

Permit Number:	TP3835LV				
Operator:	SI Green UK Limited				
Installation:	Cwmrhydyceirw Quarry				
Schedule 4 - Emissions and monitoring					
Table S4.5 and Table 4a from the Updated Management Report dated January 2021					
Reporting of emissions to water (other than to sewer) for the period from					
01 January 2021 - 31 March 2021					
Groundwater monitoring borehole			CWMGW01	CWMGW03	CWMGW04
Monthly		Units			
Water level	January	mAOD	Borehole destroyed	35.46	38.51
Water level	February	mAOD		32.43	38.07
Water level	March	mAOD		35.07	37.70
Sample collection date				24/02/2021	24/02/2021
Analyte	Emission limit value	Units			
Quarterly					
pH	>6 - <9	pH units	No sample collected	7.3	7.2
Ammoniacal Nitrogen as N	393	mg/l		<0.41	<0.41
Chloride as Cl	11900	mg/l		11.5	39.9
Dissolved Oxygen, Fixed	not set	mg/l		3.4	6.8
Conductivity- Electrical 20C	not set	uS/cm		393	412
Nickel , Total as Ni	2600	ug/l		13.1	21
Cadmium , Total as Cd	75	ug/l		1.2	<0.600
Copper , Total as Cu	not set	ug/l		<9.00	12.6
Alkalinity as CaCO3	not set	mg/l		176	148
Manganese , Total as Mn	not set	ug/l		929	2320
Iron, Total as Fe	not set	ug/l		42600	17100
Zinc , Total as Zn	not set	ug/l		26	26
Lead , Total as Pb	not set	ug/l	7.4	10.1	
Chromium , Total as Cr	not set	ug/l	3.9	4.5	
Six monthly					
Sodium , Total as Na		mg/l			
Potassium , Total as K		mg/l			
TOC as C		mg/l			
Calcium , Total as Ca		mg/l			
Magnesium, Total as Mg		mg/l			
Sulphate as SO4		mg/l			
Nitrogen, Total Oxidised as N		mg/l			
Mercury, Total as Hg		ug/l			
Annual					
Hazardous substances					

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ...Beth Jones.....

Date...30.04.2021.....

(Authorised to sign as representative of Operator)

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Reporting of emissions to water (other than to sewer) for the period from					
01 January 2021 - 31 March 2021					
Groundwater monitoring borehole			CWMGW06a	CWMGW07A	CWMGW07B
Monthly		Units			
Water level	January	mAOD	Borehole destroyed	43.53	43.57
Water level	February	mAOD		43.20	43.11
Water level	March	mAOD		42.38	42.35
Sample collection date					24/02/2021
Analyte	Emission limit value	Units			
Quarterly					
pH	>6 - <9	pH units	No sample collected	Borehole blocked - no sample collected	8
Ammoniacal Nitrogen as N	393	mg/l			<0.41
Chloride as Cl	11900	mg/l			14.4
Dissolved Oxygen, Fixed	not set	mg/l			2.9
Conductivity- Electrical 20C	not set	uS/cm			457
Nickel , Total as Ni	2600	ug/l			9.1
Cadmium , Total as Cd	75	ug/l			<0.600
Copper , Total as Cu	not set	ug/l			<9.00
Alkalinity as CaCO3	not set	mg/l			67.4
Manganese , Total as Mn	not set	ug/l			380
Iron, Total as Fe	not set	ug/l			2700
Zinc , Total as Zn	not set	ug/l			<18.0
Lead , Total as Pb	not set	ug/l			36.3
Chromium , Total as Cr	not set	ug/l			5.1
Six monthly					
Sodium , Total as Na		mg/l			
Potassium , Total as K		mg/l			
TOC as C		mg/l			
Calcium , Total as Ca		mg/l			
Magnesium, Total as Mg		mg/l			
Sulphate as SO4		mg/l			
Nitrogen, Total Oxidised as N		mg/l			
Mercury, Total as Hg		ug/l			
Annual					
Hazardous substances					

