.20	1-719 8.00	1-719 14.50
Please note the res		ID Number		CL/2086438	CL/2086439	CL/2086440

The sample was received in an inappropriate container for this analysis Deviating Sample Key endeavour to prioritise samples to complete analysis with

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205736 Ver. 2

Analysis Subcontracted - Note: due date may vary

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205736 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5736

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	4 740 D 400 4 00	Design CAND
CL/2086438 CL/2086439 CL/2086440	1-719 D 106 1.20 1-719 D 116 8.00 1-719 D 125 14.50	Brown SAND Brown Clay SAND Gravel Brown Clay SAND
CL/2086439	1-719 D 116 8.00	Brown Clay SAND Gravel
CL/2086440	1-719 D 125 14.50	Brown Clay SAND
		<u> </u>

Appendix A Page 1 of 1 23/04/2020EFS/205736 Ver. 2



Report No. EFS/205737 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

Client Sample Description	Method Reporting Limits: 20 10 1 0.2 0.005	pH Units WSI M50	
Contact Sumple Description   Contact C	Client Sample Description  Client Sample Description  1-169 D 103 2.20  1-169 D 103		
Client Samele Description and	Client Sample Description and Proceedings (1:7) and Proceedings (1:7) and Procedings (1:169 D 142 22.50	C Z	
Client Sample Date (15:23-15)  SocoTEC (2011)  Like D 1927 22/20  SocoTEC (10 Milliam Riggs  Contact  William Riggs  Contact  Milliam Riggs  Contact  Contact  Milliam Riggs  Contact  Milliam Riggs  Contact  Milliam Riggs  Contact  Contact  Milliam Riggs  Contact  Milliam Riggs  Contact  Contact  Milliam Riggs  Contact  Contact  Contact  Milliam Riggs  Contact  Con	Client Sample Description  1-169 D 102 2.20  1-1	NO	
1-169 D 103 220	1-169 D 103 2.20 1-169 D 117 7.70 1-169 D 117 7.70 1-169 D 142 22.50 1-169 D 142 22.	pH (BS1377)	
1-169 D 147770   4800   1450   1457   1650	17.7.0 4800 1580 12 <0.2 0.596   12.22.50   1670 661 6 6 <0.2 0.124   16.22.50   1655 265   1655   1	1.7	
1-169 D 142 125.50   667   667   67   670   6716   7.5   7.5   6716   7.5	1-169 D 127 12.70	3.0	
1-168 D 142 22,50   565   265   0,416   7,6	1-169 D 142 22.50	3.4	
Client Name SOCOTEC UK Wokingham Sample Analysis Contact William Riggs Contact Table Number Table N	Client Name SOCOTEC UK Contact William Riggs	7.6	
Contact   William Riggs   Contact   Contact   William Riggs   Contact   Contact   William Riggs   Contact   Cont	Client Name SOCOTEC UK Contact William Riggs		
Contact   William Riggs   Contact   Contact   William Riggs   Contact   Contac	Client Name  Contact  William Riggs		
Contact   William Riggs   Contact   Contact   William Riggs   Contact   Contact   William Riggs   Contact   Co	Client Name SOCOTEC UK Contact William Riggs		
Client Name   SOCOTEC UK Wokingham   Sample Analysis   Contact   William Riggs   Contact	Client Name SOCOTEC UK Contact William Riggs		
Contact   William Riggs   Contact   William Riggs   Contact   William Riggs   Contact   Contac	Client Name SOCOTEC UK Contact William Riggs		
Contact   William Riggs   Contact   Contact   William Riggs   Contact   Co	Client Name SOCOTEC UK Contact William Riggs		
Contact   William Riggs   Contact	Client Name SOCOTEC UK Contact William Riggs		
Contact  Con	Contact William Riggs		
Contact   William Riggs   Client Name   SOCOTEC UK Wokingham   Sample Analysis	Client Name SOCOTEC UK Contact William Riggs		
Contact  Contact  William Riggs  Contact  Table Number  Table Number	Client Name SOCOTEC UK Contact William Riggs		
Contact   William Riggs   Contact	Client Name SOCOTEC UK Contact William Riggs		
Client Name   SOCOTEC UK Wokingham   Sample Analysis	Client Name SOCOTEC UK Contact William Riggs		
Client Name SOCOTEC UK Wokingham Sample Analysis  Contact William Riggs  Contact Milliam Riggs	Client Name SOCOTEC UK Contact William Riggs		
Client Name   SOCOTEC UK Wokingham   Sample Analysis	Client Name SOCOTEC UK Contact William Riggs		
Client Name SOCOTEC UK Wokingham Sample Analysis  Contact William Riggs	Client Name SOCOTEC UK Contact William Riggs		
Contact         William Riggs         Date Printed           Eport Number         Report Number           Table Number         Table Number	Contact		sis
D9008-19 M25 Jct 10  Table Number  Table Number	Bretby Business Park, Ashby Road		
D9008-19 M25 Jct 10 Table Number		Date Printed	23-Apr-2020
Dauge-19 IMZ3 JCT 10		ı	EFS/205737
	Tel +44 (0) 1283 554400		-

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92031

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site Report No

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 23-Apr-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205737

WSLM50	pH (BS1377)		٥	٥	D	D
TSBRE1	Total Sulphur.		D	٥	D	D
KoneNO3	Nitrate (BRE 2:1): mg/l			٥	D	
KONECL	Chloride:(2:1)			Q	D	
ICPWSS	SO4 (H2O sol) mg/l	1	a	a	a	D
CPACIDS	SO4 (acid sol)	^	D	Q	D	D
CustServ	REPORT A		a	a	a	D
MethodID	<b>Description</b> Sampled	Test Method Accredited to ISO17025	1-169 2.20-2.65   D	1-169 7.70-8.15 D	1-169 12.70-13.15	1-169 22.50 D
	ID Number		CL/2086441	CL/2086442	CL/2086443	CL/2086444

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

endeavour to prioritise samples to complete analysis with

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205737 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205737 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5737

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	Client ID	Description
CL/2086441	1-169 D 103 2.20 1-169 D 117 7.70 1-169 D 127 12.70 1-169 D 142 22.50	Brown Gravel SAND Brown Clay SAND Brown Clay SAND Brown CLAY
CL/2086442	1-169 D 117 7.70	Brown Clay SAND
CL/2086443	1-169 D 127 12 70	Brown Clay SAND
CL/2086444	1 160 D 142 22 50	Brown CLAY
CL/2000444	1-109 D 142 22.30	BIOWIT CLAT
	1	
	<u> </u>	
	1	

Appendix A Page 1 of 1 23/04/2020EFS/205737 Ver. 2



Report No. EFS/205739 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Apr-2020

on-Trent, Staffordshire, DE15 0YZ	1283 554400	ıd (0) 1283 554422	
on-Trent, Sta	4 (0) 1283 (	4 (0) 1283 (	

		Units:	mg/kg	l/gm	l/gm	l/gm	%	pH Units							
	: Method Codes	Codes :	- 1	CPWSS	KONECL		TSBRE1	WSLM50							
	Method Reporting	J LIMITS :	07	01	- -	7.0	con n								
	UKAS Acc	redited:	Yes	Yes	<sub>S</sub>	T	%	No							
LAB ID Number CL/	Client Sample Description	Sample Date	SO4 (acid sol)	SO4 (H2O sol) mg/l	Chloride:(2:1)	Nitrate (BRE 2:1): mg/l	Total Sulphur.	pH (BS1377)							
2086447	1-322 D 106 2.20		117	24			0.026	7.0							
2086448	1-322 D 119 8.20		928	289			0.837	6.2							
2086449	1-322 D 128 13.70		505	91	12	<0.2	0.255	5.0							
2086450	1-322 D 133 19.70		459	136	31	<0.2	0.342	4.6							
VI	SOCOTEC		Client Name	ıme	SOCOT	SOCOTEC UK Wokingham	/okingha	<b>u</b>			Samp	Sample Analysis	lysis		
			Contact		William Riggs	sbb									
ш	Bretby Business Park, Ashby Road									Date Printed	nted		23-/	23-Apr-2020	
ш	Burton-on-Trent, Staffordshire, DE15 0YZ				ב	07 0000		M25 1c+ 10		Report Number	lumber		EFS	EFS/205739	
	Tel +44 (0) 1283 554400				ב			2 120 0		Table Number	ımber			_	
	Fax +44 (0) 1283 554422														

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92029

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer

Report No

Site

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 23-Apr-2020

five working days. S205739

itional fi							
an add	WSLM50	pH (BS1377)		۵	Ω	D	۵
up to a	TSBRE1	Total Sulphur.		۵	D	Q	D
take u	KoneNO3	Nitrate (BRE 2:1): mg/l				D	D
ly to	KONECL	Chloride:(2:1)				D	D
is like	ICPWSS	SO4 (H2O sol) mg/l	^	a	Q	a	D
a '^')	ICPACIDS	SO4 (acid sol)	^	a	Q	a	D
with	CustServ	REPORT A		a	Q	Q	D
is (identified	MethodID	Sampled	o ISO17025	٥	D	D	D
Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional fi		Description	Test Method Accredited to ISO17025	1-322 2.20	1-322 8.20	1-322 13.70	1-322 19.70
Please note the res		ID Number		CL/2086447	CL/2086448	CL/2086449	CL/2086450

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited, Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205739 Ver. 2

Matrix	MethodID	Analysis	Method Description
		Basis	·
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	KONECL	Oven Dried	Determination of Chloride in Soil using water extraction at the
		@ < 35°C	stated water:soil ratio, discrete colorimetric detection
Soil	KoneNO3	Oven Dried	Determination of Nitrate in soil samples by water extraction followed
		@ < 35°C	by colorimetric detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- **I.S(g)** Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205739 Ver. 2

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5739

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
	Ollent ID	Безаприон
CL/2086447	1-322 D 106 2.20	Brown SAND
CL/2086448	1-322 D 119 8.20	Beige Sand CLAY
CL/2086449	1-322 D 128 13.70	Brown Sand CLAY
CL/2086450	1-322 D 106 2.20 1-322 D 119 8.20 1-322 D 128 13.70 1-322 D 133 19.70	Brown SAND Beige Sand CLAY Brown Sand CLAY Brown Clay SAND
CL/2000430	1-322 D 133 19.70	BIOWII CIAY SAIND

Appendix A Page 1 of 1 23/04/2020EFS/205739 Ver. 2

Report No. EFS/205740 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 13-Mar-2020

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 13-Mar-2020

_	_		_		_				_				_	_	_	 	_	_						_
																					13-Mar-2020	EFS/205740	7	
																			/sis		13-	EF		
																			Sample Analysis					
																			Sample			per	er	
																					<b>Date Printed</b>	Report Number	<b>Table Number</b>	
																					Da	Re	Та	
																						4	2	
																			nam			MOE LOT 40	70 07	
																			Wokingł					
																			SOCOTEC UK Wokingham	Riggs		0000	D3000-13	
																			soco	William Riggs		Č	2	
																			ıme					
%	ORGMAT	0.2		Organic Matter %	0.7														Client Name	Contact				
Units:	Codes :	J Limits :		Sample Date																				
Units :	Methoc	d Reporting		ption																		0YZ		
		Metho		Client Sample Description	1-913A D 12 4.10														CO		, Ashby Road	fordshire, DE15	4400	4422
				Client Sam	1-913,														SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086451														SC		Bretby	Burtor	Tel	Fax
L					18		L	L		L	L													

# Sample Analysis

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S92078

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Date Logged 06-Mar-2020

In-House Report Due 17-Mar-2020

Please note the results for any subcontracted analysis (identified with a "") is likely to take up to an additional five working days. S205740 Report No

RGMAT	Organic Matter %	۵
stServ	REPORT A	Q
MethodID	Sampled	D
	Description	1-913A 4.10
	ID Number	-/2086451

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

deviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Headspace present in the sample container

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Required

Analysis Subcontracted - Note: due date may vary

EFS/205740 Ver. 1

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Matrix	MethodID	Analysis Basis	Method Description
Soil	ORGMAT	Oven Dried	Acid Dichromate oxidation of the sample followed by colorimetric
		@ < 35°C	analysis of the extract

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205740 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5740

Note: major constituent in upper case

Lob ID Number	Client ID	Note: major constituent in upper case
Lab ID Number	Client ID	Description
CL/2086451	1-913A D 12 4.10	Brown SILT

Appendix A Page 1 of 1 13/03/2020EFS/205740 Ver. 1

Report No. EFS/205741 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 11-Mar-2020

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 11-Mar-2020

														_						
																	020	14	-	Τ
L																	11-Mar-2020	EFS/205741		
															lysis					
															e Ana					
															Sample Analysis		_	ber	er	
L															<b>.</b>		<b>Date Printed</b>	Report Number	Table Number	
L																_	Date	Rep	Tab	
																		c	<b>5</b>	
																		40	MZ5 JCL 10	
														_	gham			404	, CZI	
															Wokin					
															SOCOTEC UK Wokingham	Riggs		0000	D3000-13	
															.ooos	William Riggs		ב	ä	
															9					
%	ORGMAT	0.2	Organic Matter %	0.3											Client Name	Contact				
its:	les : OR(	its:												_		ပိ				
ľ	thod Cod	rting Lim	Sample Date																	
: Nuits	Me	thod Repo	cription	00											7		Þ	E15 0YZ		
		Me	Client Sample Description	1-913 D 13 3.00													ırk, Ashby Ro	affordshire, D	554400	554422
			Client Sa	1-9											SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	2086452											36		Bretb	Burto	Те	Fax
			LAB ID Number CL/	2086																

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92073

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 17-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205741 Report No

ORGMAT	Organic Matter %		۵
CustServ	REPORT A		Ω
MethodID	Sampled	to ISO17025	D
	Description	Test Method Accredited to ISO17025	1-913 3.00
	ID Number		CL/2086452

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Analysis Subcontracted - Note: due date may vary

EFS/205741 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ORGMAT	Oven Dried	Acid Dichromate oxidation of the sample followed by colorimetric
		@ < 35°C	analysis of the extract

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205741 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5741

Note: major constituent in upper case

		Note: major constituent in upper case
Lab ID Number	Client ID	Description
CL/2086452	1-913 D 13 3.00	Beige Clay SILT
OL/2000432	1-913 D 13 3.00	Deige Olay CILT

Appendix A Page 1 of 1 11/03/2020EFS/205741 Ver. 1



Report No. EFS/205742 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 16-Mar-2020

																			16-Mar-2020	EFS/205742	_	
																	alysis		1	Е		
																	Sample Analysis					
																	Sam		inted	Report Number	umber	
																			Date Printed	Report	Table Number	
																				7	2	
																	am			MOE IC+ 10	70.07	
																	Wokingh					
pH Units	WSLM50		9	рН (BS1377)	4.7	4.0	4.1	5.3									SOCOTEC UK Wokingham	Riggs		01000	-0006	
%	TSBRE1	0,005	S	Total Sulphur.	0.039	0,021	1,41	0,575									soco	William Riggs		בֿ	2	
_	ICPWSS		Yes	SO4 (H2O sol) mg/l	32	28	377	833									lame	_				
			Yes	SO4 (acid sol)	895	246	1380	1950									Client Name	Contact				
Units:	hod Codes:	ting Limits:	UKAS Accredited:	Sample Date																		
	: Method Codes :	Method Report	UKAS A	Client Sample Description	1-911 D 108 3,20	1-911 D 121 8,20	1-911 D 131 14,70	1-911 D 146 26,70									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086453	2086454	2086455	2086456									VI		ā	ā	**	_

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10

Sample Analysis

Report No

Customer Site

In-House Report Due 17-Mar-2020 Date Logged 06-Mar-2020

Consignment No S92079

ditional five working days. S205742

up to an add							
take ı	WSLM50	pH (BS1377)		Q	۵	a	Q
ly to	TSBRE1	Total Sulphur.		D	۵	a	Q
is like	ICPWSS	SO4 (H2O sol) mg/l	/	۵	۵	a	Q
a '^')	ICPACIDS	SO4 (acid sol)	^	۵	۵	a	Ω
with	CustServ	REPORT A		۵	۵	۵	۵
/sis (identified	MethodID	Sampled		D	О	О	О
ase note the results for any subcontracted analysis (identified with a '^') is likely to take up to an add		Description		1-911 3.20	1-911 8.20	1-911 14.70	11-911 26.70
ase note the res		ID Number		2086453	2086454	2086455	2086456

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Subcontracted - Note: due date may vary

EFS/205742 Ver. 1

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205742 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5742

Note: major constituent in upper case

Lab ID Number	Client ID	Description
	1011 5 100 0 00	
CL/2086453	1-911 D 108 3.20	Brown CLAY Brown CLAY
CL/2086454	1-911 D 121 8.20	Brown CLAY
CL/2086455	1-911 D 131 14.70	Brown Gravel CLAY
CL/2086456	1-911 D 108 3.20 1-911 D 121 8.20 1-911 D 131 14.70 1-911 D 146 26.70	Brown CLAY

Appendix A Page 1 of 1 16/03/2020EFS/205742 Ver. 1



**Report No. EFS/205743 (Ver. 1)** 

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 16-Mar-2020

							nalysis		16-Mar-2020	EFS/205743	-	
							Sample Analysis		inted	Report Number	umber	
									Date Printed	Report	Table Number	
							_ _ 			0 M25 Ict 10	0 100 0	
ව pH (BS1377)	1.1						SOCOTEC UK Wokingham			W 10 M2	71AI CI =0/	
SOO S Total Sulphur.	0.028 4						SOCOTEC	William Riggs		7 90000	200	
SO4 (H2O sol) mg/l	104 14						Client Name	Contact				
SO4 (acid sol)	10						jäg J	Ö				
UKAS Accredited ::  UKAS Accredited ::  UKAS Accredited ::  Olient Sample Description ald	1-909 D 5 0.50						SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
LAB ID Number CL/	2086457								_	_		

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

Customer Site

Sample Analysis

D9008-19 M25 Jct 10

Date Logged 06-Mar-2020

Consignment No S92074

In-House Report Due 17-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205743 Report No

WSLM50	pH (BS1377)		۵
rsbre1	Total Sulphur.		۵
CPWSS	SO4 (H2O sol) mg/l	>	۵
CPACIDS	SO4 (acid sol)	>	٥
CustServ	REPORT A		۵
MethodID	Sampled		D
	Description		1-909 0.50
	ID Number		CL/2086457

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Required

Analysis Subcontracted - Note: due date may vary

EFS/205743 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205743 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5743

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/2086457	1-909 D 5 0.50	Brown SILT
02/2000 101	1 000 B 0 0.00	5101111 0.21

Appendix A Page 1 of 1 16/03/2020EFS/205743 Ver. 1



Report No. EFS/205744 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 16-Mar-2020

Method Reporting Limits:	DE PH (BS1377) € 7. € 4.						
Solver (H2O sol) mg/l  Solver (H2O sol) mg/l  Solver (acid sol)  Sample Date  Sample Date	© pH (BS1377)						
Total Sulphur.	pH (BS1377)						
1440     40     0.068       4120     53     0.150	4.3						
4120 53 0.150	4.5						
Client Name SOCOTEC	SOCOTEC UK Wokingham			Sal	Sample Analysis		
Contact William Riggs							
Bretby Business Park, Ashby Road			_	Date Printed		16-Mar-2020	
Burton-on-Trent, Staffordshire, DE15 0YZ		<b>7</b>		Report Number		EFS/205744	
	D3000=13 MZ3 3CL 10	2		Table Number		_	

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92077

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S205744

Report No

Date Logged 06-Mar-2020

In-House Report Due 17-Mar-2020

additional five working days.

p to an					
take u	WSLM50	pH (BS1377)		۵	ے
ly to	TSBRE1	Total Sulphur.		۵	٥
is like	ICPWSS	SO4 (H2O sol) mg/l	>	۵	ے
a '^')	ICPACIDS	SO4 (acid sol)	>	۵	٥
with	CustServ	REPORT A		۵	٥
analysis (identified	MethodID	Sampled		Q	٥
ase note the results for any subcontracted analysis (identified with a '^') is likely to take up to an a		Description		1-937 0.70	1-937 2 30
ase note the res		ID Number		2086458	12086459

The sample was received in an inappropriate container for this analysis Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis within olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time Analysis Subcontracted - Note: due date may vary Headspace present in the sample container No analysis scheduled Requested Analysis Key Analysis Required

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205744 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205744 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5744

Note: major constituent in upper case

Lab ID Number	Client ID	Description
CL/2086458 CL/2086459	1-937 D 9 0.70 1-937 D 11 2.30	Brown CLAY Brown CLAY
CL/2086459	1-937 D 11 2.30	Brown CLAY

Appendix A Page 1 of 1 16/03/2020EFS/205744 Ver. 1



Report No. EFS/205746 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham Ope

