



SOCOTEC

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

Certificate of Analysis

Project No: 20060234

Client: H Evason & Co

Quote Number: BEC19125232

Project Reference: EN078545

Site Name: DORRINGTON

Contact: Mark Evason

Address: Wayford House
Dorrington
Shrewsbury
Shropshire

Post Code: SY5 7EE

E-Mail: mwevason@gmail.com

Phone No: 01743718276

Number of Samples Received: 9

Date Received: 09/06/2020

Analysis Date: 18/06/2020

Date Issued: 19/06/2020

Job Status: Complete

Account Manager

Emily Jones

Authorised by the Operations Manager
Becky Batham



Client: H Evason & Co

Project Name: DORRINGTON

Project No: 20060234

Date Issued: 19/06/2020

Samples Analysed

<u>Sample Reference</u>	<u>Text ID</u>	<u>Sample Date</u>	<u>Sample Type</u>	<u>Sample Description</u>
GW1	20060234-001	31/05/2020 00:00:00	WATER	Ground Water
GW2	20060234-002	31/05/2020 00:00:00	WATER	Ground Water
SW1	20060234-003	31/05/2020 00:00:00	WATER	Surface Water
SW2	20060234-004	31/05/2020 00:00:00	WATER	Surface Water
SW3	20060234-005	31/05/2020 00:00:00	WATER	Surface Water
PMP1	20060234-006	31/05/2020 00:00:00	WATER	Ground Water
PMP2	20060234-007	31/05/2020 00:00:00	WATER	Ground Water
PMP3	20060234-008	31/05/2020 00:00:00	WATER	Ground Water
PMP5	20060234-009	31/05/2020 00:00:00	WATER	Ground Water
GW1	20060234-010	03/06/2020 00:00:00	WATER	Ground Water
GW2	20060234-011	03/06/2020 00:00:00	WATER	Ground Water
SW1	20060234-012	03/06/2020 00:00:00	WATER	Surface Water
SW2	20060234-013	03/06/2020 00:00:00	WATER	Surface Water
SW3	20060234-014	03/06/2020 00:00:00	WATER	Surface Water
PMP1	20060234-015	03/06/2020 00:00:00	WATER	Ground Water
PMP2	20060234-016	03/06/2020 00:00:00	WATER	Ground Water
PMP3	20060234-017	03/06/2020 00:00:00	WATER	Ground Water
PMP5	20060234-018	03/06/2020 00:00:00	WATER	Ground Water



Client: H Evason & Co
 Project Name: DORRINGTON
 Project No: 20060234
 Date Issued: 19/06/2020

Analysis Results

Project ID	20060234				
Sample ID	001	002	003	004	005
Customer ID	GW1	GW2	SW1	SW2	SW3
Sample Type	WATER	WATER	WATER	WATER	WATER
Sampling Date	31/05/2020	31/05/2020	31/05/2020	31/05/2020	31/05/2020