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Reporting of emissions to water (other than to sewer) for the period from					
01 January 2021 - 31 March 2021					
Groundwater monitoring borehole			CWMGW08	CWMGW09	CWMGW10
Monthly		Units			
Water level	January	mAOD	33.96	36.69	43.63
Water level	February	mAOD	33.89	36.56	43.36
Water level	March	mAOD	33.56	36.28	42.46
Sample collection date			24/02/2021	24/02/2021	24/02/2021
Analyte	Emission limit value	Units			
Quarterly					
pH	>6 - <9	pH units	7.1	7.1	7.5
Ammoniacal Nitrogen as N	393	mg/l	<0.41	<0.41	<0.41
Chloride as Cl	11900	mg/l	12.8	12.8	12.5
Dissolved Oxygen, Fixed	not set	mg/l	1.6	3.5	4.7
Conductivity- Electrical 20C	not set	uS/cm	416	386	516
Nickel , Total as Ni	2600	ug/l	6.3	14.3	56.5
Cadmium , Total as Cd	75	ug/l	<0.600	<0.600	1.4
Copper , Total as Cu	not set	ug/l	<9.00	<9.00	15.4
Alkalinity as CaCO3	not set	mg/l	198	176	233
Manganese , Total as Mn	not set	ug/l	831	460	1910
Iron, Total as Fe	not set	ug/l	8200	15200	30300
Zinc , Total as Zn	not set	ug/l	47.4	49.1	81.2
Lead , Total as Pb	not set	ug/l	10.2	<6.00	18
Chromium , Total as Cr	not set	ug/l	<2.00	4.1	17
Six monthly					
Sodium , Total as Na		mg/l			
Potassium , Total as K		mg/l			
TOC as C		mg/l			
Calcium , Total as Ca		mg/l			
Magnesium, Total as Mg		mg/l			
Sulphate as SO4		mg/l			
Nitrogen, Total Oxidised as N		mg/l			
Mercury, Total as Hg		ug/l			
Annual					
Hazardous substances					

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01 January 2021 - 31 March 2021					
Groundwater monitoring borehole			CWMGW11	CWMGW12	LFG2
Monthly		Units			
Water level	January	mAOD	39.77	35.95	49.51
Water level	February	mAOD	49.41	35.60	48.98
Water level	March	mAOD	39.15	35.37	48.67
Sample collection date			24/02/2021	24/02/2021	24/02/2021
Analyte	Emission limit value	Units			
Quarterly					
pH	>6 - <9	pH units	7.5	7.6	7.5
Ammoniacal Nitrogen as N	393	mg/l	<0.41	<0.41	<0.41
Chloride as Cl	11900	mg/l	21.7	23.7	5.5
Dissolved Oxygen, Fixed	not set	mg/l	2.6	1.8	7.2
Conductivity- Electrical 20C	not set	uS/cm	581	490	368
Nickel , Total as Ni	2600	ug/l	20	3.6	22.9
Cadmium , Total as Cd	75	ug/l	0.7	<0.600	<0.600
Copper , Total as Cu	not set	ug/l	<9.00	<9.00	338
Alkalinity as CaCO3	not set	mg/l	253	216	164
Manganese , Total as Mn	not set	ug/l	1280	346	650
Iron, Total as Fe	not set	ug/l	7700	4200	22200
Zinc , Total as Zn	not set	ug/l	51.3	<18.0	254
Lead , Total as Pb	not set	ug/l	<6.00	<6.00	36.5
Chromium , Total as Cr	not set	ug/l	6.3	<2.00	14.5
Six monthly					
Sodium , Total as Na		mg/l			
Potassium , Total as K		mg/l			
TOC as C		mg/l			
Calcium , Total as Ca		mg/l			
Magnesium, Total as Mg		mg/l			
Sulphate as SO4		mg/l			
Nitrogen, Total Oxidised as N		mg/l			
Mercury, Total as Hg		ug/l			
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Hazardous substances					

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Reporting of emissions to water (other than to sewer) for the period from					
01 January 2021 - 31 March 2021					
Groundwater monitoring borehole			LFG6	LFG9	LFG12BG
Monthly		Units			
Water level	January	mAOD	54.73	37.73	40.23
Water level	February	mAOD	55.39	37.56	39.28
Water level	March	mAOD	53.46	36.98	39.04
Sample collection date			24/02/2021	24/02/2021	24/02/2021
Analyte	Emission limit value	Units			
Quarterly					
pH	>6 - <9	pH units	6.8	6.8	6.7
Ammoniacal Nitrogen as N	393	mg/l	<0.41	<0.41	<0.41
Chloride as Cl	11900	mg/l	15.7	12.1	24.4
Dissolved Oxygen, Fixed	not set	mg/l	0.6	4.6	4.3
Conductivity- Electrical 20C	not set	uS/cm	228	275	285
Nickel , Total as Ni	2600	ug/l	16.9	86.8	11.5
Cadmium , Total as Cd	75	ug/l	<0.600	0.8	<0.600
Copper , Total as Cu	not set	ug/l	<9.00	44.9	<9.00
Alkalinity as CaCO3	not set	mg/l	93.2	110	92.8
Manganese , Total as Mn	not set	ug/l	549	11000	725
Iron, Total as Fe	not set	ug/l	56400	28200	7300
Zinc , Total as Zn	not set	ug/l	24.8	135	<18.0
Lead , Total as Pb	not set	ug/l	10.6	25.6	<6.00
Chromium , Total as Cr	not set	ug/l	3.9	23.3	2.5
Six monthly					
Sodium , Total as Na		mg/l			
Potassium , Total as K		mg/l			
TOC as C		mg/l			
Calcium , Total as Ca		mg/l			
Magnesium, Total as Mg		mg/l			
Sulphate as SO4		mg/l			
Nitrogen, Total Oxidised as N		mg/l			
Mercury, Total as Hg		ug/l			
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