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 16-Mar-2020

													16-Mar-2020	EFS/205746	-	
											llysis		16-	╗		
											Sample Analysis					
											Sam		nted	lumber	ımber	
													Date Printed	Report Number	Table Number	
														10	2	
											Ē			M25 Ict 10	5	
											Vokingha					
WSLM50	рН (BS1377)	4.0									SOCOTEC UK Wokingham	iggs		D9008-19		
% TSBRE1 0.005	Total Sulphur.	0.097									socol	William Riggs		Č	į	
ICPWSS 10 10 Yes	SO4 (H2O sol) mg/l	857									lame					
mg/kg ICPACIDS 20 Yes		2420									Client Name	Contact				
Units: nod Codes: ing Limits:	Sample Date															
Units:  Method Reporting Limits:  UKAS Accredited:	Client Sample Description	1-948A 0.50									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
	LAB ID Number CL/	2086461														

# Sample Analysis

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10

Report No

Customer

Date Logged 06-Mar-2020

Consignment No S92076

In-House Report Due 17-Mar-2020

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. S205746

WSLM50	pH (BS1377)		۵
TSBRE1	Total Sulphur.		۵
ICPWSS	SO4 (H2O sol) mg/l	>	۵
ICPACIDS	SO4 (acid sol)	>	۵
CustServ	REPORT A		۵
MethodID	Sampled		۵
	Description		1-948A 0.50
	ID Number		CL/2086461

Deviating Sample Kev

olding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory. f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

# Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Required

No analysis scheduled Analysis Subcontracted - **Note: due date may vary** 

EFS/205746 Ver. 1

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### Waters Analysis

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205746 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S20\_5746

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
CL/2086461	1-948A 0.50	Brown Gravel SILT
CL/2000461	1-946A 0.50	BIOWII GIAVEI SIL I

Appendix A Page 1 of 1 16/03/2020EFS/205746 Ver. 1



**Report No. EFS/205747 (Ver. 1)** 

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham Ope

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 16-Mar-2020

																		16-Mar-2020	EFS/205747	1	
																alysis		16-	Ξ		
															ا	Sample Analysis					
															] ,	Sam		nted	lumber	ımber	
																		Date Printed	Report Number	Table Number	
																			7	2	
																E			MOE Ict 10	יייייייייייייייייייייייייייייייייייייי	
																okingha					
pH Units	VV SEINISU	No	pH (BS1377)	4.8	3.7	4.0	7.4									SOCOLEC UK Wokingham	iggs		01 90000	-000	
%	0.005	2	Total Sulphur.	0.018	0.304	0.636	0.409										William Riggs		ב	دٌ	
l/gm			SO4 (H2O sol) mg/l	36	843	986	844									ame					
mg/kg	SOUN SOUN	Yes		166	2430	2770	1850									Client Name	Contact				
Units:	nd Codes .	ccredited:	Sample Date																		
Units	Method Reporti	UKAS A	Client Sample Description	1-949A 1.00	1-949A 8.35-8.40	1-949A 15.00	1-949A 22.70									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	2086462	2086463	2086464	2086465									<i>.,</i>		<u></u>			

# Sample Analysis

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S92080

Customer SOCOTEC UK Wokingham Site

Site D9008-19 M25 Jct 10 Report No S205747

Date Logged 06-Mar-2020

In-House Report Due 17-Mar-2020

Please note the re	sults for any subcontracted analy	/sis (identified	with	a '^'	is like	ly to 1	Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.
		MethodID	CustServ	ICPACIDS	ICPWSS	TSBRE1	WSLM50
ID Number	Description	Sampled	REPORT A	SO4 (acid sol)	SO4 (H2O sol) mg/l	Total Sulphur.	pH (BS1377)
				>	>		
CL/2086462	1-949A 1.00	D	۵	۵	٥	۵	О
CL/2086463	1-949A 8.35-8.40	D	Q	۵	۵	۵	О
CL/2086464	1-949A 15.00	D	Ω	۵	۵	۵	Q
CL/2086465	1-949A 22.70	D	Ω	۵	۵	۵	Д

Deviating Sample Key

A The sample was received in an inappropriate container for this analysis

B The sample was received without the correct preservation for this analysis

C Headspace present in the sample container

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide

missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

deviant whilst being processed in the laboratory.

D The sampling date was not supplied so holding time may be compromised - applicable to all analysis

E Sample processing did not commence within the appropriate holding time F Sample processing did not commence within the appropriate handling time

Requested Analysis Key | Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered
No analysis scheduled

No analysis scheduled Analysis Subcontracted - Note: due date may vary

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### Waters Analysis

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

P Raised detection limit due to nature of the sample

- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205747 Ver. 1

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5747

Note: major constituent in upper case

Lab ID Mare-	Client ID	Description
Lab ID Number	Client ID	Description
CL/2086462	1-949A 1.00	Brown Clay SILT
CL/2086463	1-949A 8.35-8.40	Brown Clay SILT
CL/2086464	1-949A 15 00	Brown Silt CLAY
CL/2086463 CL/2086464 CL/2086465	1-949A 1.00 1-949A 8.35-8.40 1-949A 15.00 1-949A 22.70	Brown Clay SILT Brown Clay SILT Brown Silt CLAY Brown CLAY
GL/2000403	1-949A 22.70	Blown CDA
	1	
	-	
	1	
	-	
	-	
	1	
	-	

Appendix A Page 1 of 1 16/03/2020EFS/205747 Ver. 1



Report No. EFS/205748 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 16-Mar-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Method Reporting Limits : 20   UKAS Accredited : 20   UKAS Accredited : 20   UKAS Accredited : 20   UKAS Accredited : 7   7   7   7   7   7   7   7   7   7	OOOOO OOO OOOOOOOOOOOOOOOOOOOOOOOOOOOO				
Sample Date  2000  1910  1910  1910  1910					
SO4 (acid sol)  Sample Date  Sample Date					
Source (acid sol) 27 20 0 10 10 10 10 10 10 10 10 10 10 10 10					
243 2090 1910 1270					
2090 1910 1910 1270					
1270					
1270					
		_	_ 	_	_
SOCOTEC CIent Name	SOCOTEC UK Wokingham	kingham	San	Sample Analysis	
Contact	William Riggs				
Bretby Business Park, Ashby Road			Date Printed	16-Mar-2020	
Burton-on-Trent, Staffordshire, DE15 0YZ	01,80000	M2F 1ct 10	Report Number	EFS/205748	
Tel +44 (0) 1283 554400	21-0006G		Table Number	1	
Fax +44 (0) 1283 554422					

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Consignment No S92081

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

Date Logged 06-Mar-2020

In-House Report Due 17-Mar-2020

Please note the results for any subcontracted analysis (identified with a  $^{1}$ ) is likely to take up to an additional five working days. S205748 Report No

WSLM50	pH (BS1377)		D	D	D	D
TSBRE1	Total Sulphur.		a	a	a	D
ICPWSS	SO4 (H2O sol) mg/l	1	Q	a	Q	D
ICPACIDS	SO4 (acid sol)	1	a	a	a	D
CustServ	REPORT A		a	a	Q	D
MethodID	Sampled		D	D	D	D
	Description		1-951 1.20	1-951 9.20	1-951 16.00	1-951 24.50
	ID Number		CL/2086466	CL/2086467	CL/2086468	CL/2086469

ote: We will endeavour to prioritise samples to complete analysis within olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Devi	Deviating Sample Key
⋖	The sample was received in an inappropriate container for this analysis
В	The sample was received without the correct preservation for this analysis
O	Headspace present in the sample container
Ω	The sampling date was not supplied so holding time may be compromised - applicable to all analysis
Ш	Sample processing did not commence within the appropriate holding time
ш	Sample processing did not commence within the appropriate handling time
Redu	Requested Analysis Key
	Analysis Required
	Analysis dependant upon trigger result - Note: due date may be affected if triggered
	No analysis scheduled
<	<ul> <li>Analysis Subcontracted - Note: due date may vary</li> </ul>

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

EFS/205748 Ver. 1

Report Number: EFS/205748

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

# **Report Notes**

# **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205748 Ver. 1

# Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5748

Note: major constituent in upper case

Lab ID Number	Client ID	Note: major constituent in upper case  Description
Lab ID Nullibel	Offerit ID	Description
CL/2086466	1-951 D 1 1.20	Brown SILT
CL/2086467	1-951 D 19 9.20	Brown Clay SILT
CL/2086468	1-951 D 29 16.00	Brown Clay SILT
CL/2086466 CL/2086467 CL/2086468 CL/2086469	1-951 D 1 1.20 1-951 D 19 9.20 1-951 D 29 16.00 1-951 D 123 24.50	Brown SILT Brown Clay SILT Brown Clay SILT Brown CLAY
CL/2000409	1-951 D 125 24.50	DIOWIT CEAT

Appendix A Page 1 of 1 16/03/2020EFS/205748 Ver. 1

# TEST REPORT



Report No. EFS/205749 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 06-Mar-2020. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 16-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services Date of Issue: 16-Mar-2020

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

_		_			_					_											
																		16-Mar-2020	EFS/205749	-	
																lysis		-91	EF		
																Sample Analysis					
																Sam		inted	Report Number	umber	
																		Date Printed	Report	Table Number	
																			7	21 - 22	
																ıgham				MZS JCT IU	
nits	M50		0													SOCOTEC UK Wokingham				D3000-13 I	
Н	Н		δ	pH (BS1377)	5.1											OTEC L	William Riggs			7200	
⊢	TS	0.005	%	Total Sulphur.	0,031											soc	William			_	
l/gm	ICPWSS		Yes	SO4 (H2O sol) mg/l	14											lame .	t				
mg/kg	ICPACIDS	20	Yes		26											Client Name	Contact				
: Onits	od Codes:	ing Limits:	Accredited:	Sample Date																	
	Method Codes :	Method Reporti	UKAS A	Client Sample Description	1-917 B 5 0.50											SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	2086470																

# **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

Date Logged 06-Mar-2020 Consignment No S92075

**SOCOTEC UK Wokingham** 

Sample Analysis

D9008-19 M25 Jct 10 S205749

Report No

Customer Site In-House Report Due 17-Mar-2020

Please note the res	ults for any subcontracted analy:	sis (identified	with a	i ('^' E	s like	y to t	Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.
		MethodID	CustServ	ICPACIDS	ICPWSS	TSBRE1	WSLM50
ID Number	Description	Sampled	REPORT A	SO4 (acid sol)	SO4 (H2O sol) mg/l	Total Sulphur.	pH (BS1377)
				>	>		
CL/2086470	1-917 0.50	О	٥	۵	٥	٥	О

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis within

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

provide missing information in order to reinstate accreditation.

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Required

Analysis Subcontracted - Note: due date may vary

EFS/205749 Ver. 1

Where individual results are flagged see report notes for status.

Page 3 of 5 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Report Number: EFS/205749

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPWSS	Oven Dried	Determination of Water Soluble Sulphate in soil samples by water
		@ < 35°C	extraction followed by ICPOES detection
Soil	TSBRE1	Oven Dried	Determination of Total Carbon and/or Total Sulphur in solid
		@ < 35°C	samples by high temperature combustion/infrared detection
Soil	WSLM50	Oven Dried	Determination of pH of 2.5:1 deionised water to soil extracts using
		@ < 35°C	pH probe.

# **Report Notes**

# **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EFS/205749 Ver. 1

# Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$20\_5749

Note: major constituent in upper case

Lab ID Number	Client ID	Description
		Description
CL/2086470	1-917 B 5 0.50	Brown SILT

Appendix A Page 1 of 1 16/03/2020EFS/205749 Ver. 1



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010153

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 4

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010153

Date Issued: 31/01/2020

# **Samples Analysed**

Sample Reference	Text ID	Samp <b>l</b> e Date	Samp <b>l</b> e Type
1-255 D 7 SL 1.20	20010153-001	31/10/2019 07:30:00	SOLID
1-255 D 16 SL 5.20	20010153-002	01/11/2019 07:00:00	SOLID
1-255 D 28 SL 10.00	20010153-003	05/11/2019 07:00:00	SOLID
1-255 D 37 SL 16.00	20010153-004	05/11/2019 07:00:00	SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010153 Date Issued: 31/01/2020

# Analysis Results

			T									
	004	1-255 D 37 SL 16.00	SOLID	05/11/2019		3.2	606'0	769	3120	o	20.5	CLAY
20010153	003	1-255 D 28 SL 10.00	SOLID	05/11/2019		4.4	0.274	331	1180	<0.1	16.6	SILT
2001	002	1-255 D 16 SL 5.20	SOLID	01/11/2019		8.9	0.060	111	337	<0.1	20.1	SILT
	001	1-255 D 7 SL 1.20	SOLID	31/10/2019		7.0	0.033	13	252	<0.1	8.6	SILT
 □	<u>П</u>	<u>-</u>	ype	Date	Accred	z	z	5	ם	z	z	z
Project ID	Sample ID	CustomerID	Sample Type	Sampling Date	Units	pH units	m/m %	l/gm	mg/kg	%	%	1
					MDL	-	0,005	10	20	0.1	0.1	
					Method Code	WSLM50	TSBRE1	ICPWSS	ICPACIDS	CLANDPREP	CLANDPREP	CLANDPREP
					Analysis	pH Units (BS1377)	Sulphur as S (BRE)	Water Soluble Sulphate as SO4	Acid Soluble Sulphate as SO4	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material





Project Name: D9008-19 M25 Jct 10

Project No: 20010153

Date Issued: 31/01/2020

Deviating Sample Report	:		ct Container	ct Label	sace	ct/No Preservative	Sampling Date	J Time	эд Тіте
Sample Reference	Text ID	Reported Name	Incorrect	Incorrect	Headspace	Incorrect/No	No Sar	Holding	Handling
1-255 D 16 SL 5.20	20010153-002	CLANDPREP						<b>√</b>	

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010153

Date Issued: 31/01/2020

# **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010154

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010154

Date Issued: 31/01/2020

# **Samples Analysed**

Sample Reference 1-225 SL 2.80 Text ID 20010154-001 Sample Date

Sample Type

SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010154 Date Issued: 31/01/2020

# **Analysis Results**

20010154	001	1-225 SL 2.80	SOLID			0.3	<0.1	15.5	CLAY
<u> </u>	₽	<u></u>	be	ate	Accred	z	z	z	z
Project ID	Sample ID	Customer ID	Sample Type	Sampling Date	Units Ac	m/m %	%	%	ı
					MDL	0.1	0.1	0.1	
					Method Code	WSLM40	CLANDPREP	CLANDPREP	CLANDPREP
					Analysis	BS1377 Organic Matter	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material



Project Name: D9008-19 M25 Jct 10

Project No: 20010154

Date Issued: 31/01/2020

Deviating Sample Re	port					e,			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time

Analysis Basis		
<u>Analysis</u>	Analysis Type	Analysis Basis
CLANDPREP	PHYS	As Received
WSLM40	INORGANIC	Air Dried & Ground



Project Name: D9008-19 M25 Jct 10

Project No: 20010154

Date Issued: 31/01/2020

# **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010155

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Report Number: 20010155

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010155

Date Issued: 31/01/2020

# **Samples Analysed**

Sample Reference 1-207 SL 3.20	Text ID 20010155-001	Sample Date	Sample Type SOLID
1-207 SL 8.00	20010155-002		SOLID
1-207 SL 14.50	20010155-003		SOLID
1-207 SL 23.50	20010155-004		SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010155 Date Issued: 31/01/2020

# Analysis Results



Project Name: D9008-19 M25 Jct 10

Project No: 20010155

Date Issued: 31/01/2020

Deviating Sample Re	<u>eport</u>					ø			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservativ	No Sampling Date	Holding Time	Handling Time

Analysis Type	Analysis Basis	
PHYS	As Received	
METALS	Air Dried & Ground	
METALS	Air Dried & Ground	
INORGANIC	Air Dried & Ground	
INORGANIC	Air Dried & Ground	
	PHYS METALS METALS INORGANIC	PHYS As Received METALS Air Dried & Ground METALS Air Dried & Ground INORGANIC Air Dried & Ground



Project Name: D9008-19 M25 Jct 10

Project No: 20010155

Date Issued: 31/01/2020

# **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010156

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Report Number: 20010156

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010156

Date Issued: 31/01/2020

# **Samples Analysed**

Sample Reference 1-166 SL 0.50	Text ID 20010156-001	Sample Date	Sample Type SOL <b>I</b> D
1-166 SL 4.20	20010156-002		SOLID
1-166 SL 8.37	20010156-003		SOLID
1-166 SL 11.50	20010156-004		SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010156 Date Issued: 31/01/2020

# Analysis Results

20010156	001 002 003 004	1-166 SL 0.50 1-166 SL 4.20 1-166 SL 8.37 1-166 SL 11.50	allos allos allos allos			7.5 6.0 4.6 4.8	0.026 0.422 0.210 1.24	17 539 517 622	101 1440 1470 1770	11 9 12 <0.1	11.3 18.0 15.6 23.4	SILT CLAY SAND CLAY
Project ID	Sample ID	Customer ID	Sample Type	Sampling Date	Units Accred	pH units N	N W/W %	n l/gm	mg/kg u	N %	N %	2
					MDL	~	0,005	10	20	0.1	0.1	
					Method Code	WSLM50	TSBRE1	ICPWSS	ICPACIDS	CLANDPREP	CLANDPREP	CLANDPREP
Alidiyələ iyeşdirə					Analysis	pH Units (BS1377)	Sulphur as S (BRE)	Water Soluble Sulphate as SO4	Acid Soluble Sulphate as SO4	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material





Project Name: D9008-19 M25 Jct 10

Project No: 20010156

Date Issued: 31/01/2020

Deviating Sample Re	<u>port</u>		Į.			ervative	m.		
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Pres	No Sampling Date	Holding Time	Handling Time

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010156

Date Issued: 31/01/2020

### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010157

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Report Number: 20010157

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010157

Date Issued: 31/01/2020

# **Samples Analysed**

Sample Reference 1-208 SL 1.20	Text ID 20010157-001	Sample Date	Sample Type SOLID
1-208 SL 6.20	20010157-002		SOLID
1-208 SL 13.20	20010157-003		SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010157 Date Issued: 31/01/2020

# Analysis Results

			Project ID	_		20010157	
			Sample ID	_	100	002	003
			Customer ID		1-208 SL 1.20	1-208 SL 6.20	1-208 SL 13.20
			Sample Type	 	апоѕ	SOLID	SOLID
			Sampling Date	e 			
Analysis	Method Code	MDL	Units Acc	Accred			
pH Units (BS1377)	WSLM50	-	pH units	z	9.9	4.5	4.6
Sulphur as S (BRE)	TSBRE1	0,005	m/m %	z	0.033	0.085	0.433
Water Soluble Sulphate as SO4	ICPWSS	10	l/gm		41	65	369
Acid Soluble Sulphate as SO4	ICPACIDS	20	mg/kg	_	77	223	1380
%Dry Matter Under 2mm	CLANDPREP	0.1	%	z	<0.1	<0.1	<0.1
Total Moisture at 35°C	CLANDPREP	0.1	%	z	0.6	21.5	21.1
Description of Solid Material	CLANDPREP		1	z	SILT	SILT	CLAY





Project Name: D9008-19 M25 Jct 10

Project No: 20010157

Date Issued: 31/01/2020

Deviating Sample Re	port					vative			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preser	No Sampling Date	Holding Time	Handling Time

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010157

Date Issued: 31/01/2020

# **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010158

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Report Number: 20010158

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham

Page 1 of 5



Project Name: D9008-19 M25 Jct 10

Project No: 20010158

Date Issued: 31/01/2020

# Samples Analysed

1-341 SL 9.20

 Sample Reference
 Text ID

 1-341 SL 1.70
 20010158-001

20010158-002

Sample Date

Sample Type

SOLID

SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010158 Date Issued: 31/01/2020

# **Analysis Results**

_									ı		I		
0.75	7158	002	1-341 SL 9.20	SOLID			4.7	0.025	21	122	<0.1	21.5	SILT
77000	20010158	001	1-341 SL 1,70	SOLID			4.7	0.039	40	186	<0.1	9.2	SAND
	2		<u></u> 은	ype	ate	Accred	z	z	<b>&gt;</b>	<b>&gt;</b>	z	z	z
Project ID		Sample ID	Customer ID	Sample Type	Sampling Date	Units	pH units	m/m %	mg/l	mg/kg	%	%	ı
						MDL	-	0,005	10	20	0.1	0.1	
						Method Code	WSLM50	TSBRE1	ICPWSS	ICPACIDS	CLANDPREP	CLANDPREP	CLANDPREP
						Analysis	pH Units (BS1377)	Sulphur as S (BRE)	Water Soluble Sulphate as SO4	Acid Soluble Sulphate as SO4	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material





Project Name: D9008-19 M25 Jct 10

Project No: 20010158

Date Issued: 31/01/2020

Deviating Sample Re	<u>port</u>		Į.			ervative	m.		
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Pres	No Sampling Date	Holding Time	Handling Time

