

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	118276	120008	120002	109702	109703
							BH ID	118276	120008	120002	109702	109703
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
							12/02/2024	13/02/2024	13/02/2024	31/01/2024	31/01/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	6.7	7.3	7.3	8.7	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0			
Total Sulphate as SO4	mg/kg	50		22	9700					9200	2400	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200		55	100	250			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120		27.7	52.1	124			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310					79	25	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160					39	13	
Total Sulphur	mg/kg	50		84	3900					3200	980	
Total Sulphur	%	0.005		0.008	0.356					0.322	0.098	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5					< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4					6.4	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0	< 1.0	< 1.0			
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	0.52	< 0.05	< 0.05			
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05	< 0.05	< 0.05			
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05	< 0.05	< 0.05			
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	0.07	0.2	< 0.05			
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05	0.1	< 0.05			
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	0.06	0.39	0.06			
Pyrene	mg/kg	0.05	54000	<MRL	13	0	0.06	0.33	0.05			
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05	0.18	< 0.05			
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05	0.19	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05	0.24	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05	0.1	< 0.05			
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05	0.18	< 0.05			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05	< 0.05	< 0.05			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05	< 0.05	< 0.05			
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		< 0.80	1.91	< 0.80			
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0				29000	27000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0				8.1	8.2	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	18	47	19	120	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.3	1.6	1.5			
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	0.2	2.4	2	20	10	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	0.7	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	4	< 1.8			
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	59	31	44	44	42	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	26	53	29			
Iron (aqua regia extractable)	mg/kg	40		0.013	58000					31000	32000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	43	43	77	35	32	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100					310	310	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	< 0.3	< 0.3			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0				14	5.7	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	23	27	24			

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Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	118276	120008	120002	109702	109703
							BH ID	12/02/2024	13/02/2024	13/02/2024	31/01/2024	31/01/2024
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0		1.2	1.7	1.9	4	3.3
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		42	48	46	100	94
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0		65	100	220		
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000						11000	8300
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900						3700	3200
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900						6400	5400
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800						2500	1900
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0		< 0.020	< 0.020	< 0.020		
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0		< 0.020	< 0.020	< 0.020		
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0		< 0.050	< 0.050	< 0.050		
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0		< 1.0	< 1.0	< 1.0		
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0		< 2.0	< 2.0	< 2.0		
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0		< 8.0	< 8.0	< 8.0		
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0		< 8.0	< 8.0	10		
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0		< 10	< 10	12		
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0		< 0.010	< 0.010	< 0.010		
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0		< 0.010	< 0.010	< 0.010		
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0		< 0.050	< 0.050	< 0.050		
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0		< 1.0	< 1.0	< 1.0		
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0		< 2.0	< 2.0	< 2.0		
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0		< 10	< 10	< 10		
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0		< 10	< 10	< 10		
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0		< 10	< 10	< 10		
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0		< 5.0	< 5.0	< 5.0		
Benzene	µg/kg	5	15000	<MRL	28	0		11	< 5.0	< 5.0		
Toluene	µg/kg	5	3300000	<MRL	130	0		5.7	< 5.0	< 5.0		
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0		< 5.0	< 5.0	< 5.0		
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0		< 5.0	< 5.0	< 5.0		
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0	< 5.0	< 5.0		
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0	< 5.0		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0		11	< 5.0	< 5.0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

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							BH ID	12/02/2024	13/02/2024	13/02/2024	31/01/2024	31/01/2024
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0		5.7	< 5.0	< 5.0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0		< 5.0	< 5.0	< 5.0		
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0		< 5.0	< 5.0	< 5.0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0	< 5.0	< 5.0		
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

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							BH ID	RTP151	RTP183	RTP184	RBH116	RBH116
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
							12/02/2024	13/02/2024	13/02/2024	31/01/2024	31/01/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

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Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	109705	112637	116835	118281	112638
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							02/02/2024	05/02/2024	09/02/2024	12/02/2024	05/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	7.9	8.7	8.1	7.8	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		2600	9100	7400	8700	2000	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		37	45	120	23	35	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				60	11		
Total Sulphur	mg/kg	50		84	3900		1600	3900	2500	2800	2000	
Total Sulphur	%	0.005		0.008	0.356				0.249	0.28		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL		< 20	< 20			< 20	
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9			0.2				
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			16				
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0		< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	3900	30000	19000	34000	25000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	7.4	8.5	8.5	7.2	5.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0			96	79		
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	5.2	12	40	4.3	10	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	3.1	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	68	47	54	48	43	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		7800	27000	14000	37000	29000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	96	36	48	34	62	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		670	330	240	240	330	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	5.3	13	11	3.2	26	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	109705	112637	116835	118281	112638
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							02/02/2024	05/02/2024	09/02/2024	12/02/2024	05/02/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	3.2	3.2	4.1	2.4	2.7	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	84	110	120	88	88	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		5100	9800	5200	9700	16000	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		4500	3800	4100	3400	4500	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		5200	7400	4200	6500	5400	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		2400	3300	5800	2800	2000	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	RBH119	RBH119	RBH136	RBH138	RBH141
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							02/02/2024	05/02/2024	09/02/2024	12/02/2024	05/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	RBH119	RBH119	RBH136	RBH138	RBH141
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							02/02/2024	05/02/2024	09/02/2024	12/02/2024	05/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	RBH141A	RTP151	RTP153	RTP157	RTP181
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							07/02/2024	12/02/2024	13/02/2024	12/02/2024	13/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.1	7.7	8	8.1	8.1	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		3300	140	4000	330	940	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		40	5	5.1	3.6	12	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		20	2.5	2.5	1.8	6.2	
Total Sulphur	mg/kg	50		84	3900		1100	84	1400	140	410	
Total Sulphur	%	0.005		0.008	0.356		0.111	0.008	0.143	0.014	0.041	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	4.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	29000	5800	46000	27000	40000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	7.3	< 1.0	8.6	7.4	9	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	85	11	92	66	95	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	1.4	0.5	5.2	0.3	1.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	49	160	46	110	48	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		31000	14000	34000	28000	35000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	32	7.7	45	31	48	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		210	140	230	210	190	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.5	1.2	3.4	2.3	3.1	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	07/02/2024	12/02/2024	13/02/2024	12/02/2024	13/02/2024
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	3.6	< 1.0	3.2	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	88	18	110	72	120	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		6800	2400	9200	5200	6900	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		2700	960	3600	2600	3100	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		6000	850	9400	4900	7700	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		2900	480	3700	2100	4000	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	RBH141A	RTP151	RTP153	RTP157	RTP181
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							07/02/2024		12/02/2024	13/02/2024	12/02/2024	13/02/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	RBH141A	RTP151	RTP153	RTP157	RTP181
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							07/02/2024	12/02/2024	13/02/2024	12/02/2024	13/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120007	120003	120588	121253	120647
							BH ID	120007	120003	120588	121253	120647
							Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
							Strata	PFA	PFA	PFA	PFA	PFA
							13/02/2024	13/02/2024	14/02/2024	15/02/2024	14/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.7	8.8	8.3	8.3	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		5300	890	6400	820	1500	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		17	4.1	3.3	1.3	1.8	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		8.6	2.1	1.6	0.7	0.9	
Total Sulphur	mg/kg	50		84	3900		2000	320	2100	260	480	
Total Sulphur	%	0.005		0.008	0.356		0.196	0.032	0.213	0.026	0.048	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	50000	14000	37000	30000	41000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.8	3.9	8.9	5.8	11	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	89	48	93	90	160	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	18	1.1	6.4	3.4	1.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	52	28	64	32	55	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		34000	25000	44000	37000	42000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	48	16	40	26	40	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		310	200	240	320	190	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.2	3.3	2.8	2.6	2.6	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120007	120003	120588	121253	120647
							BH ID	13/02/2024	13/02/2024	14/02/2024	15/02/2024	14/02/2024
							Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
							Strata	PFA	PFA	PFA	PFA	PFA
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0		3.1	5.2	< 1.0	< 1.0	2.7
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		120	48	130	81	110
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			15000	4900	9300	13000	7200
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			4900	1800	3500	3300	3100
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			9900	2200	6700	5300	7600
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			5500	1200	3300	1900	3200
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120007	120003	120588	121253	120647
							BH ID	RTP182	RTP184	RBH124	RTP124	RTP134
							Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
							Strata	PFA	PFA	PFA	PFA	PFA
							13/02/2024	13/02/2024	14/02/2024	15/02/2024	14/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120007	120003	120588	121253	120647
							BH ID	RTP182	RTP184	RBH124	RTP124	RTP134
							Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
							Strata	PFA	PFA	PFA	PFA	PFA
							13/02/2024	13/02/2024	14/02/2024	15/02/2024	14/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120649	121259	122230	121256
							121250	RTP137	RTP138	RTP139	RTP140
							BH ID	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
							Depth	3.20-3.40	3.50-3.70	3.50-3.70	2.20-2.40
							Strata	PFA	PFA	PFA	PFA
							15/02/2024	14/02/2024	15/02/2024	16/02/2024	15/02/2024
General Inorganics											
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.4	8.2	8	7.5	7.8
Total Cyanide	mg/kg	1	49	<MRL	7.9	0					
Total Sulphate as SO4	mg/kg	50		22	9700		6000	4700	7300	4500	1700
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		3.6	4.8	6	3.6	1.7
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		1.8	2.4	3	1.8	0.8
Total Sulphur	mg/kg	50		84	3900		1700	1400	2200	1500	480
Total Sulphur	%	0.005		0.008	0.356		0.168	0.142	0.216	0.146	0.048
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		2.6	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0					
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0					
Fluorene	mg/kg	0.05	60000	<MRL	2	0					
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0					
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0					
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0					
Pyrene	mg/kg	0.05	54000	<MRL	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0					
Chrysene	mg/kg	0.05	350	<MRL	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0					
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	32000	33000	50000	29000	38000
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.4	7.6	9.2	8.9	9.4
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	140	130	120	120	120
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0					
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	5.6	2.2	3.7	5.6	1.2
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	51	45	57	41	55
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		43000	37000	58000	35000	41000
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	31	29	36	35	38
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		240	170	220	200	260
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	2.4	2.5	4.9	2.4	3
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121250	120649	121259	122230	121256
							BH ID	15/02/2024	14/02/2024	15/02/2024	16/02/2024	15/02/2024
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	RTP135	< 1.0	2.4	4.7	2.4	2.5
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	RTP137	96	90	130	100	120
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	RTP138					
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		RTP139					
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		RTP140					
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900							
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121250	120649	121259	122230	121256
							BH ID	15/02/2024	14/02/2024	15/02/2024	16/02/2024	15/02/2024
							Depth	3.20-3.40	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
							Strata	PFA	PFA	PFA	PFA	PFA
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120649	121259	122230	121256
							BH ID	120649	121259	122230	121256
							121250	120649	121259	122230	121256
							3.20-3.40	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
							Strata	PFA	PFA	PFA	PFA
							15/02/2024	14/02/2024	15/02/2024	16/02/2024	15/02/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	20/02/2024	16/02/2024	16/02/2024	19/02/2024	19/02/2024
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.2	8.2	8.2	8.5	7.5	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0					
Total Sulphate as SO4	mg/kg	50		22	9700			3800	3300	480	3300	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		3.7	2.9	1.8	1.7	3.5	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		1.9	1.4	0.9	0.9	1.8	
Total Sulphur	mg/kg	50		84	3900		760	1200	1200	150	1000	
Total Sulphur	%	0.005		0.008	0.356		0.076	0.121	0.117	0.015	0.101	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	31000	33000	38000	34000	36000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.1	11	8.9	9.8	9.3	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	87	130	140	130	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	3.7	1.7	1.7	1.2	3.9	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	53	54	56	60	63	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		37000	38000	42000	43000	38000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	48	43	36	37	36	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		350	190	160	320	300	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	6.3	3.5	3.1	2.3	2.5	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	20/02/2024	16/02/2024	16/02/2024	19/02/2024	19/02/2024
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	2.6	2.5	3.7	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	160	130	110	120	140	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		13000	6900	6300	6500	8800	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		3900	2700	2700	3000	3200	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		5400	6500	7000	5900	6600	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		1800	2100	2500	1900	2000	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	20/02/2024	16/02/2024	16/02/2024	19/02/2024	19/02/2024
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	RTP143	RTP154	RTP155	RTP166	RTP177
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
							20/02/2024	16/02/2024	16/02/2024	19/02/2024	19/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	120641	125560	125600	125986	125987
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							14/02/2024	20/02/2024	19/02/2024	21/02/2024	21/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8	8.9	8.3	8.3	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0				< 1.0	8.4	
Total Sulphate as SO4	mg/kg	50		22	9700		2600	7400	2800		840	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000					98		
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500					48.9		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		6.8	5.4	3		15	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		3.4	2.7	1.5		7.7	
Total Sulphur	mg/kg	50		84	3900		990	2700	1100		320	
Total Sulphur	%	0.005		0.008	0.356		0.099	0.267	0.112		0.032	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5		< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0		< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0				< 1.0		
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0				0.1		
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0				< 0.05		
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0				< 0.05		
Fluorene	mg/kg	0.05	60000	<MRL	2	0				< 0.05		
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0				< 0.05		
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0				< 0.05		
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0				< 0.05		
Pyrene	mg/kg	0.05	54000	<MRL	13	0				< 0.05		
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0				< 0.05		
Chrysene	mg/kg	0.05	350	<MRL	7.4	0				< 0.05		
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0				< 0.05		
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0				< 0.05		
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0				< 0.05		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0				< 0.05		
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0				< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0				< 0.05		
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5					< 0.80		
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	33000	34000	16000		24000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	7.9	7.4	3.9		8.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	100	85	52	120	140	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0				3.4		
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	1.1	24	2.7	4	4.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0				< 1.8		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	52	51	25	59	38	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0				110		
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		39000	34000	18000		33000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	33	44	17	56	29	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		280	290	200		310	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0				< 0.3		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.6	4.8	3.7		2.8	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0				55		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	14/02/2024	20/02/2024	19/02/2024	21/02/2024	21/02/2024
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	3.2	< 1.0	13	3.8	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	140	120	61	130	85	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0				130		
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		8100	13000	7100		8300	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		3100	3900	3300		3100	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		5500	6900	2900		4400	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		2200	2500	1200		1500	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0				< 0.020		
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0				< 0.020		
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0				< 0.050		
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0				< 1.0		
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0				4.5		
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0				59		
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500					49		
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800					110		
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023					< 0.010		
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12					< 0.010		
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0				< 0.050		
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0				< 1.0		
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0				< 2.0		
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0				< 10		
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0				< 10		
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500					< 10		
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0				< 5.0		
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0		
Toluene	µg/kg	5	3300000	<MRL	130	0				< 5.0		
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0				< 5.0		
o-Xylene	µg/kg	5	3700000	<MRL	6100	0				< 5.0		
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL					< 5.0		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	RTP186	RBH129	RBH126	RBH114	RBH114
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							14/02/2024	20/02/2024	19/02/2024	21/02/2024	21/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	130	0					< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	RTP186	RBH129	RBH126	RBH114	RBH114
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							14/02/2024	20/02/2024	19/02/2024	21/02/2024	21/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	128695	128696	128698	129904	130175
							BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
							Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
							Strata	PFA	PFA	PFA	PFA	PFA
							22/02/2024	23/02/2024	23/02/2024	26/02/2024	23/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.2	8.4	8.1	8.9	7.9	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0	< 1.0	4500	
Total Sulphate as SO4	mg/kg	50		22	9700		7100	8800	6700			
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		5000	4900		1600		
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		2500	2450		788		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310				2.1		11	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				1		5.5	
Total Sulphur	mg/kg	50		84	3900				2300		1600	
Total Sulphur	%	0.005		0.008	0.356				0.229		0.16	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5				< 0.5		1.1	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4				< 2.0		< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3		4.3	< 1.0				
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0				< 1.0		
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	< 0.05	< 0.05		0.26		
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	< 0.05		< 0.05		
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05	< 0.05		< 0.05		
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05	< 0.05		0.07		
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	0.46	< 0.05		0.23		
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	0.12	< 0.05		0.05		
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	0.49	< 0.05		0.21		
Pyrene	mg/kg	0.05	54000	<MRL	13	0	0.67	< 0.05		0.19		
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	0.32	< 0.05		< 0.05		
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	1.2	< 0.05		< 0.05		
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05	< 0.05		< 0.05		
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05	< 0.05		< 0.05		
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05	< 0.05		< 0.05		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05	< 0.05		< 0.05		
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05		< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05	< 0.05		< 0.05		
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		3.29	< 0.80		1.01		
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			37000		34000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0			8.9		6.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	91	100	110	81	86	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	3.4	3.5		2.5		
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	11	7.7	8.2	17	2.9	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8		< 1.8		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	45	52	56	48	49	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	89	89		91		
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				30000		39000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	42	45	37	34	31	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				210		240	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	0.4	< 0.3		< 0.3		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0			2.9		4	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	48	49		51		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	128695	128696	128698	129904	130175
							BH ID	22/02/2024	23/02/2024	23/02/2024	26/02/2024	23/02/2024
							Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
							Strata	PFA	PFA	PFA	PFA	PFA
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0		3.4	< 1.0	2.1	3.4	2
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		110	110	130	90	99
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0		65	55		93	
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000					7800		9400
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900					3200		3100
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900					7400		5800
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800					2700		2400
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0		< 0.020	< 0.020		< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0		< 0.020	< 0.020		< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0		< 0.050	< 0.050		< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0		1.3	< 1.0		< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0		38	< 2.0		6.7	
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0		210	< 8.0		39	
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0		1500	< 8.0		770	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0		1800	< 10		820	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0		< 0.010	< 0.010		< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0		< 0.010	< 0.010		< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0		< 0.050	< 0.050		< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0		< 1.0	< 1.0		< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0		20	< 2.0		6.4	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0		240	< 10		17	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0		1100	< 10		130	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0		1400	< 10		160	
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0		< 5.0	< 5.0		< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0	< 5.0		< 5.0	
Toluene	µg/kg	5	33000000	<MRL	130	0		< 5.0	< 5.0		< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0		< 5.0	< 5.0		< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0		< 5.0	< 5.0		< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0	< 5.0		< 5.0	
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0		< 5.0	< 5.0			
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0		< 5.0	< 5.0			
Bromomethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL			< 5.0	< 5.0			
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0		< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Chloroform	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0		< 5.0	< 5.0			
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0	< 5.0		< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		< 5.0	< 5.0			
Dibromomethane	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		< 5.0	< 5.0			
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	128695	128696	128698	129904	130175
						BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
						Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
						Strata	PFA	PFA	PFA	PFA	PFA
Number of Exceedances	22/02/2024	23/02/2024	23/02/2024	26/02/2024	23/02/2024						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0			
Toluene	µg/kg	5	33000000	<MRL	130	0	< 5.0	< 5.0		< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Dibromochloromethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0	< 5.0	< 5.0			
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0	< 5.0	< 5.0			
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Ethylbenzene	µg/kg	5	320000	<MRL	640	0	< 5.0	< 5.0			
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0	< 5.0		< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0	< 5.0	< 5.0			
Bromoform	µg/kg	5	390000	<MRL	<MRL	0	< 5.0	< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0		< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0	< 5.0	< 5.0			
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0	< 5.0	< 5.0			
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0	< 5.0	< 5.0			
2-Chlorotoluene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1	< 5.0	< 5.0			
tert-Butylbenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1	< 5.0	< 5.0			
sec-Butylbenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
p-Isopropyltoluene	µg/kg	5		<MRL	570		< 5.0	< 5.0			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Butylbenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	< 0.2	< 0.2			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0	< 0.05	< 0.05			
Nitrobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Isophorone	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5		< 0.1	< 0.1			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	128695	128696	128698	129904	130175
							BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
							Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
							Strata	PFA	PFA	PFA	PFA	PFA
							22/02/2024	23/02/2024	23/02/2024	26/02/2024	23/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1				
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1				
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1				
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2				
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0	< 0.2	< 0.2				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0	< 0.2	< 0.2				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2				
Azobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2				
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0	< 0.20	< 0.20				
Carbazole	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2				
Anthraquinone	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0	< 0.3	< 0.3				
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	< 0.2	< 0.2				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1				
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	130723	130724	2942252	118280	112639
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	05/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.4	8.1	8.6	7.7	8.9	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0		< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		22	9700			7200				
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200					330	990	
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120					165	495	
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		230		35			
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		117		17.3			
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			6.1				
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			3.1				
Total Sulphur	mg/kg	50		84	3900			2700				
Total Sulphur	%	0.005		0.008	0.356			0.269				
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5			< 0.5				
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4			< 2.0				
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9			0.5				
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			0.56				
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0		< 1.0	< 1.0	< 1.0	
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	< 0.05		2.4	< 0.05	0.15	
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05		< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05		< 0.05	< 0.05	0.58	
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05		< 0.05	< 0.05	0.4	
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	< 0.05		< 0.05	< 0.05	1.4	
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05		< 0.05	< 0.05	0.27	
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	< 0.05		< 0.05	< 0.05	1.2	
Pyrene	mg/kg	0.05	54000	<MRL	13	0	< 0.05		< 0.05	< 0.05	0.99	
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05		< 0.05	< 0.05	0.41	
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05		< 0.05	< 0.05	0.45	
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05		< 0.05	< 0.05	0.32	
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05		< 0.05	< 0.05	0.14	
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05		< 0.05	< 0.05	0.23	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05		< 0.05	< 0.05	0.16	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05		< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05		< 0.05	< 0.05	0.16	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		< 0.80		2.35	< 0.80	6.85	
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		22000				
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0		8.1				
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	80	130	140	15	130	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.5	3.2	3.2	1.4	3.3	
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	0.5	8.8	1	0.7	14	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8		< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	23	28	46	72	50	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	59		94	31	87	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000			36000				
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	14	24	39	18	44	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100			300				
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3		< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0		3				
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	37		52	37	49	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	130723	130724	2942252	118280	112639
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	05/02/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	4	3.1	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	46	74	110	34	110	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	26		46	56	97	
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			9000				
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			3400				
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			4500				
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			1500				
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0			< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0			< 8.0	< 8.0	16	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800				< 10	< 10	19	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023				< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12				< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0			< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0			< 10	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500				< 10	< 10	< 10	
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0		< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0		< 5.0			
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0		< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0		< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0		< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0		< 5.0	< 5.0	< 5.0	
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0		< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0				10	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0		< 5.0			
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	RBH137	RBH137	RBH113	RBH138	RBH141
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	05/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						< 5.0	< 5.0
Toluene	µg/kg	5	33000000	<MRL	130	0	< 5.0		< 5.0			
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0			< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0		< 5.0	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0			< 5.0	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	RBH137	RBH137	RBH113	RBH138	RBH141
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	05/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	112643	120004	120640	120643	120646
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							06/02/2024	13/02/2024	14/02/2024	14/02/2024	14/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.7	8.3	8.4	8	8	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		22	9700							
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200		4200	190				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120		2120	96.7				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000				260	2000	99	
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500				129	1020	49.7	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160							
Total Sulphur	mg/kg	50		84	3900							
Total Sulphur	%	0.005		0.008	0.356							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5							
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4							
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0		< 1.0	< 1.0	< 1.0	< 1.0	
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	1.2	< 0.05	1.7	0.06	< 0.05	
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	0.18	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	0.6	< 0.05	0.21	< 0.05	< 0.05	
Fluorene	mg/kg	0.05	60000	<MRL	2	0	0.61	< 0.05	0.17	< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	2.1	< 0.05	0.86	0.06	0.56	
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	0.5	< 0.05	0.12	< 0.05	0.14	
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	1.8	< 0.05	0.62	0.08	0.93	
Pyrene	mg/kg	0.05	54000	<MRL	13	0	1.5	< 0.05	0.51	0.09	0.76	
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	0.51	< 0.05	0.28	< 0.05	0.39	
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	0.57	< 0.05	0.3	< 0.05	0.49	
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	0.45	< 0.05	0.3	< 0.05	0.57	
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	0.14	< 0.05	0.13	< 0.05	0.27	
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	0.33	< 0.05	0.2	< 0.05	0.52	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	0.19	< 0.05	0.1	< 0.05	0.24	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	0.21	< 0.05	0.15	< 0.05	0.28	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		11	< 0.80	5.67	< 0.80	5.15	
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	100	9.4	48	130	15	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	2.9	0.55	0.83	3.8	1.3	
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	45	0.3	2.4	3.8	2.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	43	12	20	61	30	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	67	17	50	93	30	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	63	4.8	18	40	34	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	41	17	18	53	27	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	112643	120004	120640	120643	120646
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							06/02/2024	13/02/2024	14/02/2024	14/02/2024	14/02/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	1.8	< 1.0	1.6	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	88	21	28	130	39	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	130	11	70	69	96	
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000							
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900							
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900							
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	2.9	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	1.5	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	4.8	< 2.0	3.9	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	12	< 8.0	12	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	170	< 8.0	450	< 8.0	< 8.0	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	190	< 10	470	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	0.023	< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	0.12	< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	58	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	2.2	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	5.1	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	37	< 10	98	< 10	19	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	95	< 10	110	< 10	19	
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	28	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	130	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	640	< 5.0	< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	2100	< 5.0	< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	6100	< 5.0	< 5.0	< 5.0	< 5.0	
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Bromomethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chloroform	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	28	< 5.0	< 5.0	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Dibromomethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	112643	120004	120640	120643	120646
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							06/02/2024	13/02/2024	14/02/2024	14/02/2024	14/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Toluene	µg/kg	5	33000000	<MRL	130	0		130		< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0				
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0				
Dibromochloromethane	µg/kg	5		<MRL	<MRL			< 5.0				
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		< 5.0				
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			< 5.0				
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		< 5.0				
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0				
Ethylbenzene	µg/kg	5	320000	<MRL	640	0		640	< 5.0			
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0		2100	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		< 5.0				
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		6100	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		20000				
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0				
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		< 5.0				
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		41000				
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0				
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0				
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		25000				
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		41000				
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
p-Isopropyltoluene	µg/kg	5		<MRL	570			570				
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			< 5.0				
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL			< 0.1				
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		< 0.2				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1				
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			< 0.2				
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2				
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			< 0.1				
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2				
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			< 0.1				
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		< 0.05				
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3				
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			< 0.2				
Isophorone	mg/kg	0.2		<MRL	<MRL			< 0.2				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			< 0.3				
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			< 0.1				
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			< 0.1				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			< 0.2				
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5			0.5				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	RBH141	RTP153	RTP185	RTP186	RTP134
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							06/02/2024					
							13/02/2024					
							14/02/2024					
							14/02/2024					
							14/02/2024					
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			< 0.1				
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			< 0.2				
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0		0.4				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			< 0.3				
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		< 0.2				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			< 0.2				
Azobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3				
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			< 0.2				
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		< 0.20				
Carbazole	mg/kg	0.3		<MRL	<MRL			< 0.3				
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			< 0.2				
Anthraquinone	mg/kg	0.3		<MRL	<MRL			< 0.3				
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0		< 0.3				
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121252	121258	122231	124151	124152
							BH ID	RTP124	RTP138	RTP154	RTP150	RTP150
							Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
							Strata	MG	MG	MG	MG	MG
							15/02/2024	15/02/2024	16/02/2024	19/02/2024	19/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.2	7.9	8	8.1		
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0	< 1.0		
Total Sulphate as SO4	mg/kg	50		22	9700							
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		1200	59	640	1100		
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		592	29.3	321	555		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160							
Total Sulphur	mg/kg	50		84	3900							
Total Sulphur	%	0.005		0.008	0.356							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5							
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4							
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0	< 1.0	< 1.0	< 1.0		
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	< 0.05	< 0.05	< 0.05	< 0.05		
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	< 0.05	< 0.05	< 0.05		
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05	< 0.05	< 0.05	< 0.05		
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05	< 0.05	< 0.05	< 0.05		
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	< 0.05	< 0.05	< 0.05	< 0.05		
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	< 0.05	0.07	< 0.05	< 0.05		
Pyrene	mg/kg	0.05	54000	<MRL	13	0	< 0.05	0.06	< 0.05	< 0.05		
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05	< 0.05	< 0.05	< 0.05		
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		< 0.80	< 0.80	< 0.80	< 0.80		
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	98	19	17	130		
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	2.4	1.6	0.89	3.3		
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	7	2.6	1.6	1		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2		
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8	< 1.8	< 1.8		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	35	34	17	60		
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	71	38	110	100		
Iron (aqua regia extractable)	mg/kg	40		0.013	58000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	28	48	9.5	42		
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	< 0.3	< 0.3	< 0.3		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	38	35	21	56		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121252	121258	122231	124151	124152
							BH ID	15/02/2024	15/02/2024	16/02/2024	19/02/2024	19/02/2024
							Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
							Strata	MG	MG	MG	MG	MG
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	78	46	34	130		
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	34	99	17	89		
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000							
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900							
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900							
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	< 8.0	< 8.0	< 8.0	< 8.0	54	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	< 10	< 10	< 10	< 10	54	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	< 10	< 10	< 10	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	< 10	< 10	< 10	< 10	< 10	
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121252	121258	122231	124151	124152
							BH ID	15/02/2024	15/02/2024	16/02/2024	19/02/2024	19/02/2024
							Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
							Strata	MG	MG	MG	MG	MG
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	130	0		< 5.0	< 5.0	< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0		< 5.0	< 5.0	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0	< 5.0	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121252	121258	122231	124151	124152	
							BH ID	RTP124	RTP138	RTP154	RTP150	RTP150	
							Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20	
							Strata	MG	MG	MG	MG	MG	
							15/02/2024	15/02/2024	16/02/2024	19/02/2024	19/02/2024		
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL								
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL								
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL								
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL								
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0							
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL								
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0							
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL								
Azobenzene	mg/kg	0.3		<MRL	<MRL								
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL								
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0							
Carbazole	mg/kg	0.3		<MRL	<MRL								
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL								
Anthraquinone	mg/kg	0.3		<MRL	<MRL								
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0							
Phenols by GC-MS													
Phenol	mg/kg	0.2	380	<MRL	<MRL	0							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL								
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL								
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL								
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL								
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL								
2-Methylphenol	mg/kg	0.3		<MRL	<MRL								
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL								
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL								

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506
							BH ID	19/02/2024	19/02/2024	19/02/2024	20/02/2024	20/02/2024
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
							Strata	MG	MG	MG	MG	MG
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0				7.8	8.5	7.40
Total Cyanide	mg/kg	1	49	<MRL	7.9	0			< 1.0			< 1.0
Total Sulphate as SO4	mg/kg	50		22	9700						1800	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000						650	1100.00
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500						325	532.00
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160							
Total Sulphur	mg/kg	50		84	3900							
Total Sulphur	%	0.005		0.008	0.356							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5							
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4							
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9				0.9			
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22				1.5			
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0					< 1.0	< 1.0
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0					0.3	0.93
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0					< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0					0.11	0.18
Fluorene	mg/kg	0.05	60000	<MRL	2	0					0.09	0.35
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0					0.55	1.20
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0					0.08	0.27
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0					0.56	0.53
Pyrene	mg/kg	0.05	54000	<MRL	13	0					0.53	0.48
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0					0.23	0.26
Chrysene	mg/kg	0.05	350	<MRL	7.4	0					0.3	0.31
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0					0.31	0.29
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0					0.08	0.08
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0					0.15	0.17
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0					< 0.05	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0					< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0					< 0.05	< 0.05
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5						3.29	5.03
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0					120	17.00
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0					2.5	1.70
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0					17	13.00
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0					< 0.2	0.70
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0					< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0					97	41.00
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0					280	48.00
Iron (aqua regia extractable)	mg/kg	40		0.013	58000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0					54	140.00
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0					< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0					210	41.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506
							BH ID	19/02/2024	19/02/2024	19/02/2024	20/02/2024	20/02/2024
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
							Strata	MG	MG	MG	MG	MG
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0					5.2	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0					92	41.00
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0					350	110.00
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000							
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900							
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900							
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0					< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0					< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0					< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0					< 1.0	1.70
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0					< 2.0	2.20
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0					12	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500						270	32.00
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800						280	36.00
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023						< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12						< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0					< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0					< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					< 2.0	5.90
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					< 10	11.00
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					56	31.00
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500						56	48.00
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					< 5.0	< 5.0
Benzene	µg/kg	5	15000	<MRL	28	0					< 5.0	< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0	< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					< 5.0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0	< 5.0
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0					< 5.0	< 5.0
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506
							BH ID	19/02/2024	19/02/2024	19/02/2024	20/02/2024	20/02/2024
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
							Strata	MG	MG	MG	MG	MG
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					< 5.0	< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506
							BH ID	RTP166	RTP177	RTP166	RTP142	RTP143
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
							Strata	MG	MG	MG	MG	MG
							19/02/2024	19/02/2024	19/02/2024	20/02/2024	20/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							20/02/2024	27/02/2024	14/02/2024	28/02/2024	28/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.30	7.10	8.10	8.40	8.00	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0		7.90				
Total Sulphate as SO4	mg/kg	50		22	9700				6900.00	6600.00	9700.00	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		960.00	31.00				
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		480.00	15.60				
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310				15.00	4.70	7.30	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				7.40	2.40	3.60	
Total Sulphur	mg/kg	50		84	3900				2300.00	2600.00	3600.00	
Total Sulphur	%	0.005		0.008	0.356				0.23	0.26	0.36	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5				< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4				< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0	< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	1.50	0.67				
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	0.12				
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	1.80	0.18				
Fluorene	mg/kg	0.05	60000	<MRL	2	0	2.00	0.11				
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	7.30	1.30				
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	1.50	0.28				
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	12.00	1.60				
Pyrene	mg/kg	0.05	54000	<MRL	13	0	13.00	1.00				
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	5.70	0.63				
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	7.40	0.82				
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	6.10	1.20				
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	2.00	0.55				
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	5.50	0.72				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	2.50	0.69				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	0.85	0.19				
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	2.50	0.86				
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		71.50	10.90				
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			36000.00	44000.00	38000.00	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0			9.50	7.70	8.00	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	38.00	41.00	120.00	100.00	88.00	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.80	1.70				
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	5.00	1.50	2.50	16.00	19.00	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	3.90	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8				
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	41.00	93.00	50.00	55.00	57.00	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	81.00	120.00				
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				38000.00	41000.00	46000.00	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	25.00	150.00	37.00	36.00	71.00	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				250.00	200.00	230.00	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	1.50				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0			2.80	3.00	38.00	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	44.00	89.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							20/02/2024	27/02/2024	14/02/2024	28/02/2024	28/02/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	3.90	< 1.0	8.90	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	57.00	56.00	130.00	120.00	100.00	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	81.00	520.00				
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000				8300.00	9700.00	8700.00	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900				3200.00	3600.00	3200.00	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900				6500.00	8200.00	7200.00	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800				2500.00	3600.00	2400.00	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050				
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	15.00	< 1.0				
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	120.00	< 2.0				
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	240.00	< 8.0				
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	710.00	63.00				
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	1100.00	63.00				
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	< 0.010	< 0.010				
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	< 0.010	< 0.010				
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050				
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	8.40	< 1.0				
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	150.00	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	440.00	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	880.00	36.00				
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	1500.00	36.00				
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0				
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0					
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0				
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							20/02/2024	27/02/2024	14/02/2024	28/02/2024	28/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	130	0	< 5.0	< 5.0				
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0	< 5.0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							20/02/2024	27/02/2024	14/02/2024	28/02/2024	28/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	132255	147366	147367	147368	147369
							BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
							Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	PFA	Superficial	Superficial	Superficial	Superficial
							28/02/2024	12/02/2024	12/02/2024	20/02/2024	28/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.20	8.20	8.00	8.50	8.40	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		5000.00	2800.00	5100.00	5900.00	6400.00	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		6.70	310.00	160.00	170.00	62.00	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		3.40	160.00	78.00	84.00	31.00	
Total Sulphur	mg/kg	50		84	3900		2000.00	980.00	1700.00	2100.00	2000.00	
Total Sulphur	%	0.005		0.008	0.356		0.20	0.10	0.17	0.21	0.20	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	1.00	5.00	0.90	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	45000.00	21000.00	24000.00	22000.00	15000.00	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.40	< 1.0	5.10	3.30	< 1.0	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	110.00	14.00	55.00	31.00	38.00	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	4.60	16.00	16.00	13.00	37.00	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	55.00	39.00	44.00	42.00	36.00	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		43000.00	29000.00	32000.00	38000.00	35000.00	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	39.00	22.00	35.00	26.00	22.00	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		230.00	290.00	670.00	1100.00	590.00	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.00	2.60	7.20	22.00	91.00	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	132255	147366	147367	147368	147369
							BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
							Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	PFA	Superficial	Superficial	Superficial	Superficial
							28/02/2024	12/02/2024	12/02/2024	20/02/2024	28/02/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	120.00	42.00	79.00	54.00	46.00	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		9000.00	2300.00	5700.00	18000.00	17000.00	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		3900.00	3300.00	3800.00	6100.00	7900.00	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		8400.00	1600.00	4900.00	3800.00	4800.00	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		3800.00	1300.00	2300.00	2000.00	1700.00	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	132255	147366	147367	147368	147369
							BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
							Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	PFA	Superficial	Superficial	Superficial	Superficial
							28/02/2024	12/02/2024	12/02/2024	20/02/2024	28/02/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	132255	147366	147367	147368	147369
							BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
							Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	PFA	Superficial	Superficial	Superficial	Superficial
							28/02/2024	12/02/2024	12/02/2024	20/02/2024	28/02/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	Report ID	Report ID	Report ID	Report ID
							BH ID	BH ID	BH ID	BH ID	BH ID
							Depth	Depth	Depth	Depth	Depth
							Strata	Strata	Strata	Strata	Strata
01/02/2024	14/02/2024	28/02/2024	09/02/2024	28/02/2024							
General Inorganics											
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.60	7.90	7.70	8.60	8.70
Total Cyanide	mg/kg	1	49	<MRL	7.9	0					
Total Sulphate as SO4	mg/kg	50		22	9700		2900.00	4600.00	2200.00	2200.00	3500.00
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310						
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160						
Total Sulphur	mg/kg	50		84	3900						
Total Sulphur	%	0.005		0.008	0.356						
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5						
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4						
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9		0.50	0.40	0.70	0.40	0.70
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		12.00	3.50	4.50	5.10	22.00
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	0.12				
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05				
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05				
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05				
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	< 0.05				
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05				
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	< 0.05				
Pyrene	mg/kg	0.05	54000	<MRL	13	0	< 0.05				
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05				
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05				
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05				
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05				
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05				
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	< 0.017	< 0.017	< 0.017	< 0.017	0.14
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	0.23	0.24	0.24	0.21	0.36
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	0.66	0.45	0.66	0.81	0.56
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0					
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0					
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0					
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	0.00	0.04	0.01	0.03	0.03
Iron (aqua regia extractable)	mg/kg	40		0.013	58000	0	0.01	0.05	0.06	0.05	0.06
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0					
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100	0	0.01	< 0.010	< 0.010	< 0.010	< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	< 0.00500	< 0.00500	< 0.00500	< 0.00500	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	3.71	0.18	0.18	0.24	0.19

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	Report ID	Report ID	Report ID	Report ID
							BH ID	BH ID	BH ID	BH ID	BH ID
							RBH116	RBH124	RBH125	RBH136	RBH145
							3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
							PFA	PFA	PFA	PFA	PFA
							01/02/2024	14/02/2024	28/02/2024	09/02/2024	28/02/2024
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	0.01	< 0.0030	0.01	< 0.0030	0.01
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	0.01	0.13	0.11	0.08	0.09
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000						
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900						
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900						
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800						
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0					
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0					
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0					
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0				
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0				
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL						
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID					
						BH ID	RBH116	RBH124	RBH125	RBH136	RBH145
						Depth	3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA	PFA
Number of Exceedances	01/02/2024	14/02/2024	28/02/2024	09/02/2024	28/02/2024						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						

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Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID					
						BH ID	RBH116	RBH124	RBH125	RBH136	RBH145
						Depth	3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA	PFA
Number of Exceedances	01/02/2024	14/02/2024	28/02/2024	09/02/2024	28/02/2024						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	14/02/2024	15/02/2024
						BH ID	14/02/2024	15/02/2024
						Depth	14/02/2024	15/02/2024
						Strata	14/02/2024	15/02/2024
						Number of Exceedances	14/02/2024	15/02/2024
General Inorganics								
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.20	7.60
Total Cyanide	mg/kg	1	49	<MRL	7.9	0		
Total Sulphate as SO4	mg/kg	50		22	9700		22.00	3500.00
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200			
Water Soluble SO4 (2:1 Leach, Equiv.) 1hr extraction	mg/l	1.25		27.7	2120			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000			
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500			
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			
Total Sulphur	mg/kg	50		84	3900			
Total Sulphur	%	0.005		0.008	0.356			
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5			
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4			
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL			
Sulphide	mg/kg	1		4.3	4.3			
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9		0.40	0.70
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		3.80	1.40
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0		
Speciated PAHs								
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0		< 0.05
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0		< 0.05
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0		< 0.05
Fluorene	mg/kg	0.05	60000	<MRL	2	0		< 0.05
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0		< 0.05
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0		< 0.05
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0		< 0.05
Pyrene	mg/kg	0.05	54000	<MRL	13	0		< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0		< 0.05
Chrysene	mg/kg	0.05	350	<MRL	7.4	0		< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0		< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0		< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0		< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0		< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0		< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0		< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5			
Heavy Metals / Metalloids								
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	< 0.017	< 0.017
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	0.21	0.30
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	0.00	0.53
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0		
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 0.00100	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0		
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	< 0.0040	0.13
Iron (aqua regia extractable)	mg/kg	40		0.013	58000	0	< 0.0070	0.07
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0		
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100	0	0.02	< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	< 0.00500	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	0.01	0.06