Analysis	Method Code	MDL	Units	Accred					
Ammoniacal Nitrogen as N	KONENS	0.01	mg/l	U	<0.01	0.50	0.11	0.20	0.10
Conductivity at 25°C	WSLM2 & 3	100	µS/cm	U	686	451	557	985	685
pH	WSLM2 & 3	1	pH units	U	7.6	7.5	7.8	7.7	7.5
Chloride as Cl	KONENS	1	mg/l	U	28	11	38	98	48
Total Oxidised Nitrogen	KONENS	0.2	mg/l	U	17.8	<0.2	3.0	<0.2	9.1
COD (Settled)	WSLM11	5	mg/l	U	<5	<5	12	217	11
Total Alkalinity	WSLM12	2	mg/l	U	181	216	183	161	193
Dissolved Oxygen	WSLM20	0.1	mg O2/l	N	5.9	2.5	8.6	4.8	8.4
Total Organic Carbon	WSLM13	0.2	mg/l	U	2.0	1.3	5.1	73	4.0
Cadmium as Cd	ICPMSW (Dissolved)	0.00002	mg/l	U	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Total Chromium as Cr	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001	<0.001	<0.001
Copper as Cu	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	0.002	0.005	0.001
Lead as Pb	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001	0.003	<0.001
Manganese as Mn	ICPMSW (Dissolved)	0.002	mg/l	U	<0.002	0.274	<0.002	0.485	<0.002
Mercury as Hg	ICPMSW (Dissolved)	0.00003	mg/l	U	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel as Ni	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001	0.006	<0.001
Zinc as Zn	ICPMSW (Dissolved)	0.002	mg/l	U	<0.002	0.018	<0.002	0.051	0.003
Calcium as Ca	ICPWATVAR (Dissolved)	1	mg/l	U	103	42	69	118	84
Iron as Fe	ICPWATVAR (Dissolved)	0.01	mg/l	U	<0.01	0.01	0.02	0.41	0.01
Magnesium as Mg	ICPWATVAR (Dissolved)	1	mg/l	U	16	22	13	14	14
Potassium as K	ICPWATVAR (Dissolved)	1	mg/l	U	3	6	7	17	7
Total Sulphur as SO4	ICPWATVAR (Dissolved)	3	mg/l	U	51	<3	26	184	38
Sodium as Na	ICPWATVAR (Dissolved)	1	mg/l	U	13	14	24	67	26





Client: H Evason & Co
 Project Name: DORRINGTON
 Project No: 20060234
 Date Issued: 19/06/2020

Analysis Results

					20060234				
					006	007	008	009	010
					PMP1	PMP2	PMP3	PMP5	GW1
					WATER	WATER	WATER	WATER	WATER
					31/05/2020	31/05/2020	31/05/2020	31/05/2020	03/06/2020
Analysis	Method Code	MDL	Units	Accred					
Ammoniacal Nitrogen as N	KONENS	0.01	mg/l	U	0.30	0.01	0.02	<0.01	<0.01
Conductivity at 25°C	WSLM2 & 3	100	µS/cm	U	1140	1880	449	654	685
pH	WSLM2 & 3	1	pH units	U	7.4	7.2	6.7	7.6	7.6
Chloride as Cl	KONENS	1	mg/l	U	17	138	18	10	28
Total Oxidised Nitrogen	KONENS	0.2	mg/l	U	1.0	6.3	11.7	2.5	17.6
COD (Settled)	WSLM11	5	mg/l	U	11	10	<5	<5	<5
Total Alkalinity	WSLM12	2	mg/l	U	596	400	101	296	185
Dissolved Oxygen	WSLM20	0.1	mg O2/l	N	8.5	8.2	8.3	6.6	5.7
Total Organic Carbon	WSLM13	0.2	mg/l	U	9.0	3.3	1.3	1.1	2.0
Cadmium as Cd	ICPMSW (Dissolved)	0.00002	mg/l	U	0.00002	0.00004	0.00003	<0.00002	<0.00002
Total Chromium as Cr	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001	<0.001	<0.001
Copper as Cu	ICPMSW (Dissolved)	0.001	mg/l	U	0.003	<0.001	<0.001	<0.001	0.001
Lead as Pb	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese as Mn	ICPMSW (Dissolved)	0.002	mg/l	U	0.019	<0.002	<0.002	<0.002	<0.002
Mercury as Hg	ICPMSW (Dissolved)	0.00003	mg/l	U	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel as Ni	ICPMSW (Dissolved)	0.001	mg/l	U	0.001	<0.001	<0.001	<0.001	<0.001
Zinc as Zn	ICPMSW (Dissolved)	0.002	mg/l	U	<0.002	<0.002	<0.002	<0.002	0.002
Calcium as Ca	ICPWATVAR (Dissolved)	1	mg/l	U	217	323	58	103	102
Iron as Fe	ICPWATVAR (Dissolved)	0.01	mg/l	U	<0.01	<0.01	<0.01	<0.01	<0.01
Magnesium as Mg	ICPWATVAR (Dissolved)	1	mg/l	U	26	56	9	21	16
Potassium as K	ICPWATVAR (Dissolved)	1	mg/l	U	5	4	1	2	3
Total Sulphur as SO4	ICPWATVAR (Dissolved)	3	mg/l	U	6	387	40	23	49
Sodium as Na	ICPWATVAR (Dissolved)	1	mg/l	U	13	35	14	7	13