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010158

Date Issued: 31/01/2020

#### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010159

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Report Number: 20010159

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 17/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010159

Date Issued: 31/01/2020

### **Samples Analysed**

Sample Reference 1-333 SL 0.60	Text ID 20010159-001	Sample Date	Sample Type SOLID
1-333 SL 5.00	20010159-002		SOLID
1-333 SL 8.90	20010159-003		SOLID
1-333 SL 12.90	20010159-004		SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010159 Date Issued: 31/01/2020

# Analysis Results

	20010159	002 003	1-333 SL 5.00 1-333 SL 8.90	SOLID			5.0 5.9	0.031 0.038	23 17	121 468	8 0.1	10.0 24.8	SAND CLAY
		001	1-333 SL 0.60	SOLID			5.5	0.025	14	118	20	6.5	SILT
	<b>₽</b>		<u></u> 은	ype	ate	Accred	z	z	_	>	z	z	z
	Project ID	Sample ID	Customer ID	Sample Type	Sampling Date	Units	pH units	m/m %	l/gm	mg/kg	%	%	ı
						MDL	-	0,005	10	20	1.0	1.0	
						Method Code	WSLM50	TSBRE1	ICPWSS	ICPACIDS	CLANDPREP	CLANDPREP	CLANDPREP
Alidiyala Nesulta						nalysis	pH Units (BS1377)	Sulphur as S (BRE)	Water Soluble Sulphate as SO4	Acid Soluble Sulphate as SO4	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material





Project Name: D9008-19 M25 Jct 10

Project No: 20010159

Date Issued: 31/01/2020

Deviating Sample Re	port					Φ			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time
									l

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010159

Date Issued: 31/01/2020

#### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010203

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 2

Date Received: 22/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010203

Date Issued: 31/01/2020

### Samples Analysed

 Sample Reference
 Text ID
 Sample Date
 Sample Type

 1-264 1.50-1.78 B102 SL 1.50
 20010203-001
 SOLID

 1-264 7.80-8.80 D25 SL 7.80
 20010203-002
 SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010203 Date Issued: 31/01/2020

# Analysis Results

		SL 7.										
20010203	002	1-264 7.80-8.80 D25 SL 7. 80	SOLID			4.6	0.333	1040	2680	<0.1	20.4	SILT
2001	001	1-264 1,50-1,78 B102 SL 1	SOLID			5.4	0.029	27	166	o	16.0	CLAY
Project ID	le ID	erID	Type	Date	Accred	z	z	5	<u></u>	z	z	z
Proje	Sample ID	Customer ID	Sample Type	Sampling Date	Units	pH units	m/m %	l/gm	mg/kg	%	%	1
					MDL	-	0,005	10	20	0.1	1.0	
					Method Code	WSLM50	TSBRE1	ICPWSS	ICPACIDS	CLANDPREP	CLANDPREP	CLANDPREP
					Analysis	pH Units (BS1377)	Sulphur as S (BRE)	Water Soluble Sulphate as SO4	Acid Soluble Sulphate as SO4	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material





Project Name: D9008-19 M25 Jct 10

Project No: 20010203

Date Issued: 31/01/2020

Deviating Sample Re	port					e,			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010203

Date Issued: 31/01/2020

#### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010216

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 4

Date Received: 22/01/2020

Analysis Date:31/01/2020

Date Issued: 31/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010216

Date Issued: 31/01/2020

### **Samples Analysed**

Sample Reference	Text ID	Sample Date	Sample Type
1-748 1.70 D103 SL 1.70	20010216-001		SOLID
1-748 2.00 D105 SL 2.00	20010216-002		SOLID
1-748 6.20-6.65 D118 SL 6.20	20010216-003		SOLID
1-748 9.50-9.95 D130 SL 9.50	20010216-004		SOLID





Project Name: D9008-19 M25 Jct 10

Project No: 20010216 Date Issued: 31/01/2020

# Analysis Results

Method Code	Alialy sis ivesuits			CItogica				
Sample Type  Acade  Method Code  Mol.  Vestaria  Newtod Code  Mol.  Vestaria  No.033  No.				a la		2001	0216	
Sample Type   Sample Type Type Type Type Type Type Type Typ				Sample ID	100	002	003	004
Sampling Date   Sampling Dat				Customer ID	1-748 1.70 D103 SL 1.70	1-748 2.00 D105 SL 2.00	1-748 6.20-6.65 D118 SL 6	1-748 9.50-9.95 D130 SL 9
Molto Code   MDL   Units Accred   MDL   Units Accred   MDL   Units Accred   MDL   MDH				Sample Type	SOLID	SOLID	SOLID	SOLID
Method Code         MDL         Units         Accred				Sampling Date				
WSLM50         1         pH units         N         5.3         4.0           TSBRE1         0.005         % m/m         N         0.033         0.117           ORGMAT         0.2         % m/m         N         72         0.17           ICPACIDS         20         mg/kg         U         72         271           ICPACIDS         20         mg/kg         U         332         1140           CLANDPREP         0.1         %         N         8         7.7         18.5           CLANDPREP         0.1         %         N         332         7.7         18.5           CLANDPREP         0.1         %         N         8         7.7         18.5		Method Code	MDL					
TSBRE1         0,005         % m/m         N         0,033         0,117         0,117           ORGMAT         0,2         % m/m         N         72         0,8         77           ICPACIDS         20         mg/kg         U         72         1140           CLANDPREP         0,1         %         N         8         1140           CLANDPREP         0,1         %         N         13.5         7.7         18.5           CLANDPREP         0,1         %         N         5.77         18.5         18.5           CLANDPREP         -         N         SAND         SAND         SAND	pH Units (BS1377)	WSLM50	-				4.0	3.7
ORGMAT         0.2         % m/m         N         N         0.8         T2         T2         T140         T140 <td>Sulphur as S (BRE)</td> <td>TSBRE1</td> <td>0,005</td> <td></td> <td></td> <td></td> <td>0.117</td> <td>0.370</td>	Sulphur as S (BRE)	TSBRE1	0,005				0.117	0.370
ICPACIDS         20         mg/kg         U         72         271         1440           CLANDPREP         0.1         %         N         8         7.7         18.5           CLANDPREP         0.1         %         N         13.5         7.7         18.5           CLANDPREP         -         N         SAND         SAND         SAND	Organic Matter	ORGMAT	0.2			0.8		
ICPACIDS         20         mg/kg         U         332         1140           CLANDPREP         0,1         %         N         8         <0.1         <0.1           CLANDPREP         0,1         %         N         13.5         7.7         18.5           CLANDPREP         -         N         SAND         SAND         SAND	Water Soluble Sulphate as SO4	ICPWSS	10				271	803
CLANDPREP         0.1         %         N         8         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1	Acid Soluble Sulphate as SO4	ICPACIDS	20				1140	3210
CLANDPREP         0.1         %         N         13.5         7.7         18.5           CLANDPREP         -         N         SAND         SAND         SAND	%Dry Matter Under 2mm	CLANDPREP	0.1				<0.1	<0.1
CLANDPREP SAND SAND SAND	otal Moisture at 35°C	CLANDPREP	0.1			7.7	18.5	16.0
	ription of Solid Material	CLANDPREP		1		SAND	SAND	CLAY





Project Name: D9008-19 M25 Jct 10

Project No: 20010216

Date Issued: 31/01/2020

Deviating Sample Re	<u>eport</u>					φ			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
ORGMAT	INORGANIC	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010216

Date Issued: 31/01/2020

#### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010217

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Report Number: 20010217

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received:22/01/2020

Analysis Date: 29/01/2020

Date Issued: 29/01/2020

Job Status: Complete

Account Manager

Katherine Smith

01283 204384

Authorised by the Operations Manager Becky Batham



Project Name: D9008-19 M25 Jct 10

Project No: 20010217

Date Issued: 29/01/2020

### **Samples Analysed**

Sample Reference 1-206 1.40 D11 SL 1.40 Text ID 20010217-001 Sample Date

Sample Type

SOLID



Project Name: D9008-19 M25 Jct 10

Project No: 20010217 Date Issued: 29/01/2020

# **Analysis Results**

20010217	001	1-206 1.40 D11 SL 1.40	SOLID			0.2	10.6	SAND
<u>_</u>	<u>_</u>	은	ype	ate	Accred	z	z	z
Project ID	Sample ID	Customer ID	Sample Type	Sampling Date	Units	m/m %	%	1
					MDL	0.2	0.1	
					Method Code	ORGMAT	CLANDPREP	CLANDPREP
					Analysis	Organic Matter	Total Moisture at 35°C	Description of Solid Material



Project Name: D9008-19 M25 Jct 10

Project No: 20010217

Date Issued: 29/01/2020

Deviating Sample Rep		Donorted Nove	Incorrect Container	correct Label	Headspace	correct/No Preservative	o Sampling Date	Holding Time	Handling Time
Sample Reference	Text ID	Reported Name	<u>n</u>	Incori	Ĥ	<u>n</u>	Š	운	На

Analysis Basis		
<u>Analysis</u>	Analysis Type	Analysis Basis
CLANDPREP	PHYS	As Received
ORGMAT	INORGANIC	Air Dried & Ground



Project Name: D9008-19 M25 Jct 10

Project No: 20010217

Date Issued: 29/01/2020

#### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**



Environmental Chemistry SOCOTEC UK Ashby Rd, Bretby, Burton-on-Trent, UK DE15 0YZ

# Certificate of Analysis

Project No: 20010276

Client: SOCOTEC Geotechnical

Quote Number: BEC19114872

Project Reference: SOCOTEC UK Wokingham

Site Name: D9008-19 M25 Jct 10

Contact: William Riggs

Address: Glossop House

Hogwood Lane Industrial Estate

Finchampstead Wokingham

Post Code: RG40 4QW

E-Mail: william.riggs@socotec.com

Phone No: 01183 040379

Number of Samples Received: 1

Date Received: 27/01/2020

Analysis Date: 05/02/2020

Date Issued: 05/02/2020

Job Status: Complete

Account Manager

J. Hannoch

Jacqui Hannah

Authorised by the Operations Manager Becky Batham

Page 1 of 5



Project Name: D9008-19 M25 Jct 10

Project No: 20010276

Date Issued: 05/02/2020

### **Samples Analysed**

Sample Reference 1-208 D137 Text ID 20010276-001 Sample Date

Sample Type SOLID







Project Name: D9008-19 M25 Jct 10

Project No: 20010276 Date Issued: 05/02/2020

# Analysis Results

					_							
20010276	100	1-208 D137	SOLID			6.4	0.509	149	513	<0.1	23.7	CLAY
□	۵	<u> </u>	e e	ate	Accred	z	z	_	ם	z	z	z
Project ID	Sample ID	Customer ID	Sample Type	Sampling Date	Units Ac	pH units	m/m %	l/gm	mg/kg	%	%	ı
					MDL	-	0.005	10	20	0.1	0.1	
					Method Code	WSLM50	TSBRE1	ICPWSS	ICPACIDS	CLANDPREP	CLANDPREP	CLANDPREP
					Analysis	pH Units (BS1377)	Sulphur as S (BRE)	Water Soluble Sulphate as SO4	Acid Soluble Sulphate as SO4	%Dry Matter Under 2mm	Total Moisture at 35°C	Description of Solid Material





Project Name: D9008-19 M25 Jct 10

Project No: 20010276

Date Issued: 05/02/2020

Deviating Sample Re	port					e e			
Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time

Analysis Basis			
<u>Analysis</u>	Analysis Type	Analysis Basis	
CLANDPREP	PHYS	As Received	
ICPACIDS	METALS	Air Dried & Ground	
ICPWSS	METALS	Air Dried & Ground	
TSBRE1	INORGANIC	Air Dried & Ground	
WSLM50	INORGANIC	Air Dried & Ground	



Project Name: D9008-19 M25 Jct 10

Project No: 20010276

Date Issued: 05/02/2020

#### **Additional Information**

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

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units 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 and with approval from the laboratory.

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

Any samples 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 ‡ have had MCERTS accreditation removed for this result

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

# **End of Certificate of Analysis**

# TEST REPORT



Report No. EXR/293207 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 26-Oct-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 30-Dec-2019

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 30-Dec-2019

														Sample Analysis		30-Dec-2019	EXR/293207	-	
														Sample		Date Printed	Report Number	Table Number	
																		MZS JCL 10	
/ pH units		Yes		4.4										SOCOTEC UK Wokingham	William Riggs			D3000-13 IN 53	
l/gm  /gm		Yes Yes		57 2.1											Willia				
l/gm	CPWATVAR	m 2	Total Sulphur as SO4 (Diss) BS1377	64										Client Name	Contact				
Units:	hod Codes:	Reporting Limits: UKAS Accredited:	Sample Date	23-Oct-19															
Units:	Met	Method Kepor UKAS	Client Sample Description	1-341 W 45 14.00										SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number EX/	2012841															

# Analytical and Deviating Sample Overview SOCOTEC UK Ltd Environmental Chemistry

SOCOTEC UK Wokingham Customer

Sample Analysis

D9008-19 M25 Jct 10 W293207 Report No

Consignment No W162575 Date Logged 26-Oct-2019

In-House Report Due 03-Jan-2019

	ú
	⋛
٠	ö
	þ
	₹
	Ξ
	ž
	á
	.≥
	Ξ
	2
	ē
	Ξ
	2
	ā
	an F
	Č
	Ť
	=
	ď
	×
	4
	2
	5
	٥
	ž
	v
	_
	<
	π
	2
	₹
	_
	ă
	Ε
	Ξ
	ڄ
	Ĕ
	S
	S
	σ
	H
	2
	٩
	ŭ
	ï
	Ž
	Subco
٠	9
	7
	2
	æ
	5
1	4
	ž
	E
	نة
	a
	جّ
	đ
	Ĕ
	ĭ
	بە
	Pase
	<u>a</u>

WSLM3	pH units	>	В
	Nitrate as N (Kone calc)	>	Е
KONENS	Chloride as Cl (Kone)	>	Ш
	Magnesium as Mg (Dissolved) VAR	>	Е
<b>I</b> CPWATVAR	Total Sulphur as SO4 (Diss) BS1377		Е
CUSTSERV	Report A		
MethodID	Sampled		23/10/19
	Matrix Type	Test Method Accredited to ISO17025	Groundwater
	Description	Test Method	1-341 14.00
	ID Number		EX/2012841

Deviating Sample Key  A The sample was received in an inappropriate B The sample was received without the correct C Headspace present in the sample container	ing Sample Key  The sample was received in an inappropriate container for this analysis  The sample was received without the correct preservation for this analysis  Headspace present in the sample container
---	--

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

accredited. Please contact us as soon as possible to provide missing information in order to

einstate accreditation.

sampling dates are missing or matrices unclassified then results will not be ISO 17025

lowever any delay could result in samples becoming deviant whilst being processed in the

aboratory.

ote: We will endeavour to prioritise samples to complete analysis within holding time;

Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Subcontracted - Note: due date may vary Analysis Required

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

EXR/293207 Ver. 2

Report Number: W/EXR/293207

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description									
		Basis										
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES									
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis									
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe									

# **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EXR/293207 Ver. 2

### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: W29\_3207

Lab ID Number	Client ID	Description
EX/2012841	1-341 W 45 14.00	Groundwater
	1	

Appendix A Page 1 of 1 30/12/2019EXR/293207 Ver. 2

# **TEST REPORT**

Report No. EXR/293326 (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 29-Oct-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 30-Dec-2019

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 30-Dec-2019

															T						
F																					
															$\dagger$			30-Dec-2019	EXR/293326	-	
-																sis		30-De	EXR/2		
																Analy					
-														+		Sample Analysis			)er	ř	
																(f)		Date Printed	Report Number	Table Number	
-													+	+	+		_	Dat	Rep	Tab	
															-						
													$\downarrow \downarrow$	+							
L																			M25 Jct 10		3 JCL 10
																am					
																Vokingh					
oH units	WSLM3		pH units w	5.1												SOCOTEC UK Wokingham	ggs		000	D3008-13	
_	KONENS	-	Nitrate as N	4.0												SOCOT	William Riggs		ב	ב	
l/om	KONENS	-	Chloride as CI w	51												ame					
l/bu	ICPWATVAR	က	Total Sulphur as SO4 (Diss) BS1377	09												Client Name	Contact				
I Inits .	od Codes :	ng Limits :	Sample Date	25-Oct-19																	
	Method Codes: IG	Method Reportin	Client Sample Description	1-333 W 42 11.50												SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number EX/	2013275												- •					

# Analytical and Deviating Sample Overview SOCOTEC UK Ltd Environmental Chemistry

SOCOTEC UK Wokingham D9008-19 M25 Jct 10 Customer

Report No

Sample Analysis

Consignment No W162698 Date Logged 29-Oct-2019

In-House Report Due 03-Jan-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. W293326

WSLM3	pH units	>	ш
	Nitrate as N (Kone calc)	>	ш
KONENS	Chloride as Cl (Kone)	>	ш
	Magnesium as Mg (Dissolved) VAR	>	ш
ICPWATVAR	Total Sulphur as SO4 (Diss) BS1377		ш
CUSTSERV	Report A		
MethodID	Sampled		25/10/19
	Matrix Type	Test Method Accredited to ISO17025	Unclassified
	Description	Test Method	1-333 11.50
	ID Number		EX/2013275

Deviating Sample Key	The sample was received in an inappropriate container for this analysis	The sample was received without the correct preservation for this analysis	Headspace present in the sample container	The sampling date was not supplied so holding time may be compromised - applica	Sample processing did not commence within the appropriate holding time
Deviatin	A Th	B	C He	ص Th	ESa

able to all analysis

F Sample processing did not commence within the appropriate handling time Requested Analysis Key Analysis Required

accredited. Please contact us as soon as possible to provide missing information in order to

einstate accreditation.

sampling dates are missing or matrices unclassified then results will not be ISO 17025

lowever any delay could result in samples becoming deviant whilst being processed in the

aboratory.

ote: We will endeavour to prioritise samples to complete analysis within holding time;

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

EXR/293326 Ver. 2

Page 3 of 5

Report Number: W/EXR/293326

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

NAIIS No Asbestos Identified in Sample NADIS No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EXR/293326 Ver. 2

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: W29\_3326

Lab ID Number	Client ID	Description
EX/2013275	1-333 W 42 11.50	Unclassified
LX/2013273	1-333 VV 42 11.30	Ongassined

Appendix A Page 1 of 1 30/12/2019EXR/293326 Ver. 2

#### **TEST REPORT**

Report No. EXR/294690 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 3 samples described in this report were registered for analysis by SOCOTEC UK Limited on 20-Nov-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 23-Dec-2019

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected. SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 23-Dec-2019

23-Dec-2019 EXR/294690

													Sample Analysis		23	EX		
													Samp		Date Printed	Report Number	Table Number	
pH units		pH units (BS1377) w	4.8	4.6									kingham				D9008-19 IMZ5 JCt 10	
mg/l	0.2	Nitrate as N	3 <0.2	<0.2									SOCOTEC UK Wokingham	William Riggs				
mg/l mg/l mg/l		Chloride as CI w  Total Sulphur as SO4 (Dissolved) a	84 48	25 93									<b>Φ</b>					
mg/l	1	Magnesium as Mg (Dissolved) a	7	10									Client Nam	Contact				
Units:	Method Reporting Limits:	Sample Date	12-Nov-19	13-Nov-19 12:50														
	Method R	Client Sample Description	1-206 W 33 7.50	1-206 W 40 12.50									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
		LAB ID Number EX/	2018892	2018893											м	ш		

# Analytical and Deviating Sample Overview SOCOTEC UK Ltd Environmental Chemistry

SOCOTEC UK Wokingham D9008-19 M25 Jct 10 W294690 Report No Customer

Sample Analysis

Date Logged 20-Nov-2019 Consignment No W163761

In-House Report Due 06-Jan-2020

Please note the results for any subcontracted analysis (identified with a '^) is likely to take up to an additional five working days.