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	
							BH ID	RTP136
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
						14/02/2024	15/02/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 0.0030	0.01
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	0.08	0.06
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	< 0.0040	0.14
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0		
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0		
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0		
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0		
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0		
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0		
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500			
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800			
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023			
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12			
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0		
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0		
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0		
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0		
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0		
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500			
MTBE and BTEX								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0		
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0		< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0		< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0		< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0
VOCs								
Chloromethane	µg/kg	5	560	<MRL	<MRL	0		
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0		
Bromomethane	µg/kg	5		<MRL	<MRL			
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL			
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL			
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL			
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL			
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Chloroform	µg/kg	5		<MRL	<MRL			
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL			
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL			
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0		
Benzene	µg/kg	5	15000	<MRL	28	0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL			
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		
Dibromomethane	µg/kg	5		<MRL	<MRL			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID		
						BH ID	RTP136	RTP138
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
						Number of Exceedances	14/02/2024	15/02/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			
Toluene	µg/kg	5	33000000	<MRL	130	0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			
Dibromochloromethane	µg/kg	5		<MRL	<MRL			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Ethylbenzene	µg/kg	5	320000	<MRL	640	0		
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
p-Isopropyltoluene	µg/kg	5		<MRL	570			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
Butylbenzene	µg/kg	5		<MRL	<MRL			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
SVOCs								
Aniline	mg/kg	0.1		<MRL	<MRL			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			
Isophorone	mg/kg	0.2		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID		
						BH ID	RTP136	RTP138
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	14/02/2024	15/02/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0		
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			
Azobenzene	mg/kg	0.3		<MRL	<MRL			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		
Carbazole	mg/kg	0.3		<MRL	<MRL			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			
Anthraquinone	mg/kg	0.3		<MRL	<MRL			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0		
Phenols by GC-MS								
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	118276	120008	118277	120641	120647
							BH ID	118276	120008	118277	120641	120647
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							12/02/2024	13/02/2024	12/02/2024	14/02/2024	14/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	6.7	7.3	7.7	8	8.4	
Electrical Conductivity	µS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0	< 1.0	< 1.0				
Total Sulphate as SO4	mg/kg	50		22	7400				140	2600	1500	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0		55	100				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0		27.7	52.1				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020							
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15				5	6.8	1.8	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4				2.5	3.4	0.9	
Total Sulphur	mg/kg	50		150	2700				84	990	480	
Total Sulphur	%	0.005		0.015	0.267				0.008	0.099	0.048	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0				< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6				< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0	< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0		0.52	< 0.05			
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0	< 0.05	< 0.05				
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0	< 0.05	< 0.05				
Fluorene	mg/kg	0.05	60000	0.11	0.11	0	< 0.05	< 0.05				
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0		0.07	0.2			
Anthracene	mg/kg	0.05	520000	0.1	0.28	0	< 0.05		0.1			
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0		0.06	0.39			
Pyrene	mg/kg	0.05	54000	0.06	1	0		0.06	0.33			
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0	< 0.05		0.18			
Chrysene	mg/kg	0.05	350	0.19	0.82	0	< 0.05		0.19			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0	< 0.05		0.24			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0	< 0.05		0.1			
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0	< 0.05		0.18			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0	< 0.05	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0	< 0.05	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0	< 0.05	< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	118276	120008	118277	120641	120647
							BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	12/02/2024	13/02/2024	12/02/2024	14/02/2024	14/02/2024	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9	< 0.80		1.91				
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0			5800	33000	41000	
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0			< 1.0	7.9	11	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	18	47	11	100	160	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.3	1.6				
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	0.2	2.4	0.5	1.1	1.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0	< 1.8	4				
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	59	31	160	52	55	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0	26	53				
Iron (aqua regia extractable)	mg/kg	40		14000	43000				14000	39000	42000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	43	43	7.7	33	40	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320				140	280	190	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0	< 0.3	< 0.3				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0			1.2	3.6	2.6	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0	23	27				
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	1.2	1.7	< 1.0	< 1.0	2.7	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	42	48	18	140	110	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	65	100				
Calcium (aqua regia extractable)												
Calcium (aqua regia extractable)	mg/kg	20		2400	13000				2400	8100	7200	
Magnesium (aqua regia extractable)												
Magnesium (aqua regia extractable)	mg/kg	20		960	3900				960	3100	3100	
Potassium (aqua regia extractable)												
Potassium (aqua regia extractable)	mg/kg	20		850	7600				850	5500	7600	
Sodium (aqua regia extractable)												
Sodium (aqua regia extractable)	mg/kg	20		480	3200				480	2200	3200	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	<MRL	0	< 8.0	< 8.0				
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	63		< 8.0	< 8.0				
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	63		< 10	< 10				
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR												
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR												
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	118276	120008	118277	120641	120647
							BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	12/02/2024	13/02/2024	12/02/2024	14/02/2024	14/02/2024	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0	< 10	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0	< 10	< 10				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36		< 10	< 10				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5	380000	<MRL	<MRL	0	< 5.0	< 5.0				
Benzene	ug/kg	5	15000	<MRL	11	0		11	< 5.0			
Toluene	ug/kg	5	3300000	<MRL	5.7	0		5.7	< 5.0			
Ethylbenzene	ug/kg	5	3200000	<MRL	<MRL	0	< 5.0	< 5.0				
p & m-Xylene	ug/kg	5	3400000	<MRL	<MRL	0	< 5.0	< 5.0				
o-Xylene	ug/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0				
VOCs												
Chloromethane	ug/kg	5	560	<MRL	<MRL	0						
Chloroethane	ug/kg	5	530000	<MRL	<MRL	0						
Bromomethane	ug/kg	5		<MRL	<MRL							
Vinyl Chloride	ug/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloroethene	ug/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	ug/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	ug/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1-Dichloroethane	ug/kg	5		<MRL	<MRL							
2,2-Dichloropropane	ug/kg	5		<MRL	<MRL							
Chloroform	ug/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	ug/kg	5		<MRL	<MRL							
1,2-Dichloroethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloropropene	ug/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	ug/kg	5	7300	<MRL	<MRL	0						
Benzene	ug/kg	5	15000	<MRL	11	0		11	< 5.0			
Carbontetrachloride	ug/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	118276	120008	118277	120641	120647
							BH ID	12/02/2024	13/02/2024	12/02/2024	14/02/2024	14/02/2024
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	5.7	0	5.7	< 5.0				
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0	< 5.0	< 5.0				
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0	< 5.0	< 5.0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0				
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	118276	120008	118277	120641	120647
							BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	12/02/2024	13/02/2024	12/02/2024	14/02/2024	14/02/2024	
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL							
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL							
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	118276	120008	118277	120641	120647
BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
Strata	Topsoil	Topsoil	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	12/02/2024	13/02/2024	12/02/2024	14/02/2024	14/02/2024
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120649	121250	121256	122232	124153
							BH ID	120649	121250	121256	122232	124153
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							14/02/2024	15/02/2024	15/02/2024	16/02/2024	19/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	8.2	8.4	7.8	8.2	8.5	
Electrical Conductivity	µS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	7400		4700	6000	1700	3800	480	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020							
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15		4.8	3.6	1.7	2.9	1.7	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4		2.4	1.8	0.8	1.4	0.9	
Total Sulphur	mg/kg	50		150	2700		1400	1700	480	1200	150	
Total Sulphur	%	0.005		0.015	0.267		0.142	0.168	0.048	0.121	0.015	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6	< 2.0		2.6	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0						
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0						
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0						
Fluorene	mg/kg	0.05	60000	0.11	0.11	0						
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0						
Anthracene	mg/kg	0.05	520000	0.1	0.28	0						
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0						
Pyrene	mg/kg	0.05	54000	0.06	1	0						
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0						
Chrysene	mg/kg	0.05	350	0.19	0.82	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0						
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	120649	121250	121256	122232	124153
							BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	14/02/2024	15/02/2024	15/02/2024	16/02/2024	19/02/2024	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0	33000	32000	38000	33000	34000	
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0	7.6	8.4	9.4	11	9.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	130	140	120	130	130	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	2.2	5.6	1.2	1.7	1.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	45	51	55	54	60	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0						
Iron (aqua regia extractable)	mg/kg	40		14000	43000		37000	43000	41000	38000	43000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	29	31	38	43	37	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320		170	240	260	190	320	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0	2.5	2.4	3	3.5	2.3	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0						
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	2.4	< 1.0	2.5	< 1.0	2.5	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	90	96	120	130	120	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)												
Calcium (aqua regia extractable)	mg/kg	20		2400	13000		6200	7500	6300	6900	6500	
Magnesium (aqua regia extractable)												
Magnesium (aqua regia extractable)	mg/kg	20		960	3900		2400	2900	3000	2700	3000	
Potassium (aqua regia extractable)												
Potassium (aqua regia extractable)	mg/kg	20		850	7600		6100	5300	6500	6500	5900	
Sodium (aqua regia extractable)												
Sodium (aqua regia extractable)	mg/kg	20		480	3200		2300	2100	2800	2100	1900	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	<MRL	0						
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	<MRL	0						
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	<MRL	0						
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	63							
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	63							
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR												
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL							
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR												
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	120649	121250	121256	122232	124153
							BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	14/02/2024	15/02/2024	15/02/2024	16/02/2024	19/02/2024	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0						
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0						
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0						
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0						
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0						
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36							
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5	380000	<MRL	<MRL	0						
Benzene	ug/kg	5	15000	<MRL	11	0						
Toluene	ug/kg	5	3300000	<MRL	5.7	0						
Ethylbenzene	ug/kg	5	3200000	<MRL	<MRL	0						
p & m-Xylene	ug/kg	5	3400000	<MRL	<MRL	0						
o-Xylene	ug/kg	5	3700000	<MRL	<MRL	0						
VOCs												
Chloromethane	ug/kg	5	560	<MRL	<MRL	0						
Chloroethane	ug/kg	5	530000	<MRL	<MRL	0						
Bromomethane	ug/kg	5		<MRL	<MRL							
Vinyl Chloride	ug/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloroethene	ug/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	ug/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	ug/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5		<MRL	<MRL							
1,1-Dichloroethane	ug/kg	5		<MRL	<MRL							
2,2-Dichloropropane	ug/kg	5		<MRL	<MRL							
Chloroform	ug/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	ug/kg	5		<MRL	<MRL							
1,2-Dichloroethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloropropene	ug/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	ug/kg	5	7300	<MRL	<MRL	0						
Benzene	ug/kg	5	15000	<MRL	11	0						
Carbontetrachloride	ug/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120649	121250	121256	122232	124153
							BH ID	120649	121250	121256	122232	124153
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							14/02/2024	15/02/2024	15/02/2024	16/02/2024	19/02/2024	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	5.7	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0						
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	120649	121250	121256	122232	124153
							BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	14/02/2024	15/02/2024	15/02/2024	16/02/2024	19/02/2024	
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL							
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL							
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	120649	121250	121256	122232	124153
BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
Strata	PFA	PFA	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	14/02/2024	15/02/2024	15/02/2024	16/02/2024	19/02/2024
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124155	125560
							BH ID	RTP177	RBH129
							Depth	1.20-1.30	6.50-6.60
							Strata	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	20/02/2024	
General Inorganics									
pH	pH Units	N/A	<5, >9	7.1	8.9	No	7.5	8.9	
Electrical Conductivity	µS/cm	10		0	0				
Total Cyanide	mg/kg	1	49	7.9	7.9	0			
Total Sulphate as SO4	mg/kg	50		22	7400		3300	7400	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000				
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020				
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15		3.5	5.4	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4		1.8	2.7	
Total Sulphur	mg/kg	50		150	2700		1000	2700	
Total Sulphur	%	0.005		0.015	0.267		0.101	0.267	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0		< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6		< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0				
Sulphide	mg/kg	1		0	0				
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9				
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8				
Dry solids	%	0.1		0	0				
Total Phenols									
Total Phenols (monohydric)	mg/kg	1	380	0	0	0			
Speciated PAHs									
Naphthalene	mg/kg	0.05	110	0.06	0.67	0			
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0			
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0			
Fluorene	mg/kg	0.05	60000	0.11	0.11	0			
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0			
Anthracene	mg/kg	0.05	520000	0.1	0.28	0			
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0			
Pyrene	mg/kg	0.05	54000	0.06	1	0			
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0			
Chrysene	mg/kg	0.05	350	0.19	0.82	0			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0			
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0			
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	124155	125560
						BH ID	RTP177	RBH129
						Depth	1.20-1.30	6.50-6.60
						Strata	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	20/02/2024
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9			
Heavy Metals / Metalloids								
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0	36000	34000
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0	9.3	7.4
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	120	85
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0		
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	3.9	24
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	63	51
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0		
Iron (aqua regia extractable)	mg/kg	40		14000	43000		38000	34000
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	36	44
Manganese (aqua regia extractable)	mg/kg	1		0.018	320		300	290
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0	2.5	4.8
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0		
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	3.7	3.2
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	140	120
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0		
Calcium (aqua regia extractable)								
Calcium (aqua regia extractable)	mg/kg	20		2400	13000		8800	13000
Magnesium (aqua regia extractable)								
Magnesium (aqua regia extractable)	mg/kg	20		960	3900		3200	3900
Potassium (aqua regia extractable)								
Potassium (aqua regia extractable)	mg/kg	20		850	7600		6600	6900
Sodium (aqua regia extractable)								
Sodium (aqua regia extractable)	mg/kg	20		480	3200		2000	2500
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0		
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0		
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0		
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	<MRL	0		
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	<MRL	0		
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	<MRL	0		
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	63			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	63			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR								
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR								
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	20/02/2024
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0		
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0		
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0		
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0		
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0		
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36			
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL			
MTBE and BTEX								
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5	380000	<MRL	<MRL	0		
Benzene	ug/kg	5	15000	<MRL	11	0		
Toluene	ug/kg	5	3300000	<MRL	5.7	0		
Ethylbenzene	ug/kg	5	3200000	<MRL	<MRL	0		
p & m-Xylene	ug/kg	5	3400000	<MRL	<MRL	0		
o-Xylene	ug/kg	5	3700000	<MRL	<MRL	0		
VOCs								
Chloromethane	ug/kg	5	560	<MRL	<MRL	0		
Chloroethane	ug/kg	5	530000	<MRL	<MRL	0		
Bromomethane	ug/kg	5		<MRL	<MRL			
Vinyl Chloride	ug/kg	5	720	<MRL	<MRL			
Trichlorofluoromethane	ug/kg	5		<MRL	<MRL			
1,1-Dichloroethene	ug/kg	5		<MRL	<MRL			
1,1,2-Trichloro 1,2,2-Trifluoroethane	ug/kg	5		<MRL	<MRL			
Trans 1,2-dichloroethylene	ug/kg	5		<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5		<MRL	<MRL			
1,1-Dichloroethane	ug/kg	5		<MRL	<MRL			
2,2-Dichloropropane	ug/kg	5		<MRL	<MRL			
Chloroform	ug/kg	5		<MRL	<MRL			
1,1,1-Trichloroethane	ug/kg	5		<MRL	<MRL			
1,2-Dichloroethane	ug/kg	5		<MRL	<MRL			
1,1-Dichloropropene	ug/kg	5		<MRL	<MRL			
Cis-1,2-dichloroethene	ug/kg	5	7300	<MRL	<MRL	0		
Benzene	ug/kg	5	15000	<MRL	11	0		
Carbontetrachloride	ug/kg	5		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	20/02/2024
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		
Dibromomethane	µg/kg	5		<MRL	<MRL			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			
Toluene	µg/kg	5	33000000	<MRL	5.7	0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			
Dibromochloromethane	µg/kg	5		<MRL	<MRL			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0		
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0		
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0		
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0		
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0		
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0		
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0		
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
Butylbenzene	µg/kg	5		<MRL	<MRL			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
SVOCs								
Aniline	mg/kg	0.1		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	20/02/2024
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			
Isophorone	mg/kg	0.2		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL			
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0		
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			
Azobenzene	mg/kg	0.3		<MRL	<MRL			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		
Carbazole	mg/kg	0.3		<MRL	<MRL			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			
Anthraquinone	mg/kg	0.3		<MRL	<MRL			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL			
Phenols by GC-MS								
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	20/02/2024
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							19/02/2024	23/02/2024	13/02/2024	14/02/2024	14/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	8.3	8.1	8.3	8	8	
Electrical Conductivity	µS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0			< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		22	7400		2800	6700				
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0				190			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0				96.7			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000					2000	99	
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020					1020	49.7	
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15		3	2.1				
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4		1.5	1				
Total Sulphur	mg/kg	50		150	2700		1100	2300				
Total Sulphur	%	0.005		0.015	0.267		0.112	0.229				
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0	< 0.5	< 0.5					
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6	< 2.0	< 2.0					
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0			< 1.0	< 1.0	< 1.0	
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0			< 0.05		0.06 < 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0			< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0			< 0.05	< 0.05	< 0.05	
Fluorene	mg/kg	0.05	60000	0.11	0.11	0			< 0.05	< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0			< 0.05		0.06 0.56	
Anthracene	mg/kg	0.05	520000	0.1	0.28	0			< 0.05	< 0.05	0.14	
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0			< 0.05		0.08 0.93	
Pyrene	mg/kg	0.05	54000	0.06	1	0			< 0.05		0.09 0.76	
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0			< 0.05	< 0.05	0.39	
Chrysene	mg/kg	0.05	350	0.19	0.82	0			< 0.05	< 0.05	0.49	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0			< 0.05	< 0.05	0.57	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0			< 0.05	< 0.05	0.27	
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0			< 0.05	< 0.05	0.52	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0			< 0.05	< 0.05	0.24	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0			< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0			< 0.05	< 0.05	0.28	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	23/02/2024	13/02/2024	14/02/2024	14/02/2024	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9				< 0.80	< 0.80	5.15	
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0	16000	37000				
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0	3.9	8.9				
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	52	110	9.4	130	15	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0			0.55	3.8	1.3	
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	2.7	8.2	0.3	3.8	2.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0			< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	25	56	12	61	30	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0			17	93	30	
Iron (aqua regia extractable)	mg/kg	40		14000	43000		18000	30000				
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	17	37	4.8	40	34	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320		200	210				
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0			< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0	3.7	2.9				
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0			17	53	27	
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	< 1.0	2.1	< 1.0	< 1.0	1.6	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	61	130	21	130	39	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0			11	69	96	
Calcium (aqua regia extractable)												
Calcium (aqua regia extractable)	mg/kg	20		2400	13000		7100	7800				
Magnesium (aqua regia extractable)												
Magnesium (aqua regia extractable)	mg/kg	20		960	3900		3300	3200				
Potassium (aqua regia extractable)												
Potassium (aqua regia extractable)	mg/kg	20		850	7600		2900	7400				
Sodium (aqua regia extractable)												
Sodium (aqua regia extractable)	mg/kg	20		480	3200		1200	2700				
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	<MRL	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	<MRL	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	<MRL	0			< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	63				< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	63				< 10	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR												
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL				< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR												
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL				< 0.010	< 0.010	< 0.010	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	23/02/2024	13/02/2024	14/02/2024	14/02/2024	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0			< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0			< 10	< 10	19	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36				< 10	< 10	19	
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5	380000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	
Benzene	ug/kg	5	15000	<MRL	11	0				< 5.0	< 5.0	
Toluene	ug/kg	5	3300000	<MRL	5.7	0				< 5.0	< 5.0	
Ethylbenzene	ug/kg	5	3200000	<MRL	<MRL	0			< 5.0			
p & m-Xylene	ug/kg	5	3400000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	
o-Xylene	ug/kg	5	3700000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	
VOCs												
Chloromethane	ug/kg	5	560	<MRL	<MRL	0						
Chloroethane	ug/kg	5	530000	<MRL	<MRL	0						
Bromomethane	ug/kg	5		<MRL	<MRL							
Vinyl Chloride	ug/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloroethene	ug/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	ug/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	ug/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5		<MRL	<MRL				< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	ug/kg	5		<MRL	<MRL							
2,2-Dichloropropane	ug/kg	5		<MRL	<MRL							
Chloroform	ug/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	ug/kg	5		<MRL	<MRL							
1,2-Dichloroethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloropropene	ug/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	ug/kg	5	7300	<MRL	<MRL	0			< 5.0			
Benzene	ug/kg	5	15000	<MRL	11	0				< 5.0	< 5.0	
Carbontetrachloride	ug/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							19/02/2024	23/02/2024	13/02/2024	14/02/2024	14/02/2024	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL				< 5.0			
Toluene	µg/kg	5	33000000	<MRL	5.7	0				< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0			< 5.0			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	23/02/2024	13/02/2024	14/02/2024	14/02/2024	
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL							
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL							
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	125600	128698	120004	120643	120646
BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
Strata	PFA	PFA	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	23/02/2024	13/02/2024	14/02/2024	14/02/2024
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	122231	124151	124152	124154	124156
							BH ID	122231	124151	124152	124154	124156
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							16/02/2024	19/02/2024	19/02/2024	19/02/2024	19/02/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	8	8.1				
Electrical Conductivity	µS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0	< 1.0	< 1.0				
Total Sulphate as SO4	mg/kg	50		22	7400							
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000		640	1100				
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020		321	555				
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4							
Total Sulphur	mg/kg	50		150	2700							
Total Sulphur	%	0.005		0.015	0.267							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0							
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6							
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0	< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0	< 0.05	< 0.05				
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0	< 0.05	< 0.05				
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0	< 0.05	< 0.05				
Fluorene	mg/kg	0.05	60000	0.11	0.11	0	< 0.05	< 0.05				
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0	< 0.05	< 0.05				
Anthracene	mg/kg	0.05	520000	0.1	0.28	0	< 0.05	< 0.05				
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0	< 0.05	< 0.05				
Pyrene	mg/kg	0.05	54000	0.06	1	0	< 0.05	< 0.05				
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0	< 0.05	< 0.05				
Chrysene	mg/kg	0.05	350	0.19	0.82	0	< 0.05	< 0.05				
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0	< 0.05	< 0.05				
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0	< 0.05	< 0.05				
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0	< 0.05	< 0.05				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0	< 0.05	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0	< 0.05	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0	< 0.05	< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	16/02/2024	19/02/2024	19/02/2024	19/02/2024	19/02/2024	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9	< 0.80	< 0.80					
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0		17		130		
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0		0.89		3.3		
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0		1.6		1		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2				
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0	< 1.8	< 1.8				
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0		17		60		
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0		110		100		
Iron (aqua regia extractable)	mg/kg	40		14000	43000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0		9.5		42		
Manganese (aqua regia extractable)	mg/kg	1		0.018	320							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0	< 0.3	< 0.3				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0		21		56		
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	< 1.0	< 1.0				
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0		34		130		
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0		17		89		
Calcium (aqua regia extractable)	mg/kg	20		2400	13000							
Magnesium (aqua regia extractable)	mg/kg	20		960	3900							
Potassium (aqua regia extractable)	mg/kg	20		850	7600							
Sodium (aqua regia extractable)	mg/kg	20		480	3200							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	<MRL	0	< 8.0	< 8.0				
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	63		< 8.0			54		
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	63		< 10			54		
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	16/02/2024	19/02/2024	19/02/2024	19/02/2024	19/02/2024	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0	< 10	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0	< 10	< 10				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36		< 10	< 10				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5	380000	<MRL	<MRL	0	< 5.0	< 5.0				
Benzene	ug/kg	5	15000	<MRL	11	0	< 5.0	< 5.0				
Toluene	ug/kg	5	3300000	<MRL	5.7	0	< 5.0	< 5.0				
Ethylbenzene	ug/kg	5	3200000	<MRL	<MRL	0						
p & m-Xylene	ug/kg	5	3400000	<MRL	<MRL	0	< 5.0	< 5.0				
o-Xylene	ug/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0				
VOCs												
Chloromethane	ug/kg	5	560	<MRL	<MRL	0						
Chloroethane	ug/kg	5	530000	<MRL	<MRL	0						
Bromomethane	ug/kg	5		<MRL	<MRL							
Vinyl Chloride	ug/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloroethene	ug/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	ug/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	ug/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1-Dichloroethane	ug/kg	5		<MRL	<MRL							
2,2-Dichloropropane	ug/kg	5		<MRL	<MRL							
Chloroform	ug/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	ug/kg	5		<MRL	<MRL							
1,2-Dichloroethane	ug/kg	5		<MRL	<MRL							
1,1-Dichloropropene	ug/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	ug/kg	5	7300	<MRL	<MRL	0						
Benzene	ug/kg	5	15000	<MRL	11	0	< 5.0	< 5.0				
Carbontetrachloride	ug/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	122231	124151	124152	124154	124156
							BH ID	122231	124151	124152	124154	124156
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							16/02/2024	19/02/2024	19/02/2024	19/02/2024	19/02/2024	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	5.7	0	< 5.0	< 5.0				
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0						
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0	< 5.0	< 5.0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0				
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	16/02/2024	19/02/2024	19/02/2024	19/02/2024	19/02/2024	
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL							
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL							
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	122231	124151	124152	124154	124156
BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
Strata	MG	MG	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	16/02/2024	19/02/2024	19/02/2024	19/02/2024	19/02/2024
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124158	134391	120644	
							BH ID	RTP166	RBH125	RTP136	RTP136
							Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
							Strata	MG	MG	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	27/02/2024	14/02/2024	14/02/2024	
General Inorganics											
pH	pH Units	N/A	<5, >9	7.1	8.9	No	7.8	7.1	8.1	8.2	
Electrical Conductivity	µS/cm	10		0	0						
Total Cyanide	mg/kg	1	49	7.9	7.9	0	< 1.0	7.9			
Total Sulphate as SO4	mg/kg	50		22	7400				6900	22	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000			31			
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020			15.6			
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15				15		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4				7.4		
Total Sulphur	mg/kg	50		150	2700				2300		
Total Sulphur	%	0.005		0.015	0.267				0.233		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0			< 0.5			
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6			< 2.0			
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		0	0						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9		0.9			0.4	
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8		1.5			3.8	
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0				
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.06	0.67	0		0.67			
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0		0.12			
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0		0.18			
Fluorene	mg/kg	0.05	60000	0.11	0.11	0		0.11			
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0		1.3			
Anthracene	mg/kg	0.05	520000	0.1	0.28	0		0.28			
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0		1.6			
Pyrene	mg/kg	0.05	54000	0.06	1	0		1			
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0		0.63			
Chrysene	mg/kg	0.05	350	0.19	0.82	0		0.82			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0		1.2			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0		0.55			
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0		0.72			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0		0.69			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0		0.19			
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0		0.86			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124158	134391	120644	
							BH ID	RTP166	RBH125	RTP136	RTP136
							Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
							Strata	MG	MG	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	27/02/2024	14/02/2024	14/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9			10.9			
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0			36000		
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0			9.5	< 0.017	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0		41	120	0.209	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0		1.7		0.00255	
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0		1.5	2.5		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0		3.9	< 0.2		
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0	< 1.8			< 0.00100	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0		93	50		
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0		120		< 0.0040	
Iron (aqua regia extractable)	mg/kg	40		14000	43000				38000	< 0.0070	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0		150	37		
Manganese (aqua regia extractable)	mg/kg	1		0.018	320				250	0.018	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0		1.5			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0			2.8	< 0.00500	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0		89		0.0143	
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	< 1.0		3.9	< 0.0030	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0		56	130	0.075	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0		520		< 0.0040	
Calcium (aqua regia extractable)	mg/kg	20		2400	13000				8300		
Magnesium (aqua regia extractable)	mg/kg	20		960	3900				3200		
Potassium (aqua regia extractable)	mg/kg	20		850	7600				6500		
Sodium (aqua regia extractable)	mg/kg	20		480	3200				2500		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0		< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0		< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0		< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	<MRL	0		< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	<MRL	0		< 2.0			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	<MRL	0		< 8.0			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	63			63			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	63			63			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL			< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL			< 0.010			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124158	134391	120644	
							BH ID	RTP166	RBH125	RTP136	RTP136
							Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
							Strata	MG	MG	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	27/02/2024	14/02/2024	14/02/2024	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0		< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0		< 1.0			
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0		< 2.0			
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0		< 10			
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0		36			
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36			36			
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5	380000	<MRL	<MRL	0		< 5.0			
Benzene	ug/kg	5	15000	<MRL	11	0		< 5.0			
Toluene	ug/kg	5	3300000	<MRL	5.7	0		< 5.0			
Ethylbenzene	ug/kg	5	3200000	<MRL	<MRL	0					
p & m-Xylene	ug/kg	5	3400000	<MRL	<MRL	0		< 5.0			
o-Xylene	ug/kg	5	3700000	<MRL	<MRL	0					
VOCs											
Chloromethane	ug/kg	5	560	<MRL	<MRL	0					
Chloroethane	ug/kg	5	530000	<MRL	<MRL	0					
Bromomethane	ug/kg	5		<MRL	<MRL						
Vinyl Chloride	ug/kg	5	720	<MRL	<MRL						
Trichlorofluoromethane	ug/kg	5		<MRL	<MRL						
1,1-Dichloroethene	ug/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	ug/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	ug/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	5		<MRL	<MRL			< 5.0			
1,1-Dichloroethane	ug/kg	5		<MRL	<MRL						
2,2-Dichloropropane	ug/kg	5		<MRL	<MRL						
Chloroform	ug/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	ug/kg	5		<MRL	<MRL						
1,2-Dichloroethane	ug/kg	5		<MRL	<MRL						
1,1-Dichloropropene	ug/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	ug/kg	5	7300	<MRL	<MRL	0					
Benzene	ug/kg	5	15000	<MRL	11	0		< 5.0			
Carbontetrachloride	ug/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	124158	134391	120644	
						BH ID	RTP166	RBH125	RTP136	RTP136
						Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
						Strata	MG	MG	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	27/02/2024	14/02/2024	14/02/2024
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL					
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0				
Dibromomethane	µg/kg	5		<MRL	<MRL					
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0				
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					
Toluene	µg/kg	5	33000000	<MRL	5.7	0		< 5.0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL					
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL					
Dibromochloromethane	µg/kg	5		<MRL	<MRL					
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0				
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL					
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0				
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL					
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0				
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0		< 5.0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0				
Bromoform	µg/kg	5	390000	<MRL	<MRL	0				
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0				
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0				
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL					
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0				
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0				
2-Chlorotoluene	µg/kg	5		<MRL	<MRL					
4-Chlorotoluene	µg/kg	5		<MRL	<MRL					
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0				
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0				
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0				
sec-Butylbenzene	µg/kg	5		<MRL	<MRL					
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL					
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
Butylbenzene	µg/kg	5		<MRL	<MRL					
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL					
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL					
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL					
SVOCs										
Aniline	mg/kg	0.1		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124158	134391	120644	
							BH ID	RTP166	RBH125	RTP136	RTP136
							Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
							Strata	MG	MG	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	27/02/2024	14/02/2024	14/02/2024	
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL						
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124158	134391	120644	
BH ID	RTP166	RBH125	RTP136	RTP136
Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
Strata	MG	MG	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	19/02/2024	27/02/2024	14/02/2024	14/02/2024
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	120002	109702	109703	109705
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	31/01/2024	31/01/2024	02/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	7.3	8.7	8.4	7.9	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0				
Total Sulphate as SO4	mg/kg	50		820	9700			9200	2400	2600	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200		250				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120		124				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			79	25	37	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			39	13		
Total Sulphur	mg/kg	50		260	3600			3200	980	1600	
Total Sulphur	%	0.005		0.026	0.356			0.322	0.098		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5			< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0			6.4	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0					< 20	
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0				
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05				
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05				
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05				
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05				
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05				
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05				
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	0.06				
Pyrene	mg/kg	0.05	54000	0.05	13	0	0.05				
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05				
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05				
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05				
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05				
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	RTP184	RBH116	RBH116	RBH119
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	31/01/2024	31/01/2024	02/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5			< 0.80			
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			29000	27000	3900
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0			8.1	8.2	7.4
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		19	120	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0		1.5			
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0		2	20	10	5.2
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0		0.7	< 0.2	< 0.2	3.1
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0		< 1.8			
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0		44	44	42	68
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0		29			
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				31000	32000	7800
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0		77	35	32	96
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				310	310	670
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0		< 0.3			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0			14	5.7	5.3
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0		24			
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0		1.9	4	3.3	3.2
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		46	100	94	84
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0		220			
Calcium (aqua regia extractable)	mg/kg	20		2300	18000				11000	8300	5100
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900				3700	3200	4500
Potassium (aqua regia extractable)	mg/kg	20		1600	9900				6400	5400	5200
Sodium (aqua regia extractable)	mg/kg	20		1200	5800				2500	1900	2400
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0		< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0		< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0		< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0		< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0		< 2.0			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0		< 8.0			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500			10			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800			12			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023			< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12			< 0.010			
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0		< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0		< 1.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	120002	109702	109703	109705
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	31/01/2024	31/01/2024	02/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	< 10				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		< 10				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0				
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0				
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0				
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0				
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0				
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	120002	109702	109703	109705
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	31/01/2024	31/01/2024	02/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	< 5.0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0				
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	RTP184	RBH116	RBH116	RBH119
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	31/01/2024	31/01/2024	02/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	112637	112640	116835	118281
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	05/02/2024	09/02/2024	12/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.7	8.7	8.1	7.8
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		9100			7400	8700
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		45			120	23
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160					60	11
Total Sulphur	mg/kg	50		260	3600		3900			2500	2800
Total Sulphur	%	0.005		0.026	0.356					0.249	0.28
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5			< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0			< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0		< 20				
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7			0.2			
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			16			
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0		< 1.0			
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	112637	112640	116835	118281
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	05/02/2024	09/02/2024	12/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	30000		19000	34000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	8.5		8.5	7.2	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0			96	79	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	12		40	4.3	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2		< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	47		54	48	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		27000		14000	37000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	36		48	34	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		330		240	240	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	13		11	3.2	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	3.2		4.1	2.4	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110		120	88	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		9800		5200	9700	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3800		4100	3400	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		7400		4200	6500	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		3300		5800	2800	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	112637	112640	116835	118281
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	05/02/2024	09/02/2024	12/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	112637	112640	116835	118281
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	05/02/2024	09/02/2024	12/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	112637	112640	116835	118281
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	05/02/2024	09/02/2024	12/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Depth	PFA	PFA	PFA	PFA
							Strata	In-situ	In-situ	In-situ	In-situ
							Cut/In-Situ Waste	05/02/2024	07/02/2024	13/02/2024	12/02/2024
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.4	8.1	8	8.1
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		2000	3300	4000	330	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		35	40	5.1	3.6	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			20	2.5	1.8	
Total Sulphur	mg/kg	50		260	3600		2000	1100	1400	140	
Total Sulphur	%	0.005		0.026	0.356			0.111	0.143	0.014	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5	< 0.5	4.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0		< 20				
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	07/02/2024	13/02/2024	12/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	25000	29000	46000	27000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	5.8	7.3	8.6	7.4	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		85	92	66	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	10	1.4	5.2	0.3	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	43	49	46	110	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		29000	31000	34000	28000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	62	32	45	31	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		330	210	230	210	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	26	3.5	3.4	2.3	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	2.7	< 1.0	3.6	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	88	88	110	72	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		16000	6800	9200	5200	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		4500	2700	3600	2600	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		5400	6000	9400	4900	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		2000	2900	3700	2100	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	07/02/2024	13/02/2024	12/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	07/02/2024	13/02/2024	12/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	07/02/2024	13/02/2024	12/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	94000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							Exceedances?	13/02/2024	13/02/2024	13/02/2024	14/02/2024
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.1	8.7	8.8	8.3
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700			940	5300	890	6400
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			12	17	4.1	3.3
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			6.2	8.6	2.1	1.6
Total Sulphur	mg/kg	50		260	3600			410	2000	320	2100
Total Sulphur	%	0.005		0.026	0.356			0.041	0.196	0.032	0.213
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5			< 0.5	< 0.5	< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0			< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	13/02/2024	13/02/2024	14/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	40000	50000	14000	37000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	9	8.8	3.9	8.9	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	95	89	48	93	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	1.1	18	1.1	6.4	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	48	52	28	64	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		35000	34000	25000	44000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	48	48	16	40	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		190	310	200	240	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	3.1	3.2	3.3	2.8	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	3.2	3.1	5.2	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	120	120	48	130	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		6900	15000	4900	9300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3100	4900	1800	3500	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		7700	9900	2200	6700	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		4000	5500	1200	3300	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	13/02/2024	13/02/2024	14/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	13/02/2024	13/02/2024	14/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							13/02/2024	13/02/2024	13/02/2024	14/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	15/02/2024	16/02/2024	16/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.3	8	7.5	8.2
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		820	7300	4500	3300	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		1.3	6	3.6	1.8	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		0.7	3	1.8	0.9	
Total Sulphur	mg/kg	50		260	3600		260	2200	1500	1200	
Total Sulphur	%	0.005		0.026	0.356		0.026	0.216	0.146	0.117	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	15/02/2024	16/02/2024	16/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	30000	50000	29000	38000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	5.8	9.2	8.9	8.9	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	90	120	120	140	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	3.4	3.7	5.6	1.7	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	32	57	41	56	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		37000	58000	35000	42000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	26	36	35	36	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		320	220	200	160	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	2.6	4.9	2.4	3.1	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	4.7	2.4	2.6	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	81	130	100	110	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		13000	8200	8500	6300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3300	2800	3100	2700	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		5300	6400	5700	7000	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		1900	2500	1900	2500	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	15/02/2024	16/02/2024	16/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	15/02/2024	16/02/2024	16/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	15/02/2024	16/02/2024	16/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							20/02/2024	21/02/2024	21/02/2024	22/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8.2	8.3	8.4	8.2	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0	< 1.0		< 1.0	
Total Sulphate as SO4	mg/kg	50		820	9700				840	7100	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000			98		5000	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500			48.9		2500	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		3.7		15		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		1.9		7.7		
Total Sulphur	mg/kg	50		260	3600		760		320		
Total Sulphur	%	0.005		0.026	0.356		0.076		0.032		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5		< 0.5		
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0		< 2.0		
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3					4.3	
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0		< 1.0			
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0		0.1		< 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0		< 0.05		< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0		< 0.05		< 0.05	
Fluorene	mg/kg	0.05	60000	0.07	2	0		< 0.05		< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0		< 0.05		0.46	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0		< 0.05		0.12	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0		< 0.05		0.49	
Pyrene	mg/kg	0.05	54000	0.05	13	0		< 0.05		0.67	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0		< 0.05		0.32	
Chrysene	mg/kg	0.05	350	0.3	7.4	0		< 0.05		1.2	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0		< 0.05		< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0		< 0.05		< 0.05	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0		< 0.05		< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0		< 0.05		< 0.05	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0		< 0.05		< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0		< 0.05		< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							20/02/2024	21/02/2024	21/02/2024	22/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5				< 0.80		3.29
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		31000		24000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0		8.1		8.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		87	120	140	91
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0			3.4		3.4
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0		3.7	4	4.1	11
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0		< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0			< 1.8		< 1.8
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0		53	59	38	45
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0			110		89
Iron (aqua regia extractable)	mg/kg	40		0.013	58000			37000		33000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0		48	56	29	42
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100			350		310	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0			< 0.3		0.4
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0		6.3		2.8	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0			55		48
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0		< 1.0	13	3.8	3.4
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		160	130	85	110
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0			130		65
Calcium (aqua regia extractable)	mg/kg	20		2300	18000			13000		8300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900			3900		3100	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900			5400		4400	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800			1800		1500	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0			< 0.020		< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0			< 0.020		< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0			< 0.050		< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0			< 1.0		1.3
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0			4.5		38
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0			59		210
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500				49		1500
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800				110		1800
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023				< 0.010		< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12				< 0.010		< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0			< 0.050		< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0			< 1.0		< 1.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							20/02/2024	21/02/2024	21/02/2024	22/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0		< 2.0		20	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0		< 10		240	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0		< 10		1100	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500			< 10		1400	
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0		< 5.0		< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0		< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0		< 5.0		< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0				< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0		< 5.0		< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0		< 5.0	
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0				< 5.0	
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0				< 5.0	
Bromomethane	µg/kg	5		<MRL	<MRL					< 5.0	
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0				< 5.0	
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL					< 5.0	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL					< 5.0	
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL					< 5.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			< 5.0		< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL					< 5.0	
Chloroform	µg/kg	5		<MRL	<MRL					< 5.0	
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL					< 5.0	
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0				< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0		< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL					< 5.0	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL					< 5.0	
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0				< 5.0	
Dibromomethane	µg/kg	5		<MRL	<MRL					< 5.0	
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0				< 5.0	
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					< 5.0	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0		< 5.0		< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL					< 5.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							20/02/2024	21/02/2024	21/02/2024	22/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						< 5.0
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					< 5.0
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						< 5.0
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						< 5.0
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					< 5.0
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0		< 5.0			< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					< 5.0
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0			< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						< 5.0
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					< 5.0
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					< 5.0
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						< 5.0
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					< 5.0
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					< 5.0
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
p-Isopropyltoluene	µg/kg	5		<MRL	570						< 5.0
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
Butylbenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						< 5.0
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						< 5.0
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
SVOCs											
Aniline	mg/kg	0.1									< 0.1
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					< 0.2
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						< 0.2
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						< 0.2
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						< 0.1
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						< 0.1
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					< 0.05
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						< 0.3

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							20/02/2024	21/02/2024	21/02/2024	22/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						< 0.2
Isophorone	mg/kg	0.2		<MRL	<MRL						< 0.2
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						< 0.3
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						< 0.1
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						< 0.2
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						< 0.1
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						< 0.1
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						< 0.1
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						< 0.2
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0					< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						< 0.3
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					< 0.2
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						< 0.2
Azobenzene	mg/kg	0.3		<MRL	<MRL						< 0.3
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						< 0.2
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					< 0.20
Carbazole	mg/kg	0.3		<MRL	<MRL						< 0.3
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						< 0.2
Anthraquinone	mg/kg	0.3		<MRL	<MRL						< 0.3
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					< 0.3
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					< 0.2
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						< 0.2
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						< 0.1

