



Environmental Chemistry
SOCOTEC UK
Ashby Rd, Bretby,
Burton-on-Trent, UK
DE15 0YZ

Certificate of Analysis

Project No: 21011788

Client: Tarmac Ltd

Quote Number: BEC20058162

Project Reference: Scheduled Samples 01-2021

Site Name: Hendy

Contact: Andrew Lowe

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Number of Samples Received: 3

Date Received: 29/01/2021

Analysis Date: 05/02/2021

Date Issued: 05/02/2021

Job Status: Complete

Report Type: Final Version 01

This report supersedes any versions previously issued by the laboratory

Account Manager
Laura Moore

Authorised by the Operations Manager
Becky Batham



Client: Tarmac Ltd

Project Name: Hendy

Project No: 21011788

Date Issued: 05/02/2021

Samples Analysed

<u>Sample Reference</u>	<u>Text ID</u>	<u>Sample Date</u>	<u>Sample Type</u>	<u>Sample Description</u>
HEN_PZ02/08	21011788-001	27/01/2021 00:00:00	WATER	Ground Water
HEN_PZ03/08	21011788-002	27/01/2021 00:00:00	WATER	Ground Water
HEN_Discharge	21011788-003	27/01/2021 00:00:00	WATER	Surface Water

Analysis Results

Project ID					21011788		
Sample ID					001	002	003
Customer ID					HEN_PZ02/08	HEN_PZ03/08	HEN_Discharge
Sample Type					WATER	WATER	WATER
Sampling Date					27/01/2021	27/01/2021	27/01/2021
Analysis	Method Code	MDL	Units	Accred			
Ammoniacal Nitrogen as N	KONENS	0.01	mg/l	U	0.01	<0.01	<0.01
Conductivity at 25°C	WSLM2 & 3	100	µS/cm	U	352	744	649
pH	WSLM2 & 3	1	pH units	U	7.8	7.7	7.6
Temperature	WSLM2 & 3	0	°C	N	18.8	18.8	18.8
Total Suspended Solids	WSLM10	5	mg/l	U			<5
Chloride as Cl	KONENS	1	mg/l	U	19	47	24
Total Oxidised Nitrogen	KONENS	0.2	mg/l	U	0.6	1.3	1.2
Total Alkalinity	WSLM12	2	mg/l	U	145	315	277
Dissolved Oxygen	WSLM20	0.1	mg O2/l	N	9.5	8.7	7.0
Total Organic Carbon	WSLM13	0.2	mg/l	U	<0.20	0.42	2.2
Cadmium as Cd	ICPMSW (Dissolved)	0.00002	mg/l	U	<0.00002	0.00045	<0.00002
Total Chromium as Cr	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001
Copper as Cu	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	0.001	0.001
Lead as Pb	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	0.005	<0.001
Manganese as Mn	ICPMSW (Dissolved)	0.002	mg/l	U	<0.002	<0.002	0.004
Nickel as Ni	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001
Zinc as Zn	ICPMSW (Dissolved)	0.002	mg/l	U	<0.002	0.106	0.006
Calcium as Ca	ICPWATVAR (Dissolved)	1	mg/l	U	56	92	94
Iron as Fe	ICPWATVAR (Dissolved)	0.01	mg/l	U	0.04	0.01	<0.01
Magnesium as Mg	ICPWATVAR (Dissolved)	1	mg/l	U	7	29	25
Potassium as K	ICPWATVAR (Dissolved)	1	mg/l	U	<1	2	4
Total Sulphur as SO4	ICPWATVAR (Dissolved)	3	mg/l	U	12	10	38
Sodium as Na	ICPWATVAR (Dissolved)	1	mg/l	U	10	31	15
Acenaphthene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01

Analysis Results

					Project ID	21011788		
					Sample ID	001	002	003
					Customer ID	HEN_PZ02/08	HEN_PZ03/08	HEN_Discharge
					Sample Type	WATER	WATER	WATER
					Sampling Date	27/01/2021	27/01/2021	27/01/2021
Analysis	Method Code	MDL	Units	Accred				
Acenaphthylene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Anthracene	PAHMSW	0.01	µg/l	U	<0.01*	<0.01*	<0.01*	<0.01*
Benzo[a]anthracene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Benzo[a]pyrene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Benzo[b]fluoranthene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Benzo[g,h,i]perylene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Benzo[k]fluoranthene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Chrysene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Dibenzo[a,h]anthracene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Fluoranthene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Fluorene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Indeno[1,2,3-cd]pyrene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Naphthalene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Phenanthrene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Pyrene	PAHMSW	0.01	µg/l	U	<0.01	<0.01	<0.01	<0.01
Total PAH 16	PAHMSW	0.16	µg/l	U	<0.16	<0.16	<0.16	<0.16
Total TPH	TPHFID	0.01	mg/l	U	0.01	0.02	<0.01	<0.01
TPH by FTIR	FTIRSWPER	0.3	mg/l	N				<0.3

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
PAHMSW	001-003	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (Anthracene) . These circumstances should be taken into consideration when utilising the data.

Deviating Sample Report

Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time
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Analysis Method

<u>Analysis</u>	<u>Analysis Type</u>	<u>Analysis Method</u>
FTIRSWPER	ORGANIC	Unfiltered
ICPMSW (Dissolved)	METALS	Unfiltered
ICPWATVAR (Dissolved)	METALS	Filtered
KONENS	INORGANIC	Filtered
PAHMSW	ORGANIC	Unfiltered
TPHFID	ORGANIC	Unfiltered
WSLM10	INORGANIC	Unfiltered
WSLM12	INORGANIC	Unfiltered
WSLM13	INORGANIC	Unfiltered
WSLM2 & 3	INORGANIC	Unfiltered
WSLM20	INORGANIC	Unfiltered



Client: Tarmac Ltd

Project Name: Hendy

Project No: 21011788

Date Issued: 05/02/2021

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

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

End of Certificate of Analysis