WSLM56	pH units (BS1377)		臣	EF	
	Nitrate as N (Kone calc)	>	Ш	Е	
KONENS	Chloride as Cl (Kone)	>	ш	Е	
	Magnesium as Mg (Dissolved) VAR	>	ш	Ш	
ICPWATVAR	Total Sulphur as SO4 (Diss) VAR	>	Ш	Е	
CUSTSERV	Report A				
MethodID	Sampled		12/11/19	13/11/19	13/11/19
	Matrix Type		Unclassified	Unclassified	Unclassified
	Description		1-206 7.50	1-206 12.50	1-203
	ID Number		EX/2018892	EX/2018893	EX/2018894

Devi	Deviating Sample Key
⋖	The sample was received in an inappropriate container for this analysis
Ш	The sample was received without the correct preservation for this analysis
ပ	Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

accredited. Please contact us as soon as possible to provide missing information in order to

einstate accreditation.

sampling dates are missing or matrices unclassified then results will not be ISO 17025

lowever any delay could result in samples becoming deviant whilst being processed in the

aboratory.

ote: We will endeavour to prioritise samples to complete analysis within holding time;

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Subcontracted - Note: due date may vary

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

EXR/294690 Ver. 1

Report Number: W/EXR/294690

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	WSLM56	As Received	Determination of the pH of water samples by pH probe

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EXR/294690 Ver. 1

#### Sample Descriptions

Client: SOCOTEC UK Wokingham
Site: D9008-19 M25 Jct 10

Report Number: W29\_4690

Lab ID Number	Client ID	Description
		Description
EX/2018892	1-206 W 33 7.50	Unclassified Unclassified
EX/2018893	1-206 W 40 12.50	Unclassified
EX/2018894	1-203 W	Unclassified

Appendix A Page 1 of 1 23/12/2019EXR/294690 Ver. 1

#### **TEST REPORT**

Report No. EXR/296293 (Ver. 1)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 11-Dec-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 19-Dec-2019

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Analytical and Deviating Sample Overview (Page 3)
Table of Method Descriptions (Page 4)
Table of Report Notes (Page 5)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim

Becky Batham

Operations Manager Energy & Waste Services

Tests marked '^' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

Date of Issue: 19-Dec-2019

	Units :	l/gm	pH units													
	Method Codes:	ICPWATVAR	WSLM3													
	Method Reporting Limits:	m														
									+	$\dagger$		$\dagger$				
LAB ID Number EX/	Client Sample Description	Total Sulphur as SO4 (Dissolved) a	pH units w													
2025647	7 1-254 W 29 6.00	89	5.9													
								-								
	SOCOTEC	Client Name	ame	SOCOT	EC UK W	SOCOTEC UK Wokingham	٤					Samp	Sample Analysis	ysis		
		Contact		William Riggs	ggs											
	Bretby Business Park, Ashby Road										Date Printed	þ€		19-D	19-Dec-2019	
	Burton-on-Trent, Staffordshire, DE15 0YZ			כ	70000 10		M25 10+ 10	_			Report Number	mber		EXR/	EXR/296293	
	Tel +44 (0) 1283 554400			ב	-000		- 100	<b>.</b>		•	<b>Table Number</b>	per			1	
	Fax +44 (0) 1283 554422															

# Analytical and Deviating Sample Overview **SOCOTEC UK Ltd Environmental Chemistry**

SOCOTEC UK Wokingham D9008-19 M25 Jct 10 W296293 Report No Customer

Sample Analysis

Consignment No W165093 Date Logged 11-Dec-2019

In-House Report Due 20-Dec-2019

	v	
	⋛	
-	č	3
	b	,
	2	
	ş	
	ĉ	
	₹	
	a	1
	≥	
٩	F	
1	π	3
	۶	
	۲	
Ė	Ξ	3
	č	3
	π	3
	2	
	π	3
	9	֡
ľ	7	
	È	3
	a	j
	Ÿ	
	7	
	ċ	)
٠	f	
	2	
	9	
3	Ξ	
	v	1
Ĵ	Ξ	
3	≷	
•		
	ï	
3	È	
	₹	
	7	7
	ă	į
Š	Ε	
	Ę	
	ā	j
Ī	ζ	3
	2	
	OL SISSIE	
	on siskled	
	מואופעבין	
	און אואארעה סכ	
	אוי אואובעב הסדי	
	PI SISVIEUR DALLE	
	לון אואואוארא הפליגיו	
	בוז אואות הסלימיזה	
	nontracted analysis (Id	
	prontracted analysis (id	
	Throntrarted analysis (1d	
	/ SII DOODTENCTED ANALYSIS (ID	
	ny siihrontracted analysis lid	
	DI SINCELE DELICATION SINCE	
	בון אואובמב הפלהבתלתההלווף אמב זכ	
	לון אואומת הפליצילהסטלווא אחב זכל	
	to the any clibentracted analysis (id	
	ille for any elibrontracted analysis (id	
	scilles for any subcontracted analysis (id	
	results for any subcontracted analysis (id	
	e recults for any subcontracted analysis (id	
	the recults for any subcontracted analysis (id	
	e the recults for any subcontracted analysis (id	
	the the results for any subcontracted analysis (id	
	note the results for any subcontracted analysis (id	
	s note the recults for any subcontracted analysis (id	
	see note the results for any subcontracted analysis (id	
	pase note the results for any subcontracted analysis (id	
	Please note the results for any subcontracted analysis (id	

WSLM3	pH units	>	۵
ICPWATVAR	Total Sulphur as SO4 (Diss) VAR	>	۵
CUSTSERV	Report A		۵
MethodID	Sampled		D
	Matrix Type		Unclassified
	Description		1-254 6.00
	ID Number		EX/2025647

Deviating Sample Key lowever any delay could result in samples becoming deviant whilst being processed in the ote: We will endeavour to prioritise samples to complete analysis within holding time;

aboratory.

accredited. Please contact us as soon as possible to provide missing information in order to sampling dates are missing or matrices unclassified then results will not be ISO 17025 einstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time The sample was received without the correct preservation for this analysis Sample processing did not commence within the appropriate holding time The sample was received in an inappropriate container for this analysis Headspace present in the sample container Requested Analysis Key

Analysis dependant upon trigger result - Note: due date may be affected if triggered No analysis scheduled Analysis Subcontracted - Note: due date may vary Analysis Required

The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Where individual results are flagged see report notes for status.

EXR/296293 Ver. 1

Report Number: W/EXR/296293

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise.

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Page 5 of 5 EXR/296293 Ver. 1

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: W29\_6293

Lab ID Number	Client ID	Description
EX/2025647	1-254 W 29 6.00	Unclassified

Appendix A Page 1 of 1 19/12/2019EXR/296293 Ver. 1



### APPENDIX F GEOENVIRONMENTAL LABORATORY TEST RESULTS

Test Report - Soil

EFS/199273. EFS/199373. EFS/199374. EFS/199445 EFS/199626, EFS/199627, EFS/199790, EFS/199791 EFS/199792, EFS/199793, EFS/199794, EFS/200030 EFS/200031, EFS/200133, EFS/200134, EFS/200180 EFS/200183, EFS/200184, EFS/200288, EFS/200295 EFS/200348, EFS/200349, EFS/200350, EFS/200505 EFS/200506, EFS/200507, EFS/200634, EFS/200687 EFS/200688, EFS/200689, EFS/200690, EFS/200691 EFS/200692, EFS/200752, EFS/200785, EFS/200786 EFS/200787, EFS/200810, EFS/200811, EFS/200844 EFS/200845, EFS/200938, EFS/200940, EFS/200941 EFS/201075, EFS/201108, EFS/201258, EFS/201259 EFS/201260, EFS/201261, EFS/201262, EFS/201418 EFS/201419, EFS/201420, EFS/201450, EFS/201489 EFS/201596, EFS/201597, EFS/201623, EFS/201625 EFS/201626, EFS/201629, EFS/201659, EFS/201660 EFS/201774, EFS/201775, EFS/201776, EFS/201982 EFS/201983, EFS/201984, EFS/201985, EFS/201986 EFS/202025, EFS/202026, EFS/202027, EFS/202204 EFS/202205, EFS/202350, EFS/202351, EFS/202461 EFS/202513, EFS/202596, EFS/202602, EFS/202755 EFS/202756, EFS/202796, EFS/202893, EFS/202894 EFS/203140, EFS/203141, EFS/203142, EFS/203143 EFS/203144, EFS/203152, EFS/203270, EFS/203276 EFS/203310, EFS/203311, EFS/203501, EFS/203634 EFS/203635, EFS/203636, EFS/203686, EFS/203687 EFS/203814, EFS/203877, EFS/203878, EFS/204046 EFS/204047, EFS/204048, EFS/204055, EFS/204247 EFS/204251, EFS/204252, EFS/204292, EFS/204317 EFS/204318, EFS/204752, EFS/204753, EFS/205125 EFS/205126, EFS/205127, EFS/205128, EFS/205268 EFS/205269, EFS/205447, EFS/205451



## APPENDIX F GEOENVIRONMENTAL LABORATORY TEST RESULTS (CONTINUED)

Test Report – Leachate

```
EXR/284831, EXR/284898, EXR/285267, EXR/285268
EXR/285579, EXR/285580, EXR/285583, EXR/286079
EXR/286260, EXR/286419, EXR/286731, EXR/286861
EXR/286864, EXR/286938, EXR/287161, EXR/287311
EXR/287314, EXR/287608, EXR/287609, EXR/287700
EXR/287705, EXR/287709, EXR/287714, EXR/287718
EXR/287871, EXR/287983, EXR/288014, EXR/288016
EXR/288094, EXR/288096, EXR/288288, EXR/288295
EXR/288300, EXR/288582, EXR/288908, EXR/288910
EXR/288912, EXR/288913, EXR/289297, EXR/289298
EXR/289362. EXR/289476. EXR/289686. EXR/289692
EXR/289760, EXR/289770, EXR/289776, EXR/289799
EXR/289856, EXR/289859, EXR/290195, EXR/290201
EXR/290204, EXR/290687, EXR/290688, EXR/290689
EXR/290690, EXR/290803, EXR/290804, EXR/290808
EXR/291187, EXR/291190, EXR/291496, EXR/291819
EXR/292146, EXR/292464, EXR/292465, EXR/292773
EXR/292776, EXR/293353, EXR/293362, EXR/293368
EXR/293733, EXR/293833, EXR/294329, EXR/294693
EXR/294696, EXR/294847, EXR/295168, EXR/295305
EXR/295740, EXR/296388, EXR/296532, EXR/296583
EXR/296586, EXR/297989, EXR/299090, EXR/299094
EXR/299096, EXR/299508, EXR/300117, EXR/300132
```

Test Report - Water

EXR/294045, EXR/294907, EXR/295124, EXR/295482 EXR/301247, EXR/301599

#### **TEST REPORT**



Date of Issue: 30-Apr-2020



#### Report No. EFS/199273M (Ver. 2)

SOCOTEC UK Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 28-May-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 30-Apr-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 6)
Analytical and Deviating Sample Overview (Pages 7 to 8)
Table of Method Descriptions (Page 9)
Table of Report Notes (Page 10)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham

Operations Manager Energy & Waste Services

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked '^' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples) SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

mg/kg GROHSA	0.2	Z.O	GRO (C6-C7)	<0.260	<0.270													
mg/kg GROHSA	-		GRO (C6-C7 Aliphatic)	<0.260	<0.270													
mg/kg GROHSA	+-	MI	GRO (C5-C6 Aliphatic)	<0.260	<0.270										30-Apr-2020	EFS/199273M	-	
mg/kg GROHSA	+	Z.O	GRO (>C8 - C10)	<0.260	<0.270								lysis		30-	EFS		
mg/kg GROHSA	0.2	Z.O	GRO (>C7 - C8)	<0.260	<0.270								Sample Analysis					
mg/kg GROHSA	0.2	Z MI	GRO (>C5 - C6)	<0.260	<0.270								Samp		nted	umber	mber	
mg/kg GROHSA	0.2	Z.O	GRO	<0.260	<0.270										Date Printed	Report Number	Table Number	
% M/M FOCS	0.04	Z	S.O.M. % (Calc)	1.34	1.05													
FOCCALC			F.O.C.	0.0078	0,0061													
hg/kg BTEXHSA	30	S N	Xylenes	<39.0	<40.5											7	2	
µg/kg BTEXHSA			Toluene	<13.0	<13.5								E			MOE IC+ 10	200	
µg/kg BTEXHSA	10	Σ N		<13.0	<13.5								SOCOTEC UK Wokingham					
µg/kg BTEXHSA	20	MI)	m/p Xylenes	<26.0	<27.0								TEC UK V	iggs		90000	-000	
µg/kg BTEXHSA	10	2 2		<13.0	<13.5								Socol	William Riggs		ב	دٌ	
µg/kg BTEXHSA	10	2 E	Benzene	<13.0	<13.5								ame					
mg/kg AMMAR			Exchange.Ammonium AR	6.0	1.3								Client Name	Contact				
Units:	ina Limits :	Accreditation Code:	Sample Date	21-May-19	21-May-19													
Meth	Method Reporting Limits:	Accredit	Client Sample Descri	1-528 ES 2 0.50									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1960696	1960697													

mg/kg ICPSOIL	0.1	M	Beryllium.	0.31	40 <u>.</u> 1	- 0,													
$\vdash$	0.5	+	Barium.	12	12,4	<b>4</b> .7.													
mg/kg ICPMSS	16	M∩	Zinc (MS)	16.8	<16.0	0.00										30-Apr-2020	EFS/199273M	-	
mg/kg ICPMSS	9.0	z	Vanadium (MS)	27.6	33.6	0.00								lysis		30	EFS		
mg/kg ICPMSS	0.5	Wn	Selenium (MS)	<0.5	<0.5	6.0>								Sample Analysis					
mg/kg ICPMSS	2	ΨŊ	Nickel (MS)	2.8	2.6	7.0								Samp		nted	umber	mber	
mg/kg ICPMSS	0.5	MN	Mercury (MS)	<0.5	<0.5	G.0.										Date Printed	Report Number	Table Number	
mg/kg ICPMSS	0.7	Wn	Lead (MS)	5.6	5,3	6.5													
mg/kg ICPMSS	16	W <sub>D</sub>	Copper (MS)	8	4.8	0.													
mg/kg ICPMSS	1.2	M∩	Chromium (MS)	16.4	18	<u>o</u>											<b>C T</b>	2	
mg/kg ICPMSS	0.2	Wn	Cadmium (MS)	<0.2	<0.2	7.07								<u> </u>			104	N 23 JOE 110	
mg/kg ICPMSS	0.3	M	Arsenic (MS)	4.3	8,8	0.0								Vokingham					
mg/kg ICPBOR			Boron (H20 Soluble)	9'0	9.0	0.0								SOCOTEC UK Woki	iggs		, 0000	D3000-13	
mg/kg ICPACIDS	20	M	SO4 (acid sol)	105	202	707								Soco	William Riggs		ב	č	
mg/kg GROHSA	-			<0.260	<0,270	0/2.0>								ame					
mg/kg GROHSA	0.2	M	GRO (C7-C8 Aliphatic)	<0.260	<0.270	0/2.0								Client Name	Contact				
Units : od Codes :	ing Limits:	Accreditation Code:	Sample Date	21-May-19	21-May-19	EI-IMIA)-IS													
Meth	Method Reporting Limits:	Accredit	Client Sample Description	1-528 ES 2 0,50	1-529 ES 4 0,70	-528 E54 0.70								SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1960696	1960697	/800081													

<u>र</u>						T	Τ	Τ	T	Т	П										_		$\neg$
mg/kg PAHMSL	0.08	MN	Phenanthrene	<0.10	<0.11	5																	
<b> </b>	0.08	MN	Naphthalene	<0.10	<0.11	5																	
<b> </b>	0.08	MU	Indeno(123-cd)pyrene	<0.10	<0.11	5														30-Apr-2020	EFS/199273M	-	
mg/kg PAHMSUS	0.08	MU	Fluorene	<0.10	<0.11	5												llysis		30	EF		
<b> </b>	0.08	MU	Fluoranthene	<0.10	<0.11	5												Sample Analysis					
<b> </b>	0.08	MU	Dibenzo(ah)anthracene	<0.10	<0.11	5												Sam		nted	lumber	nmper	
<u>-</u>  4	0.08	Μn	Chrysene	<0.10	<0.11	5														Date Printed	Report Number	Table Number	
mg/kg PAHMSUS	0.08	MU	Benzo(k)fluoranthene	<0.10	<0.11	5																	
<b> </b>	0.08	ΜΩ	Benzo(ghi)perylene	<0.10	<0.11	5																	
<u> </u>	0.08	MN	Benzo(b)fluoranthene	<0.10	<0.11	5															<b>7</b>	2	
ا∠ا≼ا	0.08	MU	Benzo(a)pyrene	<0.10	<0.11	5												E			101	MZS JCL IO	
mg/kg PAHMSUS	0.08	MU	Benzo(a)anthracene	<0.10	<0.11	5												Vokingham					
mg/kg mg/kg PAHMSUS PAHMSUS	0.08	Π	Anthracene	<0.10	<0.11	5												SOCOTEC UK Woki	iggs		, 0000	D3000-13	
mg/kg PAHMSUS	0.08	n	Acenaphthylene	<0.10	<0.11	5												Socol	William Riggs		ב	ž	
mg/kg PAHMSUS	0.08	MU	Acenaphthene	<0.10	<0.11	5												ame					
mg/kg KONECR	0.1	z	Chromium vi:	0.1	<0.1	5												Client Name	Contact				
Units : od Codes :	ing Limits:	Accreditation Code:	Sample Date	21-May-19	21-May-19																		
Units : Method Codes :	Method Reporti	Accredite	Client Sample Description	1-528 ES 2 0.50	1-529 ES 4 0.70													SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1960696	1960697																		

mg/kg TPHUSSI	4	+	TPH Aro Band >C12-C16	6.70	7.57			
mg/kg TPHUSSI	+	+ ⊃	TPH Aro Band >C10-C12	<5.19	<5.40			
mg/kg TPHUSSI	20	07 )	TPH Ali Band >C8-C40	<26.0	<27.0			30-Apr-2020 EFS/199273M
mg/kg TPHUSSI	4	+ O	TPH Ali Band >C8-C10	<5.19	<5.40		llysis	3C EFS
mg/kg TPHUSSI	8 75	? n	TPH Ali Band >C21-C35	<11.38	<11,82		Sample Analysis	
mg/kg TPHUSSI	4	+ ⊃	TPH Ali Band >C16-C21	<5.19	<5.40		Sam	nted Iumber Imber
mg/kg TPHUSSI	4	+ ⊃	TPH Ali Band >C12-C16	<5.19	<5.40			Date Printed Report Number Table Number
mg/kg TPHUSSI	4	+ ⊃	TPH Ali Band >C10-C12	<5.19	<5.40			
% LWSS	10	;  -	Tot.Moisture @ 105C	23.0	25.9			
mg/kg SFAS	0.5	3 z	Sulphide as S (AR)	9.0>	0.7			10
mg/kg SFAPI	0.5	3 >	Phenol Index.(AR)	9 <b>'</b> 0>	<0.7		E E	M25 Jct 10
mg/kg SFAPI	0.5	S M	Cyanide(Total) (AR)	9'0>	<0.7		Vokingham	
mg/kg SFAPI	0.5	S M	Cyanide(Free) (AR)	9"0>	<0.7		SOCOTEC UK Woki	D9008-19
pH Units		Σ	pH units (AR)	5	4.7		SOCOTEC William Riggs	ò
mg/kg PAHMSUS	1 28		Total PAH (Sum of USEPA 16)	<1.66	<1,73		ame	
mg/kg PAHMSUS	0.08		Pyrene	<0.10	<0.11		Client Name Contact	
Units:	ing I imits .	d Reporting Limits . Accreditation Code:	Sample Date	21-May-19	21-May-19			
Units : Method Godes :	Method Reports	Accredit	Client Sample Description	1-528 ES 2 0,50	1-529 ES 4 0.70		SOCOTEC	Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422
			LAB ID Number CL/	1960696	1960697			

# S199273M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S85206

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S199273M

Report No

Date Logged 28-May-2019

In-House Report Due 06-Jun-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

	Cyanide(Total) (AR)	>		
SFAPI	Cyanide(Free) (AR)	>		
PHSOIL	pH units (AR)	>		
PAHMSUS	PAH (16) by GCMS	^		
MCertS	MCertS Analysis	^		
KONECR	Chromium vi:			
	Beryllium.	>		
ICPSOIL	Barium.	>		
	Zinc (MS)	>		
	Vanadium (MS)			
	Selenium (MS)	>		
	Nickel (MS)	>		
	Mercury (MS)	^		
	Lead (MS)	^		
	Copper (MS)	>		
	Chromium (MS)	^		
	Cadmium (MS)	>		
ICPMSS	Arsenic (MS)	^		
ICPBOR	Boron (H20 Soluble)	>		
ICPACIDS	SO4 (acid sol)	^		
GROHSA	GRO (AA) by HSA GC-FID	>		
FOCS	S.O.M. % (Calc)			
FOCCALC	F.O.C.	>		
CustServ	REPORT A			
AMMAR	Exchange.Ammonium AR	>		
MethodID	Sampled		21/02/19	21/02/19
	Description		1-528 0.50	1-529 0.70
	ID Number		CL/1960696	CL/1960697

Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis withi olding time; however any delay could result in samples becoming eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation,

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

EFS/199273M Ver. 2

Page 7 of 10 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

# S199273M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S85206

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer

Site

Please note

Sample Analysis

Date Logged 28-May-2019

Report No	S199273M In-House Report Due 06-Jun-2019
Please note the r	sellifs for any subcontracted analysis (identified with a '^\) is likely to take up to an additional five working days