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							23/02/2024	26/02/2024	23/02/2024	27/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8.4	8.9	7.9	8.4	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0	< 1.0		< 1.0	
Total Sulphate as SO4	mg/kg	50		820	9700		8800		4500		
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000		4900	1600		230	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500		2450	788		117	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310				11		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				5.5		
Total Sulphur	mg/kg	50		260	3600				1600		
Total Sulphur	%	0.005		0.026	0.356				0.16		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5				1.1		
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0				< 2.0		
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3		< 1.0				
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0		< 1.0		< 1.0	
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05	0.26		< 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05	< 0.05		< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05	< 0.05		< 0.05	
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05	0.07		< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05	0.23		< 0.05	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05	0.05		< 0.05	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	< 0.05	0.21		< 0.05	
Pyrene	mg/kg	0.05	54000	0.05	13	0	< 0.05	0.19		< 0.05	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05	< 0.05		< 0.05	
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05	< 0.05		< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05	< 0.05		< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05	< 0.05		< 0.05	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05	< 0.05		< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05	< 0.05		< 0.05	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05	< 0.05		< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05	< 0.05		< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							23/02/2024	26/02/2024	23/02/2024	27/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5		< 0.80	1.01		< 0.80	
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			34000		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0			6.8		
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	100	81	86	80	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	3.5	2.5		1.5	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	7.7	17	2.9	0.5	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 1.8	< 1.8		< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	52	48	49	23	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	89	91		59	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				39000		
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	45	34	31	14	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				240		
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	< 0.3	< 0.3		< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0			4		
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	49	51		37	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	3.4	2	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110	90	99	46	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	55	93		26	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000				9400		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900				3100		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900				5800		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800				2400		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	< 0.020	< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	< 0.020	< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	< 2.0	6.7			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	< 8.0	39			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		< 8.0	770			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		< 10	820			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		< 0.010	< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		< 0.010	< 0.010			
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							23/02/2024	26/02/2024	23/02/2024	27/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	6.4			
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	17			
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	< 10	130			
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500		< 10	160			
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0		< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0		< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0		< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0		< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0			
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	< 5.0				
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	< 5.0				
Bromomethane	µg/kg	5		<MRL	<MRL		< 5.0				
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0	< 5.0				
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL		< 5.0				
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL		< 5.0				
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL		< 5.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0		< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0				
Chloroform	µg/kg	5		<MRL	<MRL		< 5.0				
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0				
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0		< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL		< 5.0				
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0				
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	< 5.0				
Dibromomethane	µg/kg	5		<MRL	<MRL		< 5.0				
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	< 5.0				
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0				
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0		< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							23/02/2024	26/02/2024	23/02/2024	27/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL			< 5.0			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		< 5.0			
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			< 5.0			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		< 5.0			
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Ethylbenzene	µg/kg	5	320000	<MRL	640	0		< 5.0			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0		< 5.0	< 5.0		< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		< 5.0			
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0	< 5.0		
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		< 5.0			
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		< 5.0			
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		< 5.0			
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		< 5.0			
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		< 5.0			
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
p-Isopropyltoluene	µg/kg	5		<MRL	570			< 5.0			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
SVOCs											
Aniline	mg/kg	0.1						< 0.1			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		< 0.2			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		< 0.05			
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							23/02/2024	26/02/2024	23/02/2024	27/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		< 0.2				
Isophorone	mg/kg	0.2		<MRL	<MRL		< 0.2				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL		< 0.3				
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL		< 0.1				
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL		< 0.1				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2				
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5		< 0.1				
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL		< 0.1				
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL		< 0.2				
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0	< 0.2				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL		< 0.3				
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0	< 0.2				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL		< 0.2				
Azobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3				
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL		< 0.2				
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0	< 0.20				
Carbazole	mg/kg	0.3		<MRL	<MRL		< 0.3				
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL		< 0.2				
Anthraquinone	mg/kg	0.3		<MRL	<MRL		< 0.3				
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0	< 0.3				
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	< 0.2				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8.1	7.6	8.6	7.7	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0			< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		820	9700		7200				
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200					330	
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120					165	
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000				35		
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500				17.3		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		6.1				
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		3.1				
Total Sulphur	mg/kg	50		260	3600		2700				
Total Sulphur	%	0.005		0.026	0.356		0.269				
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5				
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0				
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7			0.5			
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			0.56			
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0			< 1.0	< 1.0	
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0			2.4	< 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0			< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0			< 0.05	< 0.05	
Fluorene	mg/kg	0.05	60000	0.07	2	0			< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0			< 0.05	< 0.05	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0			< 0.05	< 0.05	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0			< 0.05	< 0.05	
Pyrene	mg/kg	0.05	54000	0.05	13	0			< 0.05	< 0.05	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0			< 0.05	< 0.05	
Chrysene	mg/kg	0.05	350	0.3	7.4	0			< 0.05	< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0			< 0.05	< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0			< 0.05	< 0.05	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0			< 0.05	< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0			< 0.05	< 0.05	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0			< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0			< 0.05	< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5					2.35	< 0.80
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		22000			
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0		8.1			
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		130		140	15
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0				3.2	1.4
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0		8.8		1	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0		< 0.2		< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0				< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0		28		46	72
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0				94	31
Iron (aqua regia extractable)	mg/kg	40		0.013	58000			36000			
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0		24		39	18
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100			300			
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0				< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0		3			
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0				52	37
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0		4		3.1	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		74		110	34
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0				46	56
Calcium (aqua regia extractable)	mg/kg	20		2300	18000			9000			
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900			3400			
Potassium (aqua regia extractable)	mg/kg	20		1600	9900			4500			
Sodium (aqua regia extractable)	mg/kg	20		1200	5800			1500			
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0				< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0				< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0				< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0				< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0				< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0				< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500					< 8.0	< 8.0
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800					< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023					< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12					< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0				< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0				< 1.0	< 1.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	130724	130725	2942252	118280
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0				< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0				< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0				< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500					< 10	< 10
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0				< 5.0	< 5.0
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0				< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0				< 5.0	< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0				< 5.0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0				< 5.0	< 5.0
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL					< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					10
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0				< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0				< 5.0	< 5.0
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0				< 5.0	< 5.0
Styrene	µg/kg	5	190000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	370000	<MRL	6100	0				< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							27/02/2024	27/02/2024	29/01/2024	06/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	112639	112643	120640	121252
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	06/02/2024	14/02/2024	15/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.9	8.7	8.4	8.2
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50		820	9700						
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200		990	4200			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120		495	2120			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000				260	1200	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500				129	592	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310						
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160						
Total Sulphur	mg/kg	50		260	3600						
Total Sulphur	%	0.005		0.026	0.356						
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5						
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0						
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0		< 1.0	< 1.0	< 1.0
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	0.15	1.2	1.7	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05	0.18	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	0.58	0.6	0.21	< 0.05	< 0.05
Fluorene	mg/kg	0.05	60000	0.07	2	0	0.4	0.61	0.17	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	1.4	2.1	0.86	< 0.05	< 0.05
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	0.27	0.5	0.12	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	1.2	1.8	0.62	< 0.05	< 0.05
Pyrene	mg/kg	0.05	54000	0.05	13	0	0.99	1.5	0.51	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	0.41	0.51	0.28	< 0.05	< 0.05
Chrysene	mg/kg	0.05	350	0.3	7.4	0	0.45	0.57	0.3	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	0.32	0.45	0.3	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	0.14	0.14	0.13	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	0.23	0.33	0.2	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	0.16	0.19	0.1	< 0.05	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	0.16	0.21	0.15	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	RBH141	RBH141	RTP185	RTP124
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	06/02/2024	14/02/2024	15/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5			6.85	11	5.67	< 0.80
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0					
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	130	100	48	98	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	3.3	2.9	0.83	2.4	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	14	45	2.4	7	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	50	43	20	35	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	87	67	50	71	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000						
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	44	63	18	28	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100						
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	< 0.3	< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0					
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	49	41	18	38	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	< 1.0	1.8	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110	88	28	78	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	97	130	70	34	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000						
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900						
Potassium (aqua regia extractable)	mg/kg	20		1600	9900						
Sodium (aqua regia extractable)	mg/kg	20		1200	5800						
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	2.9	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	1.5	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	< 2.0	4.8	3.9	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	< 8.0	12	12	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		16	170	450	< 8.0	
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		19	190	470	< 10	
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		< 0.010	0.023	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		< 0.010	0.12	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	58	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	2.2	< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	112639	112643	120640	121252
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	06/02/2024	14/02/2024	15/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	5.1	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	< 10	37	98	< 10	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500		< 10	95	110	< 10	
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		28	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0		130	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	640			
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	2100	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	6100	< 5.0	< 5.0	
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0		< 5.0			
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0		< 5.0			
Bromomethane	µg/kg	5		<MRL	<MRL			< 5.0			
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0		< 5.0			
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL			< 5.0			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL			< 5.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
Chloroform	µg/kg	5		<MRL	<MRL			< 5.0			
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0			
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0	< 5.0			
Benzene	µg/kg	5	15000	<MRL	28	0		28	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		< 5.0			
Dibromomethane	µg/kg	5		<MRL	<MRL			< 5.0			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		< 5.0			
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0			
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Toluene	µg/kg	5	3300000	<MRL	130	0		130	< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	112639	112643	120640	121252
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	06/02/2024	14/02/2024	15/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL			< 5.0			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		< 5.0			
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			< 5.0			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		< 5.0			
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	640			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	< 5.0	2100	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		< 5.0			
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	6100	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		20000			
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		< 5.0			
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		41000			
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		25000			
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		41000			
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
p-Isopropyltoluene	µg/kg	5		<MRL	570			570			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
SVOCs											
Aniline	mg/kg	0.1						< 0.1			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		< 0.2			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		< 0.05			
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	RBH141	RBH141	RTP185	RTP124
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							05/02/2024	06/02/2024	14/02/2024	15/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			< 0.2			
Isophorone	mg/kg	0.2		<MRL	<MRL			< 0.2			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			< 0.1			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			< 0.2			
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5			0.5			
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			< 0.1			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			< 0.2			
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0		0.4			
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			< 0.3			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		< 0.2			
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			< 0.2			
Azobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			< 0.2			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		< 0.20			
Carbazole	mg/kg	0.3		<MRL	<MRL			< 0.3			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			< 0.2			
Anthraquinone	mg/kg	0.3		<MRL	<MRL			< 0.3			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0		< 0.3			
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	121258	125504	125506	125507
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	20/02/2024	20/02/2024	20/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	7.9	8.5	7.4	8.3	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0		< 1.0		
Total Sulphate as SO4	mg/kg	50		820	9700			1800			
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000		59	650	1100	960	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500		29.3	325	532	480	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310						
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160						
Total Sulphur	mg/kg	50		260	3600						
Total Sulphur	%	0.005		0.026	0.356						
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5						
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0						
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0	< 1.0	< 1.0	< 1.0	
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05	0.3	0.93	1.5	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05	0.11	0.18	1.8	
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05	0.09	0.35	2	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05	0.55	1.2	7.3	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05	0.08	0.27	1.5	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	0.07	0.56	0.53	12	
Pyrene	mg/kg	0.05	54000	0.05	13	0	0.06	0.53	0.48	13	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05	0.23	0.26	5.7	
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05	0.3	0.31	7.4	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05	0.31	0.29	6.1	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05	0.08	0.08	2	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05	0.15	0.17	5.5	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05	< 0.05	< 0.05	2.5	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05	< 0.05	< 0.05	0.85	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05	< 0.05	< 0.05	2.5	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	121258	125504	125506	125507
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	20/02/2024	20/02/2024	20/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5		< 0.80	3.29	5.03	71.5	
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0					
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	19	120	17	38	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	1.6	2.5	1.7	1.8	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	2.6	17	13	5	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	0.7	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	34	97	41	41	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	38	280	48	81	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000						
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	48	54	140	25	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100						
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	< 0.3	< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0					
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	35	210	41	44	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	5.2	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	46	92	41	57	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	99	350	110	81	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000						
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900						
Potassium (aqua regia extractable)	mg/kg	20		1600	9900						
Sodium (aqua regia extractable)	mg/kg	20		1200	5800						
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	1.7	15	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	< 2.0	< 2.0	2.2	120	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	< 8.0	12	< 8.0	240	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		< 8.0	270	32	710	
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		< 10	280	36	1100	
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	< 1.0	8.4	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	121258	125504	125506	125507
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	20/02/2024	20/02/2024	20/02/2024	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	5.9	150	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	11	440	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	< 10	56	31	880	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500		< 10	56	48	1500	
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	121258	125504	125506	125507
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							15/02/2024	20/02/2024	20/02/2024	20/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	15/02/2024	20/02/2024	20/02/2024	20/02/2024
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							28/02/2024	28/02/2024	28/02/2024	12/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.4	8	8.2	8.2
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700			6600	9700	5000	2800
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			4.7	7.3	6.7	310
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			2.4	3.6	3.4	160
Total Sulphur	mg/kg	50		260	3600			2600	3600	2000	980
Total Sulphur	%	0.005		0.026	0.356			0.256	0.356	0.201	0.098
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5			< 0.5	< 0.5	< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0			< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							28/02/2024	28/02/2024	28/02/2024	12/02/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	44000	38000	45000	21000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	7.7	8	8.4	< 1.0	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	100	88	110	14	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	16	19	4.6	16	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	55	57	55	39	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		41000	46000	43000	29000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	36	71	39	22	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		200	230	230	290	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	3	38	3	2.6	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	8.9	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	120	100	120	42	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		9700	8700	9000	2300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3600	3200	3900	3300	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		8200	7200	8400	1600	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		3600	2400	3800	1300	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	132251	132253	132255	147366
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							28/02/2024	28/02/2024	28/02/2024	28/02/2024	12/02/2024
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1 #2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH CU 1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							28/02/2024	28/02/2024	28/02/2024	12/02/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							28/02/2024	28/02/2024	28/02/2024	12/02/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	12/02/2024	20/02/2024	28/02/2024	01/02/2024
							147367	147368	147369		
							RBH138	RBH129	RBH137	RBH116	
							9.50-9.60	22.10-22.20	8.60-9.00	3.5-3.7	
							Superficial	Superficial	Superficial	PFA	
							In-situ	In-situ	In-situ	In-situ	
							12/02/2024	20/02/2024	28/02/2024	01/02/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8	8.5	8.4	8.6	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		5100	5900	6400	2900	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		160	170	62		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		78	84	31		
Total Sulphur	mg/kg	50		260	3600		1700	2100	2000		
Total Sulphur	%	0.005		0.026	0.356		0.167	0.21	0.201		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		1	5	0.9		
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0		
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7					0.5	
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22					12	
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0				0.12	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0				< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0				< 0.05	
Fluorene	mg/kg	0.05	60000	0.07	2	0				< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0				< 0.05	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0				< 0.05	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0				< 0.05	
Pyrene	mg/kg	0.05	54000	0.05	13	0				< 0.05	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0				< 0.05	
Chrysene	mg/kg	0.05	350	0.3	7.4	0				< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0				< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0				< 0.05	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0				< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0				< 0.05	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0				< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0				< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	12/02/2024	20/02/2024	28/02/2024	01/02/2024
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	24000	22000	15000		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	5.1	3.3	< 1.0	< 0.017	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	55	31	38	0.23	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0				0.655	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	16	13	37		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2		
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0				< 0.00100	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	44	42	36		
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0				0.0049	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		32000	38000	35000	0.013	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	35	26	22		
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		670	1100	590	0.011	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	7.2	22	91	< 0.00500	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0				3.71	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	< 1.0	< 1.0	0.0062	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	79	54	46	< 0.040	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0				0.0069	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		5700	18000	17000		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3800	6100	7900		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		4900	3800	4800		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		2300	2000	1700		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	12/02/2024	20/02/2024	28/02/2024	01/02/2024
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	RBH138				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	RBH129				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	RBH137				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		RBH116				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	12/02/2024	20/02/2024	28/02/2024	01/02/2024
Dibromochloromethane	µg/kg	5		<MRL	<MRL		RBH138				
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0	RBH129				
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL		RBH137				
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0	RBH116				
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	12/02/2024	20/02/2024	28/02/2024	01/02/2024
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		RBH138				
Isophorone	mg/kg	0.2		<MRL	<MRL		RBH129				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		RBH137				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		RBH116				
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID			
							BH ID	Depth	Strata	Cut/In-Situ Waste
							14/02/2024	28/02/2024	09/02/2024	28/02/2024
General Inorganics										
pH	pH Units	N/A	7.3	8.9	8.9	No	7.9	7.7	8.6	8.7
Electrical Conductivity	µS/cm	10	-	0	0					
Total Cyanide	mg/kg	1	49	0	0	0				
Total Sulphate as SO4	mg/kg	50		820	9700		4600	2200	2200	3500
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200					
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120					
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000					
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500					
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310					
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160					
Total Sulphur	mg/kg	50		260	3600					
Total Sulphur	%	0.005		0.026	0.356					
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5					
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0					
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0					
Sulphide	mg/kg	1		4.3	4.3					
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7		0.4	0.7	0.4	0.7
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		3.5	4.5	5.1	22
Dry solids	%	0.1		0	0					
Total Phenols										
Total Phenols (monohydric)	mg/kg	1	380	0	0	0				
Speciated PAHs										
Naphthalene	mg/kg	0.05	110	0.1	2.4	0				
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0				
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0				
Fluorene	mg/kg	0.05	60000	0.07	2	0				
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0				
Anthracene	mg/kg	0.05	520000	0.05	1.5	0				
Fluoranthene	mg/kg	0.05	23000	0.06	12	0				
Pyrene	mg/kg	0.05	54000	0.05	13	0				
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0				
Chrysene	mg/kg	0.05	350	0.3	7.4	0				
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0				
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0				
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID				
						BH ID	RBH124	RBH125	RBH136	RBH145
						Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Exceedances?	14/02/2024	28/02/2024	09/02/2024	28/02/2024						
Total PAH										
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5					
Heavy Metals / Metalloids										
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0				
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	< 0.017	< 0.017	< 0.017	0.14
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	0.241	0.236	0.212	0.361
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	0.454	0.66	0.809	0.56
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0				
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0				
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 0.00100	< 0.00100	< 0.00100	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0				
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	0.036	0.011	0.033	0.028
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		0.054	0.063	0.045	0.056
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0				
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		< 0.010	< 0.010	< 0.010	< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	< 0.00500	< 0.00500	< 0.00500	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	0.18	0.179	0.244	0.192
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 0.0030	0.013	< 0.0030	0.0099
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	< 0.040	< 0.040	< 0.040	< 0.040
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0				
							0.13	0.11	0.078	0.092
Calcium (aqua regia extractable)	mg/kg	20		2300	18000					
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900					
Potassium (aqua regia extractable)	mg/kg	20		1600	9900					
Sodium (aqua regia extractable)	mg/kg	20		1200	5800					
Petroleum Hydrocarbons										
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0				
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0				
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0				
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0				
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0				
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0				
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500					
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800					
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023					
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12					
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0				
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID				
							BH ID	RBH124	RBH125	RBH136	RBH145
							Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
						14/02/2024	28/02/2024	09/02/2024	28/02/2024		
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID				
							BH ID	RBH124	RBH125	RBH136	RBH145
							Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
						14/02/2024	28/02/2024	09/02/2024	28/02/2024		
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	190000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	370000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	71000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	210000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID				
						BH ID	RBH124	RBH125	RBH136	RBH145
						Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Exceedances?	14/02/2024	28/02/2024	09/02/2024	28/02/2024						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL					
Isophorone	mg/kg	0.2		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL					
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL					
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5					
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL					
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL					
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL					
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL					
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL					
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL					
Azobenzene	mg/kg	0.3		<MRL	<MRL					
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL					
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0				
Carbazole	mg/kg	0.3		<MRL	<MRL					
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL					
Anthraquinone	mg/kg	0.3		<MRL	<MRL					
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0				
Phenols by GC-MS										
Phenol	mg/kg	0.2	380	<MRL	<MRL	0				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	15/02/2024
General Inorganics							
pH	pH Units	N/A	7.3	8.9	8.9	No	7.6
Electrical Conductivity	µS/cm	10	-	0	0		
Total Cyanide	mg/kg	1	49	0	0	0	
Total Sulphate as SO4	mg/kg	50		820	9700		3500
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200		
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120		
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000		
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		
Total Sulphur	mg/kg	50		260	3600		
Total Sulphur	%	0.005		0.026	0.356		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0		
Sulphide	mg/kg	1		4.3	4.3		
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7		0.7
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		1.4
Dry solids	%	0.1		0	0		
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	
Speciated PAHs							
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	< 0.05
Pyrene	mg/kg	0.05	54000	0.05	13	0	< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	15/02/2024
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5		
Heavy Metals / Metalloids							
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	< 0.017
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	0.299
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	0.531
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	0.13
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		0.073
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	0.0617
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	0.01
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	0.06
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	0.14
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		
Petroleum Hydrocarbons							
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	15/02/2024
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0		
MTBE and BTEX							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0
VOCs							
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	
Bromomethane	µg/kg	5		<MRL	<MRL		
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0	
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL		
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL		
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL		
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL		
Chloroform	µg/kg	5		<MRL	<MRL		
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL		
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL		
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL		
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	
Benzene	µg/kg	5	15000	<MRL	28	0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL		
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL		
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	
Dibromomethane	µg/kg	5		<MRL	<MRL		
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		
Toluene	µg/kg	5	3300000	<MRL	130	0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL		
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	15/02/2024
Dibromochloromethane	µg/kg	5		<MRL	<MRL		
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0	
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL		
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0	
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0	
Bromoform	µg/kg	5	390000	<MRL	<MRL	0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0	
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0	
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0	
2-Chlorotoluene	µg/kg	5		<MRL	<MRL		
4-Chlorotoluene	µg/kg	5		<MRL	<MRL		
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1	
tert-Butylbenzene	µg/kg	5		<MRL	<MRL		
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1	
sec-Butylbenzene	µg/kg	5		<MRL	<MRL		
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL		
p-Isopropyltoluene	µg/kg	5		<MRL	570		
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL		
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL		
Butylbenzene	µg/kg	5		<MRL	<MRL		
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL		
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL		
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL		
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL		
SVOCs							
Aniline	mg/kg	0.1					
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL		
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL		
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL		
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0	
Nitrobenzene	mg/kg	0.3		<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	15/02/2024
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		
Isophorone	mg/kg	0.2		<MRL	<MRL		
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL		
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL		
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL		
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL		
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5		
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL		
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL		
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL		
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL		
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0	
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL		
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0	
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL		
Azobenzene	mg/kg	0.3		<MRL	<MRL		
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL		
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0	
Carbazole	mg/kg	0.3		<MRL	<MRL		
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL		
Anthraquinone	mg/kg	0.3		<MRL	<MRL		
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0	
Phenols by GC-MS							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002541	24-002891	
										PFA	PFA	
										RBH141A	RBH136	
										Date Sampled	07/02/2024	08/02/2024
										Depth	7.00-7.10	2.50-2.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		8.70	7.30	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	371.00	349.00	
Total Sulphur	mg/l	0.015					8.06	243	0	124.00	116.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	4.00	0.41	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	240.00	120.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	< 0.01	0.06	
Nitrite as N	µg/l	1		500		500	1	17	0	17.00	1.20	
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	1.10	0.07	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002541	24-002891	
										PFA	PFA	
										RBH141A	RBH136	
										Date Sampled	07/02/2024	08/02/2024
										Depth	7.00-7.10	2.50-2.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	8.10	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	27.00	37.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	910.00	100.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	0.80	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0	27.00		
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	0.03	0.04	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	2.10	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	63.00	78.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	63.00	11.27	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	21.00	2.20	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	4.00	7.10	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	22.00	17.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		150.00	130.00	
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16		1.10	3.20	
Potassium (dissolved)	mg/l	0.025					2	12		12.00	2.10	
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	15.00	1.20	
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002541	24-002891	
										PFA	PFA	
										RBH141A	RBH136	
										Date Sampled	07/02/2024	08/02/2024
										Depth	7.00-7.10	2.50-2.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-003270	24-003270	
										PFA	PFA	
										RTP157	RBH138	
										Date Sampled	12/02/2024	12/02/2024
										Depth	2.40-2.60	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.60	7.40	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	439.00	537.00	
Total Sulphur	mg/l	0.015					8.06	243	0	146.00	179.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.44	0.55	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	16.00	< 15	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	< 0.01	0.05	
Nitrite as N	µg/l	1		500		500	1	17	0	1.30	3.20	
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.06	0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-003270	24-003270	
										PFA	PFA	
										RTP157	RBH138	
										Date Sampled	12/02/2024	12/02/2024
										Depth	2.40-2.60	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	1.90	3.20	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	16.00	22.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	110.00	1600.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	8.00	4.10	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0	0.02	< 0.004	
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	< 1.0	< 1.0	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	32.00	35.00	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	5.80	52.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	1.50	9.12	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	12.00	< 4.0	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	9.90	11.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13			
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		200.00	200.00	
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16		2.40	16.00	
Potassium (dissolved)	mg/l	0.025					2	12		2.10	8.80	
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.10	5.60	
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-003270	24-003270	
										PFA	PFA	
										RTP157	RBH138	
										Date Sampled	12/02/2024	12/02/2024
										Depth	2.40-2.60	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP183	RTP184	
										Date Sampled	13/02/2024	13/02/2024
										Depth	0.40-0.60	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.20	7.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	350.00	208.00	
Total Sulphur	mg/l	0.015					8.06	243	0	117.00	69.40	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.68	0.76	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	73.00	27.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	0.03	0.10	
Nitrite as N	µg/l	1		500		500	1	17	0	1.00	2.90	
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.07	0.07	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP183	RTP184	
										Date Sampled	13/02/2024	13/02/2024
										Depth	0.40-0.60	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	26.00	16.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	630.00	130.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	2.30	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	0.01	0.02	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.00	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	43.00	54.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	5.12	6.43	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	15.00	5.70	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	9.00	6.70	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		140.00	91.00	
Calcium (dissolved)	µg/l	12					11000	300000		140000.00	91000.00	
Magnesium (dissolved)	mg/l	0.005					1.1	16		9.10	2.20	
Potassium (dissolved)	mg/l	0.025					2	12		3.30	2.30	
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.10	2.20	
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP183	RTP184	
										Date Sampled	13/02/2024	13/02/2024
										Depth	0.40-0.60	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP181	RTP182	
										Date Sampled	13/02/2024	13/02/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.30	7.50	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0		2360.00	
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	177.00	2.36	
Total Sulphur	mg/l	0.015					8.06	243	0	59.10		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	1.50		
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	21.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	< 0.01		
Nitrite as N	µg/l	1		500		500	1	17	0	1.60		
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0		< 1.0	
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.06		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP181	RTP182	
										Date Sampled	13/02/2024	13/02/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	8.50	1.70	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	190.00	140.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.90	0.60	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		32.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		1.85	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	< 0.004		
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.30	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	49.00		
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	7.08		
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	8.80		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		1.40	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.39	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	10.00	< 1.7	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		9.80	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		4.23	
Calcium (dissolved)	mg/l	0.012					11	770		81.00		
Calcium (dissolved)	µg/l	12					11000	300000		81000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16		2.60		
Potassium (dissolved)	mg/l	0.025					2	12		2.00		
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.10		
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	MG	
										RTP181	RTP182	
										Date Sampled	13/02/2024	13/02/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132252		
										PFA	PFA	
										RTP182	RBH145	
										Date Sampled	13/02/2024	28/02/2024
										Depth	1.50-1.70	9.00-9.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		8.60	9.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	254.00	730.00	
Total Sulphur	mg/l	0.015					8.06	243	0	84.80	243.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	1.40	0.55	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	18.00	45.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	0.02	0.18	
Nitrite as N	µg/l	1		500		500	1	17	0	< 1.0	2.60	
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	1.20	2.00	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132252	
										PFA	
										RTP182	
										RBH145	
										Date Sampled	
										13/02/2024	
										28/02/2024	
										Depth	
										1.50-1.70	
										9.00-9.10	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	10.00
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	12.00	43.00
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0		
Beryllium (dissolved)	µg/l	0.2					0	0			
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	750.00	1200.00
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.50	4.90
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0		
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	0.01	0.15
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	41.00	50.00
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	41.00	50.00
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	7.00	17.00
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	8.30
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	9.90	79.00
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		
Calcium (dissolved)	mg/l	0.012					11	770		110.00	300.00
Calcium (dissolved)	µg/l	12					11000	300000		110000.00	300000.00
Magnesium (dissolved)	mg/l	0.005					1.1	16		2.10	1.40
Potassium (dissolved)	mg/l	0.025					2	12		2.50	7.40
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.30	3.40
							0	0			
							0	0			
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												132252	
											PFA	PFA	
											RTP182	RBH145	
											Date Sampled	13/02/2024	28/02/2024
											Depth	1.50-1.70	9.00-9.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	109704	
										PFA	PFA	
										RBH125	RBH116	
										Date Sampled	28/02/2024	31/01/2024
										Depth	4.00-4.50	3.50-3.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.40	8.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0	< 1.0		
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	449.00	290.00	
Total Sulphur	mg/l	0.015					8.06	243	0			
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0		2.50	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0			
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0	< 1.0		
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1	0.96		
Acenaphthylene	µg/l	0.01					0	0		< 0.01		
Acenaphthene	µg/l	0.01	0.01				0	0		< 0.01		
Fluorene	µg/l	0.01					0	0		< 0.01		
Phenanthrene	µg/l	0.01					0	0		< 0.01		
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0	< 0.01		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0	< 0.01		
Pyrene	µg/l	0.01					0	0		< 0.01		
Benzo(a)anthracene	µg/l	0.01					0	0		< 0.01		
Chrysene	µg/l	0.01					0	0		< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
Dibenzo(a,h)anthracene	µg/l	0.01					0	0		< 0.01		
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0	0.96		
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	109704	
										PFA	PFA	
										RBH125	RBH116	
										Date Sampled	28/02/2024	31/01/2024
										Depth	4.00-4.50	3.50-3.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6			
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	31.00	23.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0		65.50	
Beryllium (dissolved)	µg/l	0.2					0	0		< 0.2		
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	140.00		
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0	< 5.0		
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.90	0.49	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	7.60	1.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.43	0.41	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.10	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0		371.00	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	1.70	0.62	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.44	0.62	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	10.00	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	29.00		
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	20.00	0.69	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	8.73	0.34	
Calcium (dissolved)	mg/l	0.012					11	770				
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0	< 1.0		
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0	< 1.0		
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0	< 1.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	109704	
										PFA	PFA	
										RBH125	RBH116	
										Date Sampled	28/02/2024	31/01/2024
										Depth	4.00-4.50	3.50-3.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0	< 10		
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0	< 10		
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0		< 10		
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0		< 10		
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0		< 10		
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0		< 1.0		
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0		< 1.0		
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0		< 1.0		
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0		< 10		
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0		< 3.0		
Benzene	µg/l	5	1				0	0		< 3.0		
Toluene	µg/l	5	4				0	0		< 3.0		
Ethylbenzene	µg/l	5	5				0	0		< 3.0		
p & m-xylene	µg/l	5	3				0	0		< 3.0		
o-xylene	µg/l	5					0	0		< 3.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										112640	120590	116448	
										PFA	PFA	PFA	
										RBH119	RBH124	RBH136	
										Date Sampled	05/02/2024	14/02/2024	09/02/2024
										Depth	6.90-7.00	8.00-8.10	7.50-7.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2			7.90	8.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0				
Sulphate as SO4	µg/l	45					2360	2360	0				
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	360.00	460.00	220.00	
Total Sulphur	mg/l	0.015					8.06	243	0				
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	4.60	0.22	0.64	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0				
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0				
Nitrite as N	µg/l	1		500		500	1	17	0				
							0	0					
							0	0					
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0				
							0	0					
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1				
Acenaphthylene	µg/l	0.01					0	0					
Acenaphthene	µg/l	0.01	0.01				0	0					
Fluorene	µg/l	0.01					0	0					
Phenanthrene	µg/l	0.01					0	0					
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0				
Pyrene	µg/l	0.01					0	0					
Benzo(a)anthracene	µg/l	0.01					0	0					
Chrysene	µg/l	0.01					0	0					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Dibenzo(a,h)anthracene	µg/l	0.01					0	0					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
							0	0					
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0				
							0	0					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										112640	120590	116448	
										PFA	PFA	PFA	
										RBH119	RBH124	RBH136	
										Date Sampled	05/02/2024	14/02/2024	09/02/2024
										Depth	6.90-7.00	8.00-8.10	7.50-7.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6				
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	20.00	24.10	21.20	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	49.20	45.40	80.90	
Beryllium (dissolved)	µg/l	0.2					0	0					
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5				
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0				
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.57	3.60	3.30	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	5.50	5.40	4.50	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.48	0.19	0.53	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0				
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0				
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0				
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	527.00	18.00	24.40	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	1.50	< 0.3	< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.51	0.05	0.30	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	5.50	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13				
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	14.00	13.00	7.80	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	6.70	2.39	2.78	
Calcium (dissolved)	mg/l	0.012					11	770					
Calcium (dissolved)	µg/l	12					11000	300000					
Magnesium (dissolved)	mg/l	0.005					1.1	16					
Potassium (dissolved)	mg/l	0.025					2	12					
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0				
							0	0					
							0	0					
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										112640	120590	116448	
										PFA	PFA	PFA	
										RBH119	RBH124	RBH136	
										Date Sampled	05/02/2024	14/02/2024	09/02/2024
										Depth	6.90-7.00	8.00-8.10	7.50-7.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										130725	120653	121260	
										PFA	PFA	PFA	
										RBH137	RTP136	RTP138	
										Date Sampled	27/02/2024	14/02/2024	15/02/2024
										Depth	2.00-2.50	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.60	8.20	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0				
Sulphate as SO4	µg/l	45					2360	2360	0				
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	540.00	2.20	350.00	
Total Sulphur	mg/l	0.015					8.06	243	0				
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.65	0.72	0.33	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0				
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0				
Nitrite as N	µg/l	1		500		500	1	17	0				
							0	0					
							0	0					
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0				
							0	0					
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1				
Acenaphthylene	µg/l	0.01					0	0					
Acenaphthene	µg/l	0.01	0.01				0	0					
Fluorene	µg/l	0.01					0	0					
Phenanthrene	µg/l	0.01					0	0					
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0				
Pyrene	µg/l	0.01					0	0					
Benzo(a)anthracene	µg/l	0.01					0	0					
Chrysene	µg/l	0.01					0	0					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Dibenzo(a,h)anthracene	µg/l	0.01					0	0					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
							0	0					
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0				
							0	0					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										130725	120653	121260	
										PFA	PFA	PFA	
										RBH137	RTP136	RTP138	
										Date Sampled	27/02/2024	14/02/2024	15/02/2024
										Depth	2.00-2.50	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6				
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	69.00	20.90	29.90	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	41.40	0.26	53.10	
Beryllium (dissolved)	µg/l	0.2					0	0					
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5				
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0				
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	< 0.4	13.00	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	12.00	< 0.7	7.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	1.04	0.14	0.77	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0				
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0				
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.80	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0				
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	13.60	1.43	6.17	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	8.20	< 0.3	1.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	2.76	0.19	0.36	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	7.80	7.50	6.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13				
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	12.00	< 0.4	14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	5.73	0.19	7.04	
Calcium (dissolved)	mg/l	0.012					11	770					
Calcium (dissolved)	µg/l	12					11000	300000					
Magnesium (dissolved)	mg/l	0.005					1.1	16					
Potassium (dissolved)	mg/l	0.025					2	12					
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0				
							0	0					
							0	0					
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										130725	120653	121260	
										PFA	PFA	PFA	
										RBH137	RTP136	RTP138	
										Date Sampled	27/02/2024	14/02/2024	15/02/2024
										Depth	2.00-2.50	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	124158	
										PFA	MG	MG	
										RTP151	RTP143	RTP166	
										Date Sampled	12/02/2024	20/02/2024	19/02/2024
										Depth	0.50-0.70	0.90-1.00	1.80-1.90
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.80	7.80	7.80	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0				
Sulphate as SO4	µg/l	45					2360	2360	0				
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	0.77	17.00	250.00	
Total Sulphur	mg/l	0.015					8.06	243	0				
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	1.70	1.40	0.71	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0				
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0				
Nitrite as N	µg/l	1		500		500	1	17	0				
							0	0					
							0	0					
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0				
							0	0					
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1				
Acenaphthylene	µg/l	0.01					0	0					
Acenaphthene	µg/l	0.01	0.01				0	0					
Fluorene	µg/l	0.01					0	0					
Phenanthrene	µg/l	0.01					0	0					
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0				
Pyrene	µg/l	0.01					0	0					
Benzo(a)anthracene	µg/l	0.01					0	0					
Chrysene	µg/l	0.01					0	0					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Dibenzo(a,h)anthracene	µg/l	0.01					0	0					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
							0	0					
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0				
							0	0					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	124158	
										PFA	MG	MG	
										RTP151	RTP143	RTP166	
										Date Sampled	12/02/2024	20/02/2024	19/02/2024
										Depth	0.50-0.70	0.90-1.00	1.80-1.90
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6				
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	2.61	1.66	37.50	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	3.31	19.20	53.80	
Beryllium (dissolved)	µg/l	0.2					0	0					
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5				
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0				
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.76	< 0.4	4.30	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	2.10	6.50	5.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.05	0.20	0.36	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0				
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0				
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	2.40	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0				
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	0.44	10.20	14.70	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	< 0.3	2.00	1.50	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.06	0.24	0.50	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	7.30	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13				
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	2.00	11.00	20.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	0.44	1.52	8.10	
Calcium (dissolved)	mg/l	0.012					11	770					
Calcium (dissolved)	µg/l	12					11000	300000					
Magnesium (dissolved)	mg/l	0.005					1.1	16					
Potassium (dissolved)	mg/l	0.025					2	12					
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0				
							0	0					
							0	0					
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	124158	
										PFA	MG	MG	
										RTP151	RTP143	RTP166	
										Date Sampled	12/02/2024	20/02/2024	19/02/2024
										Depth	0.50-0.70	0.90-1.00	1.80-1.90
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										147382	147383	
										PFA	PFA	
										RBH125	RBH145	
										Date Sampled	28/02/2024	28/02/2024
										Depth	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.70	8.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	220.00	350.00	
Total Sulphur	mg/l	0.015					8.06	243	0			
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.41	0.22	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0			
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										147382	147383	
										PFA	PFA	
										RBH125	RBH145	
										Date Sampled	28/02/2024	28/02/2024
										Depth	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6			
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	23.60	36.10	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	66.00	56.00	
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5			
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	1.10	2.80	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	6.30	5.60	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.40	2.68	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	17.90	19.20	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	1.30	0.99	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.42	0.99	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13			
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	11.00	9.20	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	4.66	4.99	
Calcium (dissolved)	mg/l	0.012					11	770				
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										147382	147383	
										PFA	PFA	
										RBH125	RBH145	
										Date Sampled	28/02/2024	28/02/2024
										Depth	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RBH114	RBH124	
										Date Sampled	20/02/2024	14/02/2024
										Depth	6.0-6.5	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.50	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	24.20	1590.00	
Total Sulphur	mg/l	0.015					8.06	243	0	8.06		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	22.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.21		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RBH114	RBH124	
										Date Sampled	20/02/2024	14/02/2024
										Depth	6.0-6.5	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	4.20		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	34.00	< 1.0	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	95.00	12.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.60	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		13.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.83	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.10	2.50	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	11.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		1.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.38	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	22.00	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	12.00		
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		5.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		2.12	
Calcium (dissolved)	mg/l	0.012					11	770		11.00		
Calcium (dissolved)	µg/l	12					11000	300000		11000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	MG	
										RBH114	RBH124	
										Date Sampled	20/02/2024	14/02/2024
										Depth	6.0-6.5	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH124	RBH126	
										Date Sampled	16/02/2024	19/02/2024
										Depth	17.0-17.1	1.0-1.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		8.30	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	227.00	172.00	
Total Sulphur	mg/l	0.015					8.06	243	0	75.80		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.36		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH124	RBH126	
										Date Sampled	16/02/2024	19/02/2024
										Depth	17.0-17.1	1.0-1.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	19.00	31.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	1900.00	820.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	0.50	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		8.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.55	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.10	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	160.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		0.30	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.10	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	13.00	16.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		9.80	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		4.15	
Calcium (dissolved)	mg/l	0.012					11	770				
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH124	RBH126	
										Date Sampled	16/02/2024	19/02/2024
										Depth	17.0-17.1	1.0-1.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH129	RBH132	
										Date Sampled	19/02/2024	23/02/2024
										Depth	15.5-15.6	3.5-4.0
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	191.00	523.00	
Total Sulphur	mg/l	0.015					8.06	243	0	63.70		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	35.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0		< 1.0	
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.34		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH129	RBH132	
										Date Sampled	19/02/2024	23/02/2024
										Depth	15.5-15.6	3.5-4.0
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	6.40		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	33.00	34.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	360.00	130.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	1.40	0.50	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		7.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.44	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	36.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		1.30	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.39	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	43.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	21.00	46.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		24.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		10.27	
Calcium (dissolved)	mg/l	0.012					11	770		770.00		
Calcium (dissolved)	µg/l	12					11000	300000		77000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH129	RBH132	
										Date Sampled	19/02/2024	23/02/2024
										Depth	15.5-15.6	3.5-4.0
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH143	RTP134	
										Date Sampled	23/02/2024	14/02/2024
										Depth	8.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.70	7.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	669.00	285.00	
Total Sulphur	mg/l	0.015					8.06	243	0	223.00	95.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	40.00	< 15	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.33	0.08	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH143	RTP134	
										Date Sampled	23/02/2024	14/02/2024
										Depth	8.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	49.00	51.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	1300.00	93.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	17.00	5.60	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.30	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	56.00	3.70	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	8.20	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	42.00	20.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		280.00	130.00	
Calcium (dissolved)	µg/l	12					11000	300000		280000.00	130000.00	
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH143	RTP134	
										Date Sampled	23/02/2024	14/02/2024
										Depth	8.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP135	RTP136	
										Date Sampled	15/02/2024	14/02/2024
										Depth	4.2-4.4	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.90	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	242.00	284.00	
Total Sulphur	mg/l	0.015					8.06	243	0	80.80	94.80	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15	< 15	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.15	0.43	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP135	RTP136	
										Date Sampled	15/02/2024	14/02/2024
										Depth	4.2-4.4	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	54.00	26.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	96.00	1200.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	6.30	6.70	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.20	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	4.40	11.00	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	20.00	25.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		110.00		
Calcium (dissolved)	µg/l	12					11000	300000		110000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP135	RTP136	
										Date Sampled	15/02/2024	14/02/2024
										Depth	4.2-4.4	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP137	RTP139	
										Date Sampled	14/02/2024	16/02/2024
										Depth	2.6-2.8	1.5-1.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.00	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	189.00	262.00	
Total Sulphur	mg/l	0.015					8.06	243	0	63.00	87.40	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15	16.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.03	0.19	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP137	RTP139	
										Date Sampled	14/02/2024	16/02/2024
										Depth	2.6-2.8	1.5-1.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	8.50	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	56.00	38.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	44.00	110.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	3.60	4.70	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.20	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	2.60	8.50	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	10.00	9.20	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	20.00	13.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		87.00	110.00	
Calcium (dissolved)	µg/l	12					11000	300000		87000.00	110000.00	
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP137	RTP139	
										Date Sampled	14/02/2024	16/02/2024
										Depth	2.6-2.8	1.5-1.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP140	RTP144	
										Date Sampled	15/02/2024	20/02/2024
										Depth	3.2-3.4	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.40	8.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	255.00	75.90	
Total Sulphur	mg/l	0.015					8.06	243	0	85.00		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.13		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP140	RTP144	
										Date Sampled	15/02/2024	20/02/2024
										Depth	3.2-3.4	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	29.00	30.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	28.00	690.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	4.70	0.50	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		8.20	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.92	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	2.10	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	2.80		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		0.70	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.37	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	14.00	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	15.00	24.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		9.70	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		3.99	
Calcium (dissolved)	mg/l	0.012					11	770		120.00		
Calcium (dissolved)	µg/l	12					11000	300000		120000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP140	RTP144	
										Date Sampled	15/02/2024	20/02/2024
										Depth	3.2-3.4	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP146	RTP150	
										Date Sampled	20/02/2024	19/02/2024
										Depth	0.7-0.8	4.1-4.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	170.00	397.00	
Total Sulphur	mg/l	0.015					8.06	243	0	56.80		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	69.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.22		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP146	RTP150	
										Date Sampled	20/02/2024	19/02/2024
										Depth	0.7-0.8	4.1-4.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	8.50		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	18.00	10.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	510.00	220.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		5.60	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.34	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	180.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		5.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		1.54	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	13.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	22.00	7.90	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		22.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		9.41	
Calcium (dissolved)	mg/l	0.012					11	770		65.00		
Calcium (dissolved)	µg/l	12					11000	300000		65000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP146	RTP150	
										Date Sampled	20/02/2024	19/02/2024
										Depth	0.7-0.8	4.1-4.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP155	RTP176	
										Date Sampled	16/02/2024	15/02/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.80	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	72.80	233.00	
Total Sulphur	mg/l	0.015					8.06	243	0	24.30		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.20		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP155	RTP176	
										Date Sampled	16/02/2024	15/02/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	7.40		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	120.00	15.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	42.00	140.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	3.40	3.60	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		2.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.17	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	2.40		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.10	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	5.90	16.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	47.00		
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		13.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		5.51	
Calcium (dissolved)	mg/l	0.012					11	770		37.00		
Calcium (dissolved)	µg/l	12					11000	300000		37000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	MG	
										RTP155	RTP176	
										Date Sampled	16/02/2024	15/02/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP176	RTP177	
										Date Sampled	15/02/2024	19/02/2024
										Depth	1.3-1.5	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.60	7.40	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	271.00	491.00	
Total Sulphur	mg/l	0.015					8.06	243	0	90.30		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.07		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP176	RTP177	
										Date Sampled	15/02/2024	19/02/2024
										Depth	1.3-1.5	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	14.00	4.80	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	200.00	250.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	4.80	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		9.50	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.53	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.30	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	10.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		2.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.52	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	17.00	33.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	4.90	< 1.7	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		6.11	
Calcium (dissolved)	mg/l	0.012					11	770		120.00		
Calcium (dissolved)	µg/l	12					11000	300000		120000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP176	RTP177	
										Date Sampled	15/02/2024	19/02/2024
										Depth	1.3-1.5	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)									
									PFA
									RTP186
								Date Sampled	14/02/2024
								Depth	2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
General Inorganics									
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2	7.30
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0
Sulphate as SO4	µg/l	45					2360	2360	0
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26
Total Sulphur	mg/l	0.015					8.06	243	0
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0
Nitrite as N	µg/l	1		500		500	1	17	0
							0	0	
Total Phenols									
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0
							0	0	
Speciated PAHs									
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1
Acenaphthylene	µg/l	0.01					0	0	
Acenaphthene	µg/l	0.01	0.01				0	0	
Fluorene	µg/l	0.01					0	0	
Phenanthrene	µg/l	0.01					0	0	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0
Pyrene	µg/l	0.01					0	0	
Benzo(a)anthracene	µg/l	0.01					0	0	
Chrysene	µg/l	0.01					0	0	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
Dibenzo(a,h)anthracene	µg/l	0.01					0	0	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
							0	0	
Total PAH									
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0
							0	0	
Heavy Metals / Metalloids									
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0
									0.06

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										
										PFA
										RTP186
										Date Sampled
										14/02/2024
										Depth
										2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	5.90
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	
Beryllium (dissolved)	µg/l	0.2					0	0		
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	48.00
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	1.80
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0	
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	12.00
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	7.20
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	16.00
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	
Calcium (dissolved)	mg/l	0.012					11	770		186.00
Calcium (dissolved)	µg/l	12					11000	300000		186000.00
Magnesium (dissolved)	mg/l	0.005					1.1	16		
Potassium (dissolved)	mg/l	0.025					2	12		
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	
							0	0		
							0	0		
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)									
									PFA
									RTP186
								Date Sampled	14/02/2024
								Depth	2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0	
							0	0	
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0	
							0	0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0	
Benzene	µg/l	5	1				0	0	
Toluene	µg/l	5	4				0	0	
Ethylbenzene	µg/l	5	5				0	0	
p & m-xylene	µg/l	5	3				0	0	
o-xylene	µg/l	5					0	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002891		
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH136	RTP183
										Date Sampled	08/02/2024	13/02/2024
										Depth	2.50-2.60	0.40-0.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.30	7.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	349.00	350.00	
Total Sulphur	mg/l	0.015					63.00	117.00		116.00	117.00	
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	0.41	0.68	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0	120.00	73.00	
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0	0.06	0.03	
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0	1.20	1.00	
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0	0.07	0.07	
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1	8.10	< 1.7	
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	37.00	26.00	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0	100.00	630.00	
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4	0.80	2.30	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002891		
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH136	RTP183
										Date Sampled	08/02/2024	13/02/2024
										Depth	2.50-2.60	0.40-0.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0	0.04	0.01	
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	1.00	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1	78.00	43.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0	11.27	5.12	
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0			
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		2.20	15.00	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0			
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.10	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	17.00	9.00	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0			
Calcium (dissolved)	mg/l	0.012					87.00	186.00		130.00	140.00	
Calcium (dissolved)	µg/l	12					87000.00	186000.00			140000.00	
Magnesium (dissolved)	mg/l	0.005					3.20	9.10		3.20	9.10	
Potassium (dissolved)	mg/l	0.025					2.10	3.30		2.10	3.30	
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0	1.20	2.10	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	130725	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH125	RBH137
										Date Sampled	28/02/2024	27/02/2024
										Depth	4.00-4.50	2.00-2.50
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.40	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0	< 1.0		
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	449.00	540.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0		0.65	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0	< 1.0		
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1	0.96		
Acenaphthylene	µg/l	0.01					0.00	0.00		< 0.01		
Acenaphthene	µg/l	0.01	0.01				0.00	0.00		< 0.01		
Fluorene	µg/l	0.01					0.00	0.00		< 0.01		
Phenanthrene	µg/l	0.01					0.00	0.00		< 0.01		
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0	< 0.01		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0	< 0.01		
Pyrene	µg/l	0.01					0.00	0.00		< 0.01		
Benzo(a)anthracene	µg/l	0.01					0.00	0.00		< 0.01		
Chrysene	µg/l	0.01					0.00	0.00		< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Dibenzo(a,h)anthracene	µg/l	0.01		0.1 (sum of the 4 compounds)			0.00	0.00		< 0.01		
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96		0.96		
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	31.00	69.00	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0		41.40	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00		< 0.2		
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0	140.00		
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.08	< 0.1	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0	< 5.0		
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4	0.90	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	7.60	12.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.43	1.04	
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	130725	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH125	RBH137
										Date Sampled	28/02/2024	27/02/2024
										Depth	4.00-4.50	2.00-2.50
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.34	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00			13.60	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	1.70	8.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.44	2.76	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	10.00	7.80	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	29.00		
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	20.00	12.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	8.73	5.73	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00		< 10		
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00		< 3.0		
Benzene			1.0				0.00	0.00		< 3.0		
Toluene			4.0				0.00	0.00		< 3.0		
Ethylbenzene			5.0				0.00	0.00		< 3.0		
p & m-xylene			3.0				0.00	0.00		< 3.0		
o-xylene							0.00	0.00		< 3.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										120653	121260	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP136	RTP138
										Date Sampled	14/02/2024	15/02/2024
										Depth	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		8.20	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	2.20	350.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	0.72	0.33	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	20.90	29.90	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0	0.26	53.10	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0			
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4	< 0.4	13.00	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	< 0.7	7.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.14	0.77	
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										120653	121260	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP136	RTP138
										Date Sampled	14/02/2024	15/02/2024
										Depth	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	1.80	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.34	0.40	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		1.43	6.17	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	< 0.3	1.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.19	0.36	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.50	6.00	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4			
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	< 0.4	14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	0.19	7.04	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	
										Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP151	RTP143
										Date Sampled	12/02/2024	20/02/2024
										Depth	0.50-0.70	0.90-1.00
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.80	7.80	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	0.77	17.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	1.70	1.40	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	2.61	1.66	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0	3.31	19.20	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0			
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4	0.76	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	2.10	6.50	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.05	0.20	
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	
										Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP151	RTP143
										Date Sampled	12/02/2024	20/02/2024
										Depth	0.50-0.70	0.90-1.00
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	2.40	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.21	0.05	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		0.44	10.20	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	< 0.3	2.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.06	0.24	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4			
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	2.00	11.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	0.44	1.52	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										124158		
										Strata (PFA/MG)	MG	MG
										Sample Reference	RTP166	RBH124
										Date Sampled	19/02/2024	14/02/2024
										Depth	1.80-1.90	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.80	7.70
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			< 1.0
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		250.00	1590.00
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0		0.71	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			< 0.01
Acenaphthylene	µg/l	0.01					0.00	0.00				< 0.01
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				< 0.01
Fluorene	µg/l	0.01					0.00	0.00				< 0.01
Phenanthrene	µg/l	0.01					0.00	0.00				< 0.01
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			< 0.01
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			< 0.01
Pyrene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				< 0.01
Chrysene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Dibenzo(a,h)anthracene	µg/l	0.01		0.1 (sum of the 4 compounds)			0.00	0.00				< 0.01
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				< 0.16
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		37.50	< 1.0
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0		53.80	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				< 0.2
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0			12.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.1	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4		4.30	< 0.4
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0		5.70	13.00
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1		0.36	0.83
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										124158		
										Strata (PFA/MG)	MG	MG
										Sample Reference	RTP166	RBH124
										Date Sampled	19/02/2024	14/02/2024
										Depth	1.80-1.90	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	2.50	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.62	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		14.70		
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	1.50	1.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.50	0.38	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.30	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4			
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	20.00	5.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	8.10	2.12	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00			< 10	
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00			< 3.0	
Benzene			1.0				0.00	0.00			< 3.0	
Toluene			4.0				0.00	0.00			< 3.0	
Ethylbenzene			5.0				0.00	0.00			< 3.0	
p & m-xylene			3.0				0.00	0.00			< 3.0	
o-xylene							0.00	0.00			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH126	RTP134
										Date Sampled	19/02/2024	14/02/2024
										Depth	1.0-1.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.70	7.20
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0		< 1.0	
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		172.00	285.00
Total Sulphur	mg/l	0.015					63.00	117.00				95.00
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			< 15
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0.00	0.00			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0.00	0.00			< 0.01	
Fluorene	µg/l	0.01					0.00	0.00			< 0.01	
Phenanthrene	µg/l	0.01					0.00	0.00			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0		< 0.01	
Pyrene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0.00	0.00			< 0.01	
Chrysene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			0.08
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			< 1.7
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		31.00	51.00
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		820.00	93.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4		0.50	5.60
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0		8.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1		< 0.55	
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH126	RTP134
										Date Sampled	19/02/2024	14/02/2024
										Depth	1.0-1.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5		
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00				3.70
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	0.30		
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.10		
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	16.00	20.00	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	9.80		
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	4.15		
Calcium (dissolved)	mg/l	0.012					87.00	186.00				130.00
Calcium (dissolved)	µg/l	12					87000.00	186000.00				130000.00
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00		< 10		
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00		< 3.0		
Benzene			1.0				0.00	0.00		< 3.0		
Toluene			4.0				0.00	0.00		< 3.0		
Ethylbenzene			5.0				0.00	0.00		< 3.0		
p & m-xylene			3.0				0.00	0.00		< 3.0		
o-xylene							0.00	0.00		< 3.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP135	RTP137
										Date Sampled	15/02/2024	14/02/2024
										Depth	4.2-4.4	2.6-2.8
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.90	7.00
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		242.00	189.00
Total Sulphur	mg/l	0.015					63.00	117.00			80.80	63.00
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0		< 15	< 15
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0		0.15	0.03
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1		< 1.7	< 1.7
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		54.00	56.00
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		96.00	44.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4		6.30	3.60
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP135	RTP137
										Date Sampled	15/02/2024	14/02/2024
										Depth	4.2-4.4	2.6-2.8
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	1.20	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.30	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0			
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		4.40	2.60	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0			
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	< 4.0	10.00	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	20.00	20.00	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0			
Calcium (dissolved)	mg/l	0.012					87.00	186.00		110.00	87.00	
Calcium (dissolved)	µg/l	12					87000.00	186000.00		110000.00	87000.00	
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP140	RTP177
										Date Sampled	15/02/2024	19/02/2024
										Depth	3.2-3.4	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.40	7.40
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			< 1.0
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		255.00	491.00
Total Sulphur	mg/l	0.015					63.00	117.00			85.00	
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0		< 15	
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			< 0.01
Acenaphthylene	µg/l	0.01					0.00	0.00				< 0.01
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				< 0.01
Fluorene	µg/l	0.01					0.00	0.00				< 0.01
Phenanthrene	µg/l	0.01					0.00	0.00				< 0.01
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			< 0.01
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			< 0.01
Pyrene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				< 0.01
Chrysene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				< 0.16
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0		0.13	
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1		< 1.7	
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		29.00	4.80
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				< 0.2
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		28.00	250.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			< 5.0
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4		4.70	< 0.4
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0			9.50
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1			0.53
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP140	RTP177
										Date Sampled	15/02/2024	19/02/2024
										Depth	3.2-3.4	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	1.30	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.32	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4				20.00	0.44	15.00	0	2.80		
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0		2.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0		0.52	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	14.00	33.00	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	15.00	< 1.7	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0		14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0		6.11	
Calcium (dissolved)	mg/l	0.012					87.00	186.00		120.00		
Calcium (dissolved)	µg/l	12					87000.00	186000.00		120000.00		
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00			< 10	
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00			< 3.0	
Benzene			1.0				0.00	0.00			< 3.0	
Toluene			4.0				0.00	0.00			< 3.0	
Ethylbenzene			5.0				0.00	0.00			< 3.0	
p & m-xylene			3.0				0.00	0.00			< 3.0	
o-xylene							0.00	0.00			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA
										Sample Reference	RTP186
										Date Sampled	14/02/2024
										Depth	2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.30	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0		
Sulphate as SO4	µg/l	45									
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	326.00	
Total Sulphur	mg/l	0.015					63.00	117.00		109.00	
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0		
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0	< 15	
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0		
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0		
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1		
Acenaphthylene	µg/l	0.01					0.00	0.00			
Acenaphthene	µg/l	0.01	0.01				0.00	0.00			
Fluorene	µg/l	0.01					0.00	0.00			
Phenanthrene	µg/l	0.01					0.00	0.00			
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0		
Pyrene	µg/l	0.01					0.00	0.00			
Benzo(a)anthracene	µg/l	0.01					0.00	0.00			
Chrysene	µg/l	0.01					0.00	0.00			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0	0.06	
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1	< 1.7	
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	5.90	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0		
Beryllium (dissolved)	µg/l	0.2					0.00	0.00			
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0	48.00	
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.08	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0		
Chromium (dissolved)	µg/l	0.4		50	4.7 (CrIII)	4.70	0.50	13.00	4	1.80	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0		
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1		
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA
										Sample Reference	RTP186
										Date Sampled	14/02/2024
										Depth	2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0		
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1		
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0		
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0		
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		12.00	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0		
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0		
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.20	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	16.00	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0		
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0		
Calcium (dissolved)	mg/l	0.012					87.00	186.00		186.00	
Calcium (dissolved)	µg/l	12					87000.00	186000.00		186000.00	
Magnesium (dissolved)	mg/l	0.005					3.20	9.10			
Potassium (dissolved)	mg/l	0.025					2.10	3.30			
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0		
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00			
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00			
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00			
Benzene			1.0				0.00	0.00			
Toluene			4.0				0.00	0.00			
Ethylbenzene			5.0				0.00	0.00			
p & m-xylene			3.0				0.00	0.00			
o-xylene							0.00	0.00			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-002541	24-003270
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH141A	RTP157
Date Sampled	07/02/2024	12/02/2024
Depth	7.00-7.10	2.40-2.60

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.70	7.60
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	371.00	439.00
Total Sulphur	mg/l	0.02					8.06	243.00		124.00	146.00
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	4.00	0.44
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	240.00	16.00
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	< 0.01	< 0.01
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	17.00	1.30
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		
Acenaphthylene	µg/l	0.01					<MRL	<MRL			
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			
Fluorene	µg/l	0.01					<MRL	<MRL			
Phenanthrene	µg/l	0.01					<MRL	<MRL			
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		
Pyrene	µg/l	0.01					<MRL	<MRL			
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			
Chrysene	µg/l	0.01					<MRL	<MRL			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	1.10	0.06
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7	1.90
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	27.00	16.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0		
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	910.00	110.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	< 0.4	8.00
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0	27.00	0.02

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	24-002541	24-003270
										Strata (PFA/MG) Sample Reference	PFA
										RBH141A	RTP157
										07/02/2024	12/02/2024
										7.00-7.10	2.40-2.60
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	0.03	< 1.0
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	2.10	32.00
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.52	7.94
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	63.00	5.80
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	63.00	1.50
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		21.00	12.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	4.00	9.90
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	22.00	
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		
Calcium (dissolved)	mg/l	0.01					11.00	770.00		150.00	200.00
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		1.10	2.40
Potassium (dissolved)	mg/l	0.03					2.00	12.00		12.00	2.10
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	15.00	2.10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)											
Benzene			1.00				<MRL	<MRL			
Toluene			4.00				<MRL	<MRL			
Ethylbenzene			5.00				<MRL	<MRL			
p & m-xylene			3.00				<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-002541	24-003270
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH141A	RTP157
Date Sampled	07/02/2024	12/02/2024
Depth	7.00-7.10	2.40-2.60

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
o-xylene							<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-003270	
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH138	RTP184
Date Sampled	12/02/2024	13/02/2024
Depth	6.00-6.10	2.50-2.70

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.40	7.20
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	537.00	208.00
Total Sulphur	mg/l	0.02					8.06	243.00		179.00	69.40
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	0.55	0.76
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	< 15	27.00
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	0.05	0.10
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	3.20	2.90
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		
Acenaphthylene	µg/l	0.01					<MRL	<MRL			
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			
Fluorene	µg/l	0.01					<MRL	<MRL			
Phenanthrene	µg/l	0.01					<MRL	<MRL			
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		
Pyrene	µg/l	0.01					<MRL	<MRL			
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			
Chrysene	µg/l	0.01					<MRL	<MRL			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.05	0.07
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	3.20	< 1.7
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	22.00	16.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0		
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	1600.00	130.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	4.10	< 0.4
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0	< 0.004	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										24-003270		
										Strata (PFA/MG)	PFA	
										Sample Reference	RBH138	PFA
										Date Sampled	12/02/2024	13/02/2024
										Depth	6.00-6.10	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	< 1.0	0.02	
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	35.00	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	8.68	0.25	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	52.00	54.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	9.12	6.43	
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		< 4.0	5.70	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	11.00	< 4.0	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9		6.70	
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			
Calcium (dissolved)	mg/l	0.01					11.00	770.00		200.00	91.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			91000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		16.00	2.20	
Potassium (dissolved)	mg/l	0.03					2.00	12.00		8.80	2.30	
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	5.60	2.20	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-003270	
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH138	RTP184
Date Sampled	12/02/2024	13/02/2024
Depth	6.00-6.10	2.50-2.70

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP181	RTP182
										Date Sampled	13/02/2024	13/02/2024
										Depth	1.40-1.60	0.10-0.20
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.30	7.50	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			2360.00	
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	177.00	2.36	
Total Sulphur	mg/l	0.02					8.06	243.00		59.10		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	1.50		
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	21.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	< 0.01		
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	1.60		
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		< 1.0	
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.06		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	8.50	1.70	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	190.00	140.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.90	0.60	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		32.00	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		1.85	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP181	RTP182
										Date Sampled	13/02/2024	13/02/2024
										Depth	1.40-1.60	0.10-0.20
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	< 0.004		
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0		1.30
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25		0.32
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	49.00		
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	7.08		
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		8.80		
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			1.40
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			0.39
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0		< 4.0
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	10.00		< 1.7
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			9.80
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			4.23
Calcium (dissolved)	mg/l	0.01					11.00	770.00		81.00		
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		81000.00		
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		2.60		
Potassium (dissolved)	mg/l	0.03					2.00	12.00		2.00		
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	2.10		
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	MG
Sample Reference	RTP181	RTP182
Date Sampled	13/02/2024	13/02/2024
Depth	1.40-1.60	0.10-0.20

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	132252
Sample Reference	RTP182	PFA RBH145
Date Sampled	13/02/2024	28/02/2024
Depth	1.50-1.70	9.00-9.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.60	9.20
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	254.00	730.00
Total Sulphur	mg/l	0.02					8.06	243.00		84.80	243.00
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	1.40	0.55
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	18.00	45.00
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	0.02	0.18
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	< 1.0	2.60
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		
Acenaphthylene	µg/l	0.01					<MRL	<MRL			
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			
Fluorene	µg/l	0.01					<MRL	<MRL			
Phenanthrene	µg/l	0.01					<MRL	<MRL			
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		
Pyrene	µg/l	0.01					<MRL	<MRL			
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			
Chrysene	µg/l	0.01					<MRL	<MRL			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	1.20	2.00
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7	10.00
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	12.00	43.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0		
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	750.00	1200.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.50	4.90
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	132252
										Sample Reference	RTP182	PFA
										Date Sampled	13/02/2024	28/02/2024
										Depth	1.50-1.70	9.00-9.10
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	0.01	0.15	
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	41.00	50.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	41.00	50.00	
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		7.00	17.00	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	8.30	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	9.90	79.00	
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			
Calcium (dissolved)	mg/l	0.01					11.00	770.00		110.00	300.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		110000.00	300000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		2.10	1.40	
Potassium (dissolved)	mg/l	0.03					2.00	12.00		2.50	7.40	
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	2.30	3.40	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	132252
Sample Reference	RTP182	PFA RBH145
Date Sampled	13/02/2024	28/02/2024
Depth	1.50-1.70	9.00-9.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										109704	112640	120590	
										Strata (PFA/MG)	PFA	PFA	PFA
										Sample Reference	RBH116	RBH119	RBH124
										Date Sampled	31/01/2024	05/02/2024	14/02/2024
										Depth	3.50-3.70	6.90-7.00	8.00-8.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.60		7.90	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0				
Sulphate as SO4	µg/l	45.00					2360.00	2360.00					
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	290.00	360.00	460.00	
Total Sulphur	mg/l	0.02					8.06	243.00					
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	2.50	4.60	0.22	
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0				
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0				
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0				
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0				
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0				
Acenaphthylene	µg/l	0.01					<MRL	<MRL					
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL					
Fluorene	µg/l	0.01					<MRL	<MRL					
Phenanthrene	µg/l	0.01					<MRL	<MRL					
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0				
Pyrene	µg/l	0.01					<MRL	<MRL					
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL					
Chrysene	µg/l	0.01					<MRL	<MRL					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0				
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5				
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	23.00	20.00	24.10	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0	65.50	49.20	45.40	
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL					
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5				
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0				
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.49	0.57	3.60	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0	1.30	5.50	5.40	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2	0.41	0.48	0.19	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	109704	112640	120590	
										Strata (PFA/MG)	PFA	PFA	PFA
										Sample Reference	RBH116	RBH119	RBH124
										Date Sampled	31/01/2024	05/02/2024	14/02/2024
Depth	3.50-3.70	6.90-7.00	8.00-8.10										
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0				
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	1.10	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.41	0.34	0.07	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0				
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		371.00	527.00	18.00	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0	0.62	1.50	< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0	0.62	0.51	0.05	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	5.50	< 4.0	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9				
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0	0.69	14.00	13.00	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0	0.34	6.70	2.39	
Calcium (dissolved)	mg/l	0.01					11.00	770.00					
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00					
Magnesium (dissolved)	mg/l	0.01					1.10	16.00					
Potassium (dissolved)	mg/l	0.03					2.00	12.00					
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0				
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0				
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0				
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0				
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0				
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0				
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL					
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL					
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL					
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL					
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL					
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL					
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL					
MTBE (Methyl Tertiary Butyl Ether)													
Benzene			1.00				<MRL	<MRL					
Toluene			4.00				<MRL	<MRL					
Ethylbenzene			5.00				<MRL	<MRL					
p & m-xylene			3.00				<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	109704	112640	120590
Strata (PFA/MG)	PFA	PFA	PFA
Sample Reference	RBH116	RBH119	RBH124
Date Sampled	31/01/2024	05/02/2024	14/02/2024
Depth	3.50-3.70	6.90-7.00	8.00-8.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										116448	147382	147383	
										Strata (PFA/MG)	PFA	PFA	PFA
										Sample Reference	RBH136	RBH125	RBH145
										Date Sampled	09/02/2024	28/02/2024	28/02/2024
										Depth	7.50-7.60	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.60	7.70	8.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0				
Sulphate as SO4	µg/l	45.00					2360.00	2360.00					
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	220.00	220.00	350.00	
Total Sulphur	mg/l	0.02					8.06	243.00					
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	0.64	0.41	0.22	
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0				
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0				
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0				
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0				
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0				
Acenaphthylene	µg/l	0.01					<MRL	<MRL					
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL					
Fluorene	µg/l	0.01					<MRL	<MRL					
Phenanthrene	µg/l	0.01					<MRL	<MRL					
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0				
Pyrene	µg/l	0.01					<MRL	<MRL					
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL					
Chrysene	µg/l	0.01					<MRL	<MRL					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0				
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5				
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	21.20	23.60	36.10	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0	80.90	66.00	56.00	
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL					
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5				
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0				
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	3.30	1.10	2.80	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0	4.50	6.30	5.60	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2	0.53	0.40	2.68	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	116448	147382	147383	
										Strata (PFA/MG)	PFA	PFA	PFA
										Sample Reference	RBH136	RBH125	RBH145
										Date Sampled	09/02/2024	28/02/2024	28/02/2024
Depth	7.50-7.60	7.00-7.50	6.00-6.10										
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0				
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.37	0.25	0.51	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0				
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		24.40	17.90	19.20	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0	< 0.3	1.30	0.99	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0	0.30	0.42	0.99	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9				
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0	7.80	11.00	9.20	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0	2.78	4.66	4.99	
Calcium (dissolved)	mg/l	0.01					11.00	770.00					
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00					
Magnesium (dissolved)	mg/l	0.01					1.10	16.00					
Potassium (dissolved)	mg/l	0.03					2.00	12.00					
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0				
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0				
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0				
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0				
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0				
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0				
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL					
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL					
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL					
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL					
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL					
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL					
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0				
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL					
MTBE (Methyl Tertiary Butyl Ether)													
Benzene			1.00				<MRL	<MRL					
Toluene			4.00				<MRL	<MRL					
Ethylbenzene			5.00				<MRL	<MRL					
p & m-xylene			3.00				<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	116448	147382	147383
Strata (PFA/MG)	PFA	PFA	PFA
Sample Reference	RBH136	RBH125	RBH145
Date Sampled	09/02/2024	28/02/2024	28/02/2024
Depth	7.50-7.60	7.00-7.50	6.00-6.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH114	RBH124
										Date Sampled	20/02/2024	16/02/2024
										Depth	6.0-6.5	17.0-17.1
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.50	8.30	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0			
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	24.20	227.00	
Total Sulphur	mg/l	0.02					8.06	243.00		8.06	75.80	
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	22.00	< 15	
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0			
Acenaphthylene	µg/l	0.01					<MRL	<MRL				
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL				
Fluorene	µg/l	0.01					<MRL	<MRL				
Phenanthrene	µg/l	0.01					<MRL	<MRL				
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0			
Pyrene	µg/l	0.01					<MRL	<MRL				
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL				
Chrysene	µg/l	0.01					<MRL	<MRL				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.21	0.36	
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	4.20	< 1.7	
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	34.00	19.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL				
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	95.00	1900.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0			
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.60	< 0.4	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0			
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2			
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH114	RBH124
										Date Sampled	20/02/2024	16/02/2024
										Depth	6.0-6.5	17.0-17.1
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		1.10	1.10
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.27	0.27
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			11.00	160.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		22.00	< 4.0
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9		12.00	13.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			
Calcium (dissolved)	mg/l	0.01					11.00	770.00			11.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			11000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH114	RBH124
Date Sampled	20/02/2024	16/02/2024
Depth	6.0-6.5	17.0-17.1

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH129	RBH132
										Date Sampled	19/02/2024	23/02/2024
										Depth	15.5-15.6	3.5-4.0
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	191.00	523.00	
Total Sulphur	mg/l	0.02					8.06	243.00		63.70		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	35.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		< 1.0	
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.34		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	6.40		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	33.00	34.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	360.00	130.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	1.40	0.50	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		7.30	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.44	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH129	RBH132
										Date Sampled	19/02/2024	23/02/2024
										Depth	15.5-15.6	3.5-4.0
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		36.00		
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		1.30	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		0.39	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	43.00	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	21.00	46.00	
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		24.00	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		10.27	
Calcium (dissolved)	mg/l	0.01					11.00	770.00		770.00		
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		77000.00		
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			< 10	
MTBE (Methyl Tertiary Butyl Ether)											< 3.0	
Benzene			1.00				<MRL	<MRL			< 3.0	
Toluene			4.00				<MRL	<MRL			< 3.0	
Ethylbenzene			5.00				<MRL	<MRL			< 3.0	
p & m-xylene			3.00				<MRL	<MRL			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH129	RBH132
Date Sampled	19/02/2024	23/02/2024
Depth	15.5-15.6	3.5-4.0

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH143	RTP136
										Date Sampled	23/02/2024	14/02/2024
										Depth	8.5	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.70	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0			
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	669.00	284.00	
Total Sulphur	mg/l	0.02					8.06	243.00		223.00	94.80	
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	40.00	< 15	
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0			
Acenaphthylene	µg/l	0.01					<MRL	<MRL				
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL				
Fluorene	µg/l	0.01					<MRL	<MRL				
Phenanthrene	µg/l	0.01					<MRL	<MRL				
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0			
Pyrene	µg/l	0.01					<MRL	<MRL				
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL				
Chrysene	µg/l	0.01					<MRL	<MRL				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.33	0.43	
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	49.00	26.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL				
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	1300.00	1200.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0			
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	17.00	6.70	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0			
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2			
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH143	RTP136
										Date Sampled	23/02/2024	14/02/2024
										Depth	8.5	3.2-3.4
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		1.30	1.20
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.32	0.30
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			56.00	11.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		8.20	< 4.0
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9		42.00	25.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			
Calcium (dissolved)	mg/l	0.01					11.00	770.00			280.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			280000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH143	RTP136
Date Sampled	23/02/2024	14/02/2024
Depth	8.5	3.2-3.4