Client: H Evason & Co
 Project Name: DORRINGTON
 Project No: 20060234
 Date Issued: 19/06/2020

Analysis Results

					20060234				
					011	012	013	014	015
					GW2	SW1	SW2	SW3	PMP1
					WATER	WATER	WATER	WATER	WATER
					03/06/2020	03/06/2020	03/06/2020	03/06/2020	03/06/2020
Analysis	Method Code	MDL	Units	Accred					
Ammoniacal Nitrogen as N	KONENS	0.01	mg/l	U	0.50	0.11	0.14	0.10	0.50
Conductivity at 25°C	WSLM2 & 3	100	µS/cm	U	461	556	986	683	1220
pH	WSLM2 & 3	1	pH units	U	7.5	7.9	7.7	7.5	7.0
Chloride as Cl	KONENS	1	mg/l	U	11	39	99	46	18
Total Oxidised Nitrogen	KONENS	0.2	mg/l	U	<0.2	3.0	<0.2	10.0	0.7
COD (Settled)	WSLM11	5	mg/l	U	<5	13	214	10	25
Total Alkalinity	WSLM12	2	mg/l	U	222	183	163	186	640
Dissolved Oxygen	WSLM20	0.1	mg O2/l	N	4.0	8.6	3.0	8.2	3.2
Total Organic Carbon	WSLM13	0.2	mg/l	U	1.3	5.1	76	3.7	10
Cadmium as Cd	ICPMSW (Dissolved)	0.00002	mg/l	U	<0.00002	<0.00002	<0.00002	<0.00002	0.00007
Total Chromium as Cr	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	<0.001	<0.001	<0.001
Copper as Cu	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	0.002	0.006	0.001	0.003
Lead as Pb	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	0.003	<0.001	<0.001
Manganese as Mn	ICPMSW (Dissolved)	0.002	mg/l	U	0.298	<0.002	0.567	<0.002	0.780
Mercury as Hg	ICPMSW (Dissolved)	0.00003	mg/l	U	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
Nickel as Ni	ICPMSW (Dissolved)	0.001	mg/l	U	<0.001	<0.001	0.007	<0.001	0.003
Zinc as Zn	ICPMSW (Dissolved)	0.002	mg/l	U	0.010	0.002	<0.002	0.002	0.003
Calcium as Ca	ICPWATVAR (Dissolved)	1	mg/l	U	46	73	127	97	245
Iron as Fe	ICPWATVAR (Dissolved)	0.01	mg/l	U	0.01	0.02	0.44	0.01	<0.01
Magnesium as Mg	ICPWATVAR (Dissolved)	1	mg/l	U	25	14	15	16	29
Potassium as K	ICPWATVAR (Dissolved)	1	mg/l	U	6	7	18	7	6
Total Sulphur as SO4	ICPWATVAR (Dissolved)	3	mg/l	U	<3	30	205	47	5
Sodium as Na	ICPWATVAR (Dissolved)	1	mg/l	U	15	25	72	27	14





Client: H Evason & Co
 Project Name: DORRINGTON
 Project No: 20060234
 Date Issued: 19/06/2020