WSLM59	Total Organic Carbon	^		
	TPH by GCFID (AR/Si)	1		
	TPH Aro Band >C8-C40	1		
	TPH Aro Band >C8-C10	^		
	TPH Aro Band >C21-C35	^		
	TPH Aro Band >C16-C21	^		
	TPH Aro Band >C12-C16	^		
	TPH Aro Band >C10-C12	/		
	TPH Ali Band >C8-C40	^		
	TPH Ali Band >C8-C10	/		
	TPH Ali Band >C21-C35	/		
	TPH Ali Band >C16-C21	/		
	TPH Ali Band >C12-C16	/		
TPHUSSI	TPH Ali Band >C10-C12	/		
TMSS	Tot.Moisture @ 105C	/		
SFAS	Sulphide as S (AR)			
SFAPI	Phenol Index.(AR)	/		
MethodID	Sampled		21/05/19	21/05/19
	Description		1-528 0.50	1-529 0.70
	ID Number		CL/1960696	CL/1960697

ote: We will endeavour to prioritise samples to complete analysis withi olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation,

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled Requested Analysis Key Analysis Required

EFS/199273M Ver. 2
Page 8 of 10 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Report Number: EFS/199273M

# **Method Descriptions**

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	AMMAR	As Received	Determination of Exchangeable Ammonium in Soil using potassium
			chloride extraction, discrete colorimetric detection
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes
			(BTEX) by Headspace GCFID
Soil	FOCS	Oven Dried	Calculation of Soil Organic Matter content from Organic Carbon
		@ < 35°C	content of soil samples
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried	Determination of Boron in soil samples by hot water extraction
		@ < 35°C	followed by ICPOES detection
Soil	ICPMSS	Oven Dried	Determination of Metals in Marine Sediments and Soil samples by
		@ < 35°C	aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried	Determination of Metals in soil samples by aqua regia digestion
		@ < 35°C	followed by ICPOES detection
Soil	KONECR	Oven Dried	Determination of Chromium vi in soil samples by water extraction
		@ < 35°C	followed by colorimetric detection
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by
			hexane/acetone extraction followed by GCMS detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using
			pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SFAS	As Received	Segmented flow analysis with colorimetric detection
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on
			oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection including quantitation of Aromatic and
			Aliphatic fractions.
Soil	WSLM59	Oven Dried	Determination of Organic Carbon in soil using sulphurous Acid
		@ < 35°C	digestion followed by high temperature combustion and IR
			detection

### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite
TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

#### Sample Descriptions

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: \$19\_9273

Note: major constituent in upper case

		Note: major constituent in upper case
Lab ID Number	Client ID	Description
CL/1960696	1-528 ES 2 0.50	Brown SILT
CL/1960697	1-529 ES 4 0.70	Brown SILT

#### **TEST REPORT**



Date of Issue: 26-Mar-2020



#### Report No. EFS/199373M (Ver. 2)

SOCOTEC UK Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 31-May-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 26-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 7)
Table of WAC Analysis Results (Page 8)
Analytical and Deviating Sample Overview (Pages 9 to 11)
Table of Method Descriptions (Pages 12 to 13)
Table of Report Notes (Page 14)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham

Operations Manager Energy & Waste Services

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked '^' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples) SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

mg/kg	COHSA	0.2	Μ	GRO (>C7 - C8)	<0,235	<0,233						
kg	HSA GF	2			H							
mg/kg	4 GRO	0.0	S	GRO (>C5 - C6)	<0,235			Т:	<u>.</u>	ΣĪ		$\dashv$
mg/kg	GROHS/	0.2	MΩ	GRO	<0,235	<0.233			26-Mar-2020	EFS/199373M	_	
WW %	Focs	0.04	z	S.O.M. % (Calc)	2,38	0,45	llysis		7	Ë		
	FOCCALC	0.0002	Ω	F.O.C.	0,0138	0,0026	Sample Analysis					
%	CEN Leachate		z	Fraction of sample above 4 mm %		0.0	Samp		ted	umber	mber	
%	CEN Leachate		z	Fraction of non-crushable material %		0.0			Date Printed	Report Number	Table Number	
µg/kg	BTEXHSA	30	MO	Xylenes	<35.3	<35.0						
µg/kg	BTEXHSA	10	M	Toluene	<11.8	<11.7						
µg/kg	BTEXHSA	10	MO	o Xylene	<11.8	<11.7				10	2	
µg/kg	BTEXHSA	20	⊃	МТВЕ	<23.5		E			M25 Ict 10	2	
hg/kg	BTEXHSA	20	MO	m/p Xylenes	<23,5	<23,3	/okingham					
µg/kg	BTEXHSA	10	MN	Ethyl Benzene	<11,8	<11,7	SOCOTEC UK Woki	288		D9008-19	- - - - - - - - - - - - - - - - - - -	
hg/kg	BTEXHSA	10	MU	Benzene	<11,8	<11,7	SOCOTEC			ב	í	
Mol/kg	ANC	0.04	z	Acid Neut. Capacity	<0.04		аше					
mg/kg	AMMAR	0.5	MU	Exchange.Ammonium AR	2.1	9'0>	Client Name	COLITACE				
Units:	od Codes :	g Limits :	Accreditation Code:	Sample Date	23-May-19	23-May-19						
Units:	Metho	Method Reportii	Accredita	Client Sample Description	1-524 ES 2 0.50	1-524 ES 4 1,00	SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	1961082	1961083						

mg/kg	0.5	S M	Selenium (MS)	<0.5	1 0												
mg/kg	+		Nickel (MS)	4.4	3 6												
mg/kg	+	S M	Mercury (MS)	<0.5	3 0 /									26-Mar-2020	EFS/199373M	7	
mg/kg	+	. M	Lead (MS)	11.3	2 4							lysis		79-	EFS/		
mg/kg	9	P. M	Copper (MS)	13	10.0							Sample Analysis					
mg/kg	1.2	M M	Chromium (MS)	17.3	0.60							Samp		ted	umber	mber	
mg/kg ICPMSS	0.2	NM N	Cadmium (MS)	<0.2	207									Date Printed	Report Number	Table Number	
mg/kg	0.3	S W	Arsenic (MS)	7	. 0												
mg/kg ICPROR	0.5	NN N	Boron (H20 Soluble)	9.0	90												
mg/kg	20 20	NM	SO4 (acid sol)	152	7.2										<b>7</b>	2	
mg/kg	0.2	NM N	GRO (C8-C10 Aliphatic)	<0,235	0000							ε			MOE Ict 10	ט ט ט	
mg/kg	0.2	NM N	GRO (C7-C8 Aliphatic)	<0,235	0000							SOCOTEC UK Wokingham					
mg/kg	0.2	NM N	GRO (C6-C7)	<0,235	70.022							EC UK W	iggs		01 90000	-000	
mg/kg	0.2	NM M	GRO (C6-C7 Aliphatic)	<0,235	70.023							SOCOT	William Riggs		ב	בֿ	
mg/kg	0.2	NM O	GRO (C5-C6 Aliphatic)	<0,235	/0 222							ame					
mg/kg	0.2	O.S.	GRO (>C8 - C10)	<0,235	/0 222							Client Name	Contact				
Units :	na Limits :	Accreditation Code:	Sample Date	23-May-19	22_May-10												
Metho	Method Reporting Limits	Accredita	Client Sample Description	1-524 ES 2 0,50	4 524 50 4 4 00							SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961082	1061002												

mg/kg PAHMSUS	0.08	z	Coronene	60'0>																
J mg		$\dashv$										_	+		-					
<u>                                    </u>	0'08	M	Chrysene	60'0>	<0.09															
<u>-</u>   &	0.08	M	Benzo(k)fluoranthene	60'0>	60'0>												26-Mar-2020	EFS/199373M	_	
<u> </u>		M	Benzo(ghi)perylene	60'0>	60'0>										alysis		2	EF		
	0.08	M	Benzo(b)fluoranthene	60'0>	60.0>										Sample Analysis					
<u> </u>	80.0	ΜΩ	Benzo(a)pyrene	60'0>	60'0>										Sam		nted	lumber	ımber	
PA	90.0	M	Benzo(a)anthracene	60'0>	60'0>												Date Printed	Report Number	Table Number	
	0.08	5	Anthracene	60'0>	60'0>															
<u> </u>	80.0	⊃	Acenaphthylene	60'0>	60'0>															
P	80.0	M	Acenaphthene	60'0>	60.0>													7	2	
101	0.2	z	L.O.I. % @ 450C	4.4											٤			101	1125 52W	
mg/kg KONECR	0.1	z	Chromium vi:	<0.1	<0.1										Vokingha					
mg/kg ICPSOIL	0.1	M	Beryllium.	0,25	0.27										SOCOTEC UK Wokingham	iggs		, 0000	00060	
mg/kg ICPSOIL	0.5	ΜΩ	Barium.	14,0	14,6										socol	William Riggs		2	č	
mg/kg ICPMSS	16	Μn	Zinc (MS)	19,8	<16,1										ame					
	9'0	z	Vanadium (MS)	24,3	27.9										Client Name	Contact				
Units : d Codes :	g Limits:	ion Code:	Sample Date	23-May-19	23-May-19															
Units : Method Codes :	Method Reportin	Accreditation Code:	Client Sample Description	1-524 ES 2 0.50	1-524 ES 4 1.00										SOCOTEC (		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
		-	LAB ID Number CL/	1961082	1961083												8	· ·		

pH Units PHSOIL		MU	pH units (AR)	5	5														
µg/kg PCBECD	5	MU	PCB 52	<5.88															
µg/kg PCBECD	5	MU	PCB 28	<5.88												26-Mar-2020	EFS/199373M	_	
µg/kg PCBECD	5	MU	PCB 180	<5.88										lysis		26	EFS		
µg/kg PCBECD	5	MU	PCB 153	<5,88										Sample Analysis					
hg/kg PCBECD	5	MU	PCB 138	<5,88										Sam		nted	lumber	ımber	
µg/kg PCBECD	5	MO	PCB 118	<5.88												Date Printed	Report Number	Table Number	
PCE	5	MU	PCB 101	<5.88															
	1.28	⊃	Total PAH (Sum of USEPA 16)	<1.50	<1.49														
<u> </u>	0.08	MU	Pyrene	60.0>	60.0>												7	2	
ا≿ا∼ا	0.08	Н	Phenanthrene	60.0>	60.0>									E E			M25 Ict 10	2000	
mg/kg PAHMSUS	0.08	MU	Naphthalene	60'0>	60'0>									Vokingham					
mg/kg mg/kg   BAHMSUS	0.08	MO	Indeno(123-cd)pyrene	60'0>	60'0>									SOCOTEC UK Woki	tiggs		D0008_10	-000	
<b> </b> _ 3			Fluorene	60'0>	60'0>									soco	William Riggs		ב	2	
mg/kg PAHMSUS	0.08	M	Fluoranthene	60'0>	60'0>									ame					
			Dibenzo(ah)anthracene	60'0>	60'0>									Client Name	Contact				
Units : nod Codes :	ing Limits:	Accreditation Code:	Sample Date	23-May-19	23-May-19														
Units : Method Codes :	Method Report	Accredit	Client Sample Description	1-524 ES 2 0,50	1-524 ES 4 1,00									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961082	1961083														

mg/kg TPHUSSI	4	- =	□ TPH Aro Band >C16-C21	4.83	<4.67			T										
$\vdash$	+			$\vdash$	+			+										
mg/kg	+	-	☐ TPH Aro Band >C12-C16	<4.70				+							20	M	_	$\dashv$
mg/kg TPHUSSI	+		⊃ TPH Aro Band >C10-C12	<4.70	<4.67										26-Mar-2020	EFS/199373M		
mg/kg TPHUSSI	20	07	⊃ TPH Ali Band >C8-C40	73.2	45.6								alysis		2	Ħ		
mg/kg TPHUSSI	-		⊃ TPH Ali Band >C8-C10	9.29	<4.67								Sample Analysis					
mg/kg TPHUSSI	8.75	2	⊃ TPH Ali Band >C21-C35	37.6	20 g								Sam		nted	lumber	nmper	
mg/kg TPHUSSI	-	- =	⊃ TPH Ali Band >C16-C21	7.72	99 0										Date Printed	Report Number	Table Number	
mg/kg TPHUSSI	4	- =	⊃ TPH Ali Band >C12-C16	8,99	6.50													
mg/kg TPHUSSI		- =	⊃ TPH Ali Band >C10-C12	6.97	<4.67													
mg/kg TPHFIDUS		2 2	TPH by GCFID (AR)	52.9												7	2	
mg/kg TPHFIDUS	-		⊃ TPH Band (>C10-C40)	51.5									Ē			101	N 136 67 N	
% TWSS	0.1	; =	⊃ Tot.Moisture @ 105C	14,9	14.3								Vokingham					
mg/kg SFAS	0,5	} z	∠ Sulphide as S (AR)	9'0>	908								SOCOTEC UK Woki	iggs		, 000	D3000-13	
mg/kg SFAPI	0.5	?=	⊃ Phenol Index.(AR)	9'0>	908								socol	William Riggs		ב	ć	
mg/kg SFAPI	0.5	2 2	S Cyanide(Total) (AR)	9'0>	908								ame					
mg/kg SFAPI	0.5	S M	S Cyanide(Free) (AR)	9'0>	90>								Client Name	Contact				
Units :	na Limits :	tion Code:	Sample Date  otion  otion	23-May-19	23.Mav.19													
Metho	Method Reporting Limits:	Accreditat	Accreditat	1-524 ES 2 0,50	1-524 FS 4 1 00								SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961082	1061083													

#### WASTE ACCEPTANCE CRITERIA TESTING BSEN 12457/3

Client	SOCOTEC UK Wokingh	am.			Leaching Data	
Client	SOCOTEC OK WOKINGIN	am			Weight of sample (kg)	0.262
Contact	William Diggs				Moisture content @ 105°C (% of Wet Weight)	14.9
Contact	William Riggs				Equivalent Weight based on drying at 105°C (kg)	0.225
Site	D9008-19 M25 Jct 10				Volume of water required to carry out 2:1 stage (litres)	0.413
Site	D9006-19 M25 JCt 10				Fraction of sample above 4 mm %	0.000
Samp	ole Description	Report No	Sample No	Issue Date	Fraction of non-crushable material %	0.000
1.5	524 ES 2 0.50	s19 9373M	CL/1961082	11-Jun-19	Volume to undertake analysis (2:1 Stage) (litres)	0.300
1-5	24 ES 2 0.50	\$19_9373W  	CL/1901002	11-3411-19	Weight of Deionised water to carry out 8:1 stage (kg)	1.650

Note: The >4mm fraction is crushed using a disc mill

	4			Landfill Wast	te Acceptance Crit	eria Limit Values
Accreditation	Method Code	Solid Waste Analysis (Dry Basis)	Concentration in Solid (Dry Weight Basis)	Inert Waste Landfill	Stable Non- reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
U	WSLM59	Total Organic Carbon (% M/M)	1.38	3	5	6
N	LOI450	Loss on Ignition (%)	4.4			10
U	BTEXHSA	Sum of BTEX (mg/kg)	<0.0707	6		
U	PCBUSECD	Sum of 7 Congener PCB's (mg/kg)	<0.042	1		
U	TPHFIDUS	Mineral Oil (mg/kg)	51.5	500		
N	PAHMSUS	PAH Sum of 17 (mg/kg)	<1.60	100		
U	PHSOIL	pH (pH units)	5		>6	
N	ANC	Acid Neutralisation Capacity (mol/kg) @pH 7	<0.04		To be evaluated	To be evaluated

Accreditation	od Code	Leachate Analysis	2:1 Leachate	8:1 Leachate	Calculated amount leached @ 2:1	Calculated cumulative amount leached @ 10:1		Acceptance Criter I 12457/3 @ L/S 10	ria Limit Values for litre kg-1
Accre	Method		mg/l ex	xcept °°	mg/kg (dı	ry weight)		mg/kg (dry weig	nt)
U	WSLM3	pH (pH units) °°	4.6	5.4	Calculated data as	ot UKAS Accredited			
U	WSLM2	Conductivity (µs/cm) °°	<100	<100	Calculated data no	or oras accredited			
U	ICPMSW	Arsenic	0.002	0.001	0.004	0.01	0.5	2	25
U	ICPWATVAR	Barium	0.03	<0.01	0.06	<0.1	20	100	300
U	ICPMSW	Cadmium	0.0006	0.0002	0.0012	0.003	0.04	1	5
U	ICPMSW	Chromium	0.006	0.003	0.012	0.03	0.5	10	70
U	ICPMSW	Copper	0.002	0.002	0.004	0.02	2	50	100
U	ICPMSW	Mercury	<0.0001	<0.0001	<0.0002	<0.001	0.01	0.2	2
U	ICPMSW	Molybdenum	<0.001	<0.001	<0.002	<0.01	0.5	10	30
U	ICPMSW	Nickel	0.002	<0.001	0.004	<0.01	0.4	10	40
U	ICPMSW	Lead	0.013	0.007	0.026	0.08	0.5	10	50
U	ICPMSW	Antimony	<0.001	<0.001	<0.002	<0.01	0.06	0.7	5
U	ICPMSW	Selenium	<0.001	<0.001	<0.002	<0.01	0.1	0.5	7
U	ICPMSW	Zinc	0.159	0.038	0.318	0.54	4	50	200
U	KONENS	Chloride	6	2	12	25	800	15000	25000
U	ISEF	Fluoride	<0.1	<0.1	<0.2	<1	10	150	500
U	ICPWATVAR	Sulphate as SO4	25	4	50	68	1000	20000	50000
N	WSLM27	Total Dissolved Solids	73.3	<60	147	<618	4000	60000	100000
U	SFAPI	Phenol Index	< 0.05	<0.05	<0.1	<0.5	1		
N	WSLM13	Dissolved Organic Carbon	19	13	38	138	500	800	1000

Template Ver. 1

Landfill Waste Acceptance Criteria limit values correct as of 11th March 2009.

Tests where the accreditation is set to U are UKAS accredited, those where the accreditation is set to N are not UKAS accredited

## Sample Analysis

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10

S199373M Report No

Customer

Site

Date Logged 31-May-2019

Consignment No S85309

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. In-House Report Due 11-Jun-2019

		_	_	
	Zinc (MS)	>		
	Vanadium (MS)			
	Selenium (MS)	>		
	Nickel (MS)	>		
	Mercury (MS)	>		
	Lead (MS)	>		
	Copper (MS)	>		
	Chromium (MS)	>		
	Cadmium (MS)	>		
ICPMSS	Arsenic (MS)	>		
ICPBOR	Boron (H20 Soluble)	>		
ICPACIDS	SO4 (acid sol)	>		
GROHSA	GRO (AA) by HSA GC-FID	>		
FOCS	S.O.M. % (Calc)	Г		
FOCCALC	F.O.C.	>		
CustServ	REPORT A			
	Fraction of sample above 4 mm %		Г	
	Fraction of non-crushable material %		Г	
	CEN Leac(P)C	Г	Г	
	CEN Leac(P)2	Г		Г
CEN Leachate	CEN Leac(P)1			Г
	MTBE (μg/kg)	>		Г
BTEXHSA	BTEX-HSA + MTBE analysis	>		Г
ANC	Acid Neut. Capacity	Г		Г
AMMAR	Exchange.Ammonium AR	>		
<u> </u>	Pa	Г	5/19	5/19
MethodID	Sampled		23/05/19	23/05/19
	σ		L	
	Ę			
	Description			
	Desc		0	0
			1-524 0 50	1-524 1 00
			1-52	1-52
	ē			
	D Number		1082	1083
	<u>2</u>		CL/1961082	/1961083
			[ ]	[ ]

ote: We will endeavour to prioritise samples to complete analysis withir olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sample was received without the correct preservation for this analysis Headspace present in the sample container

Sample processing did not commence within the appropriate holding time

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

EFS/199373M Ver. 2
Page 9 of 14 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

## S199373M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S85309

**SOCOTEC UK Wokingham** D9008-19 M25 Jct 10

Customer Site

Sample Analysis

S199373M

Report No

Date Logged 31-May-2019

In-House Report Due 11-Jun-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

	TPH Aro Band >C16-C21	>		
	TPH Aro Band >C12-C16	>		
	TPH Aro Band >C10-C12	>		
	TPH Ali Band >C8-C40	>		
	TPH Ali Band >C8-C10	>		
	TPH Ali Band >C21-C35	>		Г
	TPH Ali Band >C16-C21	>		
	TPH Ali Band >C12-C16	>		Г
TPHUSSI	TPH Ali Band >C10-C12	>		
	TPH by GCFID (AR)	>		Г
TPHFIDUS	TPH Band (>C10-C40)	>		
TMSS	Tot.Moisture @ 105C	>		
SFAS	Sulphide as S (AR)			
	Phenol Index.(AR)	>		
	Cyanide(Total) (AR)	>		
SFAPI	Cyanide(Free) (AR)	>		
PHSOIL	pH units (AR)	>	ш	ш
PCBECD	PCB-7 Congeners Analysis	>		Г
	PAH (17) by GCMS	>		
PAHMSUS	PAH (16) by GCMS	>		
MCertS	MCertS Analysis	>		
LOI(%MM)	L.O.I. % @ 450C	Г		Г
KONECR	Chromium vi:			
	Beryllium.	>		
ICPSOIL	Barium.	>		
dlD	led		23/05/19	23/05/19
MethodID	Sampled		23/(	23/(
	<u> </u>			L
	ion			
	Description			
	Des		20	0
			1-524 0.50	1-524 1 00
			Ë	=
	ber		2	ر ا
	ID Number		CL/1961082	CI /1961083
	<b>□</b>		CL/15	21/10
			_	_

ote: We will endeavour to prioritise samples to complete analysis withir olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

# Deviating Sample Key

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Sample processing did not commence within the appropriate handling time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

No analysis scheduled

EFS/199373M Ver. 2

Where individual results are flagged see report notes for status.

