

Permit Number:		TP3835LV		Test method	
Operator:		SI Green UK Limited		Methods used shall be in accordance with Agency guidance document 'Guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)	
Installation:		Cwmrhydyceirw Quarry			
Schedule 4 - Emissions and monitoring					
Table S4.4 and Table 2a from the Updated Management Report dated January 2021				Uncertainty	
Reporting of emissions to water (other than to sewer) for the period from				Accuracy of testing equipment	
01 October - 31 December		Quarter 4	2021		
Groundwater monitoring borehole				CWMLS02	L9B
Monthly			Units		
Water level		October	depth	1.52	1.07
Water level		November	depth	1.01	1.16
Water level		December	depth	0.92	1.14
Sample collection date				30/11/2021	30/11/2021
Analyte		Emission limit value	Units		
Quarterly					
pH		not set	pH units	10.9	7.7
Ammoniacal Nitrogen as N		not set	mg/l	0.79	0.8
Chloride as Cl		not set	mg/l	48.8	3260
Conductivity- Electrical 20C		not set	uS/cm	503	14240
Alkalinity as CaCO3		not set	mg/l	95.8	2640
Calcium , Total as Ca		not set	mg/l	53.2	57
Potassium , Total as K		not set	mg/l	13.5	321
Sodium , Total as Na		not set	mg/l	21.3	864
Nitrogen, Total Oxidised as N		not set	mg/l	0.54	<0.07
Chemical Oxygen Demand (Total)		not set	mg/l	10	948
Total Organic Carbon as C		not set	mg/l	48.9	251
Sulphate as SO4, High Level		not set	mg/l	43.5	15.6
Six monthly					
Iron, Total as Fe		not set	ug/l	9.2	4490
Manganese , Total as Mn		not set	ug/l	1.6	334
Cadmium , Total as Cd		not set	ug/l	<0.11	<0.11
Chromium , Total as Cr		not set	ug/l	9.3	22.9
Copper , Total as Cu		not set	ug/l	7	5
Nickel , Total as Ni		not set	ug/l	<1.5	37.5
Lead , Total as Pb		not set	ug/l	5.6	<4.1
Magnesium, Total as Mg		not set	mg/l	<0.2	55.6
Mercury, Total as Hg		not set	ug/l	<0.05	<0.05
Zinc , Total as Zn		not set	ug/l	<1.1	10.3

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Analyte	Emission limit value	Units		
Annual				
Arsenic	not set	ug/l	1.5	1.7
Selenium	not set	ug/l	0.83	<0.50
Antimony	not set	ug/l	2.2	3.9
Tellurium	not set	ug/l	<1.0	<1.0
Thallium	not set	ug/l	<1.0	<1.0
Uranium	not set	ug/l	<1.0	<1.0
Naphthalene	not set	ug/l	<0.05	10.1
TPH	not set	mg/l	<0.20	0.6
Mecoprop	not set	ug/l	<0.1	<0.1
Phenol	not set	ug/l	<0.50	<0.50
2-chlorophenol	not set	ug/l	<0.50	<0.50
2-methylphenol	not set	ug/l	<0.50	<0.50
4-methylphenol	not set	ug/l	<0.50	<0.50
2 nitrophenol	not set	ug/l	<0.50	<0.50
2,4-dimethylphenol	not set	ug/l	<0.50	<0.50
2,4-dichlorophenol	not set	ug/l	<0.50	<0.50
2,6-dichlorophenol	not set	ug/l	<0.50	<0.50
4-chloro,3-methylphenol	not set	ug/l	<0.50	<0.50
2,4,6-trichlorophenol	not set	ug/l	<0.50	<0.50
2,4,5-trichlorophenol	not set	ug/l	<0.50	<0.50
Acenaphthylene	not set	ug/l	<0.05	<0.05
Acenaphthene	not set	ug/l	<0.05	0.77
4-nitrophenol	not set	ug/l	<0.50	<0.50
2,3,4,6-tetrachlorophenol	not set	ug/l	<0.50	<0.50
Fluorene	not set	ug/l	<0.05	0.25
Pentachlorophenol	not set	ug/l	<0.50	<0.50
Phenanthrene	not set	ug/l	<0.05	<0.05
Anthracene	not set	ug/l	<0.05	0.13
Fluoranthene	not set	ug/l	<0.05	0.35
Pyrene	not set	ug/l	<0.05	<0.05
Benza(a)anthracene	not set	ug/l	<0.05	<0.05
Chrysene	not set	ug/l	<0.05	<0.05
Benzo(b)fluoranthene	not set	ug/l	<0.05	<0.05
Benzo(a)pyrene	not set	ug/l	<0.05	<0.05
Indeno(123-cd)pyrene	not set	ug/l	<0.05	<0.05