Analysis Results

Analysis	Method Code	MDL	Units	Accred	Project ID 20060234		
					016	017	018
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	1850	311	652
pH	WSLM2 & 3	1	pH units	U	7.2	6.6	7.6
Chloride as Cl	KONENS	1	mg/l	U	139	11	10
Total Oxidised Nitrogen	KONENS	0.2	mg/l	U	6.5	7.8	2.5
COD (Settled)	WSLM11	5	mg/l	U	6	<5	<5
Total Alkalinity	WSLM12	2	mg/l	U	403	77.9	304
Dissolved Oxygen	WSLM20	0.1	mg O2/l	N	8.6	8.5	7.1
Total Organic Carbon	WSLM13	0.2	mg/l	U	2.9	1.1	1.1
Cadmium as Cd	ICPMSW (Dissolved)	0.00002	mg/l	U	<0.00002	<0.00002	<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	<0.001	<0.001
Manganese as Mn	ICPMSW (Dissolved)	0.002	mg/l	U	<0.002	<0.002	<0.002
Mercury as Hg	ICPMSW (Dissolved)	0.00003	mg/l	U	<0.00003	<0.00003	<0.00003
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	<0.002	<0.002
Calcium as Ca	ICPWATVAR (Dissolved)	1	mg/l	U	332	41	105
Iron as Fe	ICPWATVAR (Dissolved)	0.01	mg/l	U	<0.01	<0.01	<0.01
Magnesium as Mg	ICPWATVAR (Dissolved)	1	mg/l	U	58	6	21
Potassium as K	ICPWATVAR (Dissolved)	1	mg/l	U	4	1	2
Total Sulphur as SO4	ICPWATVAR (Dissolved)	3	mg/l	U	388	24	25
Sodium as Na	ICPWATVAR (Dissolved)	1	mg/l	U	34	8	7





Client: H Evason & Co

Project Name: DORRINGTON

Project No: 20060234

Date Issued: 19/06/2020

<u>Deviating Sample Report</u>			Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time
Sample Reference	Text ID	Reported Name							
GW1	20060234-001	WSLM11						✓	
GW1	20060234-001	KONENS Chloride as Cl						✓	
GW1	20060234-001	KONENS Total Oxidised Nitrogen						✓	
GW1	20060234-001	WSLM20 Dissolved Oxygen						✓	
GW1	20060234-001	WSLM13						✓	
GW1	20060234-001	WSLM12						✓	
GW2	20060234-002	WSLM11						✓	
GW2	20060234-002	KONENS Chloride as Cl						✓	
GW2	20060234-002	KONENS Total Oxidised Nitrogen						✓	
GW2	20060234-002	WSLM20 Dissolved Oxygen						✓	
GW2	20060234-002	WSLM13						✓	
GW2	20060234-002	WSLM12						✓	
SW1	20060234-003	WSLM11						✓	
SW1	20060234-003	KONENS Chloride as Cl						✓	
SW1	20060234-003	KONENS Total Oxidised Nitrogen						✓	
SW1	20060234-003	WSLM20 Dissolved Oxygen						✓	
SW1	20060234-003	WSLM13						✓	
SW1	20060234-003	WSLM12						✓	
SW2	20060234-004	WSLM11						✓	
SW2	20060234-004	KONENS Chloride as Cl						✓	
SW2	20060234-004	KONENS Total Oxidised Nitrogen						✓	
SW2	20060234-004	WSLM20 Dissolved Oxygen						✓	
SW2	20060234-004	WSLM13						✓	
SW2	20060234-004	WSLM12						✓	
SW3	20060234-005	WSLM11						✓	
SW3	20060234-005	KONENS Chloride as Cl						✓	
SW3	20060234-005	KONENS Total Oxidised Nitrogen						✓	
SW3	20060234-005	WSLM20 Dissolved Oxygen						✓	
SW3	20060234-005	WSLM13						✓	
SW3	20060234-005	WSLM12						✓	
PMP1	20060234-006	WSLM11						✓	