Page 10 of 14 he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

## S199373M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S85309

**SOCOTEC UK Wokingham** 

Customer

Site

Sample Analysis

D9008-19 M25 Jct 10

S199373M Report No

In-House Report Due 11-Jun-2019 Date Logged 31-May-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. WSLM59 **Total Organic Carbon** TPH by GCFID (AR/Si) TPH Aro Band >C8-C40 TPH Aro Band >C8-C10 TPH Aro Band >C21-C35 TPHUSS 23/05/19 23/05/19 Sampled MethodID Description 1-524 0 50 1-524 1.00 ID Number CL/1961082 CL/1961083

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

ote: We will endeavour to prioritise samples to complete analysis withir

olding time; however any delay could result in samples becoming

leviant whilst being processed in the laboratory.

provide missing information in order to reinstate accreditation.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time ООШП

Analysis dependant upon trigger result - Note: due date may be affected if triggered Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

No analysis scheduled

EFS/199373M Ver. 2

Page 11 of 14he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Report Number: EFS/199373M

Matrix	MethodID	Analysis	Method Description
		Basis	·
Soil	AMMAR	As Received	Determination of Exchangeable Ammonium in Soil using potassium
			chloride extraction, discrete colorimetric detection
Soil	ANC	Oven Dried	Quantitative digestion with Hydrochloric Acid back titration with 1M
		@ < 35°C	Sodium Hydroxide to pH 7
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes
			(BTEX) by Headspace GCFID
Soil	CEN Leachate	As Received	Determination of Oversize and Inert Material Content prior to
			leaching sample
Soil	FOCS	Oven Dried	Calculation of Soil Organic Matter content from Organic Carbon
		@ < 35°C	content of soil samples
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried	Determination of Boron in soil samples by hot water extraction
		@ < 35°C	followed by ICPOES detection
Soil	ICPMSS	Oven Dried	Determination of Metals in Marine Sediments and Soil samples by
		@ < 35°C	aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried	Determination of Metals in soil samples by aqua regia digestion
		@ < 35°C	followed by ICPOES detection
Soil	KONECR	Oven Dried	Determination of Chromium vi in soil samples by water extraction
		@ < 35°C	followed by colorimetric detection
Soil	LOI(%MM)	Oven Dried	Determination of loss on ignition for soil samples at specified
		@ < 35°C	temperature by gravimetry
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by
			hexane/acetone extraction followed by GCMS detection
Soil	PCBECD	As Received	Determination of Polychlorinated Biphenyl (PCB)
			congeners/aroclors by hexane/acetone extraction followed by
			GCECD detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using
			pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SFAS		Segmented flow analysis with colorimetric detection
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on
			oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHFIDUS	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection.
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection including quantitation of Aromatic and
			Aliphatic fractions.

Report Number: EFS/199373M

Matrix	MethodID	Analysis Basis	Method Description
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	ISEF	As Received	Determination of Fluoride in water samples by Ion Selective Electrode (ISE)
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non- dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical conductivity probe.
Water	WSLM27	As Received	Gravimetric Determination
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

#### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

#### Sample Descriptions

 Client :
 SOCOTEC UK Wokingham

 Site :
 D9008-19 M25 Jct 10

Report Number: \$19\_9373

Note: major constituent in upper case

Lab ID Number  CL/1961082  CL/1961083	Client ID 1-524 ES 2 0.50 1-524 ES 4 1.00	Note: major constituent in upper case  Description  Brown SILT Brown SILT
CL/1961082	1-524 ES 2 0.50	Brown SILT
CL/1961082 CL/1961083	1-524 ES 2 0.50 1-524 ES 4 1.00	Brown SILT
CL/1961083	1-524 ES 4 1.00	Brown SILT
<del></del>		

#### **TEST REPORT**



Date of Issue: 26-Mar-2020



#### Report No. EFS/199374M (Ver. 2)

SOCOTEC UK Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 31-May-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 26-Mar-2020

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 7)
Table of WAC Analysis Results (Page 8)
Analytical and Deviating Sample Overview (Pages 9 to 11)
Table of Method Descriptions (Pages 12 to 13)
Table of Report Notes (Page 14)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham

Operations Manager Energy & Waste Services

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS) Tests marked '^' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples) SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

mg/kg	2	I Win	GRO (>C7 - C8)	<0,250	<0,250								T							
	-		and (207 - 66)									_	_	_						
mg/kg	+-	M	GRO (>C5 - C6)	<0.250	<0,250															
mg/kg	0.2	M	GRO	<0.250	<0.250												26-Mar-2020	EFS/199374M	1	
WW %	0.04	z	S.O.M. % (Calc)	0.21	0.38										lysis		2	EF		
FOCOALC			F.O.C.	0,0002	0,0002										Sample Analysis					
% CEN I eachate		z	Fraction of sample above 4 mm %	0.0											Sam		nted	lumber	ımber	
μg/kg % % % BTEXHSΔ GEN Leachate GEN Leachate		z	Fraction of non-crushable material %	0.0													Date Printed	Report Number	Table Number	
		Σ	Xylenes	<37.5	<37.5															
µg/kg RTEXHSA	10	Σ	Toluene	<12.5	<12.5															
µg/kg RTEXHSA		ΣŊ	o Xylene	<12.5	<12.5													7	2	
µg/kg RTEXHS∆					<25.0										٤			101	MZS JCL IO	
µg/kg RTEXHSA	20	N N	m/p Xylenes	<25.0	<25,0										/okingham					
µg/kg RTEXHSA	10	Σ		<12,5	<12,5										SOCOTEC UK Woki	iggs		0000	D3000-13	
µg/kg RTEXHSA	10	ΨΩ	Benzene	<12,5	<12,5										socor	William Riggs		ב	č	
Mol/kg	0,04	z	Acid Neut. Capacity		0,48										ame					
mg/kg	0,5	W N	Exchange.Ammonium AR	9'0>	1.1										Client Name	Contact				
Units:	g Limits :	ion Code:	Sample Date	24-May-19	28-May-19															
odtoM	Method Reporting Limits:	Accreditation Code:	Client Sample Description	1-529 ES 8 2.00	1-529 ES 11 2,70										SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961084	1961085															

mg/kg ICPMSS	0.5	M	Selenium (MS)	<0.5	V C	c'0>														
mg/kg ICPMSS	+		Nickel (MS)	1.1	9	16														
mg/kg ICPMSS IG	$\vdash$	Wn	Mercury (MS)	<0.5	<0.50	05.0>											26-Mar-2020	EFS/199374M	-	
mg/kg CPMSS	+	Wn	Lead (MS)	6.4	0	6.9									ysis		7-92	EFS/		
mg/kg ICPMSS	+		Copper (MS)	10.6	10	10									Sample Analysis					
mg/kg ICPMSS	1.2	W <sub>D</sub>	Chromium (MS)	19.5	22.5	22.5									Samp		ted	umber	mber	
mg/kg CPMSS	0.2	W	Cadmium (MS)	<0.2	<0.20>	<0.20											Date Printed	Report Number	Table Number	
mg/kg ICPMSS	0.3	MO	Arsenic (MS)	12.9	α α	8.														
mg/kg ICPBOR	0.5	MU	Boron (H20 Soluble)	0.7	90	9.0														
mg/kg ICPACIDS	20	MN	SO4 (acid sol)	265	885	885												7	2	
mg/kg GROHSA	0.2	M	GRO (C8-C10 Aliphatic)	<0.250	<0.250	<0.250									<u> </u>			104	N 13C CZIN	
mg/kg GROHSA	0.2	M	GRO (C7-C8 Aliphatic)	<0.250	<0.250	<0.250									Vokingham					
mg/kg GROHSA	0.2	M	GRO (C6-C7)	<0,250	<0.250	<0,250									SOCOTEC UK Woki	iggs		, 000	D3000-13	
mg/kg GROHSA	0.2	Mn	GRO (C6-C7 Aliphatic)	<0,250	<0.250	<0,250									SOCOT	William Riggs		2	ž	
mg/kg GROHSA	0.2	M	GRO (C5-C6 Aliphatic)	<0.250	<0.250	<0,250									ame					
mg/kg GROHSA	0.2	M	GRO (>C8 - C10)	<0.250	<0.250	<0,250									Client Name	Contact				
: Units : Method Codes :	ing Limits:	Accreditation Code:	Sample Date	24-May-19	28.Mav.19	28-May-19														
Meth	Method Reporting Limits :	Accredite	Client Sample Description	1-529 ES 8 2,00	1-529 ES 11.2.70	1-529 ES 11 2.70									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961084	1961085	1961085											_	_		

mg/kg PAHMSUS	0.08	z	Coronene		<0.10														
_ SN	0.08	MU	Chrysene	<0.10	<0.10														
mg/kg PAHMSUS	0.08	MU	Benzo(k)fluoranthene	<0.10	<0.10											26-Mar-2020	EFS/199374M	7	
mg/kg PAHMSUS	80.0	MΩ	Benzo(ghi)perylene	<0.10	<0.10									llysis		26	EFS		
	0.08	MU	Benzo(b)fluoranthene	<0.10	<0.10									Sample Analysis					
<u> </u>	0.08	MU	Benzo(a)pyrene	<0.10	<0.10									Sam		nted	lumber	ımber	
PA	0.08	MO	Benzo(a)anthracene	<0.10	<0.10											Date Printed	Report Number	Table Number	
	0.08	n	Anthracene	<0.10	<0.10														
<u> </u>	0.08	n	Acenaphthylene	<0.10	<0.10														
P	0.08	MN	Acenaphthene	<0.10	<0.10												5	2	
101	0.2	z	L.O.I. % @ 450C		1.2									m			MOE Ict 10	ייי	
mg/kg KONECR	0.1	z	Chromium vi:	<0.1	<0.1									Vokingh≀					
mg/kg ICPSOIL	0.1	MN	Beryllium.	0.34	0,28									SOCOTEC UK Wokingham	Riggs		70000	0000	
mg/kg ICPSOIL	0.5	MU	Barium.	11.9	17.9									ooos	William Riggs		ב	د	
mg/kg ICPMSS	16	MN	Zinc (MS)	28.7	55.2									lame					
	9'0	z	Vanadium (MS)	32.0	22,1									Client Name	Contact				
Units : lod Codes :	ing Limits:	Accreditation Code:	Sample Date	24-May-19	28-May-19														
Units : Method Codes :	Method Report	Accredit	Client Sample Description	1-529 ES 8 2.00	1-529 ES 11 2,70									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961084	1961085									• • • • • • • • • • • • • • • • • • •		ш	ш		

pH Units PHSOIL		MU	pH units (AR)	4.3	5.2									T						
µg/kg PCBECD	5	MU	PCB 52		<6.24															
µg/kg PCBECD	5	MU	PCB 28		<6.24												26-Mar-2020	EFS/199374M	1	
µg/kg PCBECD	5	MU	PCB 180		<6.24										alysis		26	EF		
µg/kg PCBECD	2	MU	PCB 153		<6.24										Sample Analysis					
pg/kg PCBECD	5	MN	PCB 138		<6.24										Sam		nted	Jumber	umber	
µg/kg PCBECD	2	MU	PCB 118		<6.24												Date Printed	Report Number	Table Number	
µg/kg PCBECD	5	MO	PCB 101		<6.24															
Pal	1.28	n	Total PAH (Sum of USEPA 16)	<1,60	<1,60															
mg/kg PAHMSUS	0.08	M	Pyrene	<0.10	<0.10													7	2	
ا∠ا≼ا	0.08		Phenanthrene	<0.10	<0.10										E E			10	MZS SCL IO	
mg/kg PAHMSUS	0.08	MO	Naphthalene	<0,10	<0,10										Vokingham					
mg/kg mg/kg PAHMSUS	0.08	MO	Indeno(123-cd)pyrene	<0,10	<0,10										SOCOTEC UK Woki	Riggs		, 9000	D3000-13	
mg/kg PAHMSUS			Fluorene	<0.10	<0.10										socol	William Riggs		ב	ڏ	
mg/kg mg/kg mg/kg PAHMSUS PAHMSUS	0.08	MN	Fluoranthene	<0.10	<0.10										ame					
			Dibenzo(ah)anthracene	<0.10	<0.10										Client Name	Contact				
Units : nod Codes :	ing Limits:	Accreditation Code:	Sample Date	24-May-19	28-May-19															
Units : Method Codes :	Method Report	Accredit	Client Sample Description	1-529 ES 8 2,00	1-529 ES 11 2,70										SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961084	1961085															

mg/kg TPHUSSI	4	+ =	□ TPH Aro Band >C16-C21	5.61	<4 99					
mg/kg	+	+ =	□ TPH Aro Band >C12-C16	<5.00	<4 99					
mg/kg TPHUSSI	+	+ =	⊃ TPH Aro Band >C10-C12	5.04	<4 99		06 Mar 2020	14000 - 2020	EFS/199374M	-
mg/kg TPHUSSI	+	07	⊃ TPH Ali Band >C8-C40	51,4	38.7	lysis	36	5   6	T L	
mg/kg TPHUSSI	4	+ =	⊃ TPH Ali Band >C8-C10	<5,00	<4 99	Sample Analysis				
mg/kg TPHUSSI	8.75	2:0	⊃ TPH Ali Band >C21-C35	23.1	18.4	Samp	604	ne i	umber	mber
mg/kg TPHUSSI	4	+ =	⊃ TPH Ali Band >C16-C21	10.43	8 85		Doto Brinton	חשופ ב	Report Number	Table Number
mg/kg TPHUSSI	4	- =	⊃ TPH Ali Band >C12-C16	7.40	6.25					
mg/kg TPHUSSI		- =	⊃ TPH Ali Band >C10-C12	<5,00	<4 99					
mg/kg TPHFIDUS	10	2 =	TPH by GCFID (AR)		28.2				10	)
mg/kg TPHFIDUS	10	2 =	⊃ TPH Band (>C10-C40)		27.1	<u> </u>			M25 Jct 10	, ) )
% TMSS	0.1	-	⊃ Tot.Moisture @ 105C	20,0	19.9	Vokingham				
mg/kg SFAS	0.5	} z	⊠ Sulphide as S (AR)	9'0>	>0 6	SOCOTEC UK Woki			D9008-19	
mg/kg SFAPI	0.5	? =	⊃ Phenol Index.(AR)	9'0>	s0 6	SOCOTEC			Ď	i
mg/kg SFAPI	0.5	2	Cyanide(Total) (AR)	9'0>	s0 6	a a a a a a a a a a a a a a a a a a a				
mg/kg SFAPI	0.5	2 =	S Cyanide(Free) (AR)	9'0>	9 0>	Client Name				
Units:	ing Limits	ation Code	Accreditation Code: otion otion	24-May-19	28-Mav-19					
Units : Method Codes :	Method Report	Acredit	Accredita	1-529 ES 8 2,00	1-529 ES 11 2 70	SOCOTEC	Brothy Business Dark Ashhy Dood	Didity Dustiless Fair, Asilay Noad	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961084	1961085					

#### WASTE ACCEPTANCE CRITERIA TESTING BSEN 12457/3

Client	SOCOTEC LIK Wakingh	om			Leaching Data				
Client SOCOTEC U  Contact William Riggs  Site D9008-19 M2  Sample Description  1-529 ES 11 2.70	3000 FEC OK WOKINGIT	alli		Weight of sample (kg)					
	William Diggs				Moisture content @ 105°C (% of Wet Weight)				
Contact	William Riggs				Equivalent Weight based on drying at 105°C (kg)	0.225			
Site D9	D0009 10 M25 lot 10				Volume of water required to carry out 2:1 stage (litres)	0.394			
	D9006-19 M25 JCL 10				Fraction of sample above 4 mm %	0.000			
San	nple Description	Report No	Sample No	Issue Date	Fraction of non-crushable material %	0.000			
1	520 ES 11 2 70	s19 9374M	CL/1961085	10-Jun-19	Volume to undertake analysis (2:1 Stage) (litres)	0.300			
1	029 E3 11 2.70	519_9374101	CL/1901065	10-Jun-19	Weight of Deionised water to carry out 8:1 stage (kg)	1.650			

Note:	The >4mm	traction is	s crusnea	using a	aisc mill	

	4			Landfill Was	ste Acceptance Cr	iteria Limit Values
Accreditation	Method Code	Solid Waste Analysis (Dry Basis)	Concentration in Solid (Dry Weight Basis)	Inert Waste Landfill	Stable Non- reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
U	WSLM59	Total Organic Carbon (% M/M)	0.22	3	5	6
N	LOI450	Loss on Ignition (%)	1.2			10
U	BTEXHSA	Sum of BTEX (mg/kg)	<0.075	6		
U	PCBUSECD	Sum of 7 Congener PCB's (mg/kg)	<0.042	1		
U	TPHFIDUS	Mineral Oil (mg/kg)	27.1	500		
N	PAHMSUS	PAH Sum of 17 (mg/kg)	<1.70	100		
U	PHSOIL	pH (pH units)	5.2		>6	
N	ANC	Acid Neutralisation Capacity (mol/kg) @pH 7	0.48		To be evaluated	To be evaluated

Accreditation	d Code	Leachate Analysis	2:1 Leachate	8:1 Leachate	Calculated amount leached @ 2:1	Calculated cumulative amount leached @ 10:1		cceptance Criteria 2457/3 @ L/S 10 li	Limit Values for BSEN tre kg-1
Accre	Method	,	mg/l ex	xcept °°	mg/kg (d	ry weight)		mg/kg (dry wei	ght)
U	WSLM3	pH (pH units) °°	4.7	5.8	Calculated data no	ot UKAS Accredited			
U	WSLM2	Conductivity (µs/cm) 00	234	<100	Calculated data no	or oras accredited			
U	ICPMSW	Arsenic	<0.001	<0.001	<0.002	<0.01	0.5	2	25
U	ICPWATVAR	Barium	0.12	0.06	0.24	0.7	20	100	300
U	ICPMSW	Cadmium	0.0072	0.0028	0.0144	0.034	0.04	1	5
U	ICPMSW	Chromium	<0.001	<0.001	<0.002	<0.01	0.5	10	70
U	ICPMSW	Copper	0.002	0.003	0.004	0.03	2	50	100
U		Mercury	<0.0001	<0.0001	<0.0002	<0.001	0.01	0.2	2
U	ICPMSW	Molybdenum	<0.001	<0.001	<0.002	<0.01	0.5	10	30
U	ICPMSW	Nickel	0.092	0.081	0.184	0.82	0.4	10	40
U	ICPMSW	Lead	0.255	0.078	0.51	1.02	0.5	10	50
U	ICPMSW	Antimony	<0.001	<0.001	<0.002	<0.01	0.06	0.7	5
U	ICPMSW	Selenium	0.006	0.003	0.012	0.03	0.1	0.5	7
U	ICPMSW	Zinc	1.257	0.455	2.514	5.62	4	50	200
U	KONENS	Chloride	6	3	12	34	800	15000	25000
U	ISEF	Fluoride	<0.1	<0.1	<0.2	<1	10	150	500
U	ICPWATVAR	Sulphate as SO4	80	33	160	393	1000	20000	50000
N	WSLM27	Total Dissolved Solids	183	65.6	366	813	4000	60000	100000
U	SFAPI	Phenol Index	< 0.05	<0.05	<0.1	<0.5	1		
N	WSLM13	Dissolved Organic Carbon	2	1	4	11	500	800	1000

Template Ver. 1

Landfill Waste Acceptance Criteria limit values correct as of 11th March 2009.