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP139	RTP144
										Date Sampled	16/02/2024	20/02/2024
										Depth	1.5-1.7	1.3-1.4
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.60	8.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	262.00	75.90	
Total Sulphur	mg/l	0.02					8.06	243.00		87.40		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	16.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.19		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	8.50		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	38.00	30.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	110.00	690.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	4.70	0.50	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		8.20	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.92	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP139	RTP144
										Date Sampled	16/02/2024	20/02/2024
										Depth	1.5-1.7	1.3-1.4
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	2.10	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25	0.52	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		8.50		
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		0.70	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		0.37	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	9.20	< 4.0	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	13.00	24.00	
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		9.70	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		3.99	
Calcium (dissolved)	mg/l	0.01					11.00	770.00		110.00		
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		110000.00		
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			< 10	
MTBE (Methyl Tertiary Butyl Ether)											< 3.0	
Benzene			1.00				<MRL	<MRL			< 3.0	
Toluene			4.00				<MRL	<MRL			< 3.0	
Ethylbenzene			5.00				<MRL	<MRL			< 3.0	
p & m-xylene			3.00				<MRL	<MRL			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP139	RTP144
										Date Sampled	16/02/2024	20/02/2024
										Depth	1.5-1.7	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
o-xylene							<MRL	<MRL				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP146	RTP150
										Date Sampled	20/02/2024	19/02/2024
										Depth	0.7-0.8	4.1-4.2
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	170.00	397.00	
Total Sulphur	mg/l	0.02					8.06	243.00		56.80		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	69.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.22		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	8.50		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	18.00	10.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	510.00	220.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0	< 5.0	< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	< 0.4	< 0.4	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		5.60	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.34	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP146	RTP150
										Date Sampled	20/02/2024	19/02/2024
										Depth	0.7-0.8	4.1-4.2
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.25	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			180.00	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			5.20
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			1.54
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		< 4.0	13.00
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9		22.00	7.90
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			22.00
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			9.41
Calcium (dissolved)	mg/l	0.01					11.00	770.00			65.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			65000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				< 10
MTBE (Methyl Tertiary Butyl Ether)												< 3.0
Benzene			1.00				<MRL	<MRL				< 3.0
Toluene			4.00				<MRL	<MRL				< 3.0
Ethylbenzene			5.00				<MRL	<MRL				< 3.0
p & m-xylene			3.00				<MRL	<MRL				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	PFA
Sample Reference	RTP146	RTP150
Date Sampled	20/02/2024	19/02/2024
Depth	0.7-0.8	4.1-4.2

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP155	RTP176
										Date Sampled	16/02/2024	15/02/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.80	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	72.80	233.00	
Total Sulphur	mg/l	0.02					8.06	243.00		24.30		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	< 15		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.20		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	7.40		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	120.00	15.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	42.00	140.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0			
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	3.40	3.60	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		2.70	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.17	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP155	RTP176
										Date Sampled	16/02/2024	15/02/2024
										Depth	0.6-0.8	0.3-0.5
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		2.40		
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		0.10	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	5.90	16.00	
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	47.00		
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		13.00	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		5.51	
Calcium (dissolved)	mg/l	0.01					11.00	770.00		37.00		
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		37000.00		
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			< 10	
MTBE (Methyl Tertiary Butyl Ether)											< 3.0	
Benzene			1.00				<MRL	<MRL			< 3.0	
Toluene			4.00				<MRL	<MRL			< 3.0	
Ethylbenzene			5.00				<MRL	<MRL			< 3.0	
p & m-xylene			3.00				<MRL	<MRL			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	MG
Sample Reference	RTP155	RTP176
Date Sampled	16/02/2024	15/02/2024
Depth	0.6-0.8	0.3-0.5

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA
Sample Reference	RTP176
Date Sampled	15/02/2024
Depth	1.3-1.5

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	
General Inorganics										
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.60
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00		
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	271.00
Total Sulphur	mg/l	0.02					8.06	243.00		90.30
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	< 15
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	
Total Phenols										
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0	
Speciated PAHs										
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0	
Acenaphthylene	µg/l	0.01					<MRL	<MRL		
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL		
Fluorene	µg/l	0.01					<MRL	<MRL		
Phenanthrene	µg/l	0.01					<MRL	<MRL		
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0	
Pyrene	µg/l	0.01					<MRL	<MRL		
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL		
Chrysene	µg/l	0.01					<MRL	<MRL		
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL		
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Total PAH										
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL		
Heavy Metals / Metalloids										
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.07
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	14.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0	
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL		
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	200.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	4.80
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA
Sample Reference	RTP176
Date Sampled	15/02/2024
Depth	1.3-1.5

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		10.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	17.00
Vanadium (dissolved)	µg/l	1.70		-	20	20	<MRL	79.00	9	4.90
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0	
Calcium (dissolved)	mg/l	0.01					11.00	770.00		120.00
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		120000.00
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		
Potassium (dissolved)	mg/l	0.03					2.00	12.00		
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL		
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL		
MTBE (Methyl Tertiary Butyl Ether)										
Benzene			1.00				<MRL	<MRL		
Toluene			4.00				<MRL	<MRL		
Ethylbenzene			5.00				<MRL	<MRL		
p & m-xylene			3.00				<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA
Sample Reference	RTP176
Date Sampled	15/02/2024
Depth	1.3-1.5

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
o-xylene							<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										29/06/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
General Inorganics										
pH (L099)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9	≥6, <9	≥6, <9	6.60	10.30	8.40
Electrical Conductivity at 20 °C (L031B)	µS/cm	10						590.00	12000.00	1200.00
Sulphate as SO4	mg/l	0.045		250	400		250.00	38.20	6930.00	52
Sulphide	µg/l	5						5.00	22.00	
Chloride	mg/l	0.15		250	250		250.00	14.00	560.00	9
Fluoride	µg/l	50						51.00	1200.00	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]		500.00	0.07	6700.00	27
Total Organic Carbon (TOC)	mg/l	0.1						1.17	16.70	11.20
Dissolved Organic Carbon (DOC)	mg/l	0.1						0.72	14.10	
Nitrate as N	mg/l	0.01		50			50.00	0.01	43.10	0
Nitrite as N	µg/l	1		500			500.00	<MRL	1300.00	4
Alkalinity as CaCO3	mg/l	3						66.00	990.00	100.00
Total Oxidised Nitrogen (TON)	mg/l	0.02						0.04	45.00	0.30
Total Suspended Solids (L004B)	mg/l	2				50		6.00	9200.00	
Speciated PAHs										
Naphthalene	µg/l	0.01		0.075	2.0		0.075	<MRL	3.90	4
Acenaphthylene	µg/l	0.01						<MRL	0.00	
Acenaphthene	µg/l	0.01	0.01					<MRL	6.50	
Fluorene	µg/l	0.01						<MRL	1.70	
Phenanthrene	µg/l	0.01						<MRL	1.60	
Anthracene	µg/l	0.01	0.01		0.1		0.10	<MRL	0.24	5
Fluoranthene	µg/l	0.01	0.01		0.0063		0.0063	<MRL	0.74	5
Pyrene	µg/l	0.01						<MRL	0.54	
Benzo(a)anthracene	µg/l	0.01						<MRL	0.16	
Chrysene	µg/l	0.01						<MRL	0.10	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	0.12	1
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	0.05	1
Benzo(a)pyrene	µg/l	0.01	0.01	0.01 (sum of the 4 compounds)	0.00017		0.00017	<MRL	0.10	1
Indeno(1,2,3cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	<MRL	0
Dibenz(a,h)anthracene	µg/l	0.01						<MRL	<MRL	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	<MRL	0
Total PAH										
Total EPA16 PAHs	µg/l	0.16						<MRL	18.30	12.00
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1		200			200.00	<MRL	200.00	1
Antimony (dissolved)	µg/l	0.4		5.0			5.00	<MRL	17.00	9
Arsenic (dissolved)	µg/l	0.15	1.00	10	50		10.00	0.35	399.00	29

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										29/06/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
Barium (dissolved)	µg/l	0.06		700			700.00	13.00	140.00	0
Cadmium (dissolved)	µg/l	0.02	0.1	5.0	0.25 (Class 5)		0.25	<MRL	25.00	24
Chromium (dissolved)	µg/l	0.2		50	4.7(CrIII)		4.70	<MRL	340.00	16
Cobalt (dissolved)	µg/l	0.2						0.20	12.00	0
Copper (dissolved)	µg/l	0.5		2000			2000.00	0.50	12.00	0
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)		1.00	0.01	2.03	5
Lead (dissolved)	µg/l	0.2	1.00	10			10.00	0.20	1.70	0
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)		1.20	0.01	0.41	0
Manganese (dissolved)	µg/l	0.05		50			50.00	1.80	3600.00	79
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)		123.00	1.80	1232.51	48
Mercury (dissolved)	µg/l	0.05	0.01	1	0.07 (Inland Surface MAC)		0.07	0.07	3.16	16
Molybdenum (dissolved)	µg/l	0.05						0.15	32000.00	
Nickel (dissolved)	µg/l	0.5		20			20.00	0.60	15.00	0
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)		4.00	0.11	5.80	2
Selenium (dissolved)	µg/l	0.6		10			10.00	0.70	210.00	8
Silicon (dissolved)	µg/l	50						660.00	9100.00	
Tin (dissolved)	µg/l	0.2			25		25.00	0.21	0.74	0
Titanium (dissolved)	µg/l	1						1.20	1.90	
Vanadium (dissolved)	µg/l	0.2			20		20.00	<MRL	220.00	10
Zinc (dissolved)	µg/l	0.5		5000			5000.00	0.70	30.00	0
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)		10.90	0.29	12.61	1
Boron (dissolved)	µg/l	10		1000	2000		1000.00	38.00	38000.00	39
Calcium (dissolved)	mg/l	0.012						85.00	760.00	
Chromium (hexavalent)	µg/l	5	5	5.0	3.4		3.40	<MRL	<MRL	0
Chromium (III)	µg/l	5			4.7		4.70	<MRL	<MRL	0
Iron (dissolved)	mg/l	0.004		0.20	1.0		0.20	<MRL	0.70	4
Magnesium (dissolved)	mg/l	0.005						0.49	530.00	
Phosphorus (dissolved)	µg/l	20						1.10	740.00	
Potassium (dissolved)	mg/l	0.025						1.30	930.00	
Selenium (dissolved)	µg/l	0.6		10			10.00	1.50	220.00	8
Sodium (dissolved)	mg/l	0.01		200			200.00	23.00	2000.00	24
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10				10000	1000.00	<MRL	65.00	0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										29/06/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
Total Phenols										
Total Phenols (monohydric)	µg/l	10			7.7		7.70	<MRL	<MRL	0
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1		15000			15000.00	<MRL	<MRL	0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1		15000			15000.00	<MRL	<MRL	0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1		300			300.00	<MRL	<MRL	0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10		300			300.00	<MRL	22.00	0
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10		300			300.00	<MRL	34.00	0
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10						<MRL	43.00	
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10						<MRL	2200.00	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10						<MRL	2200.00	
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1						<MRL	<MRL	
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1						<MRL	<MRL	
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1						<MRL	<MRL	
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10		90			90.00	<MRL	15.00	0
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10		90			90.00	<MRL	110.00	1
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10		90			90.00	<MRL	120.00	1
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10		90			90.00	<MRL	35.00	0
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10						<MRL	280.00	
VOCs										
Chloromethane	µg/l	3						<MRL	<MRL	
Chloroethane	µg/l	3						<MRL	<MRL	
Bromomethane	µg/l	3						<MRL	<MRL	
Vinyl Chloride	µg/l	3	3.00					<MRL	<MRL	
Trichlorofluoromethane	µg/l	3						<MRL	<MRL	
1,1Dichloroethene	µg/l	3						<MRL	<MRL	
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3						<MRL	<MRL	
Trans 1,2dichloroethylene	µg/l	3						<MRL	<MRL	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3						<MRL	<MRL	
1,1Dichloroethane	µg/l	3						<MRL	<MRL	
2,2Dichloropropane	µg/l	3						<MRL	<MRL	
Chloroform	µg/l	3						<MRL	<MRL	
1,1,1Trichloroethane	µg/l	3						<MRL	<MRL	
1,2Dichloroethane	µg/l	3						<MRL	<MRL	
1,1Dichloropropene	µg/l	3						<MRL	<MRL	
Cis1,2dichloroethene	µg/l	3						<MRL	<MRL	
Benzene	µg/l	3						<MRL	<MRL	
Carbontetrachloride	µg/l	3	0.1					<MRL	<MRL	
1,2Dichloropropane	µg/l	3	3.00					<MRL	<MRL	
Trichloroethene	µg/l	3						<MRL	<MRL	
Dibromomethane	µg/l	3						<MRL	<MRL	
Bromodichloromethane	µg/l	3						<MRL	<MRL	
Cis1,3dichloropropene	µg/l	3	3.00					<MRL	<MRL	
Trans1,3dichloropropene	µg/l	3						<MRL	<MRL	
Toluene	µg/l	3	4					<MRL	<MRL	
1,1,2Trichloroethane	µg/l	3						<MRL	<MRL	
1,3Dichloropropane	µg/l	3						<MRL	<MRL	
Dibromochloromethane	µg/l	3						<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										29/06/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
Tetrachloroethene (PCE)	µg/l	3	0.1					<MRL	<MRL	
1,2Dibromoethane	µg/l	3	3.00					<MRL	<MRL	
Chlorobenzene	µg/l	3	3.00					<MRL	<MRL	
1,1,1,2Tetrachloroethane	µg/l	3						<MRL	<MRL	
Ethylbenzene	µg/l	3	3.00					<MRL	<MRL	
p & mxylyene	µg/l	3	3					<MRL	<MRL	
Styrene	µg/l	3	3.00					<MRL	<MRL	
Bromoform	µg/l	3						<MRL	<MRL	
oxylyene	µg/l	3	3.00					<MRL	<MRL	
Isopropylbenzene	µg/l	3						<MRL	<MRL	
1,1,2,2Tetrachloroethane	µg/l	3	3.00					<MRL	<MRL	
Bromobenzene	µg/l	3						<MRL	<MRL	
nPropylbenzene	µg/l	3						<MRL	<MRL	
2Chlorotoluene	µg/l	3	3.00					<MRL	<MRL	
4Chlorotoluene	µg/l	3	3.00					<MRL	<MRL	
1,3,5Trimethylbenzene	µg/l	3						<MRL	<MRL	
tertButylbenzene	µg/l	3						<MRL	<MRL	
1,2,4Trimethylbenzene	µg/l	3	3.00					<MRL	<MRL	
secButylbenzene	µg/l	3						<MRL	<MRL	
1,3Dichlorobenzene	µg/l	3	3.00					<MRL	<MRL	
pIsopropyltoluene	µg/l	3						<MRL	<MRL	
1,4Dichlorobenzene	µg/l	3	3.00					<MRL	<MRL	
1,2Dichlorobenzene	µg/l	3	3					<MRL	<MRL	
Butylbenzene	µg/l	3						<MRL	<MRL	
1,2Dibromo3chloropropane	µg/l	3						<MRL	<MRL	
1,2,4Trichlorobenzene	µg/l	3	0.01					<MRL	<MRL	
Hexachlorobutadiene	µg/l	3						<MRL	<MRL	
1,2,3Trichlorobenzene	µg/l	3	0.01					<MRL	<MRL	
SVOCs										
Aniline	µg/l	0.05						<MRL	<MRL	
Phenol	µg/l	0.05						<MRL	<MRL	
2Chlorophenol	µg/l	0.05						<MRL	<MRL	
Bis(2chloroethyl)ether	µg/l	0.05						<MRL	<MRL	
1,3Dichlorobenzene	µg/l	0.05	0.05					<MRL	0.15	
1,2Dichlorobenzene	µg/l	0.05	0.05					<MRL	1.40	
1,4Dichlorobenzene	µg/l	0.05	0.05					<MRL	0.12	
Bis(2chloroisopropyl)ether	µg/l	0.05	0.05					<MRL	<MRL	
2Methylphenol	µg/l	0.05						<MRL	<MRL	
Hexachloroethane	µg/l	0.05	0.05					<MRL	<MRL	
Nitrobenzene	µg/l	0.05						<MRL	<MRL	
4Methylphenol	µg/l	0.05						<MRL	<MRL	
Isophorone	µg/l	0.05						<MRL	<MRL	
2Nitrophenol	µg/l	0.05						<MRL	<MRL	
2,4Dimethylphenol	µg/l	0.05						<MRL	0.44	
Bis(2chloroethoxy)methane	µg/l	0.05						<MRL	<MRL	
1,2,4Trichlorobenzene	µg/l	0.05	0.01					<MRL	<MRL	
2,4Dichlorophenol	µg/l	0.05	0.05					<MRL	<MRL	
4Chloroaniline	µg/l	0.05	0.05					<MRL	<MRL	
Hexachlorobutadiene	µg/l	0.05	0.05					<MRL	<MRL	
4Chloro3methylphenol	µg/l	0.05	0.05					<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										29/06/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
2,4,6Trichlorophenol	µg/l	0.05	0.05					<MRL	<MRL	
2,4,5Trichlorophenol	µg/l	0.05	0.05					<MRL	<MRL	
2Methylnaphthalene	µg/l	0.05						<MRL	0.31	
2Chloronaphthalene	µg/l	0.05						<MRL	<MRL	
Dimethylphthalate	µg/l	0.05						<MRL	<MRL	
2,6Dinitrotoluene	µg/l	0.05						<MRL	<MRL	
2,4Dinitrotoluene	µg/l	0.05						<MRL	<MRL	
Dibenzofuran	µg/l	0.05						<MRL	0.91	
4Chlorophenyl phenyl ether	µg/l	0.05						<MRL	<MRL	
Diethyl phthalate	µg/l	0.05						<MRL	<MRL	
4Nitroaniline	µg/l	0.05						<MRL	<MRL	
Azobenzene	µg/l	0.05						<MRL	<MRL	
Bromophenyl phenyl ether	µg/l	0.05						<MRL	<MRL	
Hexachlorobenzene	µg/l	0.05	0.001					<MRL	<MRL	
Carbazole	µg/l	0.05						<MRL	2.20	
Dibutyl phthalate	µg/l	0.05						<MRL	<MRL	
Anthraquinone	µg/l	0.05						<MRL	0.22	
Butyl benzyl phthalate	µg/l	0.05						<MRL	<MRL	
3+4Methylphenol	µg/l	0.1						<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	15/11/2022	29/06/2021	
Strata Screened			Drift							Sandstone	
Analytical Parameter (Water Analysis)	Units	Limit of detection									
General Inorganics											
pH (L099)	pH Units	N/A	7.20	8.40	7.90	8.50	7.40	8.30	8.40	7.30	
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	650.00	1300.00	1600.00	1500.00	6400.00	1500.00	1300.00	2000.00	
Sulphate as SO4	mg/l	0.045	266.00	893.00	734.00	717.00	938.00	707.00	893.00	1280.00	
Sulphide	µg/l	5					7.80	6.30			
Chloride	mg/l	0.15	28.00	44.00	25.00	39.00	35.00	34.00	44.00	120.00	
Fluoride	µg/l	50					980.00	800.00			
Ammoniacal Nitrogen as N	µg/l	15	0.11	5.90	6700.00	5800.00	5900.00	5900.00	5900.00	130.00	
Total Organic Carbon (TOC)	mg/l	0.1	4.40	8.93	9.85	7.37			8.93	3.97	
Dissolved Organic Carbon (DOC)	mg/l	0.1					7.84	6.60			
Nitrate as N	mg/l	0.01	0.01	0.09	0.08	0.04	0.07	0.07	0.09	0.98	
Nitrite as N	µg/l	1			3.10	< 1.0	3.50	< 1.0	15.00		
Alkalinity as CaCO3	mg/l	3	440.00	97.00	91.00	100.00	97.00	100.00	97.00	340.00	
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.30	0.11	0.08	0.04			0.11	1.00	
Total Suspended Solids (L004B)	mg/l	2				230.00	360.00	130.00			
Speciated PAHs											
Naphthalene	µg/l	0.01			0.98	1.95	3.90	2.10	< 0.01		
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01			1.21	2.86	6.50	3.40	< 0.01		
Fluorene	µg/l	0.01			0.19	0.75	1.70	0.86	< 0.01		
Phenanthrene	µg/l	0.01			< 0.01	0.86	1.60	0.77	< 0.01		
Anthracene	µg/l	0.01			< 0.01	0.11	0.24	0.12	< 0.01		
Fluoranthene	µg/l	0.01			< 0.01	0.24	0.74	0.20	< 0.01		
Pyrene	µg/l	0.01			< 0.01	0.17	0.54	0.13	< 0.01		
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01	0.16	< 0.01	< 0.01		
Chrysene	µg/l	0.01			< 0.01	< 0.01	0.10	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01	0.12	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01	0.05	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01	0.10	< 0.01	< 0.01		
Indeno(1,2,3cd)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Total PAH											
Total EPA16 PAHs	µg/l	0.16	0.16	0.16	2.38	6.94			< 0.16	0.16	
Heavy Metals / Metalloids											
Aluminium (dissolved)	µg/l	1					5.30	1.90			
Antimony (dissolved)	µg/l	0.4					0.70	0.80			
Arsenic (dissolved)	µg/l	0.15	1.28	0.52	61.90	45.70	37.30	53.50	0.52	9.13	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	15/11/2022	29/06/2021	
Strata Screened			Drift							Sandstone	
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Barium (dissolved)	ug/l	0.06					44.00	56.00			
Cadmium (dissolved)	ug/l	0.02	0.02	0.02	0.02	0.03	0.03	0.03	< 0.02	0.83	
Chromium (dissolved)	ug/l	0.2	8.00	0.20	< 0.2	0.50	0.30	0.30	< 0.2	2.20	
Cobalt (dissolved)	ug/l	0.2					0.30	< 0.2			
Copper (dissolved)	ug/l	0.5	2.70	0.60	1.20	0.60	0.50	1.50	0.60	12.00	
Bioavailable Copper (dissolved)	ug/l	0.5	0.15	0.09	0.09	0.10	0.01	0.10	0.09	0.66	
Lead (dissolved)	ug/l	0.2	0.20	0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.05	0.05	0.03	0.03	0.05	0.05	
Manganese (dissolved)	ug/l	0.05	890.00	250.00	63.00	100.00	63.00	97.00	250.00	2900.00	
Bioavailable Manganese (dissolved)	ug/l	0.05	105.96	250.00	29.08	100.00	11.05	97.00	250.00	419.03	
Mercury (dissolved)	ug/l	0.05					0.07	0.09			
Molybdenum (dissolved)	ug/l	0.05	1.90	320.00	73.00	98.00	110.00	120.00	320.00	730.00	
Nickel (dissolved)	ug/l	0.5	6.20	0.80	1.50	0.90	0.90		0.80	6.60	
Bioavailable Nickel (dissolved)	ug/l	0.5	1.41	0.58	0.57	0.81	0.17		0.58	1.59	
Selenium (dissolved)	ug/l	0.6					1.70	1.40			
Silicon (dissolved)	ug/l	50					3300.00	8900.00			
Tin (dissolved)	ug/l	0.2					< 0.20	< 0.20			
Titanium (dissolved)	ug/l	1					< 1.0	1.70			
Vanadium (dissolved)	ug/l	0.2					2.00	1.20			
Zinc (dissolved)	ug/l	0.5	11.00	4.90	7.00	2.80	1.10	5.10	4.90	6.50	
Bioavailable Zinc (dissolved)	ug/l	0.5	4.88	2.00	2.88	1.14	0.36	1.59	2.00	2.85	
Boron (dissolved)	ug/l	10	87.00	3700.00	3400.00	3400.00	3600.00	3200.00	3700.00	4600.00	
Calcium (dissolved)	mg/l	0.012	160.00	290.00	240.00	240.00	320.00	250.00	290.00	270.00	
Chromium (hexavalent)	ug/l	5					< 5.0	< 5.0			
Chromium (III)	ug/l	5					< 5.0	< 5.0			
Iron (dissolved)	mg/l	0.004	0.01	0.03	0.03	0.01	0.01	0.01	0.03	0.02	
Magnesium (dissolved)	mg/l	0.005	76.00	18.00	14.00	18.00	16.00	18.00	18.00	95.00	
Phosphorus (dissolved)	ug/l	20	4.40	84.00			473.00	491.00	84.00	40.00	
Potassium (dissolved)	mg/l	0.025			69.00	69.00	71.00	82.00	84.00		
Selenium (dissolved)	ug/l	0.6									
Sodium (dissolved)	mg/l	0.01	29.00	120.00	85.00	86.00	81.00	92.00	120.00	310.00	
Petroleum Hydrocarbons											
TPH (C10 C40)	ug/l	10				65.00					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	15/11/2022	29/06/2021	
Strata Screened			Drift						Sandstone		
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Total Phenols											
Total Phenols (monohydric)	µg/l	10					< 10	< 10			
Petroleum Hydrocarbons											
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1					< 1.0	< 1.0			
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1					< 1.0	< 1.0			
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1					< 1.0	< 1.0			
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10					< 10	< 10			
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10					< 10	< 10			
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10					< 10	< 10			
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10					< 10	< 10			
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10					< 10	< 10			
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1					< 1.0	< 1.0			
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1					< 1.0	< 1.0			
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1					< 1.0	< 1.0			
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10					15.00	15.00			
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10					110.00	40.00			
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10					120.00	65.00			
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10					30.00	35.00			
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10					280.00	160.00			
VOCs											
Chloromethane	µg/l	3					< 3.0	< 3.0			
Chloroethane	µg/l	3					< 3.0	< 3.0			
Bromomethane	µg/l	3					< 3.0	< 3.0			
Vinyl Chloride	µg/l	3					< 3.0	< 3.0			
Trichlorofluoromethane	µg/l	3					< 3.0	< 3.0			
1,1Dichloroethane	µg/l	3					< 3.0	< 3.0			
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3					< 3.0	< 3.0			
Trans 1,2dichloroethylene	µg/l	3					< 3.0	< 3.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3					< 3.0	< 3.0			
1,1Dichloroethane	µg/l	3					< 3.0	< 3.0			
2,2Dichloropropane	µg/l	3					< 3.0	< 3.0			
Chloroform	µg/l	3					< 3.0	< 3.0			
1,1,1Trichloroethane	µg/l	3					< 3.0	< 3.0			
1,2Dichloroethane	µg/l	3					< 3.0	< 3.0			
1,1Dichloropropene	µg/l	3					< 3.0	< 3.0			
Cis1,2dichloroethene	µg/l	3					< 3.0	< 3.0			
Benzene	µg/l	3					< 3.0	< 3.0			
Carbontetrachloride	µg/l	3					< 3.0	< 3.0			
1,2Dichloropropane	µg/l	3					< 3.0	< 3.0			
Trichloroethene	µg/l	3					< 3.0	< 3.0			
Dibromomethane	µg/l	3					< 3.0	< 3.0			
Bromodichloromethane	µg/l	3					< 3.0	< 3.0			
Cis1,3dichloropropene	µg/l	3					< 3.0	< 3.0			
Trans1,3dichloropropene	µg/l	3					< 3.0	< 3.0			
Toluene	µg/l	3					< 3.0	< 3.0			
1,1,2Trichloroethane	µg/l	3					< 3.0	< 3.0			
1,3Dichloropropane	µg/l	3					< 3.0	< 3.0			
Dibromochloromethane	µg/l	3					< 3.0	< 3.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	15/11/2022	29/06/2021	
Strata Screened			Drift						Sandstone		
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Tetrachloroethene (PCE)	ug/l	3					< 3.0	< 3.0			
1,2Dibromoethane	ug/l	3					< 3.0	< 3.0			
Chlorobenzene	ug/l	3					< 3.0	< 3.0			
1,1,1,2Tetrachloroethane	ug/l	3					< 3.0	< 3.0			
Ethylbenzene	ug/l	3					< 3.0	< 3.0			
p & mxylyene	ug/l	3					< 3.0	< 3.0			
Styrene	ug/l	3					< 3.0	< 3.0			
Bromoform	ug/l	3					< 3.0	< 3.0			
oxylyene	ug/l	3					< 3.0	< 3.0			
Isopropylbenzene	ug/l	3					< 3.0	< 3.0			
1,1,2,2Tetrachloroethane	ug/l	3					< 3.0	< 3.0			
Bromobenzene	ug/l	3					< 3.0	< 3.0			
nPropylbenzene	ug/l	3					< 3.0	< 3.0			
2Chlorotoluene	ug/l	3					< 3.0	< 3.0			
4Chlorotoluene	ug/l	3					< 3.0	< 3.0			
1,3,5Trimethylbenzene	ug/l	3					< 3.0	< 3.0			
tertButylbenzene	ug/l	3					< 3.0	< 3.0			
1,2,4Trimethylbenzene	ug/l	3					< 3.0	< 3.0			
secButylbenzene	ug/l	3					< 3.0	< 3.0			
1,3Dichlorobenzene	ug/l	3					< 3.0	< 3.0			
pIsopropyltoluene	ug/l	3					< 3.0	< 3.0			
1,4Dichlorobenzene	ug/l	3					< 3.0	< 3.0			
1,2Dichlorobenzene	ug/l	3					< 3.0	< 3.0			
Butylbenzene	ug/l	3					< 3.0	< 3.0			
1,2Dibromo3chloropropane	ug/l	3					< 3.0	< 3.0			
1,2,4Trichlorobenzene	ug/l	3					< 3.0	< 3.0			
Hexachlorobutadiene	ug/l	3					< 3.0	< 3.0			
1,2,3Trichlorobenzene	ug/l	3					< 3.0	< 3.0			
SVOCs											
Aniline	ug/l	0.05					< 0.05	< 0.05			
Phenol	ug/l	0.05					< 0.05	< 0.05			
2Chlorophenol	ug/l	0.05					< 0.05	< 0.05			
Bis(2chloroethyl)ether	ug/l	0.05					< 0.05	< 0.05			
1,3Dichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
1,2Dichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
1,4Dichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
Bis(2chloroisopropyl)ether	ug/l	0.05					< 0.05	< 0.05			
2Methylphenol	ug/l	0.05					< 0.05	< 0.05			
Hexachloroethane	ug/l	0.05					< 0.05	< 0.05			
Nitrobenzene	ug/l	0.05					< 0.05	< 0.05			
4Methylphenol	ug/l	0.05					< 0.05	< 0.05			
Isophorone	ug/l	0.05					< 0.05	< 0.05			
2Nitrophenol	ug/l	0.05					< 0.05	< 0.05			
2,4Dimethylphenol	ug/l	0.05					0.44	0.32			
Bis(2chloroethoxy)methane	ug/l	0.05					< 0.05	< 0.05			
1,2,4Trichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
2,4Dichlorophenol	ug/l	0.05					< 0.05	< 0.05			
4Chloroaniline	ug/l	0.05					< 0.05	< 0.05			
Hexachlorobutadiene	ug/l	0.05					< 0.05	< 0.05			
4Chloro3methylphenol	ug/l	0.05					< 0.05	< 0.05			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	15/11/2022	29/06/2021	
Strata Screened			Drift						Sandstone		
Analytical Parameter (Water Analysis)	Units	Limit of detection									
2,4,6Trichlorophenol	µg/l	0.05					< 0.05	< 0.05			
2,4,5Trichlorophenol	µg/l	0.05					< 0.05	< 0.05			
2Methylnaphthalene	µg/l	0.05					0.31	0.12			
2Chloronaphthalene	µg/l	0.05					< 0.05	< 0.05			
Dimethylphthalate	µg/l	0.05					< 0.05	< 0.05			
2,6Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05			
2,4Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05			
Dibenzofuran	µg/l	0.05					0.91	0.40			
4Chlorophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05			
Diethyl phthalate	µg/l	0.05					< 0.05	< 0.05			
4Nitroaniline	µg/l	0.05					< 0.05	< 0.05			
Azobenzene	µg/l	0.05					< 0.05	< 0.05			
Bromophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05			
Hexachlorobenzene	µg/l	0.05					< 0.05	< 0.05			
Carbazole	µg/l	0.05					2.20	1.50			
Dibutyl phthalate	µg/l	0.05					< 0.05	< 0.05			
Anthraquinone	µg/l	0.05					< 0.05	< 0.05			
Butyl benzyl phthalate	µg/l	0.05					< 0.05	< 0.05			
3+4Methylphenol	µg/l	0.1					< 0.10	< 0.10			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702			142826	171195				
Sample Reference			MW2	MW2	MW2	MW2	MW2	MW3	MW3		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	29/06/2021	23/11/2021	
Strata Screened			Drift								
Analytical Parameter (Water Analysis)	Units	Limit of detection									
General Inorganics											
pH (L099)	pH Units	N/A	7.70	8.70	8.00	8.50	8.30	7.70	7.00	7.30	
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	610.00	3200.00	3900.00	4000.00	1400.00	4200.00	640.00	600.00	
Sulphate as SO4	mg/l	0.045	200.00	2350.00	2160.00	2170.00	2500.00	2350.00	38.20	61.80	
Sulphide	µg/l	5					< 5.0	< 5.0			
Chloride	mg/l	0.15	30.00	170.00	140.00	130.00	150.00	150.00	50.00	50.00	
Fluoride	µg/l	50					190.00	150.00			
Ammoniacal Nitrogen as N	µg/l	15	0.08	790.00	1000.00	1100.00	970.00	1200.00	180.00	0.64	
Total Organic Carbon (TOC)	mg/l	0.1	3.74	5.46	4.58	6.94			1.40	1.87	
Dissolved Organic Carbon (DOC)	mg/l	0.1					4.21	3.54			
Nitrate as N	mg/l	0.01	0.01	0.29	0.37	0.58	0.85	1.73	0.20	0.09	
Nitrite as N	µg/l	1		530.00	470.00	540.00	430.00	340.00			
Alkalinity as CaCO3	mg/l	3	480.00	92.00	130.00	86.00	110.00	110.00	310.00	230.00	
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.30	0.82	0.85	1.10			1.00	0.10	
Total Suspended Solids (L004B)	mg/l	2				480.00	1300.00	370.00			
Speciated PAHs											
Naphthalene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Acenaphthylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Acenaphthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Fluorene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Phenanthrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Benzo(a)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Chrysene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Benzo(b)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Benzo(k)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Benzo(a)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Indeno(1,2,3cd)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Dibenz(a,h)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Benzo(ghi)perylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01			
Total PAH											
Total EPA16 PAHs	µg/l	0.16	0.16	< 0.16	< 0.16	< 0.16			0.16	0.16	
Heavy Metals / Metalloids											
Aluminium (dissolved)	µg/l	1					29.00	4.60			
Antimony (dissolved)	µg/l	0.4					9.40	11.00			
Arsenic (dissolved)	µg/l	0.15	0.58	12.20	60.90	81.90	32.70	51.30	0.39	1.65	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater				2503702			142826	171195		
Sample Reference			MW2	MW2	MW2	MW2	MW2	MW2	MW3	MW3
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	29/06/2021	23/11/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	µg/l	0.06						22.00	26.00	
Cadmium (dissolved)	µg/l	0.02	0.02	0.09	1.10	0.84	0.64	0.85	0.02	0.03
Chromium (dissolved)	µg/l	0.2	4.00	0.30	0.70	11.00	9.50	18.00	2.10	2.90
Cobalt (dissolved)	µg/l	0.2					0.60	0.70		
Copper (dissolved)	µg/l	0.5	5.20	0.80	1.70	1.00	1.30	2.60	9.00	1.10
Bioavailable Copper (dissolved)	µg/l	0.5	0.32	0.14	0.14	0.17	0.16	0.19	0.54	0.06
Lead (dissolved)	µg/l	0.2	0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.20
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05
Manganese (dissolved)	µg/l	0.05	580.00	200.00	550.00	390.00	1100.00	1100.00	2500.00	2200.00
Bioavailable Manganese (dissolved)	µg/l	0.05	181.79	200.00	308.13	390.00	1100.00	344.77	202.10	317.88
Mercury (dissolved)	µg/l	0.05					0.26	0.35		
Molybdenum (dissolved)	µg/l	0.05	4.70	4000.00	3800.00	4600.00	3800.00	2900.00	0.94	0.77
Nickel (dissolved)	µg/l	0.5	3.50	2.70	5.10	2.20	4.20	5.30	2.90	4.30
Bioavailable Nickel (dissolved)	µg/l	0.5	1.11	2.70	2.12	1.99	2.52	1.80	0.58	1.04
Selenium (dissolved)	µg/l	0.6					100.00	120.00		
Silicon (dissolved)	µg/l	50					1200.00	3300.00		
Tin (dissolved)	µg/l	0.2					0.39	0.74		
Titanium (dissolved)	µg/l	1					< 1.0	1.20		
Vanadium (dissolved)	µg/l	0.2					53.00	49.00		
Zinc (dissolved)	µg/l	0.5	18.00	2.80	6.40	3.50	2.20	11.00	7.10	8.50
Bioavailable Zinc (dissolved)	µg/l	0.5	7.62	1.14	2.61	1.43	0.89	4.90	3.35	3.85
Boron (dissolved)	µg/l	10	86.00	13000.00	11000.00	18000.00	15000.00	15000.00	58.00	45.00
Calcium (dissolved)	mg/l	0.012	140.00	470.00	440.00	440.00	480.00	480.00	85.00	92.00
Chromium (hexavalent)	µg/l	5								
Chromium (III)	µg/l	5								
Iron (dissolved)	mg/l	0.004	0.01	0.02	< 0.004	< 0.004	0.01	< 0.004	0.04	0.06
Magnesium (dissolved)	mg/l	0.005	61.00	35.00	56.00	86.00	93.00	120.00	34.00	36.00
Phosphorus (dissolved)	µg/l	20	4.40				401.00	445.00	2.80	2.80
Potassium (dissolved)	mg/l	0.025		270.00	220.00	270.00	210.00	240.00		
Selenium (dissolved)	µg/l	0.6								
Sodium (dissolved)	mg/l	0.01	30.00	630.00	560.00	460.00	520.00	460.00	23.00	25.00
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10				< 10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	142826	171195				
Sample Reference			MW2	MW2	MW2	MW2	MW3		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024		
Strata Screened			Drift					29/06/2021	23/11/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Total Phenols									
Total Phenols (monohydric)	µg/l	10					< 10	< 10	
Petroleum Hydrocarbons									
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1					< 1.0	< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1					< 1.0	< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1					< 1.0	< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1					< 1.0	< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1					< 1.0	< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1					< 1.0	< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10					< 10	< 10	
VOCs									
Chloromethane	µg/l	3					< 3.0	< 3.0	
Chloroethane	µg/l	3					< 3.0	< 3.0	
Bromomethane	µg/l	3					< 3.0	< 3.0	
Vinyl Chloride	µg/l	3					< 3.0	< 3.0	
Trichlorofluoromethane	µg/l	3					< 3.0	< 3.0	
1,1Dichloroethane	µg/l	3					< 3.0	< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3					< 3.0	< 3.0	
Trans 1,2dichloroethylene	µg/l	3					< 3.0	< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3					< 3.0	< 3.0	
1,1Dichloroethane	µg/l	3					< 3.0	< 3.0	
2,2Dichloropropane	µg/l	3					< 3.0	< 3.0	
Chloroform	µg/l	3					< 3.0	< 3.0	
1,1,1Trichloroethane	µg/l	3					< 3.0	< 3.0	
1,2Dichloroethane	µg/l	3					< 3.0	< 3.0	
1,1Dichloropropene	µg/l	3					< 3.0	< 3.0	
Cis1,2dichloroethene	µg/l	3					< 3.0	< 3.0	
Benzene	µg/l	3					< 3.0	< 3.0	
Carbontetrachloride	µg/l	3					< 3.0	< 3.0	
1,2Dichloropropane	µg/l	3					< 3.0	< 3.0	
Trichloroethene	µg/l	3					< 3.0	< 3.0	
Dibromomethane	µg/l	3					< 3.0	< 3.0	
Bromodichloromethane	µg/l	3					< 3.0	< 3.0	
Cis1,3dichloropropene	µg/l	3					< 3.0	< 3.0	
Trans1,3dichloropropene	µg/l	3					< 3.0	< 3.0	
Toluene	µg/l	3					< 3.0	< 3.0	
1,1,2Trichloroethane	µg/l	3					< 3.0	< 3.0	
1,3Dichloropropane	µg/l	3					< 3.0	< 3.0	
Dibromochloromethane	µg/l	3					< 3.0	< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	142826	171195				
Sample Reference			MW2	MW2	MW2	MW2	MW3		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024		
Strata Screened			Drift					29/06/2021	23/11/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Tetrachloroethene (PCE)	µg/l	3					< 3.0	< 3.0	
1,2Dibromoethane	µg/l	3					< 3.0	< 3.0	
Chlorobenzene	µg/l	3					< 3.0	< 3.0	
1,1,1,2Tetrachloroethane	µg/l	3					< 3.0	< 3.0	
Ethylbenzene	µg/l	3					< 3.0	< 3.0	
p & mxylyene	µg/l	3					< 3.0	< 3.0	
Styrene	µg/l	3					< 3.0	< 3.0	
Bromoform	µg/l	3					< 3.0	< 3.0	
oxylyene	µg/l	3					< 3.0	< 3.0	
Isopropylbenzene	µg/l	3					< 3.0	< 3.0	
1,1,2,2Tetrachloroethane	µg/l	3					< 3.0	< 3.0	
Bromobenzene	µg/l	3					< 3.0	< 3.0	
nPropylbenzene	µg/l	3					< 3.0	< 3.0	
2Chlorotoluene	µg/l	3					< 3.0	< 3.0	
4Chlorotoluene	µg/l	3					< 3.0	< 3.0	
1,3,5Trimethylbenzene	µg/l	3					< 3.0	< 3.0	
tertButylbenzene	µg/l	3					< 3.0	< 3.0	
1,2,4Trimethylbenzene	µg/l	3					< 3.0	< 3.0	
secButylbenzene	µg/l	3					< 3.0	< 3.0	
1,3Dichlorobenzene	µg/l	3					< 3.0	< 3.0	
pIsopropyltoluene	µg/l	3					< 3.0	< 3.0	
1,4Dichlorobenzene	µg/l	3					< 3.0	< 3.0	
1,2Dichlorobenzene	µg/l	3					< 3.0	< 3.0	
Butylbenzene	µg/l	3					< 3.0	< 3.0	
1,2Dibromo3chloropropane	µg/l	3					< 3.0	< 3.0	
1,2,4Trichlorobenzene	µg/l	3					< 3.0	< 3.0	
Hexachlorobutadiene	µg/l	3					< 3.0	< 3.0	
1,2,3Trichlorobenzene	µg/l	3					< 3.0	< 3.0	
SVOCs									
Aniline	µg/l	0.05					< 0.05	< 0.05	
Phenol	µg/l	0.05					< 0.05	< 0.05	
2Chlorophenol	µg/l	0.05					< 0.05	< 0.05	
Bis(2chloroethyl)ether	µg/l	0.05					< 0.05	< 0.05	
1,3Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05	
1,2Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05	
1,4Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05	
Bis(2chloroisopropyl)ether	µg/l	0.05					< 0.05	< 0.05	
2Methylphenol	µg/l	0.05					< 0.05	< 0.05	
Hexachloroethane	µg/l	0.05					< 0.05	< 0.05	
Nitrobenzene	µg/l	0.05					< 0.05	< 0.05	
4Methylphenol	µg/l	0.05					< 0.05	< 0.05	
Isophorone	µg/l	0.05					< 0.05	< 0.05	
2Nitrophenol	µg/l	0.05					< 0.05	< 0.05	
2,4Dimethylphenol	µg/l	0.05					< 0.05	< 0.05	
Bis(2chloroethoxy)methane	µg/l	0.05					< 0.05	< 0.05	
1,2,4Trichlorobenzene	µg/l	0.05					< 0.05	< 0.05	
2,4Dichlorophenol	µg/l	0.05					< 0.05	< 0.05	
4Chloroaniline	µg/l	0.05					< 0.05	< 0.05	
Hexachlorobutadiene	µg/l	0.05					< 0.05	< 0.05	
4Chloro3methylphenol	µg/l	0.05					< 0.05	< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	142826	171195				
Sample Reference			MW2	MW2	MW2	MW2	MW3		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024		
Strata Screened			Drift					29/06/2021	23/11/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection							
2,4,6Trichlorophenol	ug/l	0.05					< 0.05	< 0.05	
2,4,5Trichlorophenol	ug/l	0.05					< 0.05	< 0.05	
2Methylnaphthalene	ug/l	0.05					< 0.05	< 0.05	
2Chloronaphthalene	ug/l	0.05					< 0.05	< 0.05	
Dimethylphthalate	ug/l	0.05					< 0.05	< 0.05	
2,6Dinitrotoluene	ug/l	0.05					< 0.05	< 0.05	
2,4Dinitrotoluene	ug/l	0.05					< 0.05	< 0.05	
Dibenzofuran	ug/l	0.05					< 0.05	< 0.05	
4Chlorophenyl phenyl ether	ug/l	0.05					< 0.05	< 0.05	
Diethyl phthalate	ug/l	0.05					< 0.05	< 0.05	
4Nitroaniline	ug/l	0.05					< 0.05	< 0.05	
Azobenzene	ug/l	0.05					< 0.05	< 0.05	
Bromophenyl phenyl ether	ug/l	0.05					< 0.05	< 0.05	
Hexachlorobenzene	ug/l	0.05					< 0.05	< 0.05	
Carbazole	ug/l	0.05					< 0.05	< 0.05	
Dibutyl phthalate	ug/l	0.05					< 0.05	< 0.05	
Anthraquinone	ug/l	0.05					< 0.05	< 0.05	
Butyl benzyl phthalate	ug/l	0.05					< 0.05	< 0.05	
3+4Methylphenol	ug/l	0.1					< 0.10	< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			15/11/2022	31/10/2023	25/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.20	7.20	7.30	7.70	7.30	7.70	7.10	6.70
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	630.00	700.00	660.00	4100.00	8100.00	600.00	5500.00	6600.00
Sulphate as SO4	mg/l	0.045	50.30	58.50	60.40	60.60	4180.00	229.00	2780.00	3460.00
Sulphide	µg/l	5				5.10				
Chloride	mg/l	0.15	59.00	60.00	65.00	60.00	560.00	30.00	500.00	490.00
Fluoride	µg/l	50				140.00				
Ammoniacal Nitrogen as N	µg/l	15	250.00	240.00	290.00	200.00	2900.00	0.08	2200.00	3300.00
Total Organic Carbon (TOC)	mg/l	0.1	2.79	7.66	2.68		6.58	4.36	4.15	3.66
Dissolved Organic Carbon (DOC)	mg/l	0.1				1.78				
Nitrate as N	mg/l	0.01	0.26	0.16	< 0.01	0.12	0.45	0.01	0.47	0.41
Nitrite as N	µg/l	1	12.00	< 1.0	< 1.0	3.40			5.30	1.20
Alkalinity as CaCO3	mg/l	3	280.00	300.00	280.00	280.00	340.00	390.00	380.00	330.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.28	0.16	< 0.020		0.50	0.30	0.48	0.41
Total Suspended Solids (L004B)	mg/l	2			210.00	2400.00				
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16	< 0.16	< 0.16	< 0.16		0.16	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1				2.30				
Antimony (dissolved)	µg/l	0.4				0.60				
Arsenic (dissolved)	µg/l	0.15	0.57	0.52	0.87	0.60	15.40	0.62	1.65	23.40