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Dibenza(ah)anthracene	not set	ug/l	<0.05	<0.05
Benzo(ghi)perylene	not set	ug/l	<0.05	<0.05
Alpha-BHC	not set	ug/l	<0.20	<0.20
Beta-BHC	not set	ug/l	<0.20	<0.20
Gamma-BHC	not set	ug/l	<0.20	<0.20
Delta-BHC	not set	ug/l	<0.20	<0.20
Heptachlor	not set	ug/l	<0.20	<0.20
Aldrin	not set	ug/l	<0.20	<0.20
Heptachlor Epoxide	not set	ug/l	<0.20	<0.20
Endosulphan	not set	ug/l	<0.20	<0.20
pp-DDE	not set	ug/l	<0.20	<0.20
Dieidrin	not set	ug/l	<0.20	<0.20
Endosulphan-I	not set	ug/l	<0.20	<0.20
pp-DDD	not set	ug/l	<0.20	<0.20
Endrin Aldehyde	not set	ug/l	<0.20	<0.20
Endosulphan Sulphate	not set	ug/l	<0.20	<0.20
pp-DDT	not set	ug/l	<0.20	<0.20
Endrin Ketone	not set	ug/l	<0.20	<0.20
Methoxychlor	not set	ug/l	<0.20	<0.20
Ametryn	not set	ug/l	<0.20	<0.20
Atraton	not set	ug/l	<0.20	<0.20
Atrazine	not set	ug/l	<0.20	<0.20
Bromacil	not set	ug/l	<0.20	<0.20
Butachlor	not set	ug/l	<0.20	<0.20
Butylate	not set	ug/l	<0.20	<0.20
Chlorpropham	not set	ug/l	<0.20	<0.20
Cycloate	not set	ug/l	<0.20	<0.20
Devrinon	not set	ug/l	<0.20	<0.20
Diazinon	not set	ug/l	<0.20	<0.20
Dichlorvos	not set	ug/l	<0.20	<0.20
Dimethyl-p	not set	ug/l	<0.20	<0.20
Nitrophenylphosphate	not set	ug/l	<0.20	<0.20
Diphenamid	not set	ug/l	<0.20	<0.20
Disulfoton Sulfone	not set	ug/l	<0.20	<0.20
EPTC	not set	ug/l	<0.20	<0.20
Metolachlor	not set	ug/l	<0.20	<0.20

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Metribuzin	not set	ug/l	<0.20	<0.20
Mevinphos	not set	ug/l	<0.20	<0.20
MGK	not set	ug/l	<0.20	<0.20
Molinate	not set	ug/l	<0.20	<0.20
Pebulate	not set	ug/l	<0.20	<0.20
Prometon	not set	ug/l	<0.20	<0.20
Prometryne	not set	ug/l	<0.20	<0.20
Propazine	not set	ug/l	<0.20	<0.20
Prophos	not set	ug/l	<0.20	<0.20
Propyzamide	not set	ug/l	<0.20	<0.20
Simazine	not set	ug/l	<0.20	<0.20
Simetryn	not set	ug/l	<0.20	<0.20
Terbacil	not set	ug/l	<0.20	<0.20
Terbufos	not set	ug/l	<0.20	<0.20
Terbutryne	not set	ug/l	<0.20	<0.20
Tributylphosphoro-trithioite	not set	ug/l	<0.20	<0.20
Vernolate	not set	ug/l	<0.20	<0.20
Organotin (Total as TBTO)	not set	ug/l	<0.050	<0.050
Dichlorodifluoromethane	not set	ug/l	<1.0	<1.0
Chloromethane	not set	ug/l	<1.0	<1.0
Vinyl Chloride	not set	ug/l	<1.0	<1.0
Bromomethane	not set	ug/l	<5	<5
Chloroethane	not set	ug/l	<2.0	<2.0
Trichlorofluoromethane	not set	ug/l	<1.0	<1.0
1,1-Dichloroethene	not set	ug/l	<1.0	<1.0
Trans 1,2-Dichloroethene	not set	ug/l	<1.0	<1.0
1,1-Dichloroethane	not set	ug/l	<1.0	<1.0
Cis 1,2-Dichloroethene	not set	ug/l	<1.0	<1.0
Bromochloromethane	not set	ug/l	<5	<5
Trichloromethane	not set	ug/l	<1.0	<1.0
1,1,1-Trichloroethane	not set	ug/l	<1.0	<1.0
Tetrachloromethane	not set	ug/l	<1.0	<1.0
1,1-Dichloropropene	not set	ug/l	<1.0	<1.0
Benzene	not set	ug/l	<1.0	<1.0
1,2-Dichloroethane	not set	ug/l	<2.0	<2.0
Trichloroethene	not set	ug/l	<1.0	<1.0