Tests where the accreditation is set to U are UKAS accredited, those where the accreditation is set to N are not UKAS accredited

## Sample Analysis

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10 S199374M

Report No

Customer

Site

Date Logged 31-May-2019

Consignment No S85312

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days. In-House Report Due 11-Jun-2019

		Zinc (MS)	1		
		Vanadium (MS)			
		Selenium (MS)	>		
		Nickel (MS)	>		Г
		Mercury (MS)	>		Γ
		Lead (MS)	>		Γ
		Copper (MS)	>		
		Chromium (MS)	>		Γ
		Cadmium (MS)	>		
	ICPMSS	Arsenic (MS)	>		
	ICPBOR	Boron (H20 Soluble)	>		
	ICPACIDS	SO4 (acid sol)	>		Γ
	GROHSA	GRO (AA) by HSA GC-FID	>		Γ
	FOCS	S.O.M. % (Calc)			
0	FOCCALC	F.O.C.	>		Γ
	CustServ	REPORT A			
		Fraction of sample above 4 mm %	Г		Г
		Fraction of non-crushable material %			
		CEN Leac(P)C			Г
2		CEN Leac(P)2			
	CEN Leachate	CEN Leac(P)1			
- 1		MTBE (μg/kg)	>		
	BTEXHSA	BTEX-HSA + MTBE analysis	>		
	ANC	Acid Neut. Capacity			Γ
	AMMAR	Exchange.Ammonium AR	>		
5	MethodID	Sampled		24/02/19	28/05/19
200	Σ	ικ			L
s in the second of the second		Description		1-529 2.00	1-529 2 70
case increasing the second and		ID Number		L/1961084	11961085

ote: We will endeavour to prioritise samples to complete analysis withir olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Headspace present in the sample container

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled

EFS/199374M Ver. 2
Page 9 of 14 The integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

## Sample Analysis

## **SOCOTEC UK Ltd Environmental Chemistry** Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

D9008-19 M25 Jct 10 S199374M

Report No

Customer

Site

Date Logged 31-May-2019

Consignment No S85312

In-House Report Due 11-Jun-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

	ID Number		L/1961084	L/1961085	
	Description		1-529 2.00	1-529 2.70	
MethodID	Sampled		24/05/19	28/05/19	
CPSOIL	Barium.	>			
	Beryllium.	^			
KONECR	Chromium vi:				
LOI(%MM)	L.O.I. % @ 450C				
MCertS	MCertS Analysis	^			
PAHMSUS	PAH (16) by GCMS	/			
	PAH (17) by GCMS	^			
PCBECD	PCB-7 Congeners Analysis	/			
PHSOIL	pH units (AR)	^	В		
SFAPI	Cyanide(Free) (AR)				
	Cyanide(Total) (AR)	,			
J. AJ	Phenol Index.(AR)	_		H	
SFAS	Sulphide as S (AR)	Ĺ			
TMSS	TPH Band (>C10-C40)  Tot.Moisture @ 105C	^   ^			
rous:	TPH by GCFID (AR)	^	H		
rphussi	TPH Ali Band >C10-C12	/ /			
	TPH Ali Band >C12-C16	<i>^</i>   <i>,</i>			
	TPH Ali Band >C16-C21	<u> </u>		Н	
	TPH Ali Band >C21-C35	<u> </u>			
	TPH Ali Band >C8-C10	<u> </u>		Н	
	TPH Ali Band >C8-C40	<i>&gt;</i>			
	TPH Aro Band >C10-C12	<u> </u>		Н	
	TPH Aro Band >C12-C16	^			
	TPH Aro Band >C16-C21	<u> </u>		Ц	
	TDU Are Dend > 040 CO4				

CL/196

ote: We will endeavour to prioritise samples to complete analysis withir olding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

f sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

## The sample was received in an inappropriate container for this analysis Deviating Sample Key

The sample was received without the correct preservation for this analysis

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

## Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled

EFS/199374M Ver. 2

Page 10 of 14he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling. EFS/199374M Ver. 2

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

Consignment No S85312

SOCOTEC UK Wokingham D9008-19 M25 Jct 10

Sample Analysis

D9008-19 M25 Jct 10 S199374M

Report No

Customer Site

Date Logged 31-May-2019

In-House Report Due 11-Jun-2019

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

WSLM59	Total Organic Carbon	/		
	TPH by GCFID (AR/Si)	^		
	TPH Aro Band >C8-C40	1		
	TPH Aro Band >C8-C10	>		
PHUSSI	TPH Aro Band >C21-C35	>		
MethodID	Sampled		24/05/19	28/05/19
	Description		1-529 2.00	1-529 2.70
	ID Number		CL/1961084	CL/1961085

tote: We will endeavour to prioritise samples to complete analysis within folding time; however any delay could result in samples becoming leviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

A The sample was received in an inappropriate container for this analysis

The sample was received without the correct preservation for this analysis

C Headspace present in the sample container

D The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Deviating Sample Key

Sample processing did not commence within the appropriate handling time

Sample processing did not commence within the appropriate holding time

EFS/199374M Ver. 2
Page 11 of 14he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Report Number: EFS/199374M

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	AMMAR	As Received	Determination of Exchangeable Ammonium in Soil using potassium
			chloride extraction, discrete colorimetric detection
Soil	ANC	Oven Dried	Quantitative digestion with Hydrochloric Acid back titration with 1M
		@ < 35°C	Sodium Hydroxide to pH 7
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes
			(BTEX) by Headspace GCFID
Soil	CEN Leachate	As Received	Determination of Oversize and Inert Material Content prior to
			leaching sample
Soil	FOCS	Oven Dried	Calculation of Soil Organic Matter content from Organic Carbon
		@ < 35°C	content of soil samples
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried	Determination of Boron in soil samples by hot water extraction
		@ < 35°C	followed by ICPOES detection
Soil	ICPMSS	Oven Dried	Determination of Metals in Marine Sediments and Soil samples by
		@ < 35°C	aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried	Determination of Metals in soil samples by aqua regia digestion
		@ < 35°C	followed by ICPOES detection
Soil	KONECR	Oven Dried	Determination of Chromium vi in soil samples by water extraction
		@ < 35°C	followed by colorimetric detection
Soil	LOI(%MM)	Oven Dried	Determination of loss on ignition for soil samples at specified
		@ < 35°C	temperature by gravimetry
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by
			hexane/acetone extraction followed by GCMS detection
Soil	PCBECD	As Received	Determination of Polychlorinated Biphenyl (PCB)
			congeners/aroclors by hexane/acetone extraction followed by
			GCECD detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using
			pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SFAS	As Received	Segmented flow analysis with colorimetric detection
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on
			oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHFIDUS	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection.
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection including quantitation of Aromatic and
			Aliphatic fractions.

Report Number: EFS/199374M

Matrix	MethodID	Analysis	Method Description
		Basis	·
Soil	WSLM59	Oven Dried	Determination of Organic Carbon in soil using sulphurous Acid
		@ < 35°C	digestion followed by high temperature combustion and IR
			detection
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	ISEF	As Received	Determination of Fluoride in water samples by Ion Selective
			Electrode (ISE)
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non-
			dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM27	As Received	Gravimetric Determination
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

#### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### Symbol Reference

- ^ Sub-contracted analysis.
- \$\$ Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- # MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

#### Sample Descriptions

 Client :
 SOCOTEC UK Wokingham

 Site :
 D9008-19 M25 Jct 10

Report Number: S19\_9374

Note: major constituent in upper case

Lab ID Normalia		Note: major constituent in upper case
Lab ID Number	Client ID	Description
CL/1961084 CL/1961085	1-529 ES 8 2.00	Grey Clay SILT Grey Clay SILT Gravel
CL/1961085	1-529 ES 11 2.70	Grey Clay SILT Gravel

#### TEST REPORT



Date of Issue: 12-Jun-2019



#### Report No. EFS/199445M (Ver. 1)

SOCOTEC UK Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 4 samples described in this report were registered for analysis by SOCOTEC UK Limited on 03-Jun-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 12-Jun-2019

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 7)
Table of WAC Analysis Results (Pages 8 to 9)
Analytical and Deviating Sample Overview (Pages 10 to 12)
Table of Method Descriptions (Pages 13 to 14)
Table of Report Notes (Page 15)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham

Operations Manager Energy & Waste Services

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)
Tests marked '^' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples) SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

mg/kg GROHSA	0.0	Z-0	GRO (>C7 - C8)	<0.217	<0.223	<0.225	<0.217													
mg/kg GROHSA	0.2	7 N	GRO (>C5 - C6)	<0.217	<0.223	<0.225	<0.217													
mg/kg GROHSA	0.0	7.0 MI	GRO	<0.217	<0.223	<0.225	<0.217										12-Jun-2019	EFS/199445M	•	
% WM	0.04	200	S.O.M. % (Calc)	1.73	1.48	3.01	0.83								lysis		12	H		
FOCCALC		0.0002	F.O.C.	0.0173	0.0148	0.0301	0.0083								Sample Analysis					
% CFN Leachate		z	Fraction of sample above 4 mm %		0.0										Sam		nted	umber		mber
CFN I eachate		z	Fraction of non-crushable material %		0.0												Date Printed	Report Number	:	Japle Nimber
HB/Kg		3 =	Xylenes	<32.6	<33.4	<33.8	<32.6													
µg/kg RTEXHSA		2 2	Toluene	<10.9	<11.1	<11.3	<10.9													
µg/kg RTEXHSA		2 =	o Xylene	<10.9	<11.1	<11.3	<10.9											7	2	)
ng/kg RTEXHSA	20			<21.7		<22.5									Ē			MOE 104 40	מכנ	, ) )
µg/kg RTEXHSA	20	07	m/p Xylenes	<21.7	<22.3	<22.5	<21.7								Vokingham					
HB/Kg	10			<10.9	<11.1	<11.3	<10.9								SOCOTEC UK Woki	liggs			2000-	)
ng/kg RTEXHSA	10	2 2	Benzene	<10.9	<11.1	<11.3	<10.9								socol	William Riggs		ב	בֿ	1
Mol/kg ANC	0.04	200	Acid Neut. Capacity	0.72		0.16									lame					
mg/kg AMMAR		2 =	Exchange.Ammonium AR	1.0	1.8	1.6	<0.5								Client Name	Contact				_
: Units :	ing I imits :	d nepol unig Emilies. Accreditation Code:	Sample Date	30-May-19	30-May-19	30-May-19	30-May-19													
Meta	Method Reporting Limits	Method Nepolita	Client Sample Description	1-537 ES 2 0.00	1-537 ES 4 0.50	1-737 ES 7 0.00	1-737 ES 5 1.00								SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ		Tel +44 (0) 1283 554400
			LAB ID Number CL/	1961401	1961402	1961403	1961404										-	=		

mg/kg ICPMSS	0.5	2 N	Selenium (MS)	<0.5	<0.5	<0.5	<0.5													
mg/kg ICPMSS IC	╀	Ĺ	Nickel (MS)	<2.0	<2.1	<2.0	<2.0													
$\vdash$	$\vdash$						> 2										019	15M	_	.
mg/kg ICPMSS	╁		Mercury (MS)	<0.5	<0.5	<0.5	3 <sup>-</sup> 0>										12-Jun-2019	EFS/199445M		
mg/kg ICPMSS	0.7	55	E Lead (MS)	4.3	2.5	2.0	2.7								lysis	ı		Ш		
mg/kg ICPMSS	16	2 5	Copper (MS)	5.5	4.0	4.3	3.4								Sample Analysis					
mg/kg ICPMSS	1.2	<u>1</u> ≥	Chromium (MS)	3.9	2.4	2.1	4.5								Sam		Ted	lumber	ımber	; 2
mg/kg ICPMSS	0.2	3 S	Cadmium (MS)	<0.2	<0.2	<0.2	<0.2										Date Printed	Report Number	Table Number	2 2 5 -
mg/kg ICPMSS	0.3	ΣD	Arsenic (MS)	0.8	0.5	6.0	3.7													
mg/kg ICPBOR			Boron (H20 Soluble)	<0.5	<0.5	<0.5	9.0>													
mg/kg ICPACIDS	20	SZ M	SO4 (acid sol)	134	75	98	140											(	10	
mg/kg GROHSA	0.2	Z N	GRO (C8-C10 Aliphatic)	<0.2	<0.2	<0.2	<0.217								E			•	M25 Jct 10	
mg/kg GROHSA	0.2	<u>ا</u> ح		<0.2	<0.2	<0.2	<0.217								/okingham					
mg/kg GROHSA	0.2	Z N	GRO (C6-C7)	<0.217	<0.223	<0.225	<0.217								SOCOTEC UK Woki	sbbi			D9008-19	
mg/kg GROHSA	0.2			<0.2	<0.2	<0.2	<0.217								SOCOT	William Riggs		ì	ວິ	
mg/kg GROHSA	0.2	Z N	GRO (C5-C6 Aliphatic)	<0.217	<0.223	<0.225	<0.217								ame					
mg/kg GROHSA	0.2	Z N	GRO (>C8 - C10)	<0.217	<0.223	<0.225	<0.217								Client Name	Contact				
Units :	d Limits:	ion Code:	Sample Date	30-May-19	30-May-19	30-May-19	30-May-19													
Metho	Method Reporting Limits :	Accreditation Code:	<u> </u>	1-537 ES 2 0.00	1-537 ES 4 0.50	1-737 ES 7 0.00	1-737 ES 5 1.00								SOCOTEC	5	Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961401	1961402	1961403	1961404													

mg/kg PAHMSUS	0.08	2	Z Coronene	<0.09		60 0>															
mg/kg PAHMSUS F		20:5 E	Chrysene	60.0>	60.0>	60.0>	60.0>														
mg/kg PAHMSUS	+	MIN MIN	Benzo(k)fluoranthene	<0.0>	60.0>	60.0>	60.0>											12-Jun-2019	EFS/199445M	-	
mg/kg PAHMSUS		8 N	Benzo(ghi)perylene	<0.0>	<0.09	60.0>	60.0>									lysis		12	EFS		
mg/kg PAHMSUS		S MI	Benzo(b)fluoranthene	<0.0>	<0.09	<0.09	60.0>									Sample Analysis					
mg/kg PAHMSUS		20:5 E	Benzo(a)pyrene	<0.09	<0.09	<0.09	<0.09									Samp		ted	umber	mber	
mg/kg PAHMSUS	0.08	S N	Benzo(a)anthracene	60.0>	<0.0>	60.0>	60.0>											Date Printed	Report Number	Table Number	
mg/kg PAHMSUS		200	Anthracene	<0.0>	<0.0>	<0.0>	<0.09														
mg/kg PAHMSUS		200	Acenaphthylene	60.0>	60.0>	<0.09	60:0>														
mg/kg PAHMSUS	0.08	S N	Acenaphthene	60.0>	<0.0>	<0.09	60.0>												<b>~</b>	2	
"WWW)	0.2	7. Z	Z L.O.I. % @ 450C	3.0		4.9										E			104	N 23 JCL 10	
mg/kg KONECR	0.1	-   z	Z Chromium vi:	<0.1	<0.1	<0.1	<0.1									/okingham					
mg/kg ICPSOIL	0.1	- M	Beryllium.	0.15	0.18	0.19	0.18									SOCOTEC UK Woki	iggs		7 000	D2000-12	
mg/kg ICPSOIL	0.5	S M	Barium.	14.7	15.5	22.7	12.4									SOCOT	William Riggs		ב	ב	
mg/kg ICPMSS	16	P M	Zinc (MS)	<16.0	<16.6	<16.2	<16.0									ame					
mg/kg ICPMSS	9.0	? z	Z Vanadium (MS)	3.3	2.8	2.4	4.7									Client Name	Contact				
: Units :	ina Limits :	Accreditation Gode:	Sample Date	30-May-19	30-May-19	30-May-19	30-May-19														
Meth	Method Reporting Limits:	Accredits	· =	1-537 ES 2 0.00	1-537 ES 4 0.50	1-737 ES 7 0.00	1-737 ES 5 1.00									SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961401	1961402	1961403	1961404									-					

pH Units	1	MO	pH units (AR)	4.6	4.7	4.2	4.9													
µg/kg PCRECD	20 0	ΜŊ	PCB 52	<5.43		<5.63														
µg/kg PCRECD	5	Σ	PCB 28	<5.43		<5.63											12-Jun-2019	EFS/199445M	1	
µg/kg PCBECD	5	MD	PCB 180	<5.43		<5.63									llysis		12	EF		
µg/kg PCRECD	5	5 5	PCB 153	<5.43		<5.63									Sample Analysis					
pcreco	2	ΨŊ	PCB 138	<5.43		<5.63									Sam		nted	lumber	ımber	
µg/kg PCRECD	5	S S	PCB 118	<5.43		<5.63											Date Printed	Report Number	Table Number	
µg/kg PCBECD	+	5	PCB 101	<5.43		<5.63														
mg/kg	-		Total PAH (Sum of USEPA 16)	<1.39	<1.43	<1.44	<1.39													
mg/kg PAHMSHS		S N	Pyrene	60:0>	60.0>	60.0>	<0.0>											7	2	
mg/kg PAHMSHS	0.08	S N	Phenanthrene	<0.09	<0.09	<0.09	<0.09								am			101	NZ2 CZIN	
mg/kg PAHMSHS	0.08	S N	Naphthalene	<0.0>	60.0>	60.0>	<0.09								Nokingham					
mg/kg	0.08	S N	Indeno(123-cd)pyrene	60.0>	60'0>	60'0>	60.0>								SOCOTEC UK Woki	Riggs		0000	D3008-13	
mg/kg PAHMSHS	0.08	S N	Fluorene	60'0>	60.0>	60.0>	60.0>								soco	William Riggs		Ž	בֿ	
mg/kg PAHMSHS	0.08	S M	Fluoranthene	60.0>	60.0>	60.0>	60.0>								lame					
mg/kg PAHMSI IS			Dibenzo(ah)anthracene	60'0>	60.0>	60.0>	60.0>								Client Name	Contact				
: Units :	ting Limits :	Accreditation Code:	Sample Date	30-May-19	30-May-19	30-May-19	30-May-19													
TeM	Method Reporting Limits:	Accredit	Client Sample Description	1-537 ES 2 0.00	1-537 ES 4 0.50	1-737 ES 7 0.00	1-737 ES 5 1.00								SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
			LAB ID Number CL/	1961401	1961402	1961403	1961404													

mg/kg	000	<b>1</b>	⊃	TPH Aro Band >C16-C21	18.7	14.4	12.5	9.84													
$\vdash$	+	+														-					
mg/kg	SOL	4	⊃	TPH Aro Band >C12-C16	10.77	<4.46	<4.50	<4.35													
mg/kg	I PHUSS	4 :	⊃	TPH Aro Band >C10-C12	7.17	<4.46	<4.50	<4.35										12-Jun-2019	EFS/199445M	-	
mg/kg	1 PHUSS	07:	⊃	TPH Ali Band >C8-C40	<21.7	44.4	<22.5	31.5								lysis	ı	=	EF		
mg/kg	I PHUSS	4 :	⊃	TPH Ali Band >C8-C10	<4.35	5.77	7.50	10.30								Sample Analysis					
mg/kg	1 PHUSS	0.70	⊃	TPH Ali Band >C21-C35	<9.52	21.2	<9.86	11.5								Sam		ted	lumber	ımber	
mg/kg	I PHUSS	4 3	⊃	TPH Ali Band >C16-C21	<4.35	<4.46	<4.50	<4.35										Date Printed	Report Number	Table Number	
mg/kg	I PHUSS	4 ]	n	TPH Ali Band >C12-C16	<4.35	<4.46	<4.50	<4.35													
mg/kg	I PHUSS	4 :	Π	TPH Ali Band >C10-C12	<4.35	<4.46	<4.50	<4.35													
mg/kg	ב	2	M	TPH by GCFID (AR)	76.8		131												•	2	
mg/kg	1000	2 :	D	TPH Band (>C10-C40)	74.7		130									E			-	MZ5 JCt 10	
%	1 MSS	- :	⊃	Tot.Moisture @ 105C	8.0	10.3	11.2	8.0								/okingham					
mg/kg	SFAS 0.5	0.7	z	Sulphide as S (AR)	<0.5	9.0>	9.0>	<0.5								SOCOTEC UK Woki	iggs			<b>D9008-19</b>	
mg/kg	SFAF	c.	Π	Phenol Index.(AR)	<0.5	9.0>	9.0>	<0.5								SOCOT	William Riggs		Č	ĩ	
mg/kg	SFAF	0.0	M	Cyanide(Total) (AR)	<0.5	9.0>	9.0>	<0.5								ame					
mg/kg	SFAF.	0.0	M	Cyanide(Free) (AR)	<0.5	9.0>	9.0>	<0.5								Client Name	Contact				
Units:	Method Codes:	ng cimits :	Accreditation Code:	Sample Date	30-May-19	30-May-19	30-May-19	30-May-19													
	. Method Dodson in its	method keport	Accredita	Client Sample Description	1-537 ES 2 0.00	1-537 ES 4 0.50	1-737 ES 7 0.00	1-737 ES 5 1.00								SOCOTEC		Bretby Business Park, Ashby Road	Burton-on-Trent, Staffordshire, DE15 0YZ	Tel +44 (0) 1283 554400	Fax +44 (0) 1283 554422
				LAB ID Number CL/	1961401	1961402	1961403	1961404													