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			15/11/2022	31/10/2023	25/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	µg/l	0.06				130.00				
Cadmium (dissolved)	µg/l	0.02	0.09	< 0.02	0.09	0.03	5.90	0.03	1.40	1.10
Chromium (dissolved)	µg/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	3.50	4.80	< 0.2	< 0.2
Cobalt (dissolved)	µg/l	0.2				1.10				
Copper (dissolved)	µg/l	0.5	0.80	0.80	1.30	0.70	1.70	7.50	1.60	1.00
Bioavailable Copper (dissolved)	µg/l	0.5	0.04	0.04	0.07	0.12	0.09	0.47	0.09	0.08
Lead (dissolved)	µg/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.20	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.05	0.05	0.11	0.05	0.05	0.05	0.05
Manganese (dissolved)	µg/l	0.05	2000.00	1600.00	2100.00	1400.00	1100.00	540.00	1700.00	1900.00
Bioavailable Manganese (dissolved)	µg/l	0.05	238.12	190.50	303.43	438.80	158.94	169.25	166.78	85.93
Mercury (dissolved)	µg/l	0.05				< 0.05				
Molybdenum (dissolved)	µg/l	0.05	1.20	0.33	0.42	1.80	5100.00	5.80	1400.00	2600.00
Nickel (dissolved)	µg/l	0.5	2.60	1.90	2.30	1.20	15.00	4.10	7.70	8.60
Bioavailable Nickel (dissolved)	µg/l	0.5	0.59	0.43	0.55	0.51	3.62	1.30	1.65	1.49
Selenium (dissolved)	µg/l	0.6				1.20				
Silicon (dissolved)	µg/l	50				2900.00				
Tin (dissolved)	µg/l	0.2				< 0.20				
Titanium (dissolved)	µg/l	1				< 1.0				
Vanadium (dissolved)	µg/l	0.2				< 0.2				
Zinc (dissolved)	µg/l	0.5	6.90	3.80	4.10	2.80	12.00	30.00	3.40	10.00
Bioavailable Zinc (dissolved)	µg/l	0.5	3.13	1.73	1.86	1.65	5.26	12.61	1.52	4.69
Boron (dissolved)	µg/l	10	53.00	67.00	38.00	110.00	8200.00	97.00	4200.00	5200.00
Calcium (dissolved)	mg/l	0.012	110.00	98.00	91.00	89.00	400.00	160.00	550.00	560.00
Chromium (hexavalent)	µg/l	5				< 5.0				
Chromium (III)	µg/l	5				< 5.0				
Iron (dissolved)	mg/l	0.004	0.04	< 0.004	< 0.004	0.01	0.01	0.01	0.02	0.06
Magnesium (dissolved)	mg/l	0.005	42.00	39.00	37.00	35.00	120.00	67.00	220.00	210.00
Phosphorus (dissolved)	µg/l	20				387.00	180.00	4.50		
Potassium (dissolved)	mg/l	0.025	3.40	3.50	2.70	2.80			140.00	280.00
Selenium (dissolved)	µg/l	0.6								
Sodium (dissolved)	mg/l	0.01	33.00	25.00	25.00	23.00	1600.00	41.00	830.00	1200.00
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10			< 10					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			15/11/2022	31/10/2023	25/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Total Phenols										
Total Phenols (monohydric)	µg/l	10				< 10				
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1				< 1.0				
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1				< 1.0				
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1				< 1.0				
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10				< 10				
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1				< 1.0				
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1				< 1.0				
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1				< 1.0				
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10				< 10				
VOCs										
Chloromethane	µg/l	3				< 3.0				
Chloroethane	µg/l	3				< 3.0				
Bromomethane	µg/l	3				< 3.0				
Vinyl Chloride	µg/l	3				< 3.0				
Trichlorofluoromethane	µg/l	3				< 3.0				
1,1Dichloroethane	µg/l	3				< 3.0				
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3				< 3.0				
Trans 1,2dichloroethylene	µg/l	3				< 3.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3				< 3.0				
1,1Dichloroethane	µg/l	3				< 3.0				
2,2Dichloropropane	µg/l	3				< 3.0				
Chloroform	µg/l	3				< 3.0				
1,1,1Trichloroethane	µg/l	3				< 3.0				
1,2Dichloroethane	µg/l	3				< 3.0				
1,1Dichloropropene	µg/l	3				< 3.0				
Cis1,2dichloroethene	µg/l	3				< 3.0				
Benzene	µg/l	3				< 3.0				
Carbontetrachloride	µg/l	3				< 3.0				
1,2Dichloropropane	µg/l	3				< 3.0				
Trichloroethene	µg/l	3				< 3.0				
Dibromomethane	µg/l	3				< 3.0				
Bromodichloromethane	µg/l	3				< 3.0				
Cis1,3dichloropropene	µg/l	3				< 3.0				
Trans1,3dichloropropene	µg/l	3				< 3.0				
Toluene	µg/l	3				< 3.0				
1,1,2Trichloroethane	µg/l	3				< 3.0				
1,3Dichloropropane	µg/l	3				< 3.0				
Dibromochloromethane	µg/l	3				< 3.0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			15/11/2022	31/10/2023	25/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Tetrachloroethene (PCE)	µg/l	3				< 3.0				
1,2Dibromoethane	µg/l	3				< 3.0				
Chlorobenzene	µg/l	3				< 3.0				
1,1,1,2Tetrachloroethane	µg/l	3				< 3.0				
Ethylbenzene	µg/l	3				< 3.0				
p & mxylyene	µg/l	3				< 3.0				
Styrene	µg/l	3				< 3.0				
Bromoform	µg/l	3				< 3.0				
oxylyene	µg/l	3				< 3.0				
Isopropylbenzene	µg/l	3				< 3.0				
1,1,2,2Tetrachloroethane	µg/l	3				< 3.0				
Bromobenzene	µg/l	3				< 3.0				
nPropylbenzene	µg/l	3				< 3.0				
2Chlorotoluene	µg/l	3				< 3.0				
4Chlorotoluene	µg/l	3				< 3.0				
1,3,5Trimethylbenzene	µg/l	3				< 3.0				
tertButylbenzene	µg/l	3				< 3.0				
1,2,4Trimethylbenzene	µg/l	3				< 3.0				
secButylbenzene	µg/l	3				< 3.0				
1,3Dichlorobenzene	µg/l	3				< 3.0				
pIsopropyltoluene	µg/l	3				< 3.0				
1,4Dichlorobenzene	µg/l	3				< 3.0				
1,2Dichlorobenzene	µg/l	3				< 3.0				
Butylbenzene	µg/l	3				< 3.0				
1,2Dibromo3chloropropane	µg/l	3				< 3.0				
1,2,4Trichlorobenzene	µg/l	3				< 3.0				
Hexachlorobutadiene	µg/l	3				< 3.0				
1,2,3Trichlorobenzene	µg/l	3				< 3.0				
SVOCs										
Aniline	µg/l	0.05				< 0.05				
Phenol	µg/l	0.05				< 0.05				
2Chlorophenol	µg/l	0.05				< 0.05				
Bis(2chloroethyl)ether	µg/l	0.05				< 0.05				
1,3Dichlorobenzene	µg/l	0.05				< 0.05				
1,2Dichlorobenzene	µg/l	0.05				< 0.05				
1,4Dichlorobenzene	µg/l	0.05				< 0.05				
Bis(2chloroisopropyl)ether	µg/l	0.05				< 0.05				
2Methylphenol	µg/l	0.05				< 0.05				
Hexachloroethane	µg/l	0.05				< 0.05				
Nitrobenzene	µg/l	0.05				< 0.05				
4Methylphenol	µg/l	0.05				< 0.05				
Isophorone	µg/l	0.05				< 0.05				
2Nitrophenol	µg/l	0.05				< 0.05				
2,4Dimethylphenol	µg/l	0.05				< 0.05				
Bis(2chloroethoxy)methane	µg/l	0.05				< 0.05				
1,2,4Trichlorobenzene	µg/l	0.05				< 0.05				
2,4Dichlorophenol	µg/l	0.05				< 0.05				
4Chloroaniline	µg/l	0.05				< 0.05				
Hexachlorobutadiene	µg/l	0.05				< 0.05				
4Chloro3methylphenol	µg/l	0.05				< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			15/11/2022	31/10/2023	25/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	µg/l	0.05				< 0.05				
2,4,5Trichlorophenol	µg/l	0.05				< 0.05				
2Methylnaphthalene	µg/l	0.05				< 0.05				
2Chloronaphthalene	µg/l	0.05				< 0.05				
Dimethylphthalate	µg/l	0.05				< 0.05				
2,6Dinitrotoluene	µg/l	0.05				< 0.05				
2,4Dinitrotoluene	µg/l	0.05				< 0.05				
Dibenzofuran	µg/l	0.05				< 0.05				
4Chlorophenyl phenyl ether	µg/l	0.05				< 0.05				
Diethyl phthalate	µg/l	0.05				< 0.05				
4Nitroaniline	µg/l	0.05				< 0.05				
Azobenzene	µg/l	0.05				< 0.05				
Bromophenyl phenyl ether	µg/l	0.05				< 0.05				
Hexachlorobenzene	µg/l	0.05				< 0.05				
Carbazole	µg/l	0.05				< 0.05				
Dibutyl phthalate	µg/l	0.05				< 0.05				
Anthraquinone	µg/l	0.05				< 0.05				
Butyl benzyl phthalate	µg/l	0.05				< 0.05				
3+4Methylphenol	µg/l	0.1				< 0.10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829		2503703		142828	
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
General Inorganics								
pH (L099)	pH Units	N/A	7.20	7.30	7.30	7.70	7.20	7.30
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	6500.00	980.00	1000.00	590.00	720.00	1000.00
Sulphate as SO4	mg/l	0.045	2540.00	3060.00	210.00	246.00	121.00	172.00
Sulphide	µg/l	5		< 5.0				
Chloride	mg/l	0.15	460.00	460.00	43.00	30.00	36.00	40.00
Fluoride	µg/l	50		350.00				
Ammoniacal Nitrogen as N	µg/l	15	3700.00	3900.00	160.00	0.08	61.00	38.00
Total Organic Carbon (TOC)	mg/l	0.1	3.26		2.26	3.66	3.80	11.50
Dissolved Organic Carbon (DOC)	mg/l	0.1		3.37				
Nitrate as N	mg/l	0.01	0.01	0.13	0.30	0.01	0.05	0.12
Nitrite as N	µg/l	1	4.60	18.00			< 1.0	1.60
Alkalinity as CaCO3	mg/l	3	280.00	230.00	480.00	390.00	380.00	380.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	< 0.020		0.30	0.30	0.05	0.12
Total Suspended Solids (L004B)	mg/l	2	9200.00	2800.00				9.00
Speciated PAHs								
Naphthalene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH								
Total EPA16 PAHs	µg/l	0.16	< 0.16		0.16	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids								
Aluminium (dissolved)	µg/l	1		10.00				< 1.0
Antimony (dissolved)	µg/l	0.4		2.10				< 0.4
Arsenic (dissolved)	µg/l	0.15	5.86	5.59	1.17	0.54	1.01	2.90

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	MW4S	MW4S	2503703	MW4S	MW4S	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024
Strata Screened			Sandstone							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	µg/l	0.06		20.00						22.00
Cadmium (dissolved)	µg/l	0.02	1.30	1.10	0.17	0.02	< 0.02	0.03	< 0.02	< 0.02
Chromium (dissolved)	µg/l	0.2	0.40	< 0.2	5.50	4.60	< 0.2	0.30	< 0.2	< 0.2
Cobalt (dissolved)	µg/l	0.2		1.30						0.20
Copper (dissolved)	µg/l	0.5	1.50	1.90	6.90	5.80	1.70	1.10	1.20	0.70
Bioavailable Copper (dissolved)	µg/l	0.5	0.08	0.13	0.38	0.36	0.09	0.06	0.07	0.11
Lead (dissolved)	µg/l	0.2	0.20	< 0.2	0.20	0.20	< 0.2	1.70	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.06	0.05	0.05	0.05	0.41	0.05	0.12
Manganese (dissolved)	µg/l	0.05	2500.00	1500.00	670.00	560.00	380.00	440.00	580.00	440.00
Bioavailable Manganese (dissolved)	µg/l	0.05	297.65	216.74	96.81	175.52	45.24	63.58	123.43	63.58
Mercury (dissolved)	µg/l	0.05		0.15						< 0.05
Molybdenum (dissolved)	µg/l	0.05	3900.00	3800.00	120.00	4.20	6.60	42.00	18.00	11.00
Nickel (dissolved)	µg/l	0.5	7.50	6.10	7.00	3.40	< 0.5	0.80	0.90	< 0.5
Bioavailable Nickel (dissolved)	µg/l	0.5	1.70	1.57	1.69	1.08	0.11	0.19	0.25	0.16
Selenium (dissolved)	µg/l	0.6								0.70
Silicon (dissolved)	µg/l	50		2300.00						2300.00
Tin (dissolved)	µg/l	0.2		< 0.20						< 0.20
Titanium (dissolved)	µg/l	1		1.90						< 1.0
Vanadium (dissolved)	µg/l	0.2		67.00						< 0.2
Zinc (dissolved)	µg/l	0.5	4.20	3.00	10.00	16.00	8.40	12.00	3.00	1.30
Bioavailable Zinc (dissolved)	µg/l	0.5	1.86	1.40	4.42	6.73	3.77	5.30	1.30	0.74
Boron (dissolved)	µg/l	10	6400.00	5800.00	250.00	85.00	100.00	110.00	70.00	64.00
Calcium (dissolved)	mg/l	0.012	520.00	580.00	140.00	180.00	130.00	140.00	140.00	120.00
Chromium (hexavalent)	µg/l	5		< 5.0						< 5.0
Chromium (III)	µg/l	5		< 5.0						< 5.0
Iron (dissolved)	mg/l	0.004	0.01	0.01	0.01	0.01	< 0.004	< 0.004	0.01	< 0.004
Magnesium (dissolved)	mg/l	0.005	150.00	180.00	69.00	71.00	62.00	71.00	64.00	60.00
Phosphorus (dissolved)	µg/l	20		317.00	10.00	5.80				497.00
Potassium (dissolved)	mg/l	0.025	250.00	310.00			4.60	7.20	5.10	4.70
Selenium (dissolved)	µg/l	0.6		14.00						
Sodium (dissolved)	mg/l	0.01	1100.00	1100.00	56.00	48.00	30.00	45.00	31.00	31.00
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10	< 10						< 10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	2503703	2503703	142828	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	µg/l	10	< 10					< 10
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0					< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0					< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0					< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0					< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0					< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0					< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10					< 10
VOCs								
Chloromethane	µg/l	3	< 3.0					< 3.0
Chloroethane	µg/l	3	< 3.0					< 3.0
Bromomethane	µg/l	3	< 3.0					< 3.0
Vinyl Chloride	µg/l	3	< 3.0					< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0					< 3.0
1,1Dichloroethane	µg/l	3	< 3.0					< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0					< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0					< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0					< 3.0
1,1Dichloroethane	µg/l	3	< 3.0					< 3.0
2,2Dichloropropane	µg/l	3	< 3.0					< 3.0
Chloroform	µg/l	3	< 3.0					< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0					< 3.0
1,2Dichloroethane	µg/l	3	< 3.0					< 3.0
1,1Dichloropropene	µg/l	3	< 3.0					< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0					< 3.0
Benzene	µg/l	3	< 3.0					< 3.0
Carbontetrachloride	µg/l	3	< 3.0					< 3.0
1,2Dichloropropane	µg/l	3	< 3.0					< 3.0
Trichloroethene	µg/l	3	< 3.0					< 3.0
Dibromomethane	µg/l	3	< 3.0					< 3.0
Bromodichloromethane	µg/l	3	< 3.0					< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0					< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0					< 3.0
Toluene	µg/l	3	< 3.0					< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0					< 3.0
1,3Dichloropropane	µg/l	3	< 3.0					< 3.0
Dibromochloromethane	µg/l	3	< 3.0					< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	2503703	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S
Date Sampled			24/01/2024	12/03/2024	29/06/2021	23/11/2021
Strata Screened			Sandstone			
Analytical Parameter (Water Analysis)	Units	Limit of detection				
Tetrachloroethene (PCE)	µg/l	3	< 3.0			< 3.0
1,2Dibromoethane	µg/l	3	< 3.0			< 3.0
Chlorobenzene	µg/l	3	< 3.0			< 3.0
1,1,1,2Tetrachloroethane	µg/l	3	< 3.0			< 3.0
Ethylbenzene	µg/l	3	< 3.0			< 3.0
p & mxylyene	µg/l	3	< 3.0			< 3.0
Styrene	µg/l	3	< 3.0			< 3.0
Bromoform	µg/l	3	< 3.0			< 3.0
oxylyene	µg/l	3	< 3.0			< 3.0
Isopropylbenzene	µg/l	3	< 3.0			< 3.0
1,1,2,2Tetrachloroethane	µg/l	3	< 3.0			< 3.0
Bromobenzene	µg/l	3	< 3.0			< 3.0
nPropylbenzene	µg/l	3	< 3.0			< 3.0
2Chlorotoluene	µg/l	3	< 3.0			< 3.0
4Chlorotoluene	µg/l	3	< 3.0			< 3.0
1,3,5Trimethylbenzene	µg/l	3	< 3.0			< 3.0
tertButylbenzene	µg/l	3	< 3.0			< 3.0
1,2,4Trimethylbenzene	µg/l	3	< 3.0			< 3.0
secButylbenzene	µg/l	3	< 3.0			< 3.0
1,3Dichlorobenzene	µg/l	3	< 3.0			< 3.0
pIsopropyltoluene	µg/l	3	< 3.0			< 3.0
1,4Dichlorobenzene	µg/l	3	< 3.0			< 3.0
1,2Dichlorobenzene	µg/l	3	< 3.0			< 3.0
Butylbenzene	µg/l	3	< 3.0			< 3.0
1,2Dibromo3chloropropane	µg/l	3	< 3.0			< 3.0
1,2,4Trichlorobenzene	µg/l	3	< 3.0			< 3.0
Hexachlorobutadiene	µg/l	3	< 3.0			< 3.0
1,2,3Trichlorobenzene	µg/l	3	< 3.0			< 3.0
SVOCs						
Aniline	µg/l	0.05	< 0.05			< 0.05
Phenol	µg/l	0.05	< 0.05			< 0.05
2Chlorophenol	µg/l	0.05	< 0.05			< 0.05
Bis(2chloroethyl)ether	µg/l	0.05	< 0.05			< 0.05
1,3Dichlorobenzene	µg/l	0.05	< 0.05			< 0.05
1,2Dichlorobenzene	µg/l	0.05	< 0.05			< 0.05
1,4Dichlorobenzene	µg/l	0.05	< 0.05			< 0.05
Bis(2chloroisopropyl)ether	µg/l	0.05	< 0.05			< 0.05
2Methylphenol	µg/l	0.05	< 0.05			< 0.05
Hexachloroethane	µg/l	0.05	< 0.05			< 0.05
Nitrobenzene	µg/l	0.05	< 0.05			< 0.05
4Methylphenol	µg/l	0.05	< 0.05			< 0.05
Isophorone	µg/l	0.05	< 0.05			< 0.05
2Nitrophenol	µg/l	0.05	< 0.05			< 0.05
2,4Dimethylphenol	µg/l	0.05	< 0.05			< 0.05
Bis(2chloroethoxy)methane	µg/l	0.05	< 0.05			< 0.05
1,2,4Trichlorobenzene	µg/l	0.05	< 0.05			< 0.05
2,4Dichlorophenol	µg/l	0.05	< 0.05			< 0.05
4Chloroaniline	µg/l	0.05	< 0.05			< 0.05
Hexachlorobutadiene	µg/l	0.05	< 0.05			< 0.05
4Chloro3methylphenol	µg/l	0.05	< 0.05			< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	2503703	2503703	142828	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	12/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
2,4,6Trichlorophenol	µg/l	0.05		< 0.05				< 0.05
2,4,5Trichlorophenol	µg/l	0.05		< 0.05				< 0.05
2Methylnaphthalene	µg/l	0.05		< 0.05				< 0.05
2Chloronaphthalene	µg/l	0.05		< 0.05				< 0.05
Dimethylphthalate	µg/l	0.05		< 0.05				< 0.05
2,6Dinitrotoluene	µg/l	0.05		< 0.05				< 0.05
2,4Dinitrotoluene	µg/l	0.05		< 0.05				< 0.05
Dibenzofuran	µg/l	0.05		< 0.05				< 0.05
4Chlorophenyl phenyl ether	µg/l	0.05		< 0.05				< 0.05
Diethyl phthalate	µg/l	0.05		< 0.05				< 0.05
4Nitroaniline	µg/l	0.05		< 0.05				< 0.05
Azobenzene	µg/l	0.05		< 0.05				< 0.05
Bromophenyl phenyl ether	µg/l	0.05		< 0.05				< 0.05
Hexachlorobenzene	µg/l	0.05		< 0.05				< 0.05
Carbazole	µg/l	0.05		< 0.05				< 0.05
Dibutyl phthalate	µg/l	0.05		< 0.05				< 0.05
Anthraquinone	µg/l	0.05		< 0.05				< 0.05
Butyl benzyl phthalate	µg/l	0.05		< 0.05				< 0.05
3+4Methylphenol	µg/l	0.1		< 0.10				< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503692	144010	174089					
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5S	
Date Sampled			29/06/2021	23/11/2021	15/11/2022	31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	10.30	7.30	9.90	7.80	7.70	7.50	7.80	7.30
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	8800.00	700.00	5700.00	2700.00	2300.00	780.00	740.00	840.00
Sulphate as SO4	mg/l	0.045	3580.00	89.70	3600.00	1120.00	933.00	158.00	160.00	106.00
Sulphide	µg/l	5						5.80	< 5.0	
Chloride	mg/l	0.15	390.00	32.00	280.00	110.00	97.00	44.00	41.00	33.00
Fluoride	µg/l	50						150.00	140.00	
Ammoniacal Nitrogen as N	µg/l	15	1100.00	0.07	310.00	120.00	72.00	160.00	180.00	33.00
Total Organic Carbon (TOC)	mg/l	0.1	1.57	4.63	2.37	5.62	3.01			2.13
Dissolved Organic Carbon (DOC)	mg/l	0.1						1.58	1.49	
Nitrate as N	mg/l	0.01	43.10	0.12	24.30	3.27	3.25	0.57	0.52	0.33
Nitrite as N	µg/l	1			490.00	280.00	110.00	15.00	20.00	
Alkalinity as CaCO3	mg/l	3	250.00	420.00	180.00	270.00	270.00	290.00	280.00	470.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	45.00	0.10	25.00	3.60	3.40			0.30
Total Suspended Solids (L004B)	mg/l	2					800.00	410.00	450.00	
Speciated PAHs										
Naphthalene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Acenaphthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Fluorene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Phenanthrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Chrysene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Indeno(1,2,3cd)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Total PAH										
Total EPA16 PAHs	µg/l	0.16	0.16	0.16	< 0.16	< 0.16	< 0.16			0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1						49.00	8.60	
Antimony (dissolved)	µg/l	0.4						0.50	0.90	
Arsenic (dissolved)	µg/l	0.15	55.20	0.51	61.20	6.72	8.43	1.50	2.51	0.69

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					2503692			144010	174089	
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5DA	MW5S
Date Sampled			29/06/2021	23/11/2021	15/11/2022	31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	µg/l	0.06						50.00	54.00	
Cadmium (dissolved)	µg/l	0.02	25.00	0.05	< 0.08	1.60	1.20	0.11	0.10	0.08
Chromium (dissolved)	µg/l	0.2	0.80	4.40	< 0.2	< 0.2	0.70	< 0.2	0.20	5.50
Cobalt (dissolved)	µg/l	0.2						0.90	0.60	
Copper (dissolved)	µg/l	0.5	12.00	3.60	0.60	< 0.5	2.70	0.80	0.90	7.20
Bioavailable Copper (dissolved)	µg/l	0.5	2.03	0.20	0.10	0.03	0.17	0.13	0.20	0.39
Lead (dissolved)	µg/l	0.2	0.20	0.20	< 0.2	< 0.2	0.50	< 0.2	< 0.2	0.30
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.05	0.05	0.05	0.12	0.13	0.13	0.07
Manganese (dissolved)	µg/l	0.05	5.30	510.00	1.80	600.00	600.00	530.00	530.00	510.00
Bioavailable Manganese (dissolved)	µg/l	0.05	5.30	73.69	1.80	228.23	188.06	112.79	201.60	73.69
Mercury (dissolved)	µg/l	0.05						< 0.05	< 0.05	
Molybdenum (dissolved)	µg/l	0.05	32000.00	10.00	24000.00	6100.00	4900.00	310.00	360.00	26.00
Nickel (dissolved)	µg/l	0.5	2.60	2.60	0.90	1.00	1.20	0.90	0.80	2.60
Bioavailable Nickel (dissolved)	µg/l	0.5	2.60	0.63	0.90	0.34	0.38	0.33	0.40	0.63
Selenium (dissolved)	µg/l	0.6						3.40	3.90	
Silicon (dissolved)	µg/l	50						3100.00	7900.00	
Tin (dissolved)	µg/l	0.2						< 0.20	< 0.20	
Titanium (dissolved)	µg/l	1						< 1.0	< 1.0	
Vanadium (dissolved)	µg/l	0.2						6.10	8.70	
Zinc (dissolved)	µg/l	0.5	13.00	11.00	0.70	5.20	4.00	2.60	1.40	17.00
Bioavailable Zinc (dissolved)	µg/l	0.5	5.30	4.93	0.29	2.17	1.70	1.54	0.86	7.46
Boron (dissolved)	µg/l	10	38000.00	82.00	32000.00	3900.00	4500.00	560.00	680.00	180.00
Calcium (dissolved)	mg/l	0.012	320.00	110.00	450.00	150.00	130.00	100.00	94.00	160.00
Chromium (hexavalent)	µg/l	5						< 5.0	< 5.0	
Chromium (III)	µg/l	5						< 5.0	< 5.0	
Iron (dissolved)	mg/l	0.004	0.08	0.01	0.02	0.10	< 0.004	0.02	0.03	0.01
Magnesium (dissolved)	mg/l	0.005	0.49	39.00	13.00	35.00	32.00	41.00	38.00	52.00
Phosphorus (dissolved)	µg/l	20	740.00	3.60					513.00	5.10
Potassium (dissolved)	mg/l	0.025			620.00	170.00	100.00	< 20.0	12.00	
Selenium (dissolved)	µg/l	0.6						12.00		
Sodium (dissolved)	mg/l	0.01	1200.00	26.00	1500.00	490.00	400.00	78.00	76.00	37.00
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10					< 10			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					2503692		144010	174089	
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5S
Date Sampled			29/06/2021	23/11/2021	15/11/2022	31/10/2023	25/01/2024	13/03/2024	17/04/2024
Strata Screened			Drift						
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Total Phenols									
Total Phenols (monohydric)	µg/l	10					< 10		
Petroleum Hydrocarbons									
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1					< 1.0	< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1					< 1.0	< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1					< 1.0	< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1					< 1.0	< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1					< 1.0	< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1					< 1.0	< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10					< 10	< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10					< 10	< 10	
VOCs									
Chloromethane	µg/l	3					< 3.0	< 3.0	
Chloroethane	µg/l	3					< 3.0	< 3.0	
Bromomethane	µg/l	3					< 3.0	< 3.0	
Vinyl Chloride	µg/l	3					< 3.0	< 3.0	
Trichlorofluoromethane	µg/l	3					< 3.0	< 3.0	
1,1Dichloroethene	µg/l	3					< 3.0	< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3					< 3.0	< 3.0	
Trans 1,2dichloroethylene	µg/l	3					< 3.0	< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3					< 3.0	< 3.0	
1,1Dichloroethane	µg/l	3					< 3.0	< 3.0	
2,2Dichloropropane	µg/l	3					< 3.0	< 3.0	
Chloroform	µg/l	3					< 3.0	< 3.0	
1,1,1Trichloroethane	µg/l	3					< 3.0	< 3.0	
1,2Dichloroethane	µg/l	3					< 3.0	< 3.0	
1,1Dichloropropene	µg/l	3					< 3.0	< 3.0	
Cis1,2dichloroethene	µg/l	3					< 3.0	< 3.0	
Benzene	µg/l	3					< 3.0	< 3.0	
Carbontetrachloride	µg/l	3					< 3.0	< 3.0	
1,2Dichloropropane	µg/l	3					< 3.0	< 3.0	
Trichloroethene	µg/l	3					< 3.0	< 3.0	
Dibromomethane	µg/l	3					< 3.0	< 3.0	
Bromodichloromethane	µg/l	3					< 3.0	< 3.0	
Cis1,3dichloropropene	µg/l	3					< 3.0	< 3.0	
Trans1,3dichloropropene	µg/l	3					< 3.0	< 3.0	
Toluene	µg/l	3					< 3.0	< 3.0	
1,1,2Trichloroethane	µg/l	3					< 3.0	< 3.0	
1,3Dichloropropane	µg/l	3					< 3.0	< 3.0	
Dibromochloromethane	µg/l	3					< 3.0	< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					2503692		144010	174089	
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5S
Date Sampled			29/06/2021	23/11/2021	15/11/2022	31/10/2023	25/01/2024	13/03/2024	17/04/2024
Strata Screened			Drift						
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Tetrachloroethene (PCE)	µg/l	3						< 3.0	< 3.0
1,2Dibromoethane	µg/l	3						< 3.0	< 3.0
Chlorobenzene	µg/l	3						< 3.0	< 3.0
1,1,1,2Tetrachloroethane	µg/l	3						< 3.0	< 3.0
Ethylbenzene	µg/l	3						< 3.0	< 3.0
p & mxylyene	µg/l	3						< 3.0	< 3.0
Styrene	µg/l	3						< 3.0	< 3.0
Bromoform	µg/l	3						< 3.0	< 3.0
oxylyene	µg/l	3						< 3.0	< 3.0
Isopropylbenzene	µg/l	3						< 3.0	< 3.0
1,1,2,2Tetrachloroethane	µg/l	3						< 3.0	< 3.0
Bromobenzene	µg/l	3						< 3.0	< 3.0
nPropylbenzene	µg/l	3						< 3.0	< 3.0
2Chlorotoluene	µg/l	3						< 3.0	< 3.0
4Chlorotoluene	µg/l	3						< 3.0	< 3.0
1,3,5Trimethylbenzene	µg/l	3						< 3.0	< 3.0
tertButylbenzene	µg/l	3						< 3.0	< 3.0
1,2,4Trimethylbenzene	µg/l	3						< 3.0	< 3.0
secButylbenzene	µg/l	3						< 3.0	< 3.0
1,3Dichlorobenzene	µg/l	3						< 3.0	< 3.0
pIsopropyltoluene	µg/l	3						< 3.0	< 3.0
1,4Dichlorobenzene	µg/l	3						< 3.0	< 3.0
1,2Dichlorobenzene	µg/l	3						< 3.0	< 3.0
Butylbenzene	µg/l	3						< 3.0	< 3.0
1,2Dibromo3chloropropane	µg/l	3						< 3.0	< 3.0
1,2,4Trichlorobenzene	µg/l	3						< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3						< 3.0	< 3.0
1,2,3Trichlorobenzene	µg/l	3						< 3.0	< 3.0
SVOCs									
Aniline	µg/l	0.05						< 0.05	< 0.05
Phenol	µg/l	0.05						< 0.05	< 0.05
2Chlorophenol	µg/l	0.05						< 0.05	< 0.05
Bis(2chloroethyl)ether	µg/l	0.05						< 0.05	< 0.05
1,3Dichlorobenzene	µg/l	0.05						< 0.05	0.15
1,2Dichlorobenzene	µg/l	0.05						< 0.05	1.40
1,4Dichlorobenzene	µg/l	0.05						< 0.05	0.12
Bis(2chloroisopropyl)ether	µg/l	0.05						< 0.05	< 0.05
2Methylphenol	µg/l	0.05						< 0.05	< 0.05
Hexachloroethane	µg/l	0.05						< 0.05	< 0.05
Nitrobenzene	µg/l	0.05						< 0.05	< 0.05
4Methylphenol	µg/l	0.05						< 0.05	< 0.05
Isophorone	µg/l	0.05						< 0.05	< 0.05
2Nitrophenol	µg/l	0.05						< 0.05	< 0.05
2,4Dimethylphenol	µg/l	0.05						< 0.05	< 0.05
Bis(2chloroethoxy)methane	µg/l	0.05						< 0.05	< 0.05
1,2,4Trichlorobenzene	µg/l	0.05						< 0.05	< 0.05
2,4Dichlorophenol	µg/l	0.05						< 0.05	< 0.05
4Chloroaniline	µg/l	0.05						< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05						< 0.05	< 0.05
4Chloro3methylphenol	µg/l	0.05						< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503692	144010	174089					
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5DA	MW5S
Date Sampled			29/06/2021	23/11/2021	15/11/2022	31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	µg/l	0.05						< 0.05	< 0.05	
2,4,5Trichlorophenol	µg/l	0.05						< 0.05	< 0.05	
2Methylnaphthalene	µg/l	0.05						< 0.05	< 0.05	
2Chloronaphthalene	µg/l	0.05						< 0.05	< 0.05	
Dimethylphthalate	µg/l	0.05						< 0.05	< 0.05	
2,6Dinitrotoluene	µg/l	0.05						< 0.05	< 0.05	
2,4Dinitrotoluene	µg/l	0.05						< 0.05	< 0.05	
Dibenzofuran	µg/l	0.05						< 0.05	< 0.05	
4Chlorophenyl phenyl ether	µg/l	0.05						< 0.05	< 0.05	
Diethyl phthalate	µg/l	0.05						< 0.05	< 0.05	
4Nitroaniline	µg/l	0.05						< 0.05	< 0.05	
Azobenzene	µg/l	0.05						< 0.05	< 0.05	
Bromophenyl phenyl ether	µg/l	0.05						< 0.05	< 0.05	
Hexachlorobenzene	µg/l	0.05						< 0.05	< 0.05	
Carbazole	µg/l	0.05						< 0.05	< 0.05	
Dibutyl phthalate	µg/l	0.05						< 0.05	< 0.05	
Anthraquinone	µg/l	0.05						< 0.05	< 0.05	
Butyl benzyl phthalate	µg/l	0.05						< 0.05	< 0.05	
3+4Methylphenol	µg/l	0.1						< 0.10	< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704		144009		174088			
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW5S	MW5S	MW6D	MW6D
Date Sampled			23/11/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021
Strata Screened			Sandstone							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.40	7.10	7.20	7.30	7.30	7.70	8.60	7.40
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	700.00	900.00	950.00	970.00	890.00	830.00	2500.00	700.00
Sulphate as SO4	mg/l	0.045	101.00	102.00	110.00	139.00	131.00	123.00	1900.00	109.00
Sulphide	µg/l	5					< 5.0	< 5.0		
Chloride	mg/l	0.15	32.00	32.00	34.00	34.00	37.00	32.00	90.00	32.00
Fluoride	µg/l	50					56.00	100.00		
Ammoniacal Nitrogen as N	µg/l	15	0.11	99.00	94.00	130.00	99.00	160.00	1000.00	0.09
Total Organic Carbon (TOC)	mg/l	0.1	4.57	4.74	14.10	2.18			1.17	5.11
Dissolved Organic Carbon (DOC)	mg/l	0.1					1.77	1.75		
Nitrate as N	mg/l	0.01	0.16	0.03	0.10	< 0.01	0.08	0.15	1.89	0.01
Nitrite as N	µg/l	1		14.00	8.20	2.00	8.20	14.00		
Alkalinity as CaCO3	mg/l	3	410.00	460.00	450.00	500.00	450.00	450.00	66.00	420.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.20	0.05	0.11	< 0.020			2.30	0.30
Total Suspended Solids (L004B)	mg/l	2				250.00	150.00	280.00		
Speciated PAHs										
Naphthalene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Fluorene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Phenanthrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3cd)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Total PAH										
Total EPA16 PAHs	µg/l	0.16	0.16	< 0.16	< 0.16	< 0.16			0.16	0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1					9.80	13.00		
Antimony (dissolved)	µg/l	0.4					< 0.4	1.40		
Arsenic (dissolved)	µg/l	0.15	0.64	0.46	1.40	1.16	0.39	1.21	3.02	0.80

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704			144009	174088				
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW5S	MW6D	MW6D		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	
Strata Screened			Sandstone								
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Barium (dissolved)	µg/l	0.06					47.00	67.00			
Cadmium (dissolved)	µg/l	0.02	0.05	0.03	0.02	0.03	0.02	0.08	3.90	0.05	
Chromium (dissolved)	µg/l	0.2	3.80	< 0.2	< 0.2	< 0.2	< 0.2	0.20	35.00	4.80	
Cobalt (dissolved)	µg/l	0.2					0.40	2.20			
Copper (dissolved)	µg/l	0.5	6.30	2.30	1.30	2.00	1.60	1.10	8.90	6.30	
Bioavailable Copper (dissolved)	µg/l	0.5	0.35	0.13	0.07	0.11	0.22	0.18	1.50	0.35	
Lead (dissolved)	µg/l	0.2	0.20	< 0.2	0.20	< 0.2	< 0.2	< 0.2	0.20	0.20	
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.05	0.05	0.05	0.11	0.11	0.05	0.05	
Manganese (dissolved)	µg/l	0.05	500.00	400.00	410.00	550.00	460.00	560.00	54.00	480.00	
Bioavailable Manganese (dissolved)	µg/l	0.05	87.68	39.24	48.81	79.47	66.47	175.52	54.00	84.17	
Mercury (dissolved)	µg/l	0.05					< 0.05	< 0.05			
Molybdenum (dissolved)	µg/l	0.05	11.00	3.70	35.00	0.51	0.86	7.80	4000.00	11.00	
Nickel (dissolved)	µg/l	0.5	3.20	1.90	0.80	1.60	0.60	3.50	5.80	3.10	
Bioavailable Nickel (dissolved)	µg/l	0.5	0.82	0.41	0.18	0.39	0.18	1.51	5.80	0.80	
Selenium (dissolved)	µg/l	0.6					< 0.6	0.90			
Silicon (dissolved)	µg/l	50					2600.00	6900.00			
Tin (dissolved)	µg/l	0.2					< 0.20	< 0.20			
Titanium (dissolved)	µg/l	1					< 1.0	< 1.0			
Vanadium (dissolved)	µg/l	0.2					< 0.2	0.90			
Zinc (dissolved)	µg/l	0.5	16.00	8.30	10.00	3.20	3.10	3.20	6.70	17.00	
Bioavailable Zinc (dissolved)	µg/l	0.5	6.99	3.72	4.45	1.40	1.66	1.77	2.73	7.40	
Boron (dissolved)	µg/l	10	77.00	50.00	99.00	41.00	51.00	120.00	12000.00	84.00	
Calcium (dissolved)	mg/l	0.012	140.00	180.00	150.00	180.00	180.00	150.00	520.00	150.00	
Chromium (hexavalent)	µg/l	5					< 5.0	< 5.0			
Chromium (III)	µg/l	5					< 5.0	< 5.0			
Iron (dissolved)	mg/l	0.004	0.01	0.01	0.01	< 0.004	< 0.004	0.03	0.03	0.02	
Magnesium (dissolved)	mg/l	0.005	48.00	57.00	49.00	61.00	59.00	49.00	20.00	49.00	
Phosphorus (dissolved)	µg/l	20	4.00						190.00	3.90	
Potassium (dissolved)	mg/l	0.025		3.90	4.70	2.90	425.00	595.00			
Selenium (dissolved)	µg/l	0.6					3.50	4.30			
Sodium (dissolved)	mg/l	0.01	26.00	27.00	37.00	190.00	35.00	29.00	350.00	27.00	
Petroleum Hydrocarbons											
TPH (C10 C40)	µg/l	10				< 10					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704	144009	174088			
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW6D	
Date Sampled			23/11/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	
Strata Screened			Sandstone					17/04/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	µg/l	10					< 10	
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1					< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1					< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1					< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10					< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10					< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10					< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10					< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10					< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1					< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1					< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1					< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10					< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10					< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10					< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10					< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10					< 10	
VOCs								
Chloromethane	µg/l	3					< 3.0	
Chloroethane	µg/l	3					< 3.0	
Bromomethane	µg/l	3					< 3.0	
Vinyl Chloride	µg/l	3					< 3.0	
Trichlorofluoromethane	µg/l	3					< 3.0	
1,1Dichloroethane	µg/l	3					< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3					< 3.0	
Trans 1,2dichloroethylene	µg/l	3					< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3					< 3.0	
1,1Dichloroethane	µg/l	3					< 3.0	
2,2Dichloropropane	µg/l	3					< 3.0	
Chloroform	µg/l	3					< 3.0	
1,1,1Trichloroethane	µg/l	3					< 3.0	
1,2Dichloroethane	µg/l	3					< 3.0	
1,1Dichloropropene	µg/l	3					< 3.0	
Cis1,2dichloroethene	µg/l	3					< 3.0	
Benzene	µg/l	3					< 3.0	
Carbontetrachloride	µg/l	3					< 3.0	
1,2Dichloropropane	µg/l	3					< 3.0	
Trichloroethene	µg/l	3					< 3.0	
Dibromomethane	µg/l	3					< 3.0	
Bromodichloromethane	µg/l	3					< 3.0	
Cis1,3dichloropropene	µg/l	3					< 3.0	
Trans1,3dichloropropene	µg/l	3					< 3.0	
Toluene	µg/l	3					< 3.0	
1,1,2Trichloroethane	µg/l	3					< 3.0	
1,3Dichloropropane	µg/l	3					< 3.0	
Dibromochloromethane	µg/l	3					< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater				2503704		144009	174088				
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW5S	MW6D	MW6D		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	
Strata Screened			Sandstone								
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Tetrachloroethene (PCE)	µg/l	3					< 3.0	< 3.0			
1,2Dibromoethane	µg/l	3					< 3.0	< 3.0			
Chlorobenzene	µg/l	3					< 3.0	< 3.0			
1,1,1,2Tetrachloroethane	µg/l	3					< 3.0	< 3.0			
Ethylbenzene	µg/l	3					< 3.0	< 3.0			
p & mxylyene	µg/l	3					< 3.0	< 3.0			
Styrene	µg/l	3					< 3.0	< 3.0			
Bromoform	µg/l	3					< 3.0	< 3.0			
oxylyene	µg/l	3					< 3.0	< 3.0			
Isopropylbenzene	µg/l	3					< 3.0	< 3.0			
1,1,2,2Tetrachloroethane	µg/l	3					< 3.0	< 3.0			
Bromobenzene	µg/l	3					< 3.0	< 3.0			
nPropylbenzene	µg/l	3					< 3.0	< 3.0			
2Chlorotoluene	µg/l	3					< 3.0	< 3.0			
4Chlorotoluene	µg/l	3					< 3.0	< 3.0			
1,3,5Trimethylbenzene	µg/l	3					< 3.0	< 3.0			
tertButylbenzene	µg/l	3					< 3.0	< 3.0			
1,2,4Trimethylbenzene	µg/l	3					< 3.0	< 3.0			
secButylbenzene	µg/l	3					< 3.0	< 3.0			
1,3Dichlorobenzene	µg/l	3					< 3.0	< 3.0			
pIsopropyltoluene	µg/l	3					< 3.0	< 3.0			
1,4Dichlorobenzene	µg/l	3					< 3.0	< 3.0			
1,2Dichlorobenzene	µg/l	3					< 3.0	< 3.0			
Butylbenzene	µg/l	3					< 3.0	< 3.0			
1,2Dibromo3chloropropane	µg/l	3					< 3.0	< 3.0			
1,2,4Trichlorobenzene	µg/l	3					< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3					< 3.0	< 3.0			
1,2,3Trichlorobenzene	µg/l	3					< 3.0	< 3.0			
SVOCs											
Aniline	µg/l	0.05					< 0.05	< 0.05			
Phenol	µg/l	0.05					< 0.05	< 0.05			
2Chlorophenol	µg/l	0.05					< 0.05	< 0.05			
Bis(2chloroethyl)ether	µg/l	0.05					< 0.05	< 0.05			
1,3Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05			
1,2Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05			
1,4Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05			
Bis(2chloroisopropyl)ether	µg/l	0.05					< 0.05	< 0.05			
2Methylphenol	µg/l	0.05					< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05					< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05					< 0.05	< 0.05			
4Methylphenol	µg/l	0.05					< 0.05	< 0.05			
Isophorone	µg/l	0.05					< 0.05	< 0.05			
2Nitrophenol	µg/l	0.05					< 0.05	< 0.05			
2,4Dimethylphenol	µg/l	0.05					< 0.05	< 0.05			
Bis(2chloroethoxy)methane	µg/l	0.05					< 0.05	< 0.05			
1,2,4Trichlorobenzene	µg/l	0.05					< 0.05	< 0.05			
2,4Dichlorophenol	µg/l	0.05					< 0.05	< 0.05			
4Chloroaniline	µg/l	0.05					< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	0.05					< 0.05	< 0.05			
4Chloro3methylphenol	µg/l	0.05					< 0.05	< 0.05			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704	144009	174088				
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW6D		
Date Sampled			23/11/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024		
Strata Screened			Sandstone					29/06/2021	23/11/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection							
2,4,6Trichlorophenol	µg/l	0.05					< 0.05	< 0.05	
2,4,5Trichlorophenol	µg/l	0.05					< 0.05	< 0.05	
2Methylnaphthalene	µg/l	0.05					< 0.05	< 0.05	
2Chloronaphthalene	µg/l	0.05					< 0.05	< 0.05	
Dimethylphthalate	µg/l	0.05					< 0.05	< 0.05	
2,6Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05	
2,4Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05	
Dibenzofuran	µg/l	0.05					< 0.05	< 0.05	
4Chlorophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05	
Diethyl phthalate	µg/l	0.05					< 0.05	< 0.05	
4Nitroaniline	µg/l	0.05					< 0.05	< 0.05	
Azobenzene	µg/l	0.05					< 0.05	< 0.05	
Bromophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05	
Hexachlorobenzene	µg/l	0.05					< 0.05	< 0.05	
Carbazole	µg/l	0.05					< 0.05	< 0.05	
Dibutyl phthalate	µg/l	0.05					< 0.05	< 0.05	
Anthraquinone	µg/l	0.05					< 0.05	< 0.05	
Butyl benzyl phthalate	µg/l	0.05					< 0.05	< 0.05	
3+4Methylphenol	µg/l	0.1					< 0.10	< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090			2503693	
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D		MW7D	MW7D
Date Sampled			31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.50	8.90	8.40	8.50	7.10	7.20	7.30	7.10
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	2400.00	3100.00	3200.00	2800.00	960.00	870.00	720.00	1200.00
Sulphate as SO4	mg/l	0.045	1590.00	1840.00	2350.00	2410.00	111.00	299.00	141.00	284.00
Sulphide	µg/l	5			5.90	< 5.0				
Chloride	mg/l	0.15	33.00	78.00	120.00	110.00	39.00	29.00	36.00	66.00
Fluoride	µg/l	50			340.00	280.00				
Ammoniacal Nitrogen as N	µg/l	15	< 15	290.00	500.00	770.00	53.00	0.11	97.00	210.00
Total Organic Carbon (TOC)	mg/l	0.1	8.39	5.62			10.40	4.99	5.71	2.51
Dissolved Organic Carbon (DOC)	mg/l	0.1			0.89	0.72				
Nitrate as N	mg/l	0.01	4.13	2.74	2.90	2.39	0.63	0.01	0.36	0.41
Nitrite as N	µg/l	1	23.00	280.00	430.00	420.00			7.20	< 1.0
Alkalinity as CaCO3	mg/l	3	90.00	72.00	87.00	66.00	550.00	440.00	410.00	380.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	4.20	3.00			0.60	0.30	0.36	0.41
Total Suspended Solids (L004B)	mg/l	2		930.00	550.00	1300.00				
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16	< 0.16	< 0.16			18.30	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1			200.00	78.00				
Antimony (dissolved)	µg/l	0.4			4.00	7.10				
Arsenic (dissolved)	µg/l	0.15	12.40	26.50	30.40	41.40	0.35	0.68	0.71	1.32

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090			2503693	
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D		MW7D	MW7D
Date Sampled			31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	µg/l	0.06			15.00	45.00				
Cadmium (dissolved)	µg/l	0.02	0.21	0.99	1.20	1.20	0.12	0.02	0.25	< 0.02
Chromium (dissolved)	µg/l	0.2	340.00	170.00	35.00	14.00	5.30	4.40	< 0.2	< 0.2
Cobalt (dissolved)	µg/l	0.2			< 0.2	< 0.2				
Copper (dissolved)	µg/l	0.5	4.00	6.20	< 0.5	< 0.5	8.30	1.70	3.00	0.70
Bioavailable Copper (dissolved)	µg/l	0.5	0.23	1.05	0.42	0.46	0.47	0.09	0.16	0.04
Lead (dissolved)	µg/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.20	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.05	0.20	0.20	0.05	0.05	0.05	0.05
Manganese (dissolved)	µg/l	0.05	16.00	41.00	63.00	150.00	1200.00	960.00	570.00	1500.00
Bioavailable Manganese (dissolved)	µg/l	0.05	3.40	41.00	63.00	150.00	117.73	114.30	82.36	147.16
Mercury (dissolved)	µg/l	0.05			< 0.5	0.64				
Molybdenum (dissolved)	µg/l	0.05	850.00	4400.00	4900.00	5600.00	2.20	0.51	160.00	1.20
Nickel (dissolved)	µg/l	0.5	1.50	< 0.5	< 0.5		6.50	3.60	3.90	3.80
Bioavailable Nickel (dissolved)	µg/l	0.5	0.41	0.50	0.50		1.39	0.82	0.94	0.81
Selenium (dissolved)	µg/l	0.6			120.00	140.00				
Silicon (dissolved)	µg/l	50			690.00	1800.00				
Tin (dissolved)	µg/l	0.2			< 0.20	< 0.20				
Titanium (dissolved)	µg/l	1			< 1.0	< 1.0				
Vanadium (dissolved)	µg/l	0.2			220.00	180.00				
Zinc (dissolved)	µg/l	0.5	23.00	1.30	1.10	0.70	5.50	13.00	4.80	1.50
Bioavailable Zinc (dissolved)	µg/l	0.5	9.88	0.53	0.71	0.47	2.48	5.76	2.12	0.67
Boron (dissolved)	µg/l	10	13000.00	15000.00	10000.00	12000.00	180.00	84.00	360.00	65.00
Calcium (dissolved)	mg/l	0.012	580.00	510.00	520.00	570.00	150.00	180.00	140.00	180.00
Chromium (hexavalent)	µg/l	5								
Chromium (III)	µg/l	5								
Iron (dissolved)	mg/l	0.004	0.01	< 0.004	0.01	0.11	0.02	0.01	0.02	0.45
Magnesium (dissolved)	mg/l	0.005	3.60	9.80	18.00	19.00	62.00	84.00	63.00	90.00
Phosphorus (dissolved)	µg/l	20				1.10	4.10	4.20		
Potassium (dissolved)	mg/l	0.025	96.00	160.00	20.60	506.00			7.60	2.50
Selenium (dissolved)	µg/l	0.6			220.00	200.00				
Sodium (dissolved)	mg/l	0.01	95.00	300.00	470.00	530.00	41.00	27.00	50.00	68.00
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10		< 10						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090		2503693		
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D	MW7D	MW7D	
Date Sampled			31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Total Phenols										
Total Phenols (monohydric)	µg/l	10			< 10					
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1			< 1.0	< 1.0				
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1			< 1.0	< 1.0				
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1			< 1.0	< 1.0				
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10			< 10	< 10				
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10			< 10	< 10				
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10			< 10	< 10				
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10			< 10	< 10				
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10			< 10	< 10				
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1			< 1.0	< 1.0				
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1			< 1.0	< 1.0				
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1			< 1.0	< 1.0				
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10			< 10	< 10				
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10			< 10	< 10				
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10			< 10	< 10				
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10			< 10	< 10				
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10			< 10	< 10				
VOCs										
Chloromethane	µg/l	3			< 3.0	< 3.0				
Chloroethane	µg/l	3			< 3.0	< 3.0				
Bromomethane	µg/l	3			< 3.0	< 3.0				
Vinyl Chloride	µg/l	3			< 3.0	< 3.0				
Trichlorofluoromethane	µg/l	3			< 3.0	< 3.0				
1,1Dichloroethene	µg/l	3			< 3.0	< 3.0				
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3			< 3.0	< 3.0				
Trans 1,2dichloroethylene	µg/l	3			< 3.0	< 3.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3			< 3.0	< 3.0				
1,1Dichloroethane	µg/l	3			< 3.0	< 3.0				
2,2Dichloropropane	µg/l	3			< 3.0	< 3.0				
Chloroform	µg/l	3			< 3.0	< 3.0				
1,1,1Trichloroethane	µg/l	3			< 3.0	< 3.0				
1,2Dichloroethane	µg/l	3			< 3.0	< 3.0				
1,1Dichloropropene	µg/l	3			< 3.0	< 3.0				
Cis1,2dichloroethene	µg/l	3			< 3.0	< 3.0				
Benzene	µg/l	3			< 3.0	< 3.0				
Carbontetrachloride	µg/l	3			< 3.0	< 3.0				
1,2Dichloropropane	µg/l	3			< 3.0	< 3.0				
Trichloroethene	µg/l	3			< 3.0	< 3.0				
Dibromomethane	µg/l	3			< 3.0	< 3.0				
Bromodichloromethane	µg/l	3			< 3.0	< 3.0				
Cis1,3dichloropropene	µg/l	3			< 3.0	< 3.0				
Trans1,3dichloropropene	µg/l	3			< 3.0	< 3.0				
Toluene	µg/l	3			< 3.0	< 3.0				
1,1,2Trichloroethane	µg/l	3			< 3.0	< 3.0				
1,3Dichloropropane	µg/l	3			< 3.0	< 3.0				
Dibromochloromethane	µg/l	3			< 3.0	< 3.0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090		2503693	
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D	MW7D	MW7D
Date Sampled			31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	15/11/2022
Strata Screened			Drift			Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Tetrachloroethene (PCE)	µg/l	3			< 3.0	< 3.0			
1,2Dibromoethane	µg/l	3			< 3.0	< 3.0			
Chlorobenzene	µg/l	3			< 3.0	< 3.0			
1,1,1,2Tetrachloroethane	µg/l	3			< 3.0	< 3.0			
Ethylbenzene	µg/l	3			< 3.0	< 3.0			
p & mxylene	µg/l	3			< 3.0	< 3.0			
Styrene	µg/l	3			< 3.0	< 3.0			
Bromoform	µg/l	3			< 3.0	< 3.0			
oxylene	µg/l	3			< 3.0	< 3.0			
Isopropylbenzene	µg/l	3			< 3.0	< 3.0			
1,1,2,2Tetrachloroethane	µg/l	3			< 3.0	< 3.0			
Bromobenzene	µg/l	3			< 3.0	< 3.0			
nPropylbenzene	µg/l	3			< 3.0	< 3.0			
2Chlorotoluene	µg/l	3			< 3.0	< 3.0			
4Chlorotoluene	µg/l	3			< 3.0	< 3.0			
1,3,5Trimethylbenzene	µg/l	3			< 3.0	< 3.0			
tertButylbenzene	µg/l	3			< 3.0	< 3.0			
1,2,4Trimethylbenzene	µg/l	3			< 3.0	< 3.0			
secButylbenzene	µg/l	3			< 3.0	< 3.0			
1,3Dichlorobenzene	µg/l	3			< 3.0	< 3.0			
pIsopropyltoluene	µg/l	3			< 3.0	< 3.0			
1,4Dichlorobenzene	µg/l	3			< 3.0	< 3.0			
1,2Dichlorobenzene	µg/l	3			< 3.0	< 3.0			
Butylbenzene	µg/l	3			< 3.0	< 3.0			
1,2Dibromo3chloropropane	µg/l	3			< 3.0	< 3.0			
1,2,4Trichlorobenzene	µg/l	3			< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3			< 3.0	< 3.0			
1,2,3Trichlorobenzene	µg/l	3			< 3.0	< 3.0			
SVOCs									
Aniline	µg/l	0.05			< 0.05	< 0.05			
Phenol	µg/l	0.05			< 0.05	< 0.05			
2Chlorophenol	µg/l	0.05			< 0.05	< 0.05			
Bis(2chloroethyl)ether	µg/l	0.05			< 0.05	< 0.05			
1,3Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05			
1,2Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05			
1,4Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05			
Bis(2chloroisopropyl)ether	µg/l	0.05			< 0.05	< 0.05			
2Methylphenol	µg/l	0.05			< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05			< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05			< 0.05	< 0.05			
4Methylphenol	µg/l	0.05			< 0.05	< 0.05			
Isophorone	µg/l	0.05			< 0.05	< 0.05			
2Nitrophenol	µg/l	0.05			< 0.05	< 0.05			
2,4Dimethylphenol	µg/l	0.05			< 0.05	< 0.05			
Bis(2chloroethoxy)methane	µg/l	0.05			< 0.05	< 0.05			
1,2,4Trichlorobenzene	µg/l	0.05			< 0.05	< 0.05			
2,4Dichlorophenol	µg/l	0.05			< 0.05	< 0.05			
4Chloroaniline	µg/l	0.05			< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	0.05			< 0.05	< 0.05			
4Chloro3methylphenol	µg/l	0.05			< 0.05	< 0.05			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090		2503693		
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D	MW7D	MW7D	
Date Sampled			31/10/2023	25/01/2024	13/03/2024	17/04/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	µg/l	0.05			< 0.05	< 0.05				
2,4,5Trichlorophenol	µg/l	0.05			< 0.05	< 0.05				
2Methylnaphthalene	µg/l	0.05			< 0.05	< 0.05				
2Chloronaphthalene	µg/l	0.05			< 0.05	< 0.05				
Dimethylphthalate	µg/l	0.05			< 0.05	< 0.05				
2,6Dinitrotoluene	µg/l	0.05			< 0.05	< 0.05				
2,4Dinitrotoluene	µg/l	0.05			< 0.05	< 0.05				
Dibenzofuran	µg/l	0.05			< 0.05	< 0.05				
4Chlorophenyl phenyl ether	µg/l	0.05			< 0.05	< 0.05				
Diethyl phthalate	µg/l	0.05			< 0.05	< 0.05				
4Nitroaniline	µg/l	0.05			< 0.05	< 0.05				
Azobenzene	µg/l	0.05			< 0.05	< 0.05				
Bromophenyl phenyl ether	µg/l	0.05			< 0.05	< 0.05				
Hexachlorobenzene	µg/l	0.05			< 0.05	< 0.05				
Carbazole	µg/l	0.05			< 0.05	< 0.05				
Dibutyl phthalate	µg/l	0.05			< 0.05	< 0.05				
Anthraquinone	µg/l	0.05			< 0.05	< 0.05				
Butyl benzyl phthalate	µg/l	0.05			< 0.05	< 0.05				
3+4Methylphenol	µg/l	0.1			< 0.10	< 0.10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594	145594	2503700	2503700	145595	145595
Sample Reference			MW7DA	MW7DA	MW7S	MW7S	MW7S	MW7S
Date Sampled			25/01/2024	14/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
General Inorganics								
pH (L099)	pH Units	N/A	7.10	7.40	7.30	7.20	7.10	7.40
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	1200.00	1100.00	1200.00	880.00	930.00	1000.00
Sulphate as SO4	mg/l	0.045	269.00	249.00	355.00	281.00	310.00	206.00
Sulphide	µg/l	5		5.30				
Chloride	mg/l	0.15	70.00	68.00	31.00	29.00	29.00	20.00
Fluoride	µg/l	50		110.00				
Ammoniacal Nitrogen as N	µg/l	15	140.00	170.00	120.00	0.11	110.00	16.00
Total Organic Carbon (TOC)	mg/l	0.1	3.45		3.09	8.66	3.89	16.70
Dissolved Organic Carbon (DOC)	mg/l	0.1		2.25				
Nitrate as N	mg/l	0.01	< 0.01	0.05	0.28	0.02	0.03	0.73
Nitrite as N	µg/l	1	< 1.0	6.30			< 1.0	70.00
Alkalinity as CaCO3	mg/l	3	370.00	400.00	520.00	460.00	510.00	430.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	< 0.020		0.30	0.30	0.04	0.80
Total Suspended Solids (L004B)	mg/l	2	280.00	190.00				6.00
Speciated PAHs								
Naphthalene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH								
Total EPA16 PAHs	µg/l	0.16	< 0.16		0.16	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids								
Aluminium (dissolved)	µg/l	1		1.10				< 1.0
Antimony (dissolved)	µg/l	0.4		0.70				0.50
Arsenic (dissolved)	µg/l	0.15	1.10	0.92	0.45	0.63	3.04	1.14