Client: H Evason & Co

Project Name: DORRINGTON

Project No: 20060234

Date Issued: 19/06/2020

PMP1	20060234-006	KONENS	Chloride as Cl																	✓		
PMP1	20060234-006	KONENS	Total Oxidised Nitrogen																		✓	
PMP1	20060234-006	WSLM20	Dissolved Oxygen																		✓	
PMP1	20060234-006	WSLM13																			✓	
PMP1	20060234-006	WSLM12																			✓	
PMP2	20060234-007	WSLM11																			✓	
PMP2	20060234-007	KONENS	Chloride as Cl																		✓	
PMP2	20060234-007	KONENS	Total Oxidised Nitrogen																		✓	
PMP2	20060234-007	WSLM20	Dissolved Oxygen																		✓	
PMP2	20060234-007	WSLM13																			✓	
PMP2	20060234-007	WSLM12																			✓	
PMP3	20060234-008	WSLM11																			✓	
PMP3	20060234-008	KONENS	Chloride as Cl																		✓	
PMP3	20060234-008	KONENS	Total Oxidised Nitrogen																		✓	
PMP3	20060234-008	WSLM20	Dissolved Oxygen																		✓	
PMP3	20060234-008	WSLM13																			✓	
PMP3	20060234-008	WSLM12																			✓	
PMP5	20060234-009	WSLM11																			✓	
PMP5	20060234-009	KONENS	Chloride as Cl																		✓	
PMP5	20060234-009	KONENS	Total Oxidised Nitrogen																		✓	
PMP5	20060234-009	WSLM20	Dissolved Oxygen																		✓	
PMP5	20060234-009	WSLM13																			✓	
PMP5	20060234-009	WSLM12																			✓	
GW1	20060234-010	KONENS	Chloride as Cl																		✓	
GW1	20060234-010	KONENS	Total Oxidised Nitrogen																		✓	
GW1	20060234-010	WSLM20	Dissolved Oxygen																		✓	
GW2	20060234-011	KONENS	Chloride as Cl																		✓	
GW2	20060234-011	KONENS	Total Oxidised Nitrogen																		✓	
GW2	20060234-011	WSLM20	Dissolved Oxygen																		✓	
SW1	20060234-012	KONENS	Chloride as Cl																		✓	
SW1	20060234-012	KONENS	Total Oxidised Nitrogen																		✓	
SW1	20060234-012	WSLM20	Dissolved Oxygen																		✓	
SW2	20060234-013	KONENS	Chloride as Cl																		✓	
SW2	20060234-013	KONENS	Total Oxidised Nitrogen																		✓	
SW2	20060234-013	WSLM20	Dissolved Oxygen																		✓	
SW3	20060234-014	KONENS	Chloride as Cl																		✓	
SW3	20060234-014	KONENS	Total Oxidised Nitrogen																		✓	
SW3	20060234-014	WSLM20	Dissolved Oxygen																		✓	



Client: H Evason & Co

Project Name: DORRINGTON

Project No: 20060234

Date Issued: 19/06/2020

PMP1	20060234-015	KONENS	Chloride as Cl							✓	
PMP1	20060234-015	KONENS	Total Oxidised Nitrogen							✓	
PMP1	20060234-015	WSLM20	Dissolved Oxygen							✓	
PMP2	20060234-016	KONENS	Chloride as Cl							✓	
PMP2	20060234-016	KONENS	Total Oxidised Nitrogen							✓	
PMP2	20060234-016	WSLM20	Dissolved Oxygen							✓	
PMP3	20060234-017	KONENS	Chloride as Cl							✓	
PMP3	20060234-017	KONENS	Total Oxidised Nitrogen							✓	
PMP3	20060234-017	WSLM20	Dissolved Oxygen							✓	
PMP5	20060234-018	KONENS	Chloride as Cl							✓	
PMP5	20060234-018	KONENS	Total Oxidised Nitrogen							✓	
PMP5	20060234-018	WSLM20	Dissolved Oxygen							✓	

Analysis Method

<u>Analysis</u>	<u>Analysis Type</u>	<u>Analysis Method</u>
ICPMSW (Dissolved)	METALS	FILTERED
ICPWATVAR (Dissolved)	METALS	FILTERED
KONENS	INORGANIC	FILTERED
WSLM11	INORGANIC	UNFILTERED
WSLM12	INORGANIC	UNFILTERED
WSLM13	INORGANIC	UNFILTERED
WSLM2 & 3	INORGANIC	UNFILTERED
WSLM20	INORGANIC	UNFILTERED



Client: H Evason & Co

Project Name: DORRINGTON

Project No: 20060234

Date Issued: 19/06/2020

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

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