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Analyte	Emission limit value	Units		
1,2-Dichloropropane	not set	ug/l	<1.0	<1.0
Dibromomethane	not set	ug/l	<10	<10
Bromodichloromethane	not set	ug/l	<5	<5
cis-1,3-Dichloropropene	not set	ug/l	<10	<10
Toluene	not set	ug/l	<1.0	<1.0
Trans-1,3-Dichloropropene	not set	ug/l	<10	<10
1,1,2-Trichloroethane	not set	ug/l	<10	<10
Tetrachloroethene	not set	ug/l	<1.0	<1.0
1,3-Dichloropropane	not set	ug/l	<2.0	<2.0
Dibromochloromethane	not set	ug/l	<10	<10
1,2-Dibromoethane	not set	ug/l	<5	<5
Chlorobenzene	not set	ug/l	<1.0	<1.0
1,1,1,2-Tetrachloroethane	not set	ug/l	<2.0	<2.0
Ethylbenzene	not set	ug/l	<1.0	<1.0
m&p-Xylene	not set	ug/l	<1.0	<1.0
o-Xylene	not set	ug/l	<1.0	<1.0
Styrene	not set	ug/l	<1.0	<1.0
Tribromomethane	not set	ug/l	<1.0	<1.0
Isopropylbenzene	not set	ug/l	<1.0	<1.0
Bromobenzene	not set	ug/l	<1.0	<1.0
1,2,3-Trichloropropane	not set	ug/l	<1.0	<1.0
N-Propylbenzene	not set	ug/l	<1.0	<1.0
2-Chlorotoluene	not set	ug/l	<1.0	<1.0
1,3,5-Trimethylbenzene	not set	ug/l	<50	<50
4-Chlorotoluene	not set	ug/l	<1.0	<1.0
Tert-Butylbenzene	not set	ug/l	<1.0	<1.0
1,2,4-Trimethylbenzene	not set	ug/l	<1.0	<1.0
Sec-butylbenzene	not set	ug/l	<1.0	<1.0
1,3-Dichlorobenzene	not set	ug/l	<1.0	<1.0
4-Isopropyltoluene	not set	ug/l	<1.0	<1.0
1,4-Dichlorobenzene	not set	ug/l	<1.0	<1.0
N-Butylbenzene	not set	ug/l	<1.0	<1.0
1,2-Dichlorobenzene	not set	ug/l	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	not set	ug/l	<50	<50
1,2,4-Trichlorobnzene	not set	ug/l	<1.0	<1.0
Hexachlorobutadiene	not set	ug/l	<1.0	<1.0

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Analyte	Emission limit value	Units		
1,2,3-Trichlorobenzene	not set	ug/l	<2.0	<2.0
Methyl Tert-Butyl Ether	not set	ug/l	<1.0	<1.0
PCB 28	not set	ug/l	<0.010	<0.010
PCB 52	not set	ug/l	<0.010	<0.010
PCB 90 + 101	not set	ug/l	<0.010	<0.010
PCB 118	not set	ug/l	<0.010	<0.010
PCB 153	not set	ug/l	<0.010	<0.010
PCB 138	not set	ug/l	<0.010	<0.010
PCB 180	not set	ug/l	<0.010	<0.010
Total PCBs (7 Congeners)	not set	ug/l	<0.10	<0.10
[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 value is expressed as a range, the result is given as the 'minimum – maximum' measured values. [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 other cases the principal technique is stated, e.g. gas chromatography. [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...02.02.2022..... (Authorised to sign as representative of Operator)				