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater				145594			2503700			145595
Sample Reference			MW7DA	MW7DA	MW7S	MW7S	MW7S	MW7S	MW7S	MW7S
Date Sampled			25/01/2024	14/03/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023	25/01/2024	14/03/2024
Strata Screened			Sandstone							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	µg/l	0.06		42.00						13.00
Cadmium (dissolved)	µg/l	0.02	< 0.02	< 0.02	0.04	0.02	0.02	0.02	< 0.02	< 0.02
Chromium (dissolved)	µg/l	0.2	< 0.2	< 0.2	5.40	5.20	0.80	< 0.2	< 0.2	< 0.2
Cobalt (dissolved)	µg/l	0.2		2.80						0.70
Copper (dissolved)	µg/l	0.5	< 0.5	0.60	8.00	3.90	2.60	3.60	0.90	1.10
Bioavailable Copper (dissolved)	µg/l	0.5	0.03	0.06	0.44	0.22	0.15	0.20	0.05	0.10
Lead (dissolved)	µg/l	0.2	< 0.2	< 0.2	0.20	0.20	< 0.2	< 0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.09	0.05	0.05	0.05	0.05	0.05	0.08
Manganese (dissolved)	µg/l	0.05	1900.00	1600.00	1100.00	870.00	110.00	250.00	1000.00	840.00
Bioavailable Manganese (dissolved)	µg/l	0.05	186.40	280.57	158.94	103.58	10.79	43.84	98.11	147.30
Mercury (dissolved)	µg/l	0.05		< 0.05						< 0.05
Molybdenum (dissolved)	µg/l	0.05	3.70	0.57	3.90	0.33	0.24	4.90	0.91	0.15
Nickel (dissolved)	µg/l	0.5	3.50	2.80	7.70	3.70	1.90	2.30	0.80	0.80
Bioavailable Nickel (dissolved)	µg/l	0.5	0.75	0.87	1.86	0.84	0.41	0.59	0.17	0.24
Selenium (dissolved)	µg/l	0.6		< 0.6						< 0.6
Silicon (dissolved)	µg/l	50		2700.00						2100.00
Tin (dissolved)	µg/l	0.2		< 0.20						< 0.20
Titanium (dissolved)	µg/l	1		< 1.0						< 1.0
Vanadium (dissolved)	µg/l	0.2		< 0.2						< 0.2
Zinc (dissolved)	µg/l	0.5	1.50	4.20	7.90	12.00	6.20	14.00	1.50	1.30
Bioavailable Zinc (dissolved)	µg/l	0.5	0.67	2.17	3.47	5.32	2.78	6.12	0.67	0.65
Boron (dissolved)	µg/l	10	78.00	56.00	200.00	84.00	82.00	130.00	80.00	82.00
Calcium (dissolved)	mg/l	0.012	160.00	150.00	200.00	170.00	210.00	140.00	200.00	210.00
Chromium (hexavalent)	µg/l	5		< 5.0						< 5.0
Chromium (III)	µg/l	5		< 5.0						< 5.0
Iron (dissolved)	mg/l	0.004	0.03	0.07	0.00	0.01	0.01	0.01	0.01	< 0.004
Magnesium (dissolved)	mg/l	0.005	88.00	80.00	92.00	80.00	96.00	65.00	95.00	97.00
Phosphorus (dissolved)	µg/l	20		476.00	6.00	4.30				446.00
Potassium (dissolved)	mg/l	0.025	2.00	2.50			4.60	8.80	4.10	4.60
Selenium (dissolved)	µg/l	0.6								
Sodium (dissolved)	mg/l	0.01	60.00	57.00	40.00	27.00	34.00	120.00	33.00	36.00
Petroleum Hydrocarbons										
TPH (C10 C40)	µg/l	10	< 10						< 10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594		2503700		145595	
Sample Reference			MW7DA	MW7S	MW7S	MW7S	MW7S	
Date Sampled			25/01/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023	
Strata Screened			Sandstone					14/03/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	µg/l	10	< 10				< 10	
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0				< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0				< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0				< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10				< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10				< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10				< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10				< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10				< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0				< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0				< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0				< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10				< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10				< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10				< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10				< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10				< 10	
VOCs								
Chloromethane	µg/l	3	< 3.0				< 3.0	
Chloroethane	µg/l	3	< 3.0				< 3.0	
Bromomethane	µg/l	3	< 3.0				< 3.0	
Vinyl Chloride	µg/l	3	< 3.0				< 3.0	
Trichlorofluoromethane	µg/l	3	< 3.0				< 3.0	
1,1Dichloroethane	µg/l	3	< 3.0				< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0				< 3.0	
Trans 1,2dichloroethylene	µg/l	3	< 3.0				< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0				< 3.0	
1,1Dichloroethane	µg/l	3	< 3.0				< 3.0	
2,2Dichloropropane	µg/l	3	< 3.0				< 3.0	
Chloroform	µg/l	3	< 3.0				< 3.0	
1,1,1Trichloroethane	µg/l	3	< 3.0				< 3.0	
1,2Dichloroethane	µg/l	3	< 3.0				< 3.0	
1,1Dichloropropene	µg/l	3	< 3.0				< 3.0	
Cis1,2dichloroethene	µg/l	3	< 3.0				< 3.0	
Benzene	µg/l	3	< 3.0				< 3.0	
Carbontetrachloride	µg/l	3	< 3.0				< 3.0	
1,2Dichloropropane	µg/l	3	< 3.0				< 3.0	
Trichloroethene	µg/l	3	< 3.0				< 3.0	
Dibromomethane	µg/l	3	< 3.0				< 3.0	
Bromodichloromethane	µg/l	3	< 3.0				< 3.0	
Cis1,3dichloropropene	µg/l	3	< 3.0				< 3.0	
Trans1,3dichloropropene	µg/l	3	< 3.0				< 3.0	
Toluene	µg/l	3	< 3.0				< 3.0	
1,1,2Trichloroethane	µg/l	3	< 3.0				< 3.0	
1,3Dichloropropane	µg/l	3	< 3.0				< 3.0	
Dibromochloromethane	µg/l	3	< 3.0				< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594		2503700		145595	
Sample Reference			MW7DA	MW7S	MW7S	MW7S	MW7S	
Date Sampled			25/01/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023	
Strata Screened			Sandstone					14/03/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Tetrachloroethene (PCE)	µg/l	3	< 3.0				< 3.0	
1,2Dibromoethane	µg/l	3	< 3.0				< 3.0	
Chlorobenzene	µg/l	3	< 3.0				< 3.0	
1,1,1,2Tetrachloroethane	µg/l	3	< 3.0				< 3.0	
Ethylbenzene	µg/l	3	< 3.0				< 3.0	
p & mxylyene	µg/l	3	< 3.0				< 3.0	
Styrene	µg/l	3	< 3.0				< 3.0	
Bromoform	µg/l	3	< 3.0				< 3.0	
oxylyene	µg/l	3	< 3.0				< 3.0	
Isopropylbenzene	µg/l	3	< 3.0				< 3.0	
1,1,2,2Tetrachloroethane	µg/l	3	< 3.0				< 3.0	
Bromobenzene	µg/l	3	< 3.0				< 3.0	
nPropylbenzene	µg/l	3	< 3.0				< 3.0	
2Chlorotoluene	µg/l	3	< 3.0				< 3.0	
4Chlorotoluene	µg/l	3	< 3.0				< 3.0	
1,3,5Trimethylbenzene	µg/l	3	< 3.0				< 3.0	
tertButylbenzene	µg/l	3	< 3.0				< 3.0	
1,2,4Trimethylbenzene	µg/l	3	< 3.0				< 3.0	
secButylbenzene	µg/l	3	< 3.0				< 3.0	
1,3Dichlorobenzene	µg/l	3	< 3.0				< 3.0	
pIsopropyltoluene	µg/l	3	< 3.0				< 3.0	
1,4Dichlorobenzene	µg/l	3	< 3.0				< 3.0	
1,2Dichlorobenzene	µg/l	3	< 3.0				< 3.0	
Butylbenzene	µg/l	3	< 3.0				< 3.0	
1,2Dibromo3chloropropane	µg/l	3	< 3.0				< 3.0	
1,2,4Trichlorobenzene	µg/l	3	< 3.0				< 3.0	
Hexachlorobutadiene	µg/l	3	< 3.0				< 3.0	
1,2,3Trichlorobenzene	µg/l	3	< 3.0				< 3.0	
SVOCs								
Aniline	µg/l	0.05	< 0.05				< 0.05	
Phenol	µg/l	0.05	< 0.05				< 0.05	
2Chlorophenol	µg/l	0.05	< 0.05				< 0.05	
Bis(2chloroethyl)ether	µg/l	0.05	< 0.05				< 0.05	
1,3Dichlorobenzene	µg/l	0.05	< 0.05				< 0.05	
1,2Dichlorobenzene	µg/l	0.05	< 0.05				< 0.05	
1,4Dichlorobenzene	µg/l	0.05	< 0.05				< 0.05	
Bis(2chloroisopropyl)ether	µg/l	0.05	< 0.05				< 0.05	
2Methylphenol	µg/l	0.05	< 0.05				< 0.05	
Hexachloroethane	µg/l	0.05	< 0.05				< 0.05	
Nitrobenzene	µg/l	0.05	< 0.05				< 0.05	
4Methylphenol	µg/l	0.05	< 0.05				< 0.05	
Isophorone	µg/l	0.05	< 0.05				< 0.05	
2Nitrophenol	µg/l	0.05	< 0.05				< 0.05	
2,4Dimethylphenol	µg/l	0.05	< 0.05				< 0.05	
Bis(2chloroethoxy)methane	µg/l	0.05	< 0.05				< 0.05	
1,2,4Trichlorobenzene	µg/l	0.05	< 0.05				< 0.05	
2,4Dichlorophenol	µg/l	0.05	< 0.05				< 0.05	
4Chloroaniline	µg/l	0.05	< 0.05				< 0.05	
Hexachlorobutadiene	µg/l	0.05	< 0.05				< 0.05	
4Chloro3methylphenol	µg/l	0.05	< 0.05				< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594		2503700		145595	
Sample Reference			MW7DA	MW7S	MW7S	MW7S	MW7S	
Date Sampled			25/01/2024	29/06/2021	23/11/2021	15/11/2022	01/11/2023	
Strata Screened			Sandstone					14/03/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection						
2,4,6Trichlorophenol	µg/l	0.05	< 0.05				< 0.05	
2,4,5Trichlorophenol	µg/l	0.05	< 0.05				< 0.05	
2Methylnaphthalene	µg/l	0.05	< 0.05				< 0.05	
2Chloronaphthalene	µg/l	0.05	< 0.05				< 0.05	
Dimethylphthalate	µg/l	0.05	< 0.05				< 0.05	
2,6Dinitrotoluene	µg/l	0.05	< 0.05				< 0.05	
2,4Dinitrotoluene	µg/l	0.05	< 0.05				< 0.05	
Dibenzofuran	µg/l	0.05	< 0.05				< 0.05	
4Chlorophenyl phenyl ether	µg/l	0.05	< 0.05				< 0.05	
Diethyl phthalate	µg/l	0.05	< 0.05				< 0.05	
4Nitroaniline	µg/l	0.05	< 0.05				< 0.05	
Azobenzene	µg/l	0.05	< 0.05				< 0.05	
Bromophenyl phenyl ether	µg/l	0.05	< 0.05				< 0.05	
Hexachlorobenzene	µg/l	0.05	< 0.05				< 0.05	
Carbazole	µg/l	0.05	< 0.05				< 0.05	
Dibutyl phthalate	µg/l	0.05	< 0.05				< 0.05	
Anthraquinone	µg/l	0.05	< 0.05				< 0.05	
Butyl benzyl phthalate	µg/l	0.05	< 0.05				< 0.05	
3+4Methylphenol	µg/l	0.1	< 0.10				< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171191	171191	171192	174086	
Sample Reference			RBH113	RBH113	RBH116	RBH119	RBH125	
Date Sampled			27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	
Strata Screened			Drift		Drift		Drift	
Analytical Parameter (Water Analysis)	Units	Limit of detection						
General Inorganics								
pH (L099)	pH Units	N/A	7.10	7.60	7.80	8.20	7.60	8.00
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	1800.00	2400.00	5400.00	6100.00	1700.00	1500.00
Sulphate as SO4	mg/l	0.045	846.00	818.00	2160.00	2630.00	452.00	425.00
Sulphide	µg/l	5	6.50	< 5.0	6.00	< 5.0	7.90	< 5.0
Chloride	mg/l	0.15	120.00	210.00	170.00	170.00	120.00	110.00
Fluoride	µg/l	50	180.00	160.00	400.00	350.00	180.00	130.00
Ammoniacal Nitrogen as N	µg/l	15	64.00	71.00	130.00	380.00	23.00	130.00
Total Organic Carbon (TOC)	mg/l	0.1						
Dissolved Organic Carbon (DOC)	mg/l	0.1	3.29	2.72	14.10	14.00	3.55	3.00
Nitrate as N	mg/l	0.01	0.06	0.02	1.75	1.36	0.02	0.06
Nitrite as N	µg/l	1	18.00	< 1.0	1200.00	1300.00	23.00	17.00
Alkalinity as CaCO3	mg/l	3	300.00	510.00	380.00	370.00	450.00	420.00
Total Oxidised Nitrogen (TON)	mg/l	0.02						
Total Suspended Solids (L004B)	mg/l	2	550.00	170.00	220.00	81.00	96.00	120.00
Speciated PAHs								
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA16 PAHs	µg/l	0.16						
Heavy Metals / Metalloids								
Aluminium (dissolved)	µg/l	1	23.00	1.80	9.10	3.00	21.00	< 1.0
Antimony (dissolved)	µg/l	0.4	< 0.4	0.60	6.20	6.20	0.40	0.70
Arsenic (dissolved)	µg/l	0.15	2.90	2.99	22.70	33.80	9.67	11.90

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171190	171191	171191	171192	171192	174086	
Sample Reference			RBH113	RBH113	RBH116	RBH116	RBH119	RBH119	RBH125	
Date Sampled			27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	
Strata Screened			Drift		Drift		Drift		Drift	
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06	32.00	24.00	32.00	32.00	33.00	29.00	35.00	34.00
Cadmium (dissolved)	ug/l	0.02	< 0.02	< 0.02	1.30	2.50	0.10	0.05	0.20	0.16
Chromium (dissolved)	ug/l	0.2	< 0.2	< 0.2	0.50	0.50	< 0.2	< 0.2	0.30	< 0.2
Cobalt (dissolved)	ug/l	0.2	8.00	6.20	1.40	1.30	4.90	5.00	8.00	6.00
Copper (dissolved)	ug/l	0.5	2.00	1.50	6.90	4.60	4.20	0.50	4.30	2.10
Bioavailable Copper (dissolved)	ug/l	0.5	0.15	0.14	0.19	1.36	0.29	0.06	0.50	0.32
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.06	0.07	0.01	0.01	0.06	0.07	0.09	0.12
Manganese (dissolved)	ug/l	0.05	3600.00	2500.00	900.00	880.00	2600.00	2200.00	1200.00	1100.00
Bioavailable Manganese (dissolved)	ug/l	0.05	353.18	645.67	342.34	726.11	671.49	1232.51	309.92	234.09
Mercury (dissolved)	ug/l	0.05	< 0.05	< 0.05	0.32	0.54	< 0.05	< 0.05	0.07	0.07
Molybdenum (dissolved)	ug/l	0.05	3.70	1.30	7600.00	8700.00	210.00	200.00	500.00	580.00
Nickel (dissolved)	ug/l	0.5	6.70	6.60	4.20	4.10	3.60	2.90	11.00	8.20
Bioavailable Nickel (dissolved)	ug/l	0.5	1.53	2.28	0.67	0.92	1.13	1.40	4.02	2.97
Selenium (dissolved)	ug/l	0.6	2.60	5.50	210.00	210.00	7.70		63.00	73.00
Silicon (dissolved)	ug/l	50	2500.00	7900.00	1300.00	3600.00	3100.00	8100.00	2400.00	6300.00
Tin (dissolved)	ug/l	0.2	< 0.20	< 0.20	< 0.20	0.34	< 0.20	0.21	< 0.20	< 0.20
Titanium (dissolved)	ug/l	1	< 1.0	< 1.0	1.30	1.20	< 1.0	1.30	< 1.0	< 1.0
Vanadium (dissolved)	ug/l	0.2	< 0.2	< 0.2	49.00	87.00	0.40	< 0.2	24.00	27.00
Zinc (dissolved)	ug/l	0.5	2.40	4.40	14.00	14.00	20.00	4.30	9.50	9.40
Bioavailable Zinc (dissolved)	ug/l	0.5	1.14	2.15	2.65	2.48	8.97	2.01	4.88	5.12
Boron (dissolved)	ug/l	10	1500.00	620.00	7400.00	8700.00	370.00	230.00	13000.00	16000.00
Calcium (dissolved)	mg/l	0.012	180.00	220.00	280.00	260.00	190.00	190.00	640.00	750.00
Chromium (hexavalent)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	0.03	0.01	0.03	< 0.004	0.48	0.11	0.01	0.01
Magnesium (dissolved)	mg/l	0.005	150.00	220.00	60.00	58.00	80.00	81.00	220.00	240.00
Phosphorus (dissolved)	ug/l	20	< 20.0	< 20.0	< 20.0	394.00	< 20.0	29.20	29.30	
Potassium (dissolved)	mg/l	0.025	3.20	1.30	220.00	250.00	9.70	6.20	93.00	501.00
Selenium (dissolved)	ug/l	0.6	2.60		210.00		7.70	< 4.0	63.00	110.00
Sodium (dissolved)	mg/l	0.01	170.00	200.00	890.00	1200.00	140.00	140.00	60.00	65.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10								

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171191	171191	171192	174086
Sample Reference			RBH113	RBH116	RBH116	RBH119	RBH125
Date Sampled			27/03/2024	15/04/2024	15/04/2024	27/03/2024	27/03/2024
Strata Screened			Drift	Drift	Drift	Drift	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection					
Total Phenols							
Total Phenols (monohydric)	µg/l	10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons							
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10	< 10	40.00	< 10	< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	270.00	< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10	< 10	< 10	310.00	< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
VOCs							
Chloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171190	171191	171191	171192	171192	174086	
Sample Reference			RBH113	RBH113	RBH116	RBH116	RBH119	RBH119	RBH125	
Date Sampled			27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	
Strata Screened			Drift		Drift		Drift		Drift	
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Tetrachloroethene (PCE)	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromoethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2Tetrachloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & mxylyene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
oxylyene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2Tetrachloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
nPropylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2Chlorotoluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4Chlorotoluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5Trimethylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tertButylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trimethylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
secButylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichlorobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
pIsopropyltoluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4Dichlorobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichlorobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromo3chloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trichlorobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3Trichlorobenzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs										
Aniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Nitrophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dimethylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloro3methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171191	171191	171192	174086
Sample Reference			RBH113	RBH116	RBH116	RBH119	RBH125
Date Sampled			27/03/2024	27/03/2024	15/04/2024	27/03/2024	27/03/2024
Strata Screened			Drift	Drift	Drift	Drift	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection					
2,4,6Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Nitroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Azobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbazole	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
3+4Methylphenol	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	17/04/2024	17/04/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.30	6.60	7.50	6.60	7.60	7.40	7.00	8.20
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	960.00	5700.00	2500.00	2000.00	3900.00	2500.00	900.00	2500.00
Sulphate as SO4	mg/l	0.045	182.00	2950.00	1620.00	798.00	2370.00	1940.00	248.00	1190.00
Sulphide	µg/l	5	6.90	6.80	14.00	7.10	< 5.0	5.10	22.00	7.70
Chloride	mg/l	0.15	49.00	260.00	52.00	180.00	26.00	25.00	53.00	70.00
Fluoride	µg/l	50	110.00	280.00	300.00	230.00	380.00	270.00	120.00	1100.00
Ammoniacal Nitrogen as N	µg/l	15	240.00	2500.00	120.00	850.00	2300.00	1500.00	270.00	4500.00
Total Organic Carbon (TOC)	mg/l	0.1								
Dissolved Organic Carbon (DOC)	mg/l	0.1	2.62	5.96	3.19	11.60	5.37	2.81	1.98	7.76
Nitrate as N	mg/l	0.01	0.05	0.02	0.02	0.05	0.05	0.28	0.08	0.05
Nitrite as N	µg/l	1	16.00	16.00	1.60	4.50	4.90	5.30	< 1.0	8.60
Alkalinity as CaCO3	mg/l	3	320.00	190.00	210.00	160.00	970.00	990.00	320.00	240.00
Total Oxidised Nitrogen (TON)	mg/l	0.02								
Total Suspended Solids (L004B)	mg/l	2	140.00	450.00	300.00	130.00	360.00	710.00	140.00	380.00
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	2.60
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.10
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.75
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.23
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.25
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.17
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16								
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1	14.00	3.20	18.00	2.30	4.40	13.00	3.70	64.00
Antimony (dissolved)	µg/l	0.4	< 0.4	1.30	2.70	< 0.4	0.90	11.00	0.50	0.80
Arsenic (dissolved)	µg/l	0.15	0.90	1.58	134.00	0.80	86.10	39.20	2.18	399.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	17/04/2024	17/04/2024	27/03/2024
Date Sampled			Drift	Drift	PFA	Drift	Drift		Drift	PFA
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06	59.00	24.00	34.00	140.00	43.00	56.00	25.00	27.00
Cadmium (dissolved)	ug/l	0.02	< 0.02	0.72	0.12	0.04	0.27	0.67	< 0.02	0.13
Chromium (dissolved)	ug/l	0.2	< 0.2	0.40	< 0.2	0.30	< 0.2	< 0.2	< 0.2	0.40
Cobalt (dissolved)	ug/l	0.2	4.50	6.70	0.40	12.00	4.60	11.00	4.40	0.30
Copper (dissolved)	ug/l	0.5	2.40	1.80	0.90	2.50	2.60	1.10	1.10	3.40
Bioavailable Copper (dissolved)	ug/l	0.5	0.22	0.10	0.07	0.09	0.11	0.09	0.15	0.17
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.90
Bioavailable Lead (dissolved)	ug/l	0.2	0.08	0.03	0.06	0.02	0.04	0.07	0.10	0.12
Manganese (dissolved)	ug/l	0.05	1400.00	2900.00	610.00	970.00	2600.00	1900.00	3500.00	210.00
Bioavailable Manganese (dissolved)	ug/l	0.05	202.29	108.07	129.81	36.15	671.49	333.17	282.93	173.28
Mercury (dissolved)	ug/l	0.05	< 0.05	< 0.05	0.14	< 0.05	0.09	0.07	< 0.05	0.14
Molybdenum (dissolved)	ug/l	0.05	28.00	2000.00	420.00	130.00	700.00	1900.00	8.20	89.00
Nickel (dissolved)	ug/l	0.5	3.30	4.60	2.30	6.10	3.70	12.00	2.70	1.30
Bioavailable Nickel (dissolved)	ug/l	0.5	0.92	0.69	0.70	0.72	0.96	3.52	0.65	0.46
Selenium (dissolved)	ug/l	0.6	1.50		5.90		2.20	9.10	1.00	5.30
Silicon (dissolved)	ug/l	50	3000.00	2300.00	1800.00	2700.00	3000.00	8100.00	9100.00	2000.00
Tin (dissolved)	ug/l	0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.28
Titanium (dissolved)	ug/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (dissolved)	ug/l	0.2	< 0.2	0.30	6.60	< 0.2	1.40	3.60	0.20	2.40
Zinc (dissolved)	ug/l	0.5	17.00	10.00	3.60	4.30	9.00	7.50	3.50	12.00
Bioavailable Zinc (dissolved)	ug/l	0.5	8.68	4.46	1.68	1.61	3.40	3.65	1.87	3.35
Boron (dissolved)	ug/l	10	130.00	5900.00	7000.00	850.00	17000.00	10000.00	95.00	14000.00
Calcium (dissolved)	mg/l	0.012	120.00	370.00	620.00	210.00	600.00	760.00	130.00	100.00
Chromium (hexavalent)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	0.05	0.03	0.03	0.09	0.70	0.20	0.13	0.03
Magnesium (dissolved)	mg/l	0.005	52.00	110.00	78.00	68.00	490.00	530.00	64.00	90.00
Phosphorus (dissolved)	ug/l	20	< 20.0	< 20.0	29.20	< 20.0	95.90			176.00
Potassium (dissolved)	mg/l	0.025	5.00	220.00	79.00	22.00	120.00	499.00	494.00	240.00
Selenium (dissolved)	ug/l	0.6	1.50		5.90		2.20	120.00	3.90	5.30
Sodium (dissolved)	mg/l	0.01	58.00	1100.00	120.00	190.00	70.00	69.00	64.00	230.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10								

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	17/04/2024	17/04/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Total Phenols										
Total Phenols (monohydric)	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10		< 10
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	34.00	< 10	< 10	< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	17.00	< 10	< 10	< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	300.00	2200.00	< 10	< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	350.00	2200.00	< 10	< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	22.00
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	60.00
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	82.00
VOCs										
Chloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	17/04/2024	17/04/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Tetrachloroethene (PCE)	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromoethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & mxylyene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
oxylyene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
nPropylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2Chlorotoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4Chlorotoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5Trimethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tertButylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trimethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
secButylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
pIsopropyltoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromo3chloropropane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3Trichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs										
Aniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethyl)ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroisopropyl)ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Nitrophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dimethylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethoxy)methane	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4Trichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloroaniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloro3methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	17/04/2024	17/04/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.73
4Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Nitroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Azobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbazole	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.31
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
3+4Methylphenol	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
General Inorganics				
pH (L099)	pH Units	N/A	8.30	8.80
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	2700.00	12000.00
Sulphate as SO4	mg/l	0.045	1170.00	6930.00
Sulphide	µg/l	5	5.40	6.20
Chloride	mg/l	0.15	67.00	480.00
Fluoride	µg/l	50	1200.00	960.00
Ammoniacal Nitrogen as N	µg/l	15	4900.00	3700.00
Total Organic Carbon (TOC)	mg/l	0.1		
Dissolved Organic Carbon (DOC)	mg/l	0.1	4.42	3.10
Nitrate as N	mg/l	0.01	0.06	0.02
Nitrite as N	µg/l	1	< 1.0	12.00
Alkalinity as CaCO3	mg/l	3	240.00	200.00
Total Oxidised Nitrogen (TON)	mg/l	0.02		
Total Suspended Solids (L004B)	mg/l	2	810.00	180.00
Speciated PAHs				
Naphthalene	µg/l	0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	3.90	< 0.01
Fluorene	µg/l	0.01	1.60	< 0.01
Phenanthrene	µg/l	0.01	0.71	< 0.01
Anthracene	µg/l	0.01	0.20	< 0.01
Fluoranthene	µg/l	0.01	0.33	< 0.01
Pyrene	µg/l	0.01	0.25	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01
Total PAH				
Total EPA16 PAHs	µg/l	0.16		
Heavy Metals / Metalloids				
Aluminium (dissolved)	µg/l	1	14.00	160.00
Antimony (dissolved)	µg/l	0.4	2.70	17.00
Arsenic (dissolved)	µg/l	0.15	349.00	28.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
Barium (dissolved)	µg/l	0.06	24.00	24.00
Cadmium (dissolved)	µg/l	0.02	0.03	4.30
Chromium (dissolved)	µg/l	0.2	< 0.2	< 0.2
Cobalt (dissolved)	µg/l	0.2	0.20	0.30
Copper (dissolved)	µg/l	0.5	< 0.5	5.20
Bioavailable Copper (dissolved)	µg/l	0.5	0.06	1.33
Lead (dissolved)	µg/l	0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.2	0.05	0.06
Manganese (dissolved)	µg/l	0.05	130.00	220.00
Bioavailable Manganese (dissolved)	µg/l	0.05	130.00	220.00
Mercury (dissolved)	µg/l	0.05	0.17	3.16
Molybdenum (dissolved)	µg/l	0.05	130.00	27000.00
Nickel (dissolved)	µg/l	0.5	2.10	2.00
Bioavailable Nickel (dissolved)	µg/l	0.5	1.23	2.00
Selenium (dissolved)	µg/l	0.6		
Silicon (dissolved)	µg/l	50	4800.00	660.00
Tin (dissolved)	µg/l	0.2	0.31	< 0.20
Titanium (dissolved)	µg/l	1	1.20	< 1.0
Vanadium (dissolved)	µg/l	0.2	7.90	65.00
Zinc (dissolved)	µg/l	0.5	1.20	9.20
Bioavailable Zinc (dissolved)	µg/l	0.5	0.48	4.25
Boron (dissolved)	µg/l	10	16000.00	20000.00
Calcium (dissolved)	mg/l	0.012	110.00	380.00
Chromium (hexavalent)	µg/l	5	< 5.0	< 5.0
Chromium (III)	µg/l	5	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	< 0.004	0.03
Magnesium (dissolved)	mg/l	0.005	95.00	63.00
Phosphorus (dissolved)	µg/l	20	496.00	< 20.0
Potassium (dissolved)	mg/l	0.025	280.00	930.00
Selenium (dissolved)	µg/l	0.6	< 4.0	
Sodium (dissolved)	mg/l	0.01	290.00	2000.00
Petroleum Hydrocarbons				
TPH (C10 C40)	µg/l	10		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
Total Phenols				
Total Phenols (monohydric)	µg/l	10	< 10	< 10
Petroleum Hydrocarbons				
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0	< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0	< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0	< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	22.00	< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	24.00	< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	43.00	< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	50.00	< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	140.00	< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0	< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0	< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0	< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	10.00	< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	40.00	< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	24.00	< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10	< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	74.00	< 10
VOCs				
Chloromethane	µg/l	3	< 3.0	< 3.0
Chloroethane	µg/l	3	< 3.0	< 3.0
Bromomethane	µg/l	3	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0	< 3.0
1,1Dichloroethene	µg/l	3	< 3.0	< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0	< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0
2,2Dichloropropane	µg/l	3	< 3.0	< 3.0
Chloroform	µg/l	3	< 3.0	< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0	< 3.0
1,2Dichloroethane	µg/l	3	< 3.0	< 3.0
1,1Dichloropropene	µg/l	3	< 3.0	< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0	< 3.0
Benzene	µg/l	3	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	< 3.0	< 3.0
1,2Dichloropropane	µg/l	3	< 3.0	< 3.0
Trichloroethene	µg/l	3	< 3.0	< 3.0
Dibromomethane	µg/l	3	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	< 3.0	< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0	< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0	< 3.0
Toluene	µg/l	3	< 3.0	< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0	< 3.0
1,3Dichloropropane	µg/l	3	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
Tetrachloroethene (PCE)	µg/l	3	< 3.0	< 3.0
1,2Dibromoethane	µg/l	3	< 3.0	< 3.0
Chlorobenzene	µg/l	3	< 3.0	< 3.0
1,1,1,2Tetrachloroethane	µg/l	3	< 3.0	< 3.0
Ethylbenzene	µg/l	3	< 3.0	< 3.0
p & mxylylene	µg/l	3	< 3.0	< 3.0
Styrene	µg/l	3	< 3.0	< 3.0
Bromoform	µg/l	3	< 3.0	< 3.0
oxylyene	µg/l	3	< 3.0	< 3.0
Isopropylbenzene	µg/l	3	< 3.0	< 3.0
1,1,2,2Tetrachloroethane	µg/l	3	< 3.0	< 3.0
Bromobenzene	µg/l	3	< 3.0	< 3.0
nPropylbenzene	µg/l	3	< 3.0	< 3.0
2Chlorotoluene	µg/l	3	< 3.0	< 3.0
4Chlorotoluene	µg/l	3	< 3.0	< 3.0
1,3,5Trimethylbenzene	µg/l	3	< 3.0	< 3.0
tertButylbenzene	µg/l	3	< 3.0	< 3.0
1,2,4Trimethylbenzene	µg/l	3	< 3.0	< 3.0
secButylbenzene	µg/l	3	< 3.0	< 3.0
1,3Dichlorobenzene	µg/l	3	< 3.0	< 3.0
pIsopropyltoluene	µg/l	3	< 3.0	< 3.0
1,4Dichlorobenzene	µg/l	3	< 3.0	< 3.0
1,2Dichlorobenzene	µg/l	3	< 3.0	< 3.0
Butylbenzene	µg/l	3	< 3.0	< 3.0
1,2Dibromo3chloropropane	µg/l	3	< 3.0	< 3.0
1,2,4Trichlorobenzene	µg/l	3	< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3	< 3.0	< 3.0
1,2,3Trichlorobenzene	µg/l	3	< 3.0	< 3.0
SVOCs				
Aniline	µg/l	0.05	< 0.05	< 0.05
Phenol	µg/l	0.05	< 0.05	< 0.05
2Chlorophenol	µg/l	0.05	< 0.05	< 0.05
Bis(2chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05
1,3Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05
1,2Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05
1,4Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05
Bis(2chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05
2Methylphenol	µg/l	0.05	< 0.05	< 0.05
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05
4Methylphenol	µg/l	0.05	< 0.05	< 0.05
Isophorone	µg/l	0.05	< 0.05	< 0.05
2Nitrophenol	µg/l	0.05	< 0.05	< 0.05
2,4Dimethylphenol	µg/l	0.05	0.27	< 0.05
Bis(2chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05
1,2,4Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05
2,4Dichlorophenol	µg/l	0.05	< 0.05	< 0.05
4Chloroaniline	µg/l	0.05	< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05
4Chloro3methylphenol	µg/l	0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
2,4,6Trichlorophenol	µg/l	0.05	< 0.05	< 0.05
2,4,5Trichlorophenol	µg/l	0.05	< 0.05	< 0.05
2Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05
2Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05
2,6Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05
2,4Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	0.91	< 0.05
4Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05
4Nitroaniline	µg/l	0.05	< 0.05	< 0.05
Azobenzene	µg/l	0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05
Carbazole	µg/l	0.05	0.26	< 0.05
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	0.22	< 0.05
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05
3+4Methylphenol	µg/l	0.1	< 0.10	< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699		
									DP1	DP1	DP1	DP1
									26/05/2021	15/11/2022	31/10/2023	25/01/2024
General Inorganics												
pH (L099)	pH Units	N/A	≥6 & ≤9	≥6,≤9		7.40	8.20		7.70	7.60	7.40	7.70
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00				400.00	3600.00					
Sulphate as SO4	mg/l	0.05	400.00		400.00	43.30	1890.00	20				
Sulphide						5.10	12.00					
Chloride	mg/l	0.15	250.00		250.00	19.00	180.00	0				
Fluoride						260.00	540.00					
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]		600.00	17.00	850.00	3				
Ammoniacal Nitrogen as NH3	µg/l	15.00				20.00	730.00					
Total Organic Carbon (TOC)	mg/l	0.10										
Dissolved Organic Carbon (DOC)						4.96	21.60					
Nitrate as N	mg/l	0.01				0.02	12.00					
Nitrite as N	µg/l	1.00				1.10	260.00					
Alkalinity as CaCO3	mg/l	3.00				170.00	400.00					
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00		50.00	50.00	2.00	490.00	17	55.00	300.00	10.00	490.00
Speciated PAHs												
Naphthalene	µg/l	0.01	2.00		2.00	<MRL	<MRL	0				
Acenaphthylene	µg/l	0.01				<MRL	<MRL					
Acenaphthene	µg/l	0.01				<MRL	<MRL					
Fluorene	µg/l	0.01				<MRL	<MRL					
Phenanthrene	µg/l	0.01				<MRL	<MRL					
Anthracene	µg/l	0.01	0.10		0.10	<MRL	<MRL	0				
Fluoranthene	µg/l	0.01	0.01		0.01	<MRL	<MRL	0				
Pyrene	µg/l	0.01				<MRL	<MRL					
Benzo(a)anthracene	µg/l	0.01				<MRL	<MRL					
Chrysene	µg/l	0.01				<MRL	<MRL					
Benzo(b)fluoranthene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Benzo(k)fluoranthene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Benzo(a)pyrene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Dibenz(a,h)anthracene	µg/l	0.01				<MRL	<MRL					
Benzo(ghi)perylene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16				<MRL	<MRL					
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00				1.10	19.00					
Antimony (dissolved)	µg/l	0.40				0.60	5.00					
Arsenic (dissolved)	µg/l	0.15	50.00		50.00	0.45	20.00	0				
Barium (dissolved)	µg/l	0.06				14.00	56.00					
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 4.7 (CrIII))		0.25	<MRL	0.61	4				
Chromium (dissolved)	µg/l	0.20			4.70	0.30	1.80	0				
Cobalt (dissolved)	µg/l	0.20				0.20	0.80					
Copper (dissolved)	µg/l	0.50				1.00	11.00					
Bioavailable Copper (dissolved)	µg/l	0.50	1		1.00	0.03	1.16	1				
Lead (dissolved)	µg/l	0.20				<MRL	0.30					
Bioavailable Lead (dissolved)	µg/l	0.20	1.2		1.20	<MRL	0.02	0				
Manganese (dissolved)	µg/l	0.05				0.69	1500.00					
Bioavailable Manganese (dissolved)	µg/l	0.05	123 0.07 (Inland Surface)		123.00	1.80	673.10	15				
Mercury (dissolved)	µg/l	0.05			0.07	<MRL	0.21	3				
Molybdenum (dissolved)	µg/l	0.05				0.48	2800.00					
Nickel (dissolved)	µg/l	0.50				1.10	17.00					
Bioavailable Nickel (dissolved)	µg/l	0.50	4		4.00	0.22	5.88	1				
Selenium (dissolved)	µg/l	0.60				0.60	30.00					
Silicon (dissolved)	µg/l	50.00				1300.00	9300.00					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699		
									DP1	DP1	DP1	DP1
									26/05/2021	15/11/2022	31/10/2023	25/01/2024
Tin (dissolved)	µg/l	0.20	25.00		25.00	<MRL	<MRL	0				
Titanium (dissolved)	µg/l	1.00				<MRL	<MRL					
Vanadium (dissolved)	µg/l	0.20	20.00		20.00	0.20	21.00	1				
Zinc (dissolved)	µg/l	0.50				1.70	14.00					
Bioavailable Zinc (dissolved)	µg/l	0.50	10.9		10.90	0.32	4.59	0				
Boron (dissolved)	µg/l	10.00	2000.00		2000.00	28.00	14000.00	17				
Calcium (dissolved)	mg/l	0.01				63.00	350.00					
Chromium (hexavalent)	µg/l	5.00	3.40		3.40	<MRL	<MRL	0				
Chromium (III)	µg/l	5.00	4.70		4.70	<MRL	<MRL	0				
Iron (dissolved)	mg/l	0.00	1.00		1.00	<MRL	0.62	0				
Magnesium (dissolved)	mg/l	0.01				8.90	85.00					
Phosphorus (dissolved)	µg/l	20.00				40.30	939.00					
Potassium (dissolved)	mg/l	0.03				2.30	230.00					
Selenium (dissolved)	µg/l	0.60				<MRL	<MRL					
Sodium (dissolved)	mg/l	0.01				21.00	530.00					
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00	10000.00		10000.00	<MRL	<MRL	0	< 10	< 10	< 10	< 10
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	7.70		7.70	<MRL	14.00	1				
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00				<MRL	<MRL					
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00				<MRL	<MRL					
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00				<MRL	<MRL					
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00				<MRL	<MRL					
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00				<MRL	<MRL					
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00				<MRL	<MRL					
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
VOCs												
Chloromethane	µg/l	3.00				<MRL	<MRL					
Chloroethane	µg/l	3.00				<MRL	<MRL					
Bromomethane	µg/l	3.00				<MRL	<MRL					
Vinyl Chloride	µg/l	3.00				<MRL	<MRL					
Trichlorofluoromethane	µg/l	3.00				<MRL	<MRL					
1,1-Dichloroethene	µg/l	3.00				<MRL	<MRL					
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00				<MRL	<MRL					
Trans 1,2-dichloroethylene	µg/l	3.00				<MRL	<MRL					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00				<MRL	<MRL					
1,1-Dichloroethane	µg/l	3.00				<MRL	<MRL					
2,2-Dichloropropane	µg/l	3.00				<MRL	<MRL					
Chloroform	µg/l	3.00				<MRL	<MRL					
1,1,1-Trichloroethane	µg/l	3.00				<MRL	<MRL					
1,2-Dichloroethane	µg/l	3.00				<MRL	<MRL					
1,1-Dichloropropene	µg/l	3.00				<MRL	<MRL					
Cis-1,2-dichloroethene	µg/l	3.00				<MRL	<MRL					
Benzene	µg/l	3.00				<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699		
									DP1	DP1	DP1	DP1
									26/05/2021	15/11/2022	31/10/2023	25/01/2024
Carbontetrachloride	µg/l	3.00				<MRL	<MRL					
1,2-Dichloropropane	µg/l	3.00				<MRL	<MRL					
Trichloroethene	µg/l	3.00				<MRL	<MRL					
Dibromomethane	µg/l	3.00				<MRL	<MRL					
Bromodichloromethane	µg/l	3.00				<MRL	<MRL					
Cis-1,3-dichloropropene	µg/l	3.00				<MRL	<MRL					
Trans-1,3-dichloropropene	µg/l	3.00				<MRL	<MRL					
Toluene	µg/l	3.00				<MRL	<MRL					
1,1,2-Trichloroethane	µg/l	3.00				<MRL	<MRL					
1,3-Dichloropropane	µg/l	3.00				<MRL	<MRL					
Dibromochloromethane	µg/l	3.00				<MRL	<MRL					
Tetrachloroethene	µg/l	3.00				<MRL	<MRL					
1,2-Dibromoethane	µg/l	3.00				<MRL	<MRL					
Chlorobenzene	µg/l	3.00				<MRL	<MRL					
1,1,1,2-Tetrachloroethane	µg/l	3.00				<MRL	<MRL					
Ethylbenzene	µg/l	3.00				<MRL	<MRL					
p & m-xylene	µg/l	3.00				<MRL	<MRL					
Styrene	µg/l	3.00				<MRL	<MRL					
Bromoform	µg/l	3.00				<MRL	<MRL					
o-xylene	µg/l	3.00				<MRL	<MRL					
Isopropylbenzene	µg/l	3.00				<MRL	<MRL					
1,1,2,2-Tetrachloroethane	µg/l	3.00				<MRL	<MRL					
Bromobenzene	µg/l	3.00				<MRL	<MRL					
n-Propylbenzene	µg/l	3.00				<MRL	<MRL					
2-Chlorotoluene	µg/l	3.00				<MRL	<MRL					
4-Chlorotoluene	µg/l	3.00				<MRL	<MRL					
1,3,5-Trimethylbenzene	µg/l	3.00				<MRL	<MRL					
tert-Butylbenzene	µg/l	3.00				<MRL	<MRL					
1,2,4-Trimethylbenzene	µg/l	3.00				<MRL	<MRL					
sec-Butylbenzene	µg/l	3.00				<MRL	<MRL					
1,3-Dichlorobenzene	µg/l	3.00				<MRL	<MRL					
p-Isopropyltoluene	µg/l	3.00				<MRL	<MRL					
1,4-Dichlorobenzene	µg/l	3.00				<MRL	<MRL					
1,2-Dichlorobenzene	µg/l	3.00				<MRL	<MRL					
Butylbenzene	µg/l	3.00				<MRL	<MRL					
1,2-Dibromo-3-chloropropane	µg/l	3.00				<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/l	3.00				<MRL	<MRL					
Hexachlorobutadiene	µg/l	3.00				<MRL	<MRL					
1,2,3-Trichlorobenzene	µg/l	3.00				<MRL	<MRL					
SVOCs												
Aniline	µg/l	0.05				<MRL	<MRL					
Phenol	µg/l	0.05				<MRL	<MRL					
2-Chlorophenol	µg/l	0.05				<MRL	<MRL					
Bis(2-chloroethyl)ether	µg/l	0.05				<MRL	<MRL					
1,3-Dichlorobenzene	µg/l	0.05				<MRL	<MRL					
1,2-Dichlorobenzene	µg/l	0.05				<MRL	<MRL					
1,4-Dichlorobenzene	µg/l	0.05				<MRL	<MRL					
Bis(2-chloroisopropyl)ether	µg/l	0.05				<MRL	<MRL					
2-Methylphenol	µg/l	0.05				<MRL	<MRL					
Hexachloroethane	µg/l	0.05				<MRL	<MRL					
Nitrobenzene	µg/l	0.05				<MRL	<MRL					
4-Methylphenol	µg/l	0.05				<MRL	<MRL					
Isophorone	µg/l	0.05				<MRL	<MRL					
2-Nitrophenol	µg/l	0.05				<MRL	<MRL					
2,4-Dimethylphenol	µg/l	0.05				<MRL	<MRL					
Bis(2-chloroethoxy)methane	µg/l	0.05				<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/l	0.05				<MRL	<MRL					
2,4-Dichlorophenol	µg/l	0.05				<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699		
									DP1	DP1	DP1	DP1
									26/05/2021	15/11/2022	31/10/2023	25/01/2024
4-Chloroaniline	µg/l	0.05				<MRL	<MRL					
Hexachlorobutadiene	µg/l	0.05				<MRL	<MRL					
4-Chloro-3-methylphenol	µg/l	0.05				<MRL	<MRL					
2,4,6-Trichlorophenol	µg/l	0.05				<MRL	<MRL					
2,4,5-Trichlorophenol	µg/l	0.05				<MRL	<MRL					
2-Methylnaphthalene	µg/l	0.05				<MRL	<MRL					
2-Chloronaphthalene	µg/l	0.05				<MRL	<MRL					
Dimethylphthalate	µg/l	0.05				<MRL	<MRL					
2,6-Dinitrotoluene	µg/l	0.05				<MRL	<MRL					
2,4-Dinitrotoluene	µg/l	0.05				<MRL	<MRL					
Dibenzofuran	µg/l	0.05				<MRL	<MRL					
4-Chlorophenyl phenyl ether	µg/l	0.05				<MRL	<MRL					
Diethyl phthalate	µg/l	0.05				<MRL	<MRL					
4-Nitroaniline	µg/l	0.05				<MRL	<MRL					
Azobenzene	µg/l	0.05				<MRL	<MRL					
Bromophenyl phenyl ether	µg/l	0.05				<MRL	<MRL					
Hexachlorobenzene	µg/l	0.05				<MRL	<MRL					
Carbazole	µg/l	0.05				<MRL	<MRL					
Dibutyl phthalate	µg/l	0.05				<MRL	<MRL					
Anthraquinone	µg/l	0.05				<MRL	<MRL					
Butyl benzyl phthalate	µg/l	0.05				<MRL	<MRL					
3+4-Methylphenol	µg/l	0.10				<MRL	<MRL					

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

			143955	172077	1887411	2503705		142819	171281	1887404	2503694	
			DP1	DP1	DP2	DP2	DP2	DP2	DP2	SS1	SS1	
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	26/05/2021	15/11/2022
Analytical Parameter (Water Analysis)	Units	Limit of detection										
General Inorganics												
pH (L099)	pH Units	N/A	8.00	7.80	7.60	7.60	7.50	7.80	8.00	8.00	7.80	7.50
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	1700.00	1500.00					860.00	990.00	1800.00	840.00
Sulphate as SO4	mg/l	0.05	814.00	653.00					165.00	203.00	1030.00	192.00
Sulphide			6.70	< 5.0					5.90	7.50		
Chloride	mg/l	0.15	76.00	69.00					62.00	69.00		
Fluoride			420.00	340.00					360.00	270.00		
Ammoniacal Nitrogen as N	µg/l	15.00	17.00	21.00					300.00	120.00	72.00	230.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	-	-					-	-	87.00	280.00
Total Organic Carbon (TOC)	mg/l	0.10	-	-					-	-		
Dissolved Organic Carbon (DOC)			10.50	14.50					6.25	4.96		
Nitrate as N	mg/l	0.01	0.25	0.07					11.00	11.40		
Nitrite as N	µg/l	1.00	2.50	< 1.0					150.00	130.00		
Alkalinity as CaCO3	mg/l	3.00	300.00	270.00					210.00	230.00		
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00	3.00	30.00	6.00	10.00	82.00	21.00	8.00	72.00		
Speciated PAHs												
Naphthalene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluorene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Chrysene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Total PAH												
Total EPA-16 PAHs	µg/l	0.16	-	-					-	-		
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00	4.00	4.60					8.60	11.00		
Antimony (dissolved)	µg/l	0.40	1.30	1.30					1.00	0.80		
Arsenic (dissolved)	µg/l	0.15	2.07	2.83					0.76	0.77	4.39	0.45
Barium (dissolved)	µg/l	0.06	26.00	26.00					46.00	51.00		
Cadmium (dissolved)	µg/l	0.02	0.16	0.17					0.02	0.03		
Chromium (dissolved)	µg/l	0.20	1.10	1.20					0.50	0.90		
Cobalt (dissolved)	µg/l	0.20	0.20	0.60					0.40	0.50		
Copper (dissolved)	µg/l	0.50	2.80	2.20					3.00	11.00		
Bioavailable Copper (dissolved)	µg/l	0.50	0.09	0.06					0.15	0.71		
Lead (dissolved)	µg/l	0.20	< 0.2	< 0.2					< 0.2	< 0.2		
Bioavailable Lead (dissolved)	µg/l	0.20	0.02	0.01					0.03	0.04		
Manganese (dissolved)	µg/l	0.05	330.00	44.00					77.00	200.00	250.00	5.40
Bioavailable Manganese (dissolved)	µg/l	0.05	184.88	16.74					43.14	112.05	95.10	1.15
Mercury (dissolved)	µg/l	0.05	< 0.05	< 0.05					< 0.05	0.09		
Molybdenum (dissolved)	µg/l	0.05	590.00	560.00					5.90	9.00	720.00	57.00
Nickel (dissolved)	µg/l	0.50	3.00	17.00					3.20	3.50		
Bioavailable Nickel (dissolved)	µg/l	0.50	0.69	2.65					1.05	1.32		
Selenium (dissolved)	µg/l	0.60	7.40	8.10					1.30	1.10		
Silicon (dissolved)	µg/l	50.00	2800.00	5200.00					1700.00	3700.00		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143955	172077	1887411	2503705		142819	171281	1887404	2503694	
			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	26/05/2021	15/11/2022
Tin (dissolved)	µg/l	0.20	< 0.20	0.39				< 0.20	< 0.20			
Titanium (dissolved)	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
Vanadium (dissolved)	µg/l	0.20	2.00	3.60				0.50	0.60			
Zinc (dissolved)	µg/l	0.50	2.50	5.00				9.80	6.20			
Bioavailable Zinc (dissolved)	µg/l	0.50	0.56	0.93				3.18	2.31			
Boron (dissolved)	µg/l	10.00	3100.00	2800.00				170.00	110.00		110.00	
Calcium (dissolved)	mg/l	0.01	200.00	170.00				99.00	120.00			
Chromium (hexavalent)	µg/l	5.00	< 5.0	< 5.0				< 5.0	< 5.0			
Chromium (III)	µg/l	5.00	< 5.0	< 5.0				< 5.0	< 5.0			
Iron (dissolved)	mg/l	0.00	0.03	0.25				0.02	0.02	0.03	0.01	
Magnesium (dissolved)	mg/l	0.01	66.00	57.00				40.00	51.00	65.00	75.00	
Phosphorus (dissolved)	µg/l	20.00	522.00	533.00				853.00	372.00			
Potassium (dissolved)	mg/l	0.03	56.00	44.00				6.80	7.80			
Selenium (dissolved)	µg/l	0.60	-	-				-	-			
Sodium (dissolved)	mg/l	0.01	160.00	130.00				47.00	62.00			
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00	-	-	< 10	< 10	< 10	< 10	-	-		
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	< 10					< 10	-			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
VOCs												
Chloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Vinyl Chloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichlorofluoromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans 1,2-dichloroethylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,2-dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Benzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143955	172077	1887411	2503705		142819	171281	1887404	2503694	
			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	26/05/2021	15/11/2022
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Toluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p & m-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Styrene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromoform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
o-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Phenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Isophorone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			