EFS/199445M Ver. 1 Page 7 of 15

#### WASTE ACCEPTANCE CRITERIA TESTING BSEN 12457/3

Client	SOCOTEC LIK Wakingh	am			Leaching Data	
Client	SOCOTEC UK Wokingh	am			Weight of sample (kg)	0.242
Contact	William Diggs				Moisture content @ 105°C (% of Wet Weight)	8.0
Contact	William Riggs				Equivalent Weight based on drying at 105°C (kg)	0.225
Site	D9008-19 M25 Jct 10				Volume of water required to carry out 2:1 stage (litres)	0.433
Site	D9006-19 W25 JCL 10				Fraction of sample above 4 mm %	0.000
Samp	le Description	Report No	Sample No	Issue Date	Fraction of non-crushable material %	0.000
1.5	37 ES 2 0.00	s19 9445M	CL/1961401	12-Jun-19	Volume to undertake analysis (2:1 Stage) (litres)	0.300
1-5	37 E3 2 0.00	519_9443W	CL/1901401	12-Juli-19	Weight of Deionised water to carry out 8:1 stage (kg)	1.650

Note: The >4mm fraction is crushed using a disc mill

				Landfill Wast	e Acceptance Crit	eria Limit Values
Accreditation	Method Code	Solid Waste Analysis (Dry Basis)	Concentration in Solid (Dry Weight Basis)	Inert Waste Landfill	Stable Non- reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
U	WSLM59	Total Organic Carbon (% M/M)	1	3	5	6
N	LOI450	Loss on Ignition (%)	3			10
U	BTEXHSA	Sum of BTEX (mg/kg)	<0.0653	6		
U	PCBUSECD	Sum of 7 Congener PCB's (mg/kg)	< 0.035	1		
U	TPHFIDUS	Mineral Oil (mg/kg)	74.7	500		
N	PAHMSUS	PAH Sum of 17 (mg/kg)	<1.48	100		
U	PHSOIL	pH (pH units)	4.6		>6	
N	ANC	Acid Neutralisation Capacity (mol/kg) @pH 7	0.72		To be evaluated	To be evaluated

Accreditation	Method Code	Leachate Analysis		8:1 Leachate	@ 2:1	Calculated cumulative amount leached @ 10:1		Acceptance Criter 12457/3 @ L/S 10 mg/kg (dry weigl	ŭ
ĕ				ccept °°	mg/kg (di	ry weight)			
U	WSLM3	pH (pH units) °°	6.3	12.1	Calculated data no	ot UKAS Accredited			
U	WSLM2	Conductivity (µs/cm) 00	123	48400					
U	ICPMSW	Arsenic	0.01	0.008	0.02	0.08	0.5	2	25
U	ICPWATVAR	Barium	0.03	<0.01	0.06	<0.1	20	100	300
U	ICPMSW	Cadmium	0.0002	<0.0001	0.0004	<0.001	0.04	1	5
U	ICPMSW	Chromium	0.001	<0.001	0.002	<0.01	0.5	10	70
U	ICPMSW	Copper	0.007	0.005	0.014	0.05	2	50	100
U	ICPMSW	Mercury	<0.0001	<0.0001	<0.0002	<0.001	0.01	0.2	2
U	ICPMSW	Molybdenum	<0.001	<0.001	<0.002	<0.01	0.5	10	30
U	ICPMSW	Nickel	<0.001	<0.001	<0.002	<0.01	0.4	10	40
U	ICPMSW	Lead	0.007	0.005	0.014	0.05	0.5	10	50
U	ICPMSW	Antimony	0.008	0.002	0.016	0.03	0.06	0.7	5
U	ICPMSW	Selenium	<0.001	<0.001	<0.002	<0.01	0.1	0.5	7
U	ICPMSW	Zinc	0.123	0.041	0.246	0.52	4	50	200
U	KONENS	Chloride	4	<1	8	<14	800	15000	25000
U	ISEF	Fluoride	<0.2	<0.2	<0.4	<2	10	150	500
U	ICPWATVAR	Sulphate as SO4	32	3	64	69	1000	20000	50000
N	WSLM27	Total Dissolved Solids	95.6	37700	191	326861	4000	60000	100000
U	SFAPI	Phenol Index	<0.05	<0.05	<0.1	<0.5	1		
N	WSLM13	Dissolved Organic Carbon	16	11	32	117	500	800	1000

Template Ver. 1

Landfill Waste Acceptance Criteria limit values correct as of 11th March 2009.

Tests where the accreditation is set to U are UKAS accredited, those where the accreditation is set to N are not UKAS accredited

#### WASTE ACCEPTANCE CRITERIA TESTING BSEN 12457/3

Client	SOCOTEC LIK Wakingh	am			Leaching Data	
Client	SOCOTEC UK Wokingh	am			Weight of sample (kg)	0.250
Contact	William Diago				Moisture content @ 105°C (% of Wet Weight)	11.2
Contact	William Riggs				Equivalent Weight based on drying at 105°C (kg)	0.225
Site	D9008-19 M25 Jct 10				Volume of water required to carry out 2:1 stage (litres)	0.425
Site	D9006-19 W25 JCL 10				Fraction of sample above 4 mm %	0.000
Samp	le Description	Report No	Sample No	Issue Date	Fraction of non-crushable material %	0.000
1.7	37 ES 7 0.00	s19 9445M	CL/1961403	12-Jun-19	Volume to undertake analysis (2:1 Stage) (litres)	0.300
1-7.	37 E3 7 0.00	519_9443W	CL/1901403	12-Juli-19	Weight of Deionised water to carry out 8:1 stage (kg)	1.650

Note: The >4mm fraction is crushed using a disc mill

				Landfill Wast	e Acceptance Crit	eria Limit Values
Accreditation	Method Code	Solid Waste Analysis (Dry Basis)	Concentration in Solid (Dry Weight Basis)	Inert Waste Landfill	Stable Non- reactive Hazardous Waste in Non- Hazardous Landfill	Hazardous Waste Landfill
U	WSLM59	Total Organic Carbon (% M/M)	1.74	3	5	6
N	LOI450	Loss on Ignition (%)	4.9			10
U	BTEXHSA	Sum of BTEX (mg/kg)	<0.0677	6		
U	PCBUSECD	Sum of 7 Congener PCB's (mg/kg)	<0.042	1		
Ū	TPHFIDUS	Mineral Oil (mg/kg)	130	500		
N	PAHMSUS	PAH Sum of 17 (mg/kg)	<1.53	100		
U	PHSOIL	pH (pH units)	4.2		>6	
N	ANC	Acid Neutralisation Capacity (mol/kg) @pH 7	0.16		To be evaluated	To be evaluated

Accreditation	Method Code	Leachate Analysis		8:1 Leachate	@ 2:1	Calculated cumulative amount leached @ 10:1		Acceptance Criter 12457/3 @ L/S 10 mg/kg (dry weigl	Ü
				ccept <sup>oo</sup>	mg/kg (d	ry weight)			
U	WSLM3	pH (pH units) <sup>oo</sup>	3.9	12	Calculated data no	ot UKAS Accredited			
U	WSLM2	Conductivity (µs/cm) 00	156	1280					
U	ICPMSW	Arsenic	0.077	0.021	0.154	0.28	0.5	2	25
U	ICPWATVAR	Barium	0.1	<0.01	0.2	<0.2	20	100	300
U	ICPMSW	Cadmium	0.0011	<0.0001	0.0022	<0.002	0.04	1	5
U	ICPMSW	Chromium	<0.001	<0.001	<0.002	<0.01	0.5	10	70
U	ICPMSW	Copper	<0.001	<0.001	<0.002	<0.01	2	50	100
U	ICPMSW	Mercury	<0.0001	<0.0001	<0.0002	<0.001	0.01	0.2	2
U	ICPMSW	Molybdenum	<0.001	<0.001	<0.002	<0.01	0.5	10	30
U	ICPMSW	Nickel	0.003	<0.001	0.006	<0.01	0.4	10	40
U	ICPMSW	Lead	0.014	0.006	0.028	0.07	0.5	10	50
U	ICPMSW	Antimony	0.005	0.003	0.01	0.03	0.06	0.7	5
U	ICPMSW	Selenium	<0.001	<0.001	<0.002	<0.01	0.1	0.5	7
U	ICPMSW	Zinc	0.683	0.056	1.366	1.4	4	50	200
U	KONENS	Chloride	3	<1	6	<13	800	15000	25000
U	ISEF	Fluoride	<0.2	<0.2	<0.4	<2	10	150	500
U	ICPWATVAR	Sulphate as SO4	38	4	76	85	1000	20000	50000
N	WSLM27	Total Dissolved Solids	122	1000	244	8829	4000	60000	100000
U	SFAPI	Phenol Index	<0.05	<0.05	<0.1	<0.5	1		
N	WSLM13	Dissolved Organic Carbon	12	8	24	85	500	800	1000

Template Ver. 1

Landfill Waste Acceptance Criteria limit values correct as of 11th March 2009.

Tests where the accreditation is set to U are UKAS accredited, those where the accreditation is set to N are not UKAS accredited

## S199445M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** 

Customer

Site

Sample Analysis

D9008-19 M25 Jct 10 Report No

S199445M

Date Logged 03-Jun-2019

Consignment No S85420

Please note the results for any subcontracted analysis (identified with a ''') is likely to take up to an additional five working days. In-House Report Due 12-Jun-2019

	Zinc (MS)	A				
	Vanadium (MS)					
	Selenium (MS)	^				
	Nickel (MS)	^				
	Mercury (MS)	^				
	Lead (MS)	^				
	Copper (MS)	^				
	Chromium (MS)	^				
	Cadmium (MS)	^				
CPMSS	Arsenic (MS)	^				
CPBOR	Boron (H20 Soluble)	^				
CPACIDS	SO4 (acid sol)	^				
GROHSA	GRO (AA) by HSA GC-FID	^				
FOCS	S.O.M. % (Calc)					
OCCALC	F.O.C.	^				
CustServ	REPORT A					
	Fraction of sample above 4 mm %					
	Fraction of non-crushable material %					
	CEN Leac(P)C					
	CEN Leac(P)2					
EN Leachate	CEN Leac(P)1					
	MTBE (μg/kg)	>				
BTEXHSA	BTEX-HSA + MTBE analysis	^				
ANC	Acid Neut. Capacity					
AMMAR	Exchange.Ammonium AR	^				
MethodID	Sampled		30/05/19	30/02/19	30/02/19	30/05/19
Š	S			Ţ	` '	` `
	Description		1-537 0.00-1.00	1-537 0.50	1-737 0.00-0.50	1-737 1.00
	ID Number		CL/1961401	CL/1961402	CL/1961403	CL/1961404

ote: We will endeavour to prioritise samples to complete analysis withi olding time; however any delay could result in samples becoming eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to rovide missing information in order to reinstate accreditation.

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

No analysis scheduled

EFS/199445M Ver. 1

Page 10 of 14 he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

## S199445M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** Customer

Sample Analysis

D9008-19 M25 Jct 10 S199445M Report No

Site

Date Logged 03-Jun-2019

Consignment No S85420

Please note the results for any subcontracted analysis (identified with a ''') is likely to take up to an additional five working days. In-House Report Due 12-Jun-2019

	TPH Aro Band >C16-C21	1				
	TPH Aro Band >C12-C16	^				
	TPH Aro Band >C10-C12	1				
	TPH Ali Band >C8-C40	^				
	TPH Ali Band >C8-C10	1				
	TPH Ali Band >C21-C35	>				
	TPH Ali Band >C16-C21	>				
	TPH Ali Band >C12-C16	>				
TPHUSSI	TPH Ali Band >C10-C12	>				
	TPH by GCFID (AR)	>				
TPHFIDUS	TPH Band (>C10-C40)	>				
тмѕѕ	Tot.Moisture @ 105C	>				
SFAS	Sulphide as S (AR)					
	Phenol Index.(AR)	>				
	Cyanide(Total) (AR)	>				
SFAPI	Cyanide(Free) (AR)	>				
PHSOIL	pH units (AR)	>				
PCBECD	PCB-7 Congeners Analysis	>				
	PAH (17) by GCMS	>				
PAHMSUS	PAH (16) by GCMS	>				
MCertS	MCertS Analysis	>				
LOI(%MM)	L.O.I. % @ 450C					
KONECR	Chromium vi:					
	Beryllium.	>				
ICPSOIL	Barium.	>				
MethodID	Sampled		30/05/19	30/02/19	30/05/19	30/05/19
	Description		1-537 0.00-1.00	1-537 0.50	1-737 0.00-0.50	1-737 1.00
	ID Number		CL/1961401	CL/1961402	CL/1961403	CL/1961404

ote: We will endeavour to prioritise samples to complete analysis withi olding time; however any delay could result in samples becoming eviant whilst being processed in the laboratory.

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to rovide missing information in order to reinstate accreditation.

# Deviating Sample Key

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis

Headspace present in the sample container

The sampling date was not supplied so holding time may be compromised - applicable to all analysis

Sample processing did not commence within the appropriate handling time Sample processing did not commence within the appropriate holding time

### Requested Analysis Key Analysis Required

Analysis dependant upon trigger result - Note: due date may be affected if triggered Analysis Subcontracted - Note: due date may vary No analysis scheduled

EFS/199445M Ver. 1

Page 11 of 14 he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

## S199445M

# SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

**SOCOTEC UK Wokingham** Customer

Sample Analysis

D9008-19 M25 Jct 10

Site

Report No

S199445M

Date Logged 03-Jun-2019 Consignment No S85420

Please note the results for any subcontracted analysis (identified with a "") is likely to take up to an additional five working days. In-House Report Due 12-Jun-2019

		MethodID	PHUSSI				VSLM59	
ID Number	Description	Sampled	TPH Aro Band >C21-C35	TPH Aro Band >C8-C10	TPH Aro Band >C8-C40	TPH by GCFID (AR/Si)	Total Organic Carbon	
			^	^	1	1	>	
CL/1961401	1-537 0.00-1.00	30/05/19						
CL/1961402	1-537 0.50	30/05/19						
CL/1961403	1-737 0.00-0.50	30/02/19						
CL/1961404	1-737 1.00	30/02/19						

The sample was received without the correct preservation for this analysis The sample was received in an inappropriate container for this analysis Deviating Sample Key ote: We will endeavour to prioritise samples to complete analysis withi

Headspace present in the sample container

sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to

rovide missing information in order to reinstate accreditation.

olding time; however any delay could result in samples becoming

eviant whilst being processed in the laboratory.

The sampling date was not supplied so holding time may be compromised - applicable to all analysis Sample processing did not commence within the appropriate holding time

Analysis dependant upon trigger result - Note: due date may be affected if triggered Sample processing did not commence within the appropriate handling time No analysis scheduled Requested Analysis Key Analysis Required

Analysis Subcontracted - Note: due date may vary

EFS/199445M Ver. 1

Page 12 of 14 he integrity of data for samples/analysis that have been categorised as Deviating may be compromised. Data may not be representative of the sample at the time of sampling.

Report Number: EFS/199445M

Matrix	MethodID	Analysis	Method Description
		Basis	
Soil	AMMAR	As Received	Determination of Exchangeable Ammonium in Soil using potassium
			chloride extraction, discrete colorimetric detection
Soil	ANC	Oven Dried	Quantitative digestion with Hydrochloric Acid back titration with 1M
		@ < 35°C	Sodium Hydroxide to pH 7
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes
			(BTEX) by Headspace GCFID
Soil	CEN Leachate	As Received	Determination of Oversize and Inert Material Content prior to
			leaching sample
Soil	FOCS	Oven Dried	Calculation of Soil Organic Matter content from Organic Carbon
		@ < 35°C	content of soil samples
Soil	GROHSA	As Received	Determination of Total Gasoline Range Organics Hydrocarbons
			(GRO) by Headspace GCFID
Soil	ICPACIDS	Oven Dried	Determination of Total Sulphate in soil samples by Hydrochloric
		@ < 35°C	Acid extraction followed by ICPOES detection
Soil	ICPBOR	Oven Dried	Determination of Boron in soil samples by hot water extraction
		@ < 35°C	followed by ICPOES detection
Soil	ICPMSS	Oven Dried	Determination of Metals in Marine Sediments and Soil samples by
		@ < 35°C	aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried	Determination of Metals in soil samples by aqua regia digestion
		@ < 35°C	followed by ICPOES detection
Soil	KONECR	Oven Dried	Determination of Chromium vi in soil samples by water extraction
		@ < 35°C	followed by colorimetric detection
Soil	LOI(%MM)	Oven Dried	Determination of loss on ignition for soil samples at specified
		@ < 35°C	temperature by gravimetry
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by
			hexane/acetone extraction followed by GCMS detection
Soil	PCBECD	As Received	Determination of Polychlorinated Biphenyl (PCB)
			congeners/aroclors by hexane/acetone extraction followed by
			GCECD detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using
			pH probe.
Soil	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Soil	SFAS	As Received	Segmented flow analysis with colorimetric detection
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on
			oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHFIDUS	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection.
Soil	TPHUSSI	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil
			with GCFID detection including quantitation of Aromatic and
		1	Aliphatic fractions.

Report Number: EFS/199445M

Matrix	MethodID	Analysis	Method Description
		Basis	·
Soil	WSLM59	Oven Dried	Determination of Organic Carbon in soil using sulphurous Acid
		@ < 35°C	digestion followed by high temperature combustion and IR
			detection
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using
			ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using
			ICPOES
Water	ISEF	As Received	Determination of Fluoride in water samples by Ion Selective
			Electrode (ISE)
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non-
			dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical
			conductivity probe.
Water	WSLM27	As Received	Gravimetric Determination
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

#### **Report Notes**

#### **Generic Notes**

#### Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
   All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

#### **Waters Analysis**

Unless stated otherwise results are expressed as mg/l

**Nil**: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

#### Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm<sup>3</sup>@ 15°C

#### Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

#### **Asbestos Analysis**

CH Denotes Chrysotile
CR Denotes Crocidolite
AM Denotes Amosite

TR Denotes Tremolite
AC Denotes Actinolite
AN Denotes Anthophylite

**NAIIS** No Asbestos Identified in Sample **NADIS** No Asbestos Detected In Sample

#### **Symbol Reference**

- ^ Sub-contracted analysis.
- **\$\$** Unable to analyse due to the nature of the sample
- ¶ Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

- Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling
- ¥ Results for guidance only due to possible interference
- & Blank corrected result
- I.S Insufficient sample to complete requested analysis
- I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined N.Det Not detected

N.F No Flow

**NS** Information Not Supplied

Req Analysis requested, see attached sheets for results

- **Þ** Raised detection limit due to nature of the sample
- \* All accreditation has been removed by the laboratory for this result
- **‡** MCERTS accreditation has been removed for this result
- § accreditation has been removed for this result as it is a non-accredited matrix

**Note:** The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

#### **Sample Descriptions**

Client : SOCOTEC UK Wokingham
Site : D9008-19 M25 Jct 10

Report Number: S19\_9445

Note: major constituent in upper case

-		Note: major constituent in upper case
Lab ID Number	Client ID	Description
		Dayling Oll T
CL/1961401	1-537 ES 2 0.00	Brown SILI
CL/1961402	1-537 ES 4 0.50	Brown SILT Brown SILT
CL/1961403	1-737 ES 7 0.00	Brown SILT
CL/1961403 CL/1961404	1-737 ES 5 1.00	Brown Silt SAND

#### **TEST REPORT**



Date of Issue: 11-Sep-2019



#### Report No. EFS/199626M (Ver. 2)

SOCOTEC UK Wokingham Socotec Wokingham Glossop House Hogwood Ln Finchampstead Hogwood Industrial Estate Wokingham RG40 4QW

#### Site: D9008-19 M25 Jct 10

The 2 samples described in this report were registered for analysis by SOCOTEC UK Limited on 08-Jun-2019. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 11-Sep-2019

Tests where the accreditation is set to N or No, and any individual data items marked with a \* are not UKAS or MCERTS accredited. Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by SOCOTEC UK Limited.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 15)
Table of WAC Analysis Results (Page 16)
Table of Asbestos Screening Results (Page 17)
Analytical and Deviating Sample Overview (Pages 18 to 20)
Table of Additional Report Notes (Page 21)
Table of Method Descriptions (Pages 22 to 23)
Table of Report Notes (Page 24)
Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of SOCOTEC UK Lim Becky Batham

Operations Manager Energy & Waste Services

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS) Tests marked '^' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based, and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples) SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.