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Analytical Parameter (Water Analysis)	Units	Limit of detection	143955	172077	1887411	2503705		142819	171281	1887404	2503694	
			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	24/01/2024	12/03/2024	15/04/2024	26/05/2021	15/11/2022
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Azobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Carbazole	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Anthraquinone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10				< 0.10	< 0.10			

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
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 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	SS1	SSW1	143951	172073	1887405	2503695			142818	172074	
			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SS2	SSW2	SSW2
			31/10/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022	31/10/2023	24/01/2024	12/03/2024	16/04/2024	
General Inorganics													
pH (L099)	pH Units	N/A	7.80	7.80	7.90	7.80	7.70	7.70	7.60	7.80	7.90	7.80	
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	1000.00	1800.00	1600.00	1500.00	2200.00	1100.00	3000.00	3500.00	3600.00	3200.00	
Sulphate as SO4	mg/l	0.05	344.00	748.00	838.00	672.00	1300.00	546.00	1430.00	1870.00	1790.00	1890.00	
Sulphide					7.20	9.50					< 5.0	8.90	
Chloride	mg/l	0.15			79.00	70.00					180.00	160.00	
Fluoride					370.00	370.00					470.00	410.00	
Ammoniacal Nitrogen as N	µg/l	15.00	23.00	150.00	24.00	60.00	28.00	82.00	17.00	24.00	28.00	28.00	
Ammoniacal Nitrogen as NH3	µg/l	15.00	27.00	180.00	-	-	34.00	100.00	20.00	29.00			
Total Organic Carbon (TOC)	mg/l	0.10			-	-							
Dissolved Organic Carbon (DOC)					11.90	14.10					7.34	6.48	
Nitrate as N	mg/l	0.01			0.27	0.22					0.64	0.45	
Nitrite as N	µg/l	1.00			< 1.0	< 1.0					1.10	< 1.0	
Alkalinity as CaCO3	mg/l	3.00			240.00	310.00					200.00	210.00	
Total Oxidised Nitrogen (TON)	mg/l	0.02			-	-							
Total Suspended Solids (L004B)	mg/l	2.00		32.00	2.00	39.00				56.00	9.00	78.00	
Speciated PAHs													
Naphthalene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Acenaphthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Fluorene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Phenanthrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Anthracene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Fluoranthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Pyrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Chrysene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01	
Total PAH													
Total EPA-16 PAHs	µg/l	0.16											
Heavy Metals / Metalloids													
Aluminium (dissolved)	µg/l	1.00			4.20	3.50					1.10	1.40	
Antimony (dissolved)	µg/l	0.40			1.80	1.50					2.60	2.70	
Arsenic (dissolved)	µg/l	0.15	6.51	3.43	2.24	2.81	5.29	0.94	6.75	4.55	7.03	5.61	
Barium (dissolved)	µg/l	0.06			25.00	25.00					18.00	15.00	
Cadmium (dissolved)	µg/l	0.02			0.17	0.19					0.55	0.61	
Chromium (dissolved)	µg/l	0.20			1.80	1.70					0.70	0.80	
Cobalt (dissolved)	µg/l	0.20			0.20	< 0.2					< 0.2	< 0.2	
Copper (dissolved)	µg/l	0.50			1.80	2.30					2.20	2.40	
Bioavailable Copper (dissolved)	µg/l	0.50			0.05	0.06					0.08	0.09	
Lead (dissolved)	µg/l	0.20			< 0.2	< 0.2					< 0.2	< 0.2	
Bioavailable Lead (dissolved)	µg/l	0.20			0.02	0.01					0.03	0.03	
Manganese (dissolved)	µg/l	0.05	37.00	150.00	320.00	18.00	250.00	230.00	230.00	990.00	240.00	110.00	
Bioavailable Manganese (dissolved)	µg/l	0.05	14.07	57.06	147.72	6.85	78.36	72.09	59.40	376.58	110.79	41.84	
Mercury (dissolved)	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05	
Molybdenum (dissolved)	µg/l	0.05	190.00	680.00	620.00	570.00	1200.00	22.00	1200.00	2800.00	2500.00	2000.00	
Nickel (dissolved)	µg/l	0.50			2.90	3.60					1.10	1.30	
Bioavailable Nickel (dissolved)	µg/l	0.50			0.56	0.57					0.30	0.35	
Selenium (dissolved)	µg/l	0.60			5.50	8.80					30.00	-	
Silicon (dissolved)	µg/l	50.00			2700.00	5400.00					2900.00	5900.00	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143951	172073	1887405	2503695	142818	172074				
			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			31/10/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022	31/10/2023	24/01/2024	12/03/2024	16/04/2024
Tin (dissolved)	µg/l	0.20			< 0.20	< 0.20			< 0.20	< 0.20		
Titanium (dissolved)	µg/l	1.00			< 1.0	< 1.0			< 1.0	1.10		
Vanadium (dissolved)	µg/l	0.20			2.20	3.00			3.70	2.80		
Zinc (dissolved)	µg/l	0.50			3.00	3.90			3.30	2.80		
Bioavailable Zinc (dissolved)	µg/l	0.50			0.63	0.74			0.99	0.92		
Boron (dissolved)	µg/l	10.00	970.00		1800.00	3200.00	7000.00	1900.00	7500.00	13000.00	14000.00	13000.00
Calcium (dissolved)	mg/l	0.01			200.00	180.00			310.00	340.00		
Chromium (hexavalent)	µg/l	5.00			< 5.0	< 5.0			< 5.0	< 5.0		
Chromium (III)	µg/l	5.00			< 5.0	< 5.0			< 5.0	< 5.0		
Iron (dissolved)	mg/l	0.00	0.22	0.02	0.04	0.03	0.05	0.02	0.07	0.01	0.01	0.31
Magnesium (dissolved)	mg/l	0.01	56.00	76.00	65.00	58.00	65.00	55.00	74.00	75.00	82.00	72.00
Phosphorus (dissolved)	µg/l	20.00			300.00	484.00					511.00	497.00
Potassium (dissolved)	mg/l	0.03			57.00	48.00					210.00	170.00
Selenium (dissolved)	µg/l	0.60			-	-					-	16.00
Sodium (dissolved)	mg/l	0.01			170.00	150.00					530.00	520.00
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00								< 10		
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
VOCs												
Chloromethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Chloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Bromomethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Vinyl Chloride	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Chloroform	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Benzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143951	172073	1887405	2503695	142818	172074				
			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			31/10/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022	31/10/2023	24/01/2024	12/03/2024	16/04/2024
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Toluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p & m-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Styrene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromoform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
o-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Phenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Isophorone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			

All Surface Water Results

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	SS1	SSW1	143951	172073	1887405	2503695	SS2	SS2	142818	172074
			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			31/10/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022	31/10/2023	24/01/2024	12/03/2024	16/04/2024
4-Chloroaniline	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Methylnaphthalene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Chloronaphthalene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,6-Dinitrotoluene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4-Dinitrotoluene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Dibenzofuran	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Chlorophenyl phenyl ether	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Nitroaniline	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Azobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Carbazole	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Anthraquinone	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
3+4-Methylphenol	µg/l	0.10			< 0.10	< 0.10					< 0.10	< 0.10

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	26/05/2021	15/11/2022	31/10/2023	25/01/2024	
General Inorganics													
pH (L099)	pH Units	N/A	7.80	7.80	7.60	7.90	7.90	7.90	7.80	7.60	7.50	7.90	
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	920.00	810.00	680.00	1000.00	850.00	860.00	2300.00	2000.00	1600.00	3200.00	
Sulphate as SO4	mg/l	0.05	193.00	185.00	127.00	207.00	185.00	181.00	1350.00	1210.00	591.00	1600.00	
Sulphide							7.00	< 5.0					
Chloride	mg/l	0.15					63.00	64.00					
Fluoride							330.00	280.00					
Ammoniacal Nitrogen as N	µg/l	15.00	200.00	64.00	440.00	320.00	320.00	160.00	18.00	47.00	< 15	19.00	
Ammoniacal Nitrogen as NH3	µg/l	15.00	240.00	78.00	540.00	390.00	-	-	21.00	56.00	< 15	23.00	
Total Organic Carbon (TOC)	mg/l	0.10				-	-	-				-	
Dissolved Organic Carbon (DOC)						-	6.38	5.18				-	
Nitrate as N	mg/l	0.01				-	11.40	11.40				-	
Nitrite as N	µg/l	1.00				-	170.00	160.00				-	
Alkalinity as CaCO3	mg/l	3.00				-	220.00	230.00				-	
Total Oxidised Nitrogen (TON)	mg/l	0.02				-	-	-				-	
Total Suspended Solids (L004B)	mg/l	2.00				27.00	14.00	12.00				19.00	
Speciated PAHs													
Naphthalene	µg/l	0.01				-	< 0.01	< 0.01					
Acenaphthylene	µg/l	0.01				-	< 0.01	< 0.01					
Acenaphthene	µg/l	0.01				-	< 0.01	< 0.01					
Fluorene	µg/l	0.01				-	< 0.01	< 0.01					
Phenanthrene	µg/l	0.01				-	< 0.01	< 0.01					
Anthracene	µg/l	0.01				-	< 0.01	< 0.01					
Fluoranthene	µg/l	0.01				-	< 0.01	< 0.01					
Pyrene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(a)anthracene	µg/l	0.01				-	< 0.01	< 0.01					
Chrysene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(b)fluoranthene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(k)fluoranthene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(a)pyrene	µg/l	0.01				-	< 0.01	< 0.01					
Indeno(1,2,3-cd)pyrene	µg/l	0.01				-	< 0.01	< 0.01					
Dibenz(a,h)anthracene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(ghi)perylene	µg/l	0.01				-	< 0.01	< 0.01					
Total PAH													
Total EPA-16 PAHs	µg/l	0.16											
Heavy Metals / Metalloids													
Aluminium (dissolved)	µg/l	1.00					7.20	6.60					
Antimony (dissolved)	µg/l	0.40					1.30	2.30					
Arsenic (dissolved)	µg/l	0.15	1.20	0.73	1.06	0.94	0.53	0.74	7.29	3.02	2.07	12.50	
Barium (dissolved)	µg/l	0.06					39.00	48.00					
Cadmium (dissolved)	µg/l	0.02					< 0.02	0.02					
Chromium (dissolved)	µg/l	0.20					0.70	0.50					
Cobalt (dissolved)	µg/l	0.20					0.30	0.60					
Copper (dissolved)	µg/l	0.50					2.10	3.60					
Bioavailable Copper (dissolved)	µg/l	0.50					0.09	0.20					
Lead (dissolved)	µg/l	0.20					< 0.2	< 0.2					
Bioavailable Lead (dissolved)	µg/l	0.20					0.03	0.04					
Manganese (dissolved)	µg/l	0.05	7.60	11.00	9.40	24.00	40.00	110.00	180.00	6.50	430.00	62.00	
Bioavailable Manganese (dissolved)	µg/l	0.05	2.89	4.18	2.43	11.08	18.47	50.78	68.47	1.68	91.51	28.62	
Mercury (dissolved)	µg/l	0.05				-	< 0.05	< 0.05				-	
Molybdenum (dissolved)	µg/l	0.05	17.00	5.70	1.50	1.80	0.82	5.90	1400.00	1000.00	530.00	2700.00	
Nickel (dissolved)	µg/l	0.50					2.90	3.50					
Bioavailable Nickel (dissolved)	µg/l	0.50					0.86	1.17					
Selenium (dissolved)	µg/l	0.60					0.90	1.50					
Silicon (dissolved)	µg/l	50.00					1600.00	3700.00					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697		
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	26/05/2021	15/11/2022	31/10/2023	25/01/2024
Tin (dissolved)	µg/l	0.20					< 0.20	< 0.20				
Titanium (dissolved)	µg/l	1.00					< 1.0	< 1.0				
Vanadium (dissolved)	µg/l	0.20					0.40	0.80				
Zinc (dissolved)	µg/l	0.50					6.40	12.00				
Bioavailable Zinc (dissolved)	µg/l	0.50					2.09	4.44				
Boron (dissolved)	µg/l	10.00	160.00	110.00	100.00	97.00	160.00	99.00	8000.00	6200.00	2800.00	13000.00
Calcium (dissolved)	mg/l	0.01					120.00	110.00				
Chromium (hexavalent)	µg/l	5.00					< 5.0	< 5.0				
Chromium (III)	µg/l	5.00					< 5.0	< 5.0				
Iron (dissolved)	mg/l	0.00	0.02	0.03	0.62	0.03	0.04	0.02	0.04	0.03	0.07	0.02
Magnesium (dissolved)	mg/l	0.01	47.00	51.00	32.00	51.00	57.00	44.00	65.00	80.00	55.00	85.00
Phosphorus (dissolved)	µg/l	20.00					719.00	691.00				
Potassium (dissolved)	mg/l	0.03					8.00	7.50				
Selenium (dissolved)	µg/l	0.60					-	-				
Sodium (dissolved)	mg/l	0.01					100.00	52.00				
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00					< 10					< 10
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00					< 10	< 10				
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00			-		< 1.0	< 1.0	-	-	-	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00					< 1.0	< 1.0				
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00					< 1.0	< 1.0				
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00					< 10	< 10				
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00					< 10	< 10				
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					< 10	< 10				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					< 10	< 10				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					< 10	< 10				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					< 1.0	< 1.0				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					< 1.0	< 1.0				
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00					< 1.0	< 1.0				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00					< 10	< 10				
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00					< 10	< 10				
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00					< 10	< 10				
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00					< 10	< 10				
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00					< 10	< 10				
VOCs												
Chloromethane	µg/l	3.00					< 3.0	< 3.0				
Chloroethane	µg/l	3.00					< 3.0	< 3.0				
Bromomethane	µg/l	3.00					< 3.0	< 3.0				
Vinyl Chloride	µg/l	3.00					< 3.0	< 3.0				
Trichlorofluoromethane	µg/l	3.00					< 3.0	< 3.0				
1,1-Dichloroethene	µg/l	3.00					< 3.0	< 3.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00					< 3.0	< 3.0				
Trans 1,2-dichloroethylene	µg/l	3.00					< 3.0	< 3.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00					< 3.0	< 3.0				
1,1-Dichloroethane	µg/l	3.00					< 3.0	< 3.0				
2,2-Dichloropropane	µg/l	3.00					< 3.0	< 3.0				
Chloroform	µg/l	3.00					< 3.0	< 3.0				
1,1,1-Trichloroethane	µg/l	3.00					< 3.0	< 3.0				
1,2-Dichloroethane	µg/l	3.00					< 3.0	< 3.0				
1,1-Dichloropropene	µg/l	3.00					< 3.0	< 3.0				
Cis-1,2-dichloroethene	µg/l	3.00					< 3.0	< 3.0				
Benzene	µg/l	3.00					< 3.0	< 3.0				

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 Risk to Groundwater Receptors from Groundwater
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Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	26/05/2021	15/11/2022	31/10/2023	25/01/2024	
Carbontetrachloride	µg/l	3.00					< 3.0	< 3.0					
1,2-Dichloropropane	µg/l	3.00					< 3.0	< 3.0					
Trichloroethene	µg/l	3.00					< 3.0	< 3.0					
Dibromomethane	µg/l	3.00					< 3.0	< 3.0					
Bromodichloromethane	µg/l	3.00					< 3.0	< 3.0					
Cis-1,3-dichloropropene	µg/l	3.00					< 3.0	< 3.0					
Trans-1,3-dichloropropene	µg/l	3.00					< 3.0	< 3.0					
Toluene	µg/l	3.00					< 3.0	< 3.0					
1,1,2-Trichloroethane	µg/l	3.00					< 3.0	< 3.0					
1,3-Dichloropropane	µg/l	3.00					< 3.0	< 3.0					
Dibromochloromethane	µg/l	3.00					< 3.0	< 3.0					
Tetrachloroethene	µg/l	3.00					< 3.0	< 3.0					
1,2-Dibromoethane	µg/l	3.00					< 3.0	< 3.0					
Chlorobenzene	µg/l	3.00					< 3.0	< 3.0					
1,1,1,2-Tetrachloroethane	µg/l	3.00					< 3.0	< 3.0					
Ethylbenzene	µg/l	3.00					< 3.0	< 3.0					
p & m-xylene	µg/l	3.00					< 3.0	< 3.0					
Styrene	µg/l	3.00					< 3.0	< 3.0					
Bromoform	µg/l	3.00					< 3.0	< 3.0					
o-xylene	µg/l	3.00					< 3.0	< 3.0					
Isopropylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,1,2,2-Tetrachloroethane	µg/l	3.00					< 3.0	< 3.0					
Bromobenzene	µg/l	3.00					< 3.0	< 3.0					
n-Propylbenzene	µg/l	3.00					< 3.0	< 3.0					
2-Chlorotoluene	µg/l	3.00					< 3.0	< 3.0					
4-Chlorotoluene	µg/l	3.00					< 3.0	< 3.0					
1,3,5-Trimethylbenzene	µg/l	3.00					< 3.0	< 3.0					
tert-Butylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,2,4-Trimethylbenzene	µg/l	3.00					< 3.0	< 3.0					
sec-Butylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,3-Dichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
p-Isopropyltoluene	µg/l	3.00					< 3.0	< 3.0					
1,4-Dichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
1,2-Dichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
Butylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,2-Dibromo-3-chloropropane	µg/l	3.00					< 3.0	< 3.0					
1,2,4-Trichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
Hexachlorobutadiene	µg/l	3.00					< 3.0	< 3.0					
1,2,3-Trichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
SVOCs													
Aniline	µg/l	0.05					< 0.05	< 0.05					
Phenol	µg/l	0.05					< 0.05	< 0.05					
2-Chlorophenol	µg/l	0.05					< 0.05	< 0.05					
Bis(2-chloroethyl)ether	µg/l	0.05					< 0.05	< 0.05					
1,3-Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
1,2-Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
1,4-Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
Bis(2-chloroisopropyl)ether	µg/l	0.05					< 0.05	< 0.05					
2-Methylphenol	µg/l	0.05					< 0.05	< 0.05					
Hexachloroethane	µg/l	0.05					< 0.05	< 0.05					
Nitrobenzene	µg/l	0.05					< 0.05	< 0.05					
4-Methylphenol	µg/l	0.05					< 0.05	< 0.05					
Isophorone	µg/l	0.05					< 0.05	< 0.05					
2-Nitrophenol	µg/l	0.05					< 0.05	< 0.05					
2,4-Dimethylphenol	µg/l	0.05					< 0.05	< 0.05					
Bis(2-chloroethoxy)methane	µg/l	0.05					< 0.05	< 0.05					
1,2,4-Trichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
2,4-Dichlorophenol	µg/l	0.05					< 0.05	< 0.05					

All Surface Water Results

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	17/04/2024	26/05/2021	15/11/2022	31/10/2023	25/01/2024	
4-Chloroaniline	µg/l	0.05					< 0.05	< 0.05					
Hexachlorobutadiene	µg/l	0.05					< 0.05	< 0.05					
4-Chloro-3-methylphenol	µg/l	0.05					< 0.05	< 0.05					
2,4,6-Trichlorophenol	µg/l	0.05					< 0.05	< 0.05					
2,4,5-Trichlorophenol	µg/l	0.05					< 0.05	< 0.05					
2-Methylnaphthalene	µg/l	0.05					< 0.05	< 0.05					
2-Chloronaphthalene	µg/l	0.05					< 0.05	< 0.05					
Dimethylphthalate	µg/l	0.05					< 0.05	< 0.05					
2,6-Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05					
2,4-Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05					
Dibenzofuran	µg/l	0.05					< 0.05	< 0.05					
4-Chlorophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05					
Diethyl phthalate	µg/l	0.05					< 0.05	< 0.05					
4-Nitroaniline	µg/l	0.05					< 0.05	< 0.05					
Azobenzene	µg/l	0.05					< 0.05	< 0.05					
Bromophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05					
Hexachlorobenzene	µg/l	0.05					< 0.05	< 0.05					
Carbazole	µg/l	0.05					< 0.05	< 0.05					
Dibutyl phthalate	µg/l	0.05					< 0.05	< 0.05					
Anthraquinone	µg/l	0.05					< 0.05	< 0.05					
Butyl benzyl phthalate	µg/l	0.05					< 0.05	< 0.05					
3+4-Methylphenol	µg/l	0.10					< 0.10	< 0.10					

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
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			143953	172075	1887408	2503698			143954	172076	1887409	2503706
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022
Analytical Parameter (Water Analysis)	Units	Limit of detection										
General Inorganics												
pH (L099)	pH Units	N/A	7.90	7.80	7.90	8.10	7.60	8.00	8.00	8.20	7.70	7.50
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	1700.00	1400.00	620.00	610.00	400.00	450.00	460.00	510.00	960.00	730.00
Sulphate as SO4	mg/l	0.05	756.00	467.00	143.00	174.00	43.30	89.90	86.30	97.30	197.00	131.00
Sulphide			6.20	8.00					7.30	8.80		
Chloride	mg/l	0.15	78.00	65.00					19.00	19.00		
Fluoride			390.00	370.00					380.00	340.00		
Ammoniacal Nitrogen as N	µg/l	15.00	20.00	64.00	160.00	69.00	160.00	140.00	66.00	18.00	150.00	600.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	-	-	200.00	83.00	200.00	170.00	-	-	190.00	730.00
Total Organic Carbon (TOC)	mg/l	0.10	-	-					-	-		
Dissolved Organic Carbon (DOC)			11.20	14.80					16.70	14.50		
Nitrate as N	mg/l	0.01	0.25	0.17					0.59	0.05		
Nitrite as N	µg/l	1.00	3.10	< 1.0					18.00	< 1.0		
Alkalinity as CaCO3	mg/l	3.00	270.00	280.00					170.00	170.00		
Total Oxidised Nitrogen (TON)	mg/l	0.02	-	-					-	-		
Total Suspended Solids (L004B)	mg/l	2.00	11.00	42.00				62.00	140.00	53.00		
Speciated PAHs												
Naphthalene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluorene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Chrysene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00	5.10	9.80					4.70	16.00		
Antimony (dissolved)	µg/l	0.40	1.30	1.00					0.90	1.20		
Arsenic (dissolved)	µg/l	0.15	2.19	2.06	1.12	0.80	1.45	1.18	0.52	1.09	1.10	0.83
Barium (dissolved)	µg/l	0.06	29.00	26.00					19.00	42.00		
Cadmium (dissolved)	µg/l	0.02	0.37	0.12					< 0.02	0.03		
Chromium (dissolved)	µg/l	0.20	1.10	1.00					0.50	0.50		
Cobalt (dissolved)	µg/l	0.20	0.20	< 0.2					< 0.2	0.30		
Copper (dissolved)	µg/l	0.50	2.40	2.20					1.80	6.70		
Bioavailable Copper (dissolved)	µg/l	0.50	0.07	0.07					0.10	1.16		
Lead (dissolved)	µg/l	0.20	< 0.2	< 0.2					< 0.2	0.30		
Bioavailable Lead (dissolved)	µg/l	0.20	0.02	0.01					0.01	0.02		
Manganese (dissolved)	µg/l	0.05	290.00	150.00	1.60	0.69	30.00	120.00	18.00	4.20	7.80	2.50
Bioavailable Manganese (dissolved)	µg/l	0.05	133.87	57.06	0.74	0.47	7.75	67.23	18.00	4.20	2.44	0.53
Mercury (dissolved)	µg/l	0.05	< 0.05	< 0.05					< 0.05	< 0.05		
Molybdenum (dissolved)	µg/l	0.05	560.00	410.00	130.00	140.00	24.00	52.00	28.00	65.00	9.30	5.50
Nickel (dissolved)	µg/l	0.50	3.10	4.20					1.30	3.00		
Bioavailable Nickel (dissolved)	µg/l	0.50	0.63	0.65					0.25	0.77		
Selenium (dissolved)	µg/l	0.60	8.00	6.20					1.00	1.30		
Silicon (dissolved)	µg/l	50.00	2700.00	5400.00					1900.00	2600.00		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698		143954	172076	1887409	2503706	
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022
Tin (dissolved)	µg/l	0.20	< 0.20	0.27				< 0.20	< 0.20			
Titanium (dissolved)	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
Vanadium (dissolved)	µg/l	0.20	1.80	1.50				0.20	0.50			
Zinc (dissolved)	µg/l	0.50	3.10	4.60				2.20	3.80			
Bioavailable Zinc (dissolved)	µg/l	0.50	0.68	0.84				0.32	0.62			
Boron (dissolved)	µg/l	10.00	2900.00	2100.00	710.00	920.00	180.00	400.00	390.00	400.00	120.00	
Calcium (dissolved)	mg/l	0.01	190.00	160.00				64.00	67.00			
Chromium (hexavalent)	µg/l	5.00	< 5.0	< 5.0				< 5.0	< 5.0			
Chromium (III)	µg/l	5.00	< 5.0	< 5.0				< 5.0	< 5.0			
Iron (dissolved)	mg/l	0.00	0.03	0.17	0.16	0.03	0.24	0.36	0.09	0.09	0.12	
Magnesium (dissolved)	mg/l	0.01	63.00	57.00	22.00	25.00	8.90	18.00	19.00	19.00	50.00	
Phosphorus (dissolved)	µg/l	20.00	547.00	513.00				538.00	502.00			
Potassium (dissolved)	mg/l	0.03	49.00	37.00				11.00	10.00			
Selenium (dissolved)	µg/l	0.60	-	-								
Sodium (dissolved)	mg/l	0.01	150.00	120.00				21.00	22.00			
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00						< 10				
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	< 10	< 10				< 10				
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	-	-	-	< 1.0	< 1.0	-	-	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
VOCs												
Chloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Vinyl Chloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichlorofluoromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans 1,2-dichloroethylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,2-dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Benzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698		143954	172076	1887409	2503706	
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Toluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p & m-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Styrene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromoform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
o-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Phenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Isophorone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			

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Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698		143954	172076	1887409	2503706	
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			13/03/2024	16/04/2024	26/05/2021	15/11/2022	01/11/2023	25/01/2024	13/03/2024	16/04/2024	26/05/2021	15/11/2022
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Azobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Carbazole	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Anthraquinone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10				< 0.10	< 0.10			

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	SS6	SS6	145759	171280	143896	172078	145584	173986	172079	145585
			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			01/11/2023	24/01/2024	12/03/2024	15/04/2024	13/03/2024	16/04/2024	14/03/2024	17/04/2024	16/04/2024	14/03/2024
General Inorganics												
pH (L099)	pH Units	N/A	7.40	7.60	7.60	8.10	8.00	7.80	8.20	8.10	7.90	7.80
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	510.00	570.00	590.00	600.00	800.00	870.00	850.00	920.00	1600.00	920.00
Sulphate as SO4	mg/l	0.05	67.30	130.00	86.80	75.80	198.00	193.00	244.00	245.00	696.00	185.00
Sulphide					12.00	7.20	5.20	6.90	5.80	< 5.0	7.10	5.10
Chloride	mg/l	0.15			40.00	40.00	43.00	38.00	52.00	58.00	66.00	67.00
Fluoride					330.00	280.00	540.00	410.00	370.00	270.00	330.00	320.00
Ammoniacal Nitrogen as N	µg/l	15.00	270.00	34.00	38.00	26.00	120.00	18.00	39.00	47.00	19.00	850.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	330.00	42.00								
Total Organic Carbon (TOC)	mg/l	0.10										
Dissolved Organic Carbon (DOC)					8.62	9.84	20.70	21.60	7.99	6.93	8.97	6.30
Nitrate as N	mg/l	0.01			0.64	0.02	0.12	0.02	0.76	0.02	0.04	10.70
Nitrite as N	µg/l	1.00			14.00	< 1.0	< 1.0	3.50	7.20	< 1.0	< 1.0	260.00
Alkalinity as CaCO3	mg/l	3.00			190.00	220.00	280.00	290.00	220.00	300.00	240.00	240.00
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00		19.00	65.00	19.00	8.00	2.00	100.00	5.00	50.00	23.00
Speciated PAHs												
Naphthalene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00			4.10	3.30	6.60	5.10	12.00	1.80	< 1.0	7.40
Antimony (dissolved)	µg/l	0.40			0.70	0.70	0.90	1.00	1.10	0.70	1.20	1.10
Arsenic (dissolved)	µg/l	0.15	2.77	0.64	0.64	0.95	0.61	0.89	0.45	0.57	1.34	0.75
Barium (dissolved)	µg/l	0.06			29.00	29.00	14.00	19.00	36.00	49.00	31.00	53.00
Cadmium (dissolved)	µg/l	0.02			< 0.02	< 0.02	< 0.02	< 0.02	0.04	< 0.02	0.05	0.03
Chromium (dissolved)	µg/l	0.20			< 0.2	< 0.2	0.70	0.60	0.30	0.30	0.30	0.90
Cobalt (dissolved)	µg/l	0.20			0.40	0.50	0.30	0.30	0.40	0.40	< 0.2	0.30
Copper (dissolved)	µg/l	0.50			2.60	5.90	3.50	3.40	2.80	2.70	2.30	2.60
Bioavailable Copper (dissolved)	µg/l	0.50			0.07	0.23	0.30	0.10	0.14	0.13	0.07	0.11
Lead (dissolved)	µg/l	0.20			< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.20			0.02	0.02	0.01	0.01	0.03	0.03	0.02	0.03
Manganese (dissolved)	µg/l	0.05	1200.00	1500.00	810.00	990.00	94.00	180.00	290.00	520.00	3.90	11.00
Bioavailable Manganese (dissolved)	µg/l	0.05	210.43	387.40	374.70	673.10	52.66	68.47	239.29	353.55	1.80	4.18
Mercury (dissolved)	µg/l	0.05			< 0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum (dissolved)	µg/l	0.05	6.40	2.00	2.70	4.20	2.70	2.70	0.48	0.99	160.00	7.90
Nickel (dissolved)	µg/l	0.50			3.10	3.70	5.90	5.10	17.00	4.30	1.30	3.60
Bioavailable Nickel (dissolved)	µg/l	0.50			0.67	1.03	0.82	0.62	5.88	1.46	0.31	0.99
Selenium (dissolved)	µg/l	0.60			1.00	0.70	0.60	1.00	0.70	< 0.6	2.40	1.30
Silicon (dissolved)	µg/l	50.00			1300.00	3500.00	2500.00	5100.00	2200.00	1300.00	5400.00	1600.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection			145759	171280	143896	172078	145584	173986	172079	145585
			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			01/11/2023	24/01/2024	12/03/2024	15/04/2024	13/03/2024	16/04/2024	14/03/2024	17/04/2024	16/04/2024	14/03/2024
Tin (dissolved)	µg/l	0.20			< 0.20	0.27	< 0.20	0.20	< 0.20	0.27	< 0.20	< 0.20
Titanium (dissolved)	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (dissolved)	µg/l	0.20			< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.30	0.40	0.50
Zinc (dissolved)	µg/l	0.50			14.00	2.00	8.30	6.20	1.70	3.80	4.10	6.70
Bioavailable Zinc (dissolved)	µg/l	0.50			3.97	0.46	1.03	0.84	0.47	1.15	1.07	2.25
Boron (dissolved)	µg/l	10.00	72.00	85.00	75.00	100.00	63.00	67.00	28.00	40.00	2200.00	120.00
Calcium (dissolved)	mg/l	0.01			63.00	72.00	110.00	120.00	110.00	130.00	230.00	110.00
Chromium (hexavalent)	µg/l	5.00			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5.00			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.00	0.20	0.08	0.10	0.14	0.08	0.06	0.01	0.02	0.55	0.03
Magnesium (dissolved)	mg/l	0.01	23.00	31.00	23.00	33.00	59.00	61.00	62.00	70.00	47.00	47.00
Phosphorus (dissolved)	µg/l	20.00			40.30	392.00	485.00	494.00	448.00	516.00	552.00	858.00
Potassium (dissolved)	mg/l	0.03			4.40	4.30	4.10	3.20	2.30	2.70	64.00	8.10
Selenium (dissolved)	µg/l	0.60										
Sodium (dissolved)	mg/l	0.01			35.00	43.00	39.00	39.00	43.00	44.00	120.00	53.00
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00		< 10								
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00		-	14.00		< 10		< 10	< 10		< 10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs												
Chloromethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

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			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			01/11/2023	24/01/2024	12/03/2024	15/04/2024	13/03/2024	16/04/2024	14/03/2024	17/04/2024	16/04/2024	14/03/2024
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Trichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Dibromomethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Toluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
p & m-xylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Styrene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Bromoform	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
o-xylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Bromobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0		
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Phenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Isophorone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		

All Surface Water Results

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Analytical Parameter (Water Analysis)	Units	Limit of detection	145759	171280	143896	172078	145584	173986	172079	145585		
			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			01/11/2023	24/01/2024	12/03/2024	15/04/2024	13/03/2024	16/04/2024	14/03/2024	17/04/2024	16/04/2024	14/03/2024
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Azobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Carbazole	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Anthraquinone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		

[1] Based on Good standard for Type 7.

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			173987	145586	173988	171282	171283	171284	145587	171285	143897	175038
			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	14/03/2024	17/04/2024	15/04/2024	15/04/2024	15/04/2024	14/03/2024	15/04/2024	13/03/2024	18/04/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection										
General Inorganics												
pH (L099)	pH Units	N/A	7.70	7.70	7.70	7.80	7.50	7.90	7.80	8.00	7.90	8.10
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	870.00	680.00	690.00	3300.00	1300.00	990.00	930.00	980.00	470.00	500.00
Sulphate as SO4	mg/l	0.05	182.00	122.00	114.00	1560.00	380.00	200.00	220.00	199.00	86.10	82.10
Sulphide			< 5.0	7.30	< 5.0	5.50	9.70	7.50	6.70	6.10	7.60	8.00
Chloride	mg/l	0.15	74.00	52.00	53.00	140.00	34.00	83.00	69.00	72.00	19.00	19.00
Fluoride			270.00	430.00	450.00	340.00	430.00	280.00	340.00	260.00	380.00	440.00
Ammoniacal Nitrogen as N	µg/l	15.00	130.00	48.00	59.00	20.00	26.00	140.00	740.00	120.00	47.00	74.00
Ammoniacal Nitrogen as NH3	µg/l	15.00										
Total Organic Carbon (TOC)	mg/l	0.10										
Dissolved Organic Carbon (DOC)			5.16	5.80	-	6.03	7.77	5.53	6.45	5.01	17.70	16.50
Nitrate as N	mg/l	0.01	9.51	3.48	2.60	0.27	0.14	8.59	10.60	12.00	0.76	0.09
Nitrite as N	µg/l	1.00	120.00	22.00	15.00	< 1.0	2.00	82.00	230.00	140.00	18.00	2.50
Alkalinity as CaCO3	mg/l	3.00	210.00	200.00	220.00	200.00	400.00	220.00	230.00	220.00	180.00	200.00
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00	13.00	3.00	11.00	480.00	22.00	120.00	13.00	81.00	74.00	38.00
Speciated PAHs												
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00	6.90	2.80	3.80	4.20	1.30	9.30	7.40	5.50	6.30	19.00
Antimony (dissolved)	µg/l	0.40	1.00	0.60	< 0.4	5.00	0.60	0.90	1.20	1.00	1.80	1.10
Arsenic (dissolved)	µg/l	0.15	0.79	0.60	0.76	20.00	1.14	1.06	0.72	0.86	0.90	0.98
Barium (dissolved)	µg/l	0.06	47.00	30.00	33.00	47.00	31.00	56.00	54.00	50.00	25.00	39.00
Cadmium (dissolved)	µg/l	0.02	0.03	< 0.02	0.02	0.58	< 0.02	0.03	0.03	0.02	0.03	0.02
Chromium (dissolved)	µg/l	0.20	0.50	0.50	0.60	0.50	< 0.2	0.50	0.50	0.70	0.60	0.50
Cobalt (dissolved)	µg/l	0.20	0.80	< 0.2	0.30	0.40	0.50	0.50	0.30	0.50	0.20	0.20
Copper (dissolved)	µg/l	0.50	5.60	4.20	2.80	4.70	1.00	3.10	3.90	3.00	4.80	3.90
Bioavailable Copper (dissolved)	µg/l	0.50	0.27	0.18	0.07	0.20	0.03	0.16	0.15	0.19	0.17	0.55
Lead (dissolved)	µg/l	0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.20	0.04	0.03	0.02	0.03	0.03	0.04	0.03	0.04	0.01	0.01
Manganese (dissolved)	µg/l	0.05	530.00	450.00	1200.00	110.00	1000.00	200.00	41.00	220.00	28.00	13.00
Bioavailable Manganese (dissolved)	µg/l	0.05	166.12	141.04	376.12	41.84	212.81	92.33	15.60	123.25	23.83	8.84
Mercury (dissolved)	µg/l	0.05	< 0.05	< 0.05	< 0.05	0.21	< 0.05	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Molybdenum (dissolved)	µg/l	0.05	17.00	0.86	1.40	2500.00	3.40	20.00	6.20	12.00	53.00	73.00
Nickel (dissolved)	µg/l	0.50	4.10	3.30	3.50	1.90	1.10	3.30	3.60	3.60	2.40	3.00
Bioavailable Nickel (dissolved)	µg/l	0.50	1.17	0.86	0.67	0.54	0.22	1.06	0.98	1.35	0.40	0.60
Selenium (dissolved)	µg/l	0.60	2.10	0.70	1.00	27.00	1.40	1.30	0.80	1.50	1.10	1.60
Silicon (dissolved)	µg/l	50.00	4000.00	2100.00	5000.00	4400.00	9300.00	4200.00	1500.00	3900.00	1300.00	3100.00

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Analytical Parameter (Water Analysis)	Units	Limit of detection	173987	145586	173988	171282	171283	171284	145587	171285	143897	175038
			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	14/03/2024	17/04/2024	15/04/2024	15/04/2024	15/04/2024	14/03/2024	15/04/2024	13/03/2024	18/04/2024
Tin (dissolved)	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Titanium (dissolved)	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	1.20	1.10	< 1.0	< 1.0	< 1.0	3.30
Vanadium (dissolved)	µg/l	0.20	0.70	< 0.2	0.20	21.00	< 0.2	0.70	0.50	0.60	0.40	0.40
Zinc (dissolved)	µg/l	0.50	12.00	2.40	3.20	13.00	6.00	6.70	7.10	9.00	3.10	2.30
Bioavailable Zinc (dissolved)	µg/l	0.50	4.59	0.86	0.79	4.46	1.91	2.38	2.35	3.33	0.44	0.34
Boron (dissolved)	µg/l	10.00	130.00	95.00	84.00	1100.00	770.00	180.00	100.00	130.00	300.00	380.00
Calcium (dissolved)	mg/l	0.01	110.00	83.00	83.00	350.00	190.00	120.00	130.00	120.00	66.00	73.00
Chromium (hexavalent)	µg/l	5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.00	0.03	0.01	0.00	0.01	0.09	0.16	0.02	0.02	0.09	0.05
Magnesium (dissolved)	mg/l	0.01	45.00	40.00	40.00	77.00	71.00	51.00	55.00	49.00	20.00	20.00
Phosphorus (dissolved)	µg/l	20.00	326.00	485.00	355.00	516.00	458.00	688.00	939.00	788.00	513.00	440.00
Potassium (dissolved)	mg/l	0.03	7.40	3.70	3.10	230.00	7.20	7.10	7.40	8.60	11.00	11.00
Selenium (dissolved)	µg/l	0.60										
Sodium (dissolved)	mg/l	0.01	54.00	46.00	47.00	380.00	47.00	62.00	62.00	60.00	22.00	24.00
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00										
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	< 10	< 10	< 10				< 10		< 10	< 10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs												
Chloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

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			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	14/03/2024	17/04/2024	15/04/2024	15/04/2024	15/04/2024	14/03/2024	15/04/2024	13/03/2024	18/04/2024
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

All Surface Water Results

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	173987	145586	173988	171282	171283	171284	145587	171285	143897	175038
			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	14/03/2024	17/04/2024	15/04/2024	15/04/2024	15/04/2024	14/03/2024	15/04/2024	13/03/2024	18/04/2024
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Azobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbazole	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	118276	120008	120002	109702	109703
							BH ID	RTP151	RTP183	RTP184	RBH116	RBH116
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
							2/12/2024	2/13/2024	2/13/2024	1/31/2024	1/31/2024	
General Inorganics												
pH	pH Units	N/A	<5 >9	6.7	8.9	0	6.7	7.3	7.3	8.7	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0			
Total Sulphate as SO4	mg/kg	50		22	9700					9200	2400	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200		55	100	250			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120		27.7	52.1	124			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310					79	25	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160					39	13	
Total Sulphur	mg/kg	50		84	3900					3200	980	
Total Sulphur	%	0.005		0.008	0.356					0.322	0.098	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5					< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4					6.4	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0	< 1.0	< 1.0			
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	0.52	< 0.05	< 0.05			
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05	< 0.05	< 0.05			
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05	< 0.05	< 0.05			
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	0.07	0.2	< 0.05			
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05	0.1	< 0.05			
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	0.06	0.39	0.06			
Pyrene	mg/kg	0.05	54000	<MRL	13	0	0.06	0.33	0.05			
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05	0.18	< 0.05			
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05	0.19	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05	0.24	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05	0.1	< 0.05			
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05	0.18	< 0.05			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05	< 0.05	< 0.05			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05	< 0.05	< 0.05			
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		< 0.80	1.91	< 0.80			
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0				29000	27000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0				8.1	8.2	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	18	47	19	120	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.3	1.6	1.5			
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	0.2	2.4	2	20	10	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	0.7	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	4	< 1.8			
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	59	31	44	44	42	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	26	53	29			
Iron (aqua regia extractable)	mg/kg	40		0.013	58000					31000	32000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	43	43	77	35	32	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100					310	310	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	< 0.3	< 0.3			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0				14	5.7	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	23	27	24			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	118276	120008	120002	109702	109703
							BH ID	RTP151	RTP183	RTP184	RBH116	RBH116
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
							2/12/2024	2/13/2024	2/13/2024	1/31/2024	1/31/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	1.2	1.7	1.9	4	3.3	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	42	48	46	100	94	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	65	100	220			
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000					11000	8300	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900					3700	3200	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900					6400	5400	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800					2500	1900	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050	< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	< 2.0	< 2.0	< 2.0			
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	< 8.0	< 8.0	< 8.0			
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	< 8.0	< 8.0	10			
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	< 10	< 10	12			
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	< 0.010	< 0.010	< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	< 0.010	< 0.010	< 0.010			
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050	< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	< 1.0			
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	< 2.0			
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10			
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	< 10	< 10	< 10			
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	< 10	< 10	< 10			
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0			
Benzene	µg/kg	5	15000	<MRL	28	0	11	< 5.0	< 5.0			
Toluene	µg/kg	5	3300000	<MRL	130	0	5.7	< 5.0	< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	< 5.0	< 5.0			
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0			
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0			
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0	11	< 5.0	< 5.0			
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	118276	120008	120002	109702	109703
						BH ID	RTP151	RTP183	RTP184	RBH116	RBH116
						Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
						Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
						Number of Exceedances	2/12/2024	2/13/2024	2/13/2024	1/31/2024	1/31/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0	5.7	< 5.0	< 5.0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0	< 5.0	< 5.0	< 5.0		
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0	< 5.0	< 5.0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0		
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	118276	120008	120002	109702	109703
							BH ID	RTP151	RTP183	RTP184	RBH116	RBH116
							Depth	0.10-0.30	0.00-0.10	0.20-0.40	0.50-0.60	5.50-5.70
							Strata	Topsoil	Topsoil	Topsoil	PFA	PFA
							2/12/2024	2/13/2024	2/13/2024	1/31/2024	1/31/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	RBH119	RBH119	RBH136	RBH138	RBH141
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/2/2024	2/5/2024	2/9/2024	2/12/2024	2/5/2024	
General Inorganics												
pH	pH Units	N/A	<5 >9	6.7	8.9	0	7.9	8.7	8.1	7.8	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		2600	9100	7400	8700	2000	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		37	45	120	23	35	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				60	11		
Total Sulphur	mg/kg	50		84	3900		1600	3900	2500	2800	2000	
Total Sulphur	%	0.005		0.008	0.356				0.249	0.28		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL		< 20	< 20			< 20	
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9			0.2				
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			16				
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0		< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	3900	30000	19000	34000	25000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	7.4	8.5	8.5	7.2	5.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0			96	79		
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	5.2	12	40	4.3	10	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	3.1	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	68	47	54	48	43	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		7800	27000	14000	37000	29000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	96	36	48	34	62	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		670	330	240	240	330	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	5.3	13	11	3.2	26	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	RBH119	RBH119	RBH136	RBH138	RBH141
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/2/2024	2/5/2024	2/9/2024	2/12/2024	2/5/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0		3.2	3.2	4.1	2.4	2.7
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		84	110	120	88	88
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			5100	9800	5200	9700	16000
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			4500	3800	4100	3400	4500
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			5200	7400	4200	6500	5400
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			2400	3300	5800	2800	2000
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	109705	112637	116835	118281	112638
							BH ID	RBH119	RBH119	RBH136	RBH138	RBH141
							Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/2/2024	2/5/2024	2/9/2024	2/12/2024	2/5/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	109705	112637	116835	118281	112638
						BH ID	RBH119	RBH119	RBH136	RBH138	RBH141
						Depth	1.00-1.20	6.90-7.00	13.50-13.60	4.00-4.10	7.50-7.60
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/2/2024	2/5/2024	2/9/2024	2/12/2024	2/5/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	RBH141A	RTP151	RTP153	RTP157	RTP181
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/7/2024	2/12/2024	2/13/2024	2/12/2024	2/13/2024	
General Inorganics												
pH	pH Units	N/A	<5 >9	6.7	8.9	0	8.1	7.7	8	8.1	8.1	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		3300	140	4000	330	940	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		40	5	5.1	3.6	12	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		20	2.5	2.5	1.8	6.2	
Total Sulphur	mg/kg	50		84	3900		1100	84	1400	140	410	
Total Sulphur	%	0.005		0.008	0.356		0.111	0.008	0.143	0.014	0.041	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	4.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	29000	5800	46000	27000	40000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	7.3	< 1.0	8.6	7.4	9	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	85	11	92	66	95	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	1.4	0.5	5.2	0.3	1.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	49	160	46	110	48	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		31000	14000	34000	28000	35000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	32	7.7	45	31	48	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		210	140	230	210	190	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.5	1.2	3.4	2.3	3.1	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	114576	118277	120005	118278	120006
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/7/2024	2/12/2024	2/13/2024	2/12/2024	2/13/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	3.6	< 1.0	3.2	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	88	18	110	72	120	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		6800	2400	9200	5200	6900	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		2700	960	3600	2600	3100	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		6000	850	9400	4900	7700	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		2900	480	3700	2100	4000	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	RBH141A	RTP151	RTP153	RTP157	RTP181
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/7/2024	2/12/2024	2/13/2024	2/12/2024	2/13/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	114576	118277	120005	118278	120006
							BH ID	RBH141A	RTP151	RTP153	RTP157	RTP181
							Depth	3.00-3.10	0.50-0.70	2.90-3.10	0.40-0.60	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/7/2024	2/12/2024	2/13/2024	2/12/2024	2/13/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0						
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120007	120003	120588	121253	120647
							BH ID	RTP182	RTP184	RBH124	RTP124	RTP134
							Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
							Strata	PFA	PFA	PFA	PFA	PFA
							2/13/2024	2/13/2024	2/14/2024	2/15/2024	2/14/2024	
General Inorganics												
pH	pH Units	N/A	<5 >9	6.7	8.9	0	8.7	8.8	8.3	8.3	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		5300	890	6400	820	1500	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		17	4.1	3.3	1.3	1.8	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		8.6	2.1	1.6	0.7	0.9	
Total Sulphur	mg/kg	50		84	3900		2000	320	2100	260	480	
Total Sulphur	%	0.005		0.008	0.356		0.196	0.032	0.213	0.026	0.048	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	50000	14000	37000	30000	41000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.8	3.9	8.9	5.8	11	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	89	48	93	90	160	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	18	1.1	6.4	3.4	1.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	52	28	64	32	55	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		34000	25000	44000	37000	42000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	48	16	40	26	40	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		310	200	240	320	190	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.2	3.3	2.8	2.6	2.6	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120007	120003	120588	121253	120647
							BH ID	RTP182	RTP184	RBH124	RTP124	RTP134
							Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
							Strata	PFA	PFA	PFA	PFA	PFA
							2/13/2024	2/13/2024	2/14/2024	2/15/2024	2/14/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0		3.1	5.2	< 1.0	< 1.0	2.7
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		120	48	130	81	110
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			15000	4900	9300	13000	7200
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			4900	1800	3500	3300	3100
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			9900	2200	6700	5300	7600
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			5500	1200	3300	1900	3200
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	120007	120003	120588	121253	120647
						BH ID	RTP182	RTP184	RBH124	RTP124	RTP134
						Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/13/2024	2/13/2024	2/14/2024	2/15/2024	2/14/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	120007	120003	120588	121253	120647
						BH ID	RTP182	RTP184	RBH124	RTP124	RTP134
						Depth	0.50-0.70	1.70-1.90	5.00-5.10	1.20-1.40	0.50-0.70
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/13/2024	2/13/2024	2/14/2024	2/15/2024	2/14/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121250	120649	121259	122230	121256
							BH ID	121250	120649	121259	122230	121256
							Depth	3.20-3.40	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
							Strata	PFA	PFA	PFA	PFA	PFA
							2/15/2024	2/14/2024	2/15/2024	2/16/2024	2/15/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0		8.4	8.2	8	7.5	7.8
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700		6000	4700	7300	4500	1700	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		3.6	4.8	6	3.6	1.7	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		1.8	2.4	3	1.8	0.8	
Total Sulphur	mg/kg	50		84	3900		1700	1400	2200	1500	480	
Total Sulphur	%	0.005		0.008	0.356		0.168	0.142	0.216	0.146	0.048	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		2.6	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	32000	33000	50000	29000	38000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.4	7.6	9.2	8.9	9.4	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	140	130	120	120	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	5.6	2.2	3.7	5.6	1.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	51	45	57	41	55	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		43000	37000	58000	35000	41000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	31	29	36	35	38	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		240	170	220	200	260	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	2.4	2.5	4.9	2.4	3	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121250	120649	121259	122230	121256
							BH ID	RTP135	RTP137	RTP138	RTP139	RTP140
							Depth	3.20-3.40	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
							Strata	PFA	PFA	PFA	PFA	PFA
							2/15/2024	2/14/2024	2/15/2024	2/16/2024	2/15/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	2.4	4.7	2.4	2.5	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	96	90	130	100	120	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		7500	6200	8200	8500	6300	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		2900	2400	2800	3100	3000	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		5300	6100	6400	5700	6500	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		2100	2300	2500	1900	2800	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121250	120649	121259	122230	121256
							BH ID	RTP135	RTP137	RTP138	RTP139	RTP140
							Depth	3.20-3.40	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
							Strata	PFA	PFA	PFA	PFA	PFA
							2/15/2024	2/14/2024	2/15/2024	2/16/2024	2/15/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	121250	120649	121259	122230	121256
						BH ID	RTP135	RTP137	RTP138	RTP139	RTP140
						Depth	3.20-3.40	1.60-1.80	3.50-3.70	3.50-3.70	2.20-2.40
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/15/2024	2/14/2024	2/15/2024	2/16/2024	2/15/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	RTP143	RTP154	RTP155	RTP166	RTP177
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
							2/20/2024	2/16/2024	2/16/2024	2/19/2024	2/19/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.2	8.2	8.2	8.5	7.5	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0					
Total Sulphate as SO4	mg/kg	50		22	9700			3800	3300	480	3300	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		3.7	2.9	1.8	1.7	3.5	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		1.9	1.4	0.9	0.9	1.8	
Total Sulphur	mg/kg	50		84	3900		760	1200	1200	150	1000	
Total Sulphur	%	0.005		0.008	0.356		0.076	0.121	0.117	0.015	0.101	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	31000	33000	38000	34000	36000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	8.1	11	8.9	9.8	9.3	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	87	130	140	130	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	3.7	1.7	1.7	1.2	3.9	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	53	54	56	60	63	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		37000	38000	42000	43000	38000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	48	43	36	37	36	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		350	190	160	320	300	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	6.3	3.5	3.1	2.3	2.5	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	RTP143	RTP154	RTP155	RTP166	RTP177
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
							2/20/2024	2/16/2024	2/16/2024	2/19/2024	2/19/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	2.6	2.5	3.7	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	160	130	110	120	140	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		13000	6900	6300	6500	8800	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		3900	2700	2700	3000	3200	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		5400	6500	7000	5900	6600	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		1800	2100	2500	1900	2000	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125505	122232	122234	124153	124155
							BH ID	RTP143	RTP154	RTP155	RTP166	RTP177
							Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
							Strata	PFA	PFA	PFA	PFA	PFA
							2/20/2024	2/16/2024	2/16/2024	2/19/2024	2/19/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	125505	122232	122234	124153	124155
						BH ID	RTP143	RTP154	RTP155	RTP166	RTP177
						Depth	0.40-0.50	0.90-1.10	2.60-2.80	0.80-0.90	1.20-1.30
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/20/2024	2/16/2024	2/16/2024	2/19/2024	2/19/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	RTP186	RBH129	RBH126	RBH114	RBH114
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/14/2024	2/20/2024	2/19/2024	2/21/2024	2/21/2024	
General Inorganics												
pH	pH Units	N/A	<5 >9	6.7	8.9	0	8	8.9	8.3	8.3	8.4	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0				< 1.0		
Total Sulphate as SO4	mg/kg	50		22	9700		2600	7400	2800		840	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000					98		
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500					48.9		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		6.8	5.4	3		15	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		3.4	2.7	1.5		7.7	
Total Sulphur	mg/kg	50		84	3900		990	2700	1100		320	
Total Sulphur	%	0.005		0.008	0.356		0.099	0.267	0.112		0.032	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5		< 0.5	< 0.5	< 0.5		< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4		< 2.0	< 2.0	< 2.0		< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0				< 1.0		
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0				0.1		
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0				< 0.05		
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0				< 0.05		
Fluorene	mg/kg	0.05	60000	<MRL	2	0				< 0.05		
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0				< 0.05		
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0				< 0.05		
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0				< 0.05		
Pyrene	mg/kg	0.05	54000	<MRL	13	0				< 0.05		
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0				< 0.05		
Chrysene	mg/kg	0.05	350	<MRL	7.4	0				< 0.05		
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0				< 0.05		
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0				< 0.05		
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0				< 0.05		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0				< 0.05		
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0				< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0				< 0.05		
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5					< 0.80		
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	33000	34000	16000		24000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	7.9	7.4	3.9		8.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	100	85	52	120	140	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0				3.4		
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	1.1	24	2.7	4	4.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0				< 1.8		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	52	51	25	59	38	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0				110		
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		39000	34000	18000		33000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	33	44	17	56	29	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		280	290	200		310	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0				< 0.3		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	3.6	4.8	3.7		2.8	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0				55		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	RTP186	RBH129	RBH126	RBH114	RBH114
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/14/2024	2/20/2024	2/19/2024	2/21/2024	2/21/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	3.2	< 1.0	13	3.8	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	140	120	61	130	85	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0				130		
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		8100	13000	7100		8300	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		3100	3900	3300		3100	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		5500	6900	2900		4400	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		2200	2500	1200		1500	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0				< 0.020		
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0				< 0.020		
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0				< 0.050		
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0				< 1.0		
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0				4.5		
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0				59		
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500					49		
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800					110		
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023					< 0.010		
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12					< 0.010		
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0				< 0.050		
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0				< 1.0		
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0				< 2.0		
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0				< 10		
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0				< 10		
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500					< 10		
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0				< 5.0		
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0		
Toluene	µg/kg	5	3300000	<MRL	130	0				< 5.0		
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0				< 5.0		
o-Xylene	µg/kg	5	3700000	<MRL	6100	0				< 5.0		
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL					< 5.0		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	120641	125560	125600	125986	125987
							BH ID	RTP186	RBH129	RBH126	RBH114	RBH114
							Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
							Strata	PFA	PFA	PFA	PFA	PFA
							2/14/2024	2/20/2024	2/19/2024	2/21/2024	2/21/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	120641	125560	125600	125986	125987
						BH ID	RTP186	RBH129	RBH126	RBH114	RBH114
						Depth	1.50-1.70	6.50-6.60	0.10-0.30	0.20-0.40	0.40-0.60
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/14/2024	2/20/2024	2/19/2024	2/21/2024	2/21/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	128695	128696	128698	129904	130175
							BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
							Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
							Strata	PFA	PFA	PFA	PFA	PFA
							2/22/2024	2/23/2024	2/23/2024	2/26/2024	2/23/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.2	8.4	8.1	8.9	7.9	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0	< 1.0		
Total Sulphate as SO4	mg/kg	50		22	9700		7100	8800	6700		4500	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		5000	4900		1600		
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		2500	2450		788		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310				2.1		11	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				1		5.5	
Total Sulphur	mg/kg	50		84	3900				2300		1600	
Total Sulphur	%	0.005		0.008	0.356				0.229		0.16	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5				< 0.5		1.1	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4				< 2.0		< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3		4.3	< 1.0				
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0				< 1.0		
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	< 0.05	< 0.05		0.26		
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	< 0.05		< 0.05		
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05	< 0.05		< 0.05		
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05	< 0.05		0.07		
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	0.46	< 0.05		0.23		
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	0.12	< 0.05		0.05		
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	0.49	< 0.05		0.21		
Pyrene	mg/kg	0.05	54000	<MRL	13	0	0.67	< 0.05		0.19		
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	0.32	< 0.05		< 0.05		
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	1.2	< 0.05		< 0.05		
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05	< 0.05		< 0.05		
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05	< 0.05		< 0.05		
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05	< 0.05		< 0.05		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05	< 0.05		< 0.05		
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05		< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05	< 0.05		< 0.05		
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		3.29	< 0.80		1.01		
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			37000		34000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0			8.9		6.8	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	91	100	110	81	86	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	3.4	3.5		2.5		
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	11	7.7	8.2	17	2.9	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8		< 1.8		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	45	52	56	48	49	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	89	89		91		
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				30000		39000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	42	45	37	34	31	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				210		240	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	0.4	< 0.3		< 0.3		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0			2.9		4	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	48	49		51		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	128695	128696	128698	129904	130175
							BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
							Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
							Strata	PFA	PFA	PFA	PFA	PFA
							2/22/2024	2/23/2024	2/23/2024	2/26/2024	2/23/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	3.4	< 1.0	2.1	3.4	2	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110	110	130	90	99	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	65	55	93			
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000				7800	9400		
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900				3200	3100		
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900				7400	5800		
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800				2700	2400		
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020		< 0.020		
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020		< 0.020		
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050		< 0.050		
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	1.3	< 1.0		< 1.0		
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	38	< 2.0		6.7		
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	210	< 8.0		39		
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	1500	< 8.0		770		
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	1800	< 10		820		
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	< 0.010	< 0.010		< 0.010		
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	< 0.010	< 0.010		< 0.010		
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050		< 0.050		
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0		< 1.0		
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	20	< 2.0		6.4		
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	240	< 10		17		
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	1100	< 10		130		
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	1400	< 10		160		
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0		< 5.0		
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0		< 5.0		
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0		< 5.0		
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	< 5.0		< 5.0		
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0		< 5.0		
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0		< 5.0		
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	< 5.0	< 5.0				
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	< 5.0	< 5.0				
Bromomethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL		< 5.0	< 5.0				
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0		< 5.0		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
Chloroform	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0		< 5.0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	< 5.0	< 5.0				
Dibromomethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	< 5.0	< 5.0				
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	128695	128696	128698	129904	130175
						BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
						Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/22/2024	2/23/2024	2/23/2024	2/26/2024	2/23/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0		< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Dibromochloromethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0	< 5.0	< 5.0			
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0	< 5.0	< 5.0			
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Ethylbenzene	µg/kg	5	320000	<MRL	640	0	< 5.0	< 5.0			
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0	< 5.0		< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0	< 5.0	< 5.0			
Bromoform	µg/kg	5	390000	<MRL	<MRL	0	< 5.0	< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0		< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0	< 5.0	< 5.0			
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0	< 5.0	< 5.0			
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0	< 5.0	< 5.0			
2-Chlorotoluene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1	< 5.0	< 5.0			
tert-Butylbenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1	< 5.0	< 5.0			
sec-Butylbenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
p-Isopropyltoluene	µg/kg	5		<MRL	570		< 5.0	< 5.0			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Butylbenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	< 0.2	< 0.2			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0	< 0.05	< 0.05			
Nitrobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Isophorone	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5		< 0.1	< 0.1			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	128695	128696	128698	129904	130175
						BH ID	RBH131	RBH131	RBH143	RBH132	RBH132
						Depth	5.00-5.50	6.00-6.50	2.50-2.60	10.00-10.50	6.00-6.50
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/22/2024	2/23/2024	2/23/2024	2/26/2024	2/23/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0	< 0.2	< 0.2			
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0	< 0.2	< 0.2			
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Azobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0	< 0.20	< 0.20			
Carbazole	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
Anthraquinone	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0	< 0.3	< 0.3			
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	< 0.2	< 0.2			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2	< 0.2			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3	< 0.3			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1	< 0.1			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	130723	130724	2942252	118280	112639
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	2/5/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.4	8.1	8.6	7.7	8.9	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0		< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		22	9700			7200				
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200					330	990	
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120					165	495	
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		230		35			
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		117		17.3			
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			6.1				
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			3.1				
Total Sulphur	mg/kg	50		84	3900			2700				
Total Sulphur	%	0.005		0.008	0.356			0.269				
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5			< 0.5				
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4			< 2.0				
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9			0.5				
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			0.56				
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0		< 1.0	< 1.0	< 1.0	
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	< 0.05		2.4	< 0.05	0.15	
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05		< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05		< 0.05	< 0.05	0.58	
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05		< 0.05	< 0.05	0.4	
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	< 0.05		< 0.05	< 0.05	1.4	
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05		< 0.05	< 0.05	0.27	
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	< 0.05		< 0.05	< 0.05	1.2	
Pyrene	mg/kg	0.05	54000	<MRL	13	0	< 0.05		< 0.05	< 0.05	0.99	
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05		< 0.05	< 0.05	0.41	
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05		< 0.05	< 0.05	0.45	
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05		< 0.05	< 0.05	0.32	
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05		< 0.05	< 0.05	0.14	
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05		< 0.05	< 0.05	0.23	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05		< 0.05	< 0.05	0.16	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05		< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05		< 0.05	< 0.05	0.16	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		< 0.80		2.35	< 0.80	6.85	
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		22000				
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0		8.1				
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	80	130	140	15	130	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.5	3.2	3.2	1.4	3.3	
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	0.5	8.8	1	0.7	14	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	23	28	46	72	50	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	59		94	31	87	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000			36000				
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	14	24	39	18	44	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100			300				
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3		< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0		3				
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	37		52	37	49	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	130723	130724	2942252	118280	112639
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	2/5/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	4	3.1	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	46	74	110	34	110	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	26		46	56	97	
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			9000				
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			3400				
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			4500				
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			1500				
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0			< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0			< 8.0	< 8.0	16	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0			< 10	< 10	19	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0			< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0			< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0			< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0			< 10	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0			< 10	< 10	< 10	
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0		< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0		< 5.0			
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0		< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0		< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0		< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0		< 5.0	< 5.0	< 5.0	
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0		< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0				10	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0		< 5.0			
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	130723	130724	2942252	118280	112639
							BH ID	130723	130724	2942252	118280	112639
							Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
							Strata	PFA	PFA	MG	MG	MG
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	2/5/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						< 5.0	< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0		< 5.0			
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0			< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0		< 5.0	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0			< 5.0	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	130723	130724	2942252	118280	112639
						BH ID	RBH137	RBH137	RBH113	RBH138	RBH141
						Depth	0.40-0.50	2.00-2.50	0.60-0.80	0.40-0.50	9.10-9.20
						Strata	PFA	PFA	MG	MG	MG
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	2/27/2024	2/27/2024	1/29/2024	2/6/2024	2/5/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	112643	120004	120640	120643	120646
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							2/6/2024	2/13/2024	2/14/2024	2/14/2024	2/14/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.7	8.3	8.4	8	8	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		22	9700							
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200		4200	190				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120		2120	96.7				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000				260	2000	99	
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500				129	1020	49.7	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160							
Total Sulphur	mg/kg	50		84	3900							
Total Sulphur	%	0.005		0.008	0.356							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5							
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4							
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0		< 1.0	< 1.0	< 1.0	< 1.0	
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	1.2	< 0.05	1.7	0.06	< 0.05	
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	0.18	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	0.6	< 0.05	0.21	< 0.05	< 0.05	
Fluorene	mg/kg	0.05	60000	<MRL	2	0	0.61	< 0.05	0.17	< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	2.1	< 0.05	0.86	0.06	0.56	
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	0.5	< 0.05	0.12	< 0.05	0.14	
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	1.8	< 0.05	0.62	0.08	0.93	
Pyrene	mg/kg	0.05	54000	<MRL	13	0	1.5	< 0.05	0.51	0.09	0.76	
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	0.51	< 0.05	0.28	< 0.05	0.39	
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	0.57	< 0.05	0.3	< 0.05	0.49	
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	0.45	< 0.05	0.3	< 0.05	0.57	
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	0.14	< 0.05	0.13	< 0.05	0.27	
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	0.33	< 0.05	0.2	< 0.05	0.52	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	0.19	< 0.05	0.1	< 0.05	0.24	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	0.21	< 0.05	0.15	< 0.05	0.28	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		11	< 0.80	5.67	< 0.80	5.15	
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	100	9.4	48	130	15	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	2.9	0.55	0.83	3.8	1.3	
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	45	0.3	2.4	3.8	2.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	43	12	20	61	30	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	67	17	50	93	30	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	63	4.8	18	40	34	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	41	17	18	53	27	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646	
							BH ID	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30	
							Strata	WASTE	MG	MG	MG	MG	
							2/6/2024	2/13/2024	2/14/2024	2/14/2024	2/14/2024		
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	1.8	< 1.0	1.6		
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	88	21	28	130	39		
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	130	11	70	69	96		
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000								
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900								
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900								
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800								
Petroleum Hydrocarbons													
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	2.9	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	1.5	< 1.0	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	4.8	< 2.0	3.9	< 2.0	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	12	< 8.0	12	< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	170	< 8.0	450	< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	190	< 10	470	< 10	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	0.023	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	0.12	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	58	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	2.2	< 1.0	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	5.1	< 2.0	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10	< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	37	< 10	98	< 10	< 10	19	
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	95	< 10	110	< 10	< 10	19	
MTBE and BTEX													
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	28	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	640	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	2100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	6100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
VOCs													
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Bromomethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Chloroform	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	28	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Dibromomethane	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	RBH141	RTP153	RTP185	RTP186	RTP134
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							2/6/2024	2/13/2024	2/14/2024	2/14/2024	2/14/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0	< 5.0			
Toluene	µg/kg	5	33000000	<MRL	130	0		130		< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0				
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0				
Dibromochloromethane	µg/kg	5		<MRL	<MRL			< 5.0				
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		< 5.0				
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			< 5.0				
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		< 5.0				
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0				
Ethylbenzene	µg/kg	5	320000	<MRL	640	0		640	< 5.0			
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0		2100	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		< 5.0				
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		6100	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		20000				
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0				
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		< 5.0				
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		41000				
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0				
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0				
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		25000				
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		41000				
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
p-Isopropyltoluene	µg/kg	5		<MRL	570			570				
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			< 5.0				
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			< 5.0				
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0				
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL			< 0.1				
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		< 0.2				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1				
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			< 0.2				
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2				
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			< 0.1				
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2				
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			< 0.1				
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		< 0.05				
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3				
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			< 0.2				
Isophorone	mg/kg	0.2		<MRL	<MRL			< 0.2				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			< 0.3				
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			< 0.3				
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			< 0.1				
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			< 0.1				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			< 0.2				
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5			0.5				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	112643	120004	120640	120643	120646
							BH ID	RBH141	RTP153	RTP185	RTP186	RTP134
							Depth	13.50-13.60	0.20-0.40	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	WASTE	MG	MG	MG	MG
							2/6/2024					
							2/13/2024					
							2/14/2024					
							2/14/2024					
							2/14/2024					
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			< 0.1				
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			< 0.1				
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			< 0.2				
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0		0.4				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			< 0.3				
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		< 0.2				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			< 0.2				
Azobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3				
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			< 0.2				
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		< 0.20				
Carbazole	mg/kg	0.3		<MRL	<MRL			< 0.3				
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			< 0.2				
Anthraquinone	mg/kg	0.3		<MRL	<MRL			< 0.3				
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0		< 0.3				
Phenols by GC-MS												
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121252	121258	122231	124151	124152
							BH ID	121252	121258	122231	124151	124152
							Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
							Strata	MG	MG	MG	MG	MG
							2/15/2024	2/15/2024	2/16/2024	2/19/2024	2/19/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.2	7.9	8	8.1		
Total Cyanide	mg/kg	1	49	<MRL	7.9	0	< 1.0	< 1.0	< 1.0	< 1.0		
Total Sulphate as SO4	mg/kg	50		22	9700							
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		1200	59	640	1100		
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		592	29.3	321	555		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160							
Total Sulphur	mg/kg	50		84	3900							
Total Sulphur	%	0.005		0.008	0.356							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5							
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4							
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0	< 1.0	< 1.0	< 1.0		
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	< 0.05	< 0.05	< 0.05	< 0.05		
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	< 0.05	< 0.05	< 0.05		
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05	< 0.05	< 0.05	< 0.05		
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05	< 0.05	< 0.05	< 0.05		
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	< 0.05	< 0.05	< 0.05	< 0.05		
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	< 0.05	0.07	< 0.05	< 0.05		
Pyrene	mg/kg	0.05	54000	<MRL	13	0	< 0.05	0.06	< 0.05	< 0.05		
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05	< 0.05	< 0.05	< 0.05		
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05	< 0.05	< 0.05	< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05	< 0.05	< 0.05	< 0.05		
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		< 0.80	< 0.80	< 0.80	< 0.80		
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	98	19	17	130		
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	2.4	1.6	0.89	3.3		
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	7	2.6	1.6	1		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2		
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8	< 1.8	< 1.8		
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	35	34	17	60		
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	71	38	110	100		
Iron (aqua regia extractable)	mg/kg	40		0.013	58000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	28	48	9.5	42		
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	< 0.3	< 0.3	< 0.3		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	38	35	21	56		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	121252	121258	122231	124151	124152
							BH ID	RTP124	RTP138	RTP154	RTP150	RTP150
							Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
							Strata	MG	MG	MG	MG	MG
							2/15/2024	2/15/2024	2/16/2024	2/19/2024	2/19/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	78	46	34	130		
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	34	99	17	89		
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000							
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900							
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900							
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	< 8.0	< 8.0	< 8.0	< 8.0	54	
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	< 10	< 10	< 10	< 10	54	
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	< 10	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	< 10	< 10	< 10	< 10	< 10	< 10
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	121252	121258	122231	124151	124152
						BH ID	RTP124	RTP138	RTP154	RTP150	RTP150
						Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
						Strata	MG	MG	MG	MG	MG
						Number of Exceedances	2/15/2024	2/15/2024	2/16/2024	2/19/2024	2/19/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	121252	121258	122231	124151	124152
						BH ID	RTP124	RTP138	RTP154	RTP150	RTP150
						Depth	0.20-0.40	0.10-0.30	0.50-0.70	1.10-1.20	4.10-4.20
						Strata	MG	MG	MG	MG	MG
						Number of Exceedances	2/15/2024	2/15/2024	2/16/2024	2/19/2024	2/19/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506
							BH ID	124154	124156	124158	125504	125506
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
							Strata	MG	MG	MG	MG	MG
							2/19/2024	2/19/2024	2/19/2024	2/20/2024	2/20/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0				7.8	8.5	7.40
Total Cyanide	mg/kg	1	49	<MRL	7.9	0				< 1.0		< 1.0
Total Sulphate as SO4	mg/kg	50		22	9700						1800	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000						650	1100.00
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500						325	532.00
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160							
Total Sulphur	mg/kg	50		84	3900							
Total Sulphur	%	0.005		0.008	0.356							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5							
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4							
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9					0.9		
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22					1.5		
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0					< 1.0	< 1.0
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0					0.3	0.93
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0					< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0					0.11	0.18
Fluorene	mg/kg	0.05	60000	<MRL	2	0					0.09	0.35
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0					0.55	1.20
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0					0.08	0.27
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0					0.56	0.53
Pyrene	mg/kg	0.05	54000	<MRL	13	0					0.53	0.48
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0					0.23	0.26
Chrysene	mg/kg	0.05	350	<MRL	7.4	0					0.3	0.31
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0					0.31	0.29
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0					0.08	0.08
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0					0.15	0.17
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0					< 0.05	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0					< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0					< 0.05	< 0.05
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5						3.29	5.03
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0						
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0						
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0					120	17.00
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0					2.5	1.70
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0					17	13.00
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0					< 0.2	0.70
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0					< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0					97	41.00
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0					280	48.00
Iron (aqua regia extractable)	mg/kg	40		0.013	58000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0					54	140.00
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0					< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0					210	41.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506
							BH ID	RTP166	RTP177	RTP166	RTP142	RTP143
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
							Strata	MG	MG	MG	MG	MG
							2/19/2024	2/19/2024	2/19/2024	2/20/2024	2/20/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0					5.2	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0					92	41.00
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0					350	110.00
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000							
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900							
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900							
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0					< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0					< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0					< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0					< 1.0	1.70
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0					< 2.0	2.20
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0					12	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500						270	32.00
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800						280	36.00
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023						< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12						< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0					< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0					< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					< 2.0	5.90
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					< 10	11.00
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					56	31.00
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500						56	48.00
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					< 5.0	< 5.0
Benzene	µg/kg	5	15000	<MRL	28	0					< 5.0	< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0	< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					< 5.0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0	< 5.0
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0					< 5.0	< 5.0
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	124154	124156	124158	125504	125506	
							BH ID	RTP166	RTP177	RTP166	RTP142	RTP143	
							Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00	
							Strata	MG	MG	MG	MG	MG	
							2/19/2024	2/19/2024	2/19/2024	2/20/2024	2/20/2024		
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL								
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL								
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL								
Dibromochloromethane	µg/kg	5		<MRL	<MRL								
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0							
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL								
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0							
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL								
Ethylbenzene	µg/kg	5	320000	<MRL	640	0							
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0							
Bromoform	µg/kg	5	390000	<MRL	<MRL	0							
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0							
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL								
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0							
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0							
2-Chlorotoluene	µg/kg	5		<MRL	<MRL								
4-Chlorotoluene	µg/kg	5		<MRL	<MRL								
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1							
tert-Butylbenzene	µg/kg	5		<MRL	<MRL								
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1							
sec-Butylbenzene	µg/kg	5		<MRL	<MRL								
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL								
p-Isopropyltoluene	µg/kg	5		<MRL	570								
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL								
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL								
Butylbenzene	µg/kg	5		<MRL	<MRL								
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL								
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL								
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL								
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL								
SVOCs													
Aniline	mg/kg	0.1		<MRL	<MRL								
Phenol	mg/kg	0.2	380	<MRL	<MRL	0							
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL								
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL								
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL								
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL								
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL								
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL								
2-Methylphenol	mg/kg	0.3		<MRL	<MRL								
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0							
Nitrobenzene	mg/kg	0.3		<MRL	<MRL								
4-Methylphenol	mg/kg	0.2		<MRL	<MRL								
Isophorone	mg/kg	0.2		<MRL	<MRL								
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL								
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL								
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL								
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL								
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL								
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL								
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL								
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL								
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL								
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL								
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5								

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	124154	124156	124158	125504	125506
						BH ID	RTP166	RTP177	RTP166	RTP142	RTP143
						Depth	3.80-3.90	3.00-3.10	1.80-1.90	0.30-0.40	0.90-1.00
						Strata	MG	MG	MG	MG	MG
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	2/19/2024	2/19/2024	2/19/2024	2/20/2024	2/20/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							2/20/2024	2/27/2024	2/14/2024	2/28/2024	2/28/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.30	7.10	8.10	8.40	8.00	
Total Cyanide	mg/kg	1	49	<MRL	7.9	0		7.90				
Total Sulphate as SO4	mg/kg	50		22	9700				6900.00	6600.00	9700.00	
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach, Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000		960.00	31.00				
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500		480.00	15.60				
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310				15.00	4.70	7.30	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				7.40	2.40	3.60	
Total Sulphur	mg/kg	50		84	3900				2300.00	2600.00	3600.00	
Total Sulphur	%	0.005		0.008	0.356				0.23	0.26	0.36	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5				< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4				< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0	< 1.0	< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	1.50	0.67				
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05	0.12				
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	1.80	0.18				
Fluorene	mg/kg	0.05	60000	<MRL	2	0	2.00	0.11				
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	7.30	1.30				
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	1.50	0.28				
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	12.00	1.60				
Pyrene	mg/kg	0.05	54000	<MRL	13	0	13.00	1.00				
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	5.70	0.63				
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	7.40	0.82				
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	6.10	1.20				
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	2.00	0.55				
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	5.50	0.72				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	2.50	0.69				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	0.85	0.19				
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	2.50	0.86				
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5		71.50	10.90				
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			36000.00	44000.00	38000.00	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0			9.50	7.70	8.00	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	38.00	41.00	120.00	100.00	88.00	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.80	1.70				
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0	5.00	1.50	2.50	16.00	19.00	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0	< 0.2	3.90	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 1.8	< 1.8				
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	41.00	93.00	50.00	55.00	57.00	
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	81.00	120.00				
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				38000.00	41000.00	46000.00	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	25.00	150.00	37.00	36.00	71.00	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				250.00	200.00	230.00	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0	< 0.3	1.50				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0			2.80	3.00	38.00	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	44.00	89.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							2/20/2024	2/27/2024	2/14/2024	2/28/2024	2/28/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	3.90	< 1.0	8.90	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	57.00	56.00	130.00	120.00	100.00	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	81.00	520.00				
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000				8300.00	9700.00	8700.00	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900				3200.00	3600.00	3200.00	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900				6500.00	8200.00	7200.00	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800				2500.00	3600.00	2400.00	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050				
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0	15.00	< 1.0				
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0	120.00	< 2.0				
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0	240.00	< 8.0				
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500	0	710.00	63.00				
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800	0	1100.00	63.00				
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023	0	< 0.010	< 0.010				
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12	0	< 0.010	< 0.010				
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050				
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	8.40	< 1.0				
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0	150.00	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0	440.00	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0	880.00	36.00				
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500	0	1500.00	36.00				
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0				
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0					
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0				
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0				
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	125507	134391	120644	132251	132253
							BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
							Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
							Strata	MG	MG	PFA	PFA	PFA
							2/20/2024	2/27/2024	2/14/2024	2/28/2024	2/28/2024	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0				
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	320000	<MRL	640	0						
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0	< 5.0	< 5.0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	570							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	125507	134391	120644	132251	132253
						BH ID	RTP143	RBH125	RTP136	RBH145	RBH145
						Depth	1.50-1.60	0.00-0.10	0.20-0.40	3.00-3.10	15.00-15.10
						Strata	MG	MG	PFA	PFA	PFA
						Number of Exceedances	2/20/2024	2/27/2024	2/14/2024	2/28/2024	2/28/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	132255	147366	147367	147368	147369
							BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
							Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	PFA	Superficial	Superficial	Superficial	Superficial
							2/28/2024	2/12/2024	2/12/2024	2/20/2024	2/28/2024	
General Inorganics												
pH	pH Units	N/A	<5 >9	6.7	8.9	0		8.20	8.20	8.00	8.50	8.40
Total Cyanide	mg/kg	1	49	<MRL	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	9700			5000.00	2800.00	5100.00	5900.00	6400.00
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500							
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			6.70	310.00	160.00	170.00	62.00
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			3.40	160.00	78.00	84.00	31.00
Total Sulphur	mg/kg	50		84	3900			2000.00	980.00	1700.00	2100.00	2000.00
Total Sulphur	%	0.005		0.008	0.356			0.20	0.10	0.17	0.21	0.20
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5			< 0.5	< 0.5	1.00	5.00	0.90
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL							
Sulphide	mg/kg	1		4.3	4.3							
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9							
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0						
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0						
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0						
Fluorene	mg/kg	0.05	60000	<MRL	2	0						
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0						
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0						
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0						
Pyrene	mg/kg	0.05	54000	<MRL	13	0						
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0						
Chrysene	mg/kg	0.05	350	<MRL	7.4	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0						
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0						
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5							
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		45000.00	21000.00	24000.00	22000.00	15000.00
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0		8.40	< 1.0	5.10	3.30	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0		110.00	14.00	55.00	31.00	38.00
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0		4.60	16.00	16.00	13.00	37.00
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0		55.00	39.00	44.00	42.00	36.00
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0						
Iron (aqua regia extractable)	mg/kg	40		0.013	58000			43000.00	29000.00	32000.00	38000.00	35000.00
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0		39.00	22.00	35.00	26.00	22.00
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100			230.00	290.00	670.00	1100.00	590.00
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0		3.00	2.60	7.20	22.00	91.00
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Number of Exceedances	Report ID	132255	147366	147367	147368	147369
							BH ID	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	PFA	Superficial	Superficial	Superficial	Superficial
							2/28/2024	2/12/2024	2/12/2024	2/20/2024	2/28/2024	
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	120.00	42.00	79.00	54.00	46.00	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000		9000.00	2300.00	5700.00	18000.00	17000.00	
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900		3900.00	3300.00	3800.00	6100.00	7900.00	
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900		8400.00	1600.00	4900.00	3800.00	4800.00	
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800		3800.00	1300.00	2300.00	2000.00	1700.00	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0						
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0						
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0						
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0						
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500							
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800							
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023							
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12							
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0						
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0						
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0						
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0						
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0						
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500							
MTBE and BTEX												
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Toluene	µg/kg	5	3300000	<MRL	130	0						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0						
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0						
o-Xylene	µg/kg	5	3700000	<MRL	6100	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0						
Benzene	µg/kg	5	15000	<MRL	28	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	132255	147366	147367	147368	147369
						BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
						Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
						Strata	PFA	Superficial	Superficial	Superficial	Superficial
						Number of Exceedances	2/28/2024	2/12/2024	2/12/2024	2/20/2024	2/28/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	132255	147366	147367	147368	147369
						BH ID	RBH125	RBH136	RBH138	RBH129	RBH137
						Depth	6.00-6.50	15.50-15.60	9.50-9.60	22.10-22.20	8.60-9.00
						Strata	PFA	Superficial	Superficial	Superficial	Superficial
						Number of Exceedances	2/28/2024	2/12/2024	2/12/2024	2/20/2024	2/28/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	Report ID	Report ID	Report ID	Report ID	
						BH ID	RBH116	RBH124	RBH125	RBH136	RBH145
						Depth	3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA	PFA
Number of Exceedances	2/1/2024	2/14/2024	2/28/2024	2/9/2024	2/28/2024						
General Inorganics											
pH	pH Units	N/A	<5, >9	6.7	8.9	0	8.60	7.90	7.70	8.60	8.70
Total Cyanide	mg/kg	1	49	<MRL	7.9	0					
Total Sulphate as SO4	mg/kg	50		22	9700		2900.00	4600.00	2200.00	2200.00	3500.00
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200						
Water Soluble SO4 (2:1 Leach, Equiv.) 1hr extraction	mg/l	1.25		27.7	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310						
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160						
Total Sulphur	mg/kg	50		84	3900						
Total Sulphur	%	0.005		0.008	0.356						
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5						
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4						
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9		0.50	0.40	0.70	0.40	0.70
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		12.00	3.50	4.50	5.10	22.00
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0	0.12				
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0	< 0.05				
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0	< 0.05				
Fluorene	mg/kg	0.05	60000	<MRL	2	0	< 0.05				
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0	< 0.05				
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0	< 0.05				
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0	< 0.05				
Pyrene	mg/kg	0.05	54000	<MRL	13	0	< 0.05				
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0	< 0.05				
Chrysene	mg/kg	0.05	350	<MRL	7.4	0	< 0.05				
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0	< 0.05				
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0	< 0.05				
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0	< 0.05				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0	< 0.05				
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	< 0.017	< 0.017	< 0.017	< 0.017	0.14
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	0.23	0.24	0.24	0.21	0.36
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	0.66	0.45	0.66	0.81	0.56
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0					
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0					
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 0.00100	< 0.00100	< 0.00100	< 0.00100	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0					
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	0.00	0.04	0.01	0.03	0.03
Iron (aqua regia extractable)	mg/kg	40		0.013	58000	0	0.01	0.05	0.06	0.05	0.06
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0					
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100	0	0.01	< 0.010	< 0.010	< 0.010	< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	< 0.00500	< 0.00500	< 0.00500	< 0.00500	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	3.71	0.18	0.18	0.24	0.19

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID					
						BH ID	RBH116	RBH124	RBH125	RBH136	RBH145
						Depth	3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA	PFA
						Number of Exceedances	2/1/2024	2/14/2024	2/28/2024	2/9/2024	2/28/2024
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	0.01	< 0.0030	0.01	< 0.0030	0.01
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	0.01	0.13	0.11	0.08	0.09
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000						
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900						
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900						
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800						
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0					
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0					
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0					
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0				
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0				
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL						
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	RBH116	RBH124	RBH125	RBH136	RBH145
						BH ID	3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Depth	PFA	PFA	PFA	PFA	PFA
						Strata	2/1/2024	2/14/2024	2/28/2024	2/9/2024	2/28/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	320000	<MRL	640	0					
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID					
						BH ID	RBH116	RBH124	RBH125	RBH136	RBH145
						Depth	3.5-3.7	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA	PFA
Number of Exceedances						2/1/2024	2/14/2024	2/28/2024	2/9/2024	2/28/2024	
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID		
						BH ID	RTP136	RTP138
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
						Number of Exceedances	2/14/2024	2/15/2024
General Inorganics								
pH	pH Units	N/A	<5 >9	6.7	8.9	0	8.20	7.60
Total Cyanide	mg/kg	1	49	<MRL	7.9	0		
Total Sulphate as SO4	mg/kg	50		22	9700		22.00	3500.00
Water Soluble SO4 1hr extraction	mg/kg	2.5		55	4200			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		27.7	2120			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	5000			
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	2500			
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			
Total Sulphur	mg/kg	50		84	3900			
Total Sulphur	%	0.005		0.008	0.356			
Ammoniacal Nitrogen as NH3	mg/kg	0.5		<MRL	5			
Water Soluble Nitrate (2:1) as N	mg/kg	2		<MRL	6.4			
Water Soluble Nitrite (2:1) as N	mg/kg	20		<MRL	<MRL			
Sulphide	mg/kg	1		4.3	4.3			
Total Organic Carbon (TOC) - Automated	%	0.1		0.2	0.9		0.40	0.70
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		3.80	1.40
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	380	<MRL	<MRL	0		
Speciated PAHs								
Naphthalene	mg/kg	0.05	110	<MRL	2.4	0		< 0.05
Acenaphthylene	mg/kg	0.05	76000	<MRL	0.18	0		< 0.05
Acenaphthene	mg/kg	0.05	75000	<MRL	1.8	0		< 0.05
Fluorene	mg/kg	0.05	60000	<MRL	2	0		< 0.05
Phenanthrene	mg/kg	0.05	22000	<MRL	7.3	0		< 0.05
Anthracene	mg/kg	0.05	520000	<MRL	1.5	0		< 0.05
Fluoranthene	mg/kg	0.05	23000	<MRL	12	0		< 0.05
Pyrene	mg/kg	0.05	54000	<MRL	13	0		< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	<MRL	5.7	0		< 0.05
Chrysene	mg/kg	0.05	350	<MRL	7.4	0		< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	<MRL	6.1	0		< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	<MRL	2	0		< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	<MRL	5.5	0		< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	<MRL	2.5	0		< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	<MRL	0.85	0		< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	<MRL	2.5	0		< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	-	<MRL	71.5			
Heavy Metals / Metalloids								
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	11	0	< 0.017	< 0.017
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	0.21	0.30
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	0.00	0.53
Boron (water soluble)	mg/kg	0.2	240000	0.2	45	0		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.9	0		
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	4	0	< 0.00100	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0		
Copper (aqua regia extractable)	mg/kg	1	68000	0.0049	280	0	< 0.0040	0.13
Iron (aqua regia extractable)	mg/kg	40		0.013	58000	0	< 0.0070	0.07
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0		
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100	0	0.02	< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	1.5	0		
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	91	0	< 0.00500	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	210	0	0.01	0.06

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID		
						BH ID	RTP136	RTP138
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
						Number of Exceedances	2/14/2024	2/15/2024
Selenium (aqua regia extractable)	mg/kg	1	12000	0.0062	13	0	< 0.0030	0.01
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	0.08	0.06
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	< 0.0040	0.14
Calcium (aqua regia extractable)	mg/kg	20	-	2300	18000			
Magnesium (aqua regia extractable)	mg/kg	20	-	960	7900			
Potassium (aqua regia extractable)	mg/kg	20	-	850	9900			
Sodium (aqua regia extractable)	mg/kg	20	-	480	5800			
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS 1D AL	mg/kg	0.02	2400	<MRL	<MRL	0		
TPHCWG - Aliphatic >C6 - C8 HS 1D AL	mg/kg	0.02	5300	<MRL	<MRL	0		
TPHCWG - Aliphatic >C8 - C10 HS 1D AL	mg/kg	0.05	1300	<MRL	2.9	0		
TPHCWG - Aliphatic >C10 - C12 EH CU 1D AL #1 #2	mg/kg	1	6100	<MRL	15	0		
TPHCWG - Aliphatic >C12 - C16 EH CU 1D AL #1 #2	mg/kg	2	43000	<MRL	120	0		
TPHCWG - Aliphatic >C16 - C21 EH CU 1D AL #1 #2	mg/kg	8	1000000	<MRL	240	0		
TPHCWG - Aliphatic >C21 - C35 EH CU 1D AL #1 #2	mg/kg	8		<MRL	1500			
TPHCWG - Aliphatic >C6 - C35 EH CU+HS 1D AL #1 #2	mg/kg	10		<MRL	1800			
TPHCWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01		<MRL	0.023			
TPHCWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01		<MRL	0.12			
TPHCWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	2200	<MRL	58	0		
TPHCWG - Aromatic >EC10 - EC12 EH CU 1D AR #1 #2	mg/kg	1	11000	<MRL	8.4	0		
TPHCWG - Aromatic >EC12 - EC16 EH CU 1D AR #1 #2	mg/kg	2	35000	<MRL	150	0		
TPHCWG - Aromatic >EC16 - EC21 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	440	0		
TPHCWG - Aromatic >EC21 - EC35 EH CU 1D AR #1 #2	mg/kg	10	29000	<MRL	1100	0		
TPHCWG - Aromatic >EC5 - EC35 EH CU+HS 1D AR #1	mg/kg	10		<MRL	1500			
MTBE and BTEX								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0		
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0		< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0		< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0		< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0
VOCs								
Chloromethane	µg/kg	5	560	<MRL	<MRL	0		
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0		
Bromomethane	µg/kg	5		<MRL	<MRL			
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL			
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL			
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL			
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL			
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Chloroform	µg/kg	5		<MRL	<MRL			
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL			
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL			
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0		
Benzene	µg/kg	5	15000	<MRL	28	0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL			
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		
Dibromomethane	µg/kg	5		<MRL	<MRL			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID		
						BH ID	RTP136	RTP138
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
						Number of Exceedances	2/14/2024	2/15/2024
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			
Toluene	µg/kg	5	3300000	<MRL	130	0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			
Dibromochloromethane	µg/kg	5		<MRL	<MRL			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Ethylbenzene	µg/kg	5	320000	<MRL	640	0		
p & m-Xylene	µg/kg	5	300000 / 340000	<MRL	2100	0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
p-Isopropyltoluene	µg/kg	5		<MRL	570			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
Butylbenzene	µg/kg	5		<MRL	<MRL			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
SVOCs								
Aniline	mg/kg	0.1		<MRL	<MRL			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			
Isophorone	mg/kg	0.2		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID		
						BH ID	RTP136	RTP138
						Depth	2.2-2.4	1.5
						Strata	PFA	PFA
						Number of Exceedances	2/14/2024	2/15/2024
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			
Dibenzofuran	mg/kg	0.2	6700000	<MRL	0.4	0		
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			
Azobenzene	mg/kg	0.3		<MRL	<MRL			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		
Carbazole	mg/kg	0.3		<MRL	<MRL			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			
Anthraquinone	mg/kg	0.3		<MRL	<MRL			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0		
Phenols by GC-MS								
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	118276	120008	118277	120641	120647
							BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	6.7	7.3	7.7	8	8.4	
Electrical Conductivity	uS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0	< 1.0	< 1.0				
Total Sulphate as SO4	mg/kg	50		22	7400				140	2600	1500	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0		55	100				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0		27.7	52.1				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020							
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15				5	6.8	1.8	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4				2.5	3.4	0.9	
Total Sulphur	mg/kg	50		150	2700				84	990	480	
Total Sulphur	%	0.005		0.015	0.267				0.008	0.099	0.048	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0				< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6				< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0	< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0		0.52	< 0.05			
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0	< 0.05	< 0.05				
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0	< 0.05	< 0.05				
Fluorene	mg/kg	0.05	60000	0.11	0.11	0	< 0.05	< 0.05				
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0		0.07	0.2			
Anthracene	mg/kg	0.05	520000	0.1	0.28	0	< 0.05		0.1			
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0		0.06	0.39			
Pyrene	mg/kg	0.05	54000	0.06	1	0		0.06	0.33			
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0	< 0.05		0.18			
Chrysene	mg/kg	0.05	350	0.19	0.82	0	< 0.05		0.19			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0	< 0.05		0.24			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0	< 0.05		0.1			
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0	< 0.05		0.18			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0	< 0.05	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0	< 0.05	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0	< 0.05	< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	118276	120008	118277	120641	120647
BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
Strata	Topsoil	Topsoil	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9	< 0.80		1.91			
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0			5800	33000	41000
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0		< 1.0		7.9	11
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	18	47	11	100	160

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	118276	120008	118277	120641	120647
							BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	1.3	1.6				
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	0.2	2.4	0.5	1.1	1.1	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0	< 1.8	4				
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	59	31	160	52	55	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0	26	53				
Iron (aqua regia extractable)	mg/kg	40		14000	43000				14000	39000	42000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	43	43	7.7	33	40	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320				140	280	190	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0	< 0.3	< 0.3				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0			1.2	3.6	2.6	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0	23	27				
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	1.2	1.7	< 1.0	< 1.0	2.7	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	42	48	18	140	110	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	65	100				
Calcium (aqua regia extractable)	mg/kg	20		2400	13000				2400	8100	7200	
Magnesium (aqua regia extractable)	mg/kg	20		960	3900				960	3100	3100	
Potassium (aqua regia extractable)	mg/kg	20		850	7600				850	5500	7600	
Sodium (aqua regia extractable)	mg/kg	20		480	3200				480	2200	3200	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	<MRL	0	< 8.0	< 8.0				
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	63		< 8.0	< 8.0				
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	63		< 10	< 10				
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0	< 10	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0	< 10	< 10				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36		< 10	< 10				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	118276	120008	118277	120641	120647
BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
Strata	Topsoil	Topsoil	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	<MRL	0	< 5.0	< 5.0			
Benzene	µg/kg	5	15000	<MRL	11	0	11	< 5.0			
Toluene	µg/kg	5	33000000	<MRL	5.7	0	5.7	< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0	< 5.0	< 5.0			
p & m-Xylene	µg/kg	5	3400000	<MRL	<MRL	0	< 5.0	< 5.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	118276	120008	118277	120641	120647
						BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
						Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
						Strata	Topsoil	Topsoil	PFA	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0			
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL						
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	<MRL	0					
Benzene	µg/kg	5	15000	<MRL	11	0		11	< 5.0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	33000000	<MRL	5.7	0		5.7	< 5.0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0	< 5.0	< 5.0			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0	< 5.0	< 5.0			
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0			
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	118276	120008	118277	120641	120647
							BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
							Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
							Strata	Topsoil	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024	
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	118276	120008	118277	120641	120647
						BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
						Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
						Strata	Topsoil	Topsoil	PFA	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	118276	120008	118277	120641	120647
BH ID	RTP151	RTP183	RTP151	RTP186	RTP134
Depth	0.10-0.30	0.00-0.10	0.50-0.70	1.50-1.70	0.50-0.70
Strata	Topsoil	Topsoil	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/13/2024	2/12/2024	2/14/2024	2/14/2024
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	120649	121250	121256	122232	124153
							BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	8.2	8.4	7.8	8.2	8.5	
Electrical Conductivity	uS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0						
Total Sulphate as SO4	mg/kg	50		22	7400		4700	6000	1700	3800	480	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000							
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020							
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15		4.8	3.6	1.7	2.9	1.7	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4		2.4	1.8	0.8	1.4	0.9	
Total Sulphur	mg/kg	50		150	2700		1400	1700	480	1200	150	
Total Sulphur	%	0.005		0.015	0.267		0.142	0.168	0.048	0.121	0.015	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6	< 2.0		2.6	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0						
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0						
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0						
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0						
Fluorene	mg/kg	0.05	60000	0.11	0.11	0						
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0						
Anthracene	mg/kg	0.05	520000	0.1	0.28	0						
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0						
Pyrene	mg/kg	0.05	54000	0.06	1	0						
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0						
Chrysene	mg/kg	0.05	350	0.19	0.82	0						
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0						
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0						
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0						
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0						
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0						
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	120649	121250	121256	122232	124153
BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
Strata	PFA	PFA	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0	33000	32000	38000	33000	34000
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0	7.6	8.4	9.4	11	9.8
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	130	140	120	130	130

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	120649	121250	121256	122232	124153
							BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0						
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	2.2	5.6	1.2	1.7	1.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0						
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	45	51	55	54	60	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0						
Iron (aqua regia extractable)	mg/kg	40		14000	43000		37000	43000	41000	38000	43000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	29	31	38	43	37	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320		170	240	260	190	320	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0						
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0	2.5	2.4	3	3.5	2.3	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0						
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	2.4	< 1.0	2.5	< 1.0	2.5	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	90	96	120	130	120	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0						
Calcium (aqua regia extractable)	mg/kg	20		2400	13000		6200	7500	6300	6900	6500	
Magnesium (aqua regia extractable)	mg/kg	20		960	3900		2400	2900	3000	2700	3000	
Potassium (aqua regia extractable)	mg/kg	20		850	7600		6100	5300	6500	6500	5900	
Sodium (aqua regia extractable)	mg/kg	20		480	3200		2300	2100	2800	2100	1900	
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0						
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0						
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	<MRL	0						
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	<MRL	0						
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	<MRL	0						
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	63							
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	63							
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL							
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL							
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0						
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0						
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0						
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0						
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0						
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36							
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	120649	121250	121256	122232	124153
BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
Strata	PFA	PFA	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	<MRL	0					
Benzene	µg/kg	5	15000	<MRL	11	0					
Toluene	µg/kg	5	33000000	<MRL	5.7	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	<MRL	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120649	121250	121256	122232	124153
							BH ID	120649	121250	121256	122232	124153
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024	
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0						
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	<MRL	0						
Benzene	µg/kg	5	15000	<MRL	11	0						
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Toluene	µg/kg	5	33000000	<MRL	5.7	0						
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0						
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0						
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0						
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	120649	121250	121256	122232	124153
							BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
							Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
							Strata	PFA	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024	
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID	120649	121250	121256	122232	124153
						BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
						Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
						Strata	PFA	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
						Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	120649	121250	121256	122232	124153
BH ID	RTP137	RTP135	RTP140	RTP154	RTP166
Depth	1.60-1.80	3.20-3.40	2.20-2.40	0.90-1.10	0.80-0.90
Strata	PFA	PFA	PFA	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/14/2024	2/15/2024	2/15/2024	2/16/2024	2/19/2024
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124155	125560
							BH ID	RTP177	RBH129
							Depth	1.20-1.30	6.50-6.60
							Strata	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024	
General Inorganics									
pH	pH Units	N/A	<5, >9	7.1	8.9	No	7.5	8.9	
Electrical Conductivity	uS/cm	10		0	0				
Total Cyanide	mg/kg	1	49	7.9	7.9	0			
Total Sulphate as SO4	mg/kg	50		22	7400		3300	7400	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0				
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0				
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000				
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020				
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15		3.5	5.4	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4		1.8	2.7	
Total Sulphur	mg/kg	50		150	2700		1000	2700	
Total Sulphur	%	0.005		0.015	0.267		0.101	0.267	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0		< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6		< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0				
Sulphide	mg/kg	1		0	0				
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9				
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8				
Dry solids	%	0.1		0	0				
Total Phenols									
Total Phenols (monohydric)	mg/kg	1	380	0	0	0			
Speciated PAHs									
Naphthalene	mg/kg	0.05	110	0.06	0.67	0			
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0			
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0			
Fluorene	mg/kg	0.05	60000	0.11	0.11	0			
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0			
Anthracene	mg/kg	0.05	520000	0.1	0.28	0			
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0			
Pyrene	mg/kg	0.05	54000	0.06	1	0			
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0			
Chrysene	mg/kg	0.05	350	0.19	0.82	0			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0			
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0			
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9			
Heavy Metals / Metalloids								
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0	36000	34000
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0	9.3	7.4
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	120	85

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124155	125560
							BH ID	RTP177	RBH129
							Depth	1.20-1.30	6.50-6.60
							Strata	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0			
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	3.9	24	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0			
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	63	51	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0			
Iron (aqua regia extractable)	mg/kg	40		14000	43000		38000	34000	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	36	44	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320		300	290	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0	2.5	4.8	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0			
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	3.7	3.2	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	140	120	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0			
Calcium (aqua regia extractable)	mg/kg	20		2400	13000		8800	13000	
Magnesium (aqua regia extractable)	mg/kg	20		960	3900		3200	3900	
Potassium (aqua regia extractable)	mg/kg	20		850	7600		6600	6900	
Sodium (aqua regia extractable)	mg/kg	20		480	3200		2000	2500	
Petroleum Hydrocarbons									
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	<MRL	0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	<MRL	0			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	<MRL	0			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	63				
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	63				
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL				
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL				
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0			
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0			
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0			
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0			
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024
MTBE and BTEX								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	<MRL	0		
Benzene	µg/kg	5	15000	<MRL	11	0		
Toluene	µg/kg	5	33000000	<MRL	5.7	0		
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0		
p & m-Xylene	µg/kg	5	3400000	<MRL	<MRL	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0		
VOCs								
Chloromethane	µg/kg	5	560	<MRL	<MRL	0		
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0		
Bromomethane	µg/kg	5		<MRL	<MRL			
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL			
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL			
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL			
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL			
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Chloroform	µg/kg	5		<MRL	<MRL			
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL			
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL			
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	<MRL	0		
Benzene	µg/kg	5	15000	<MRL	11	0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL			
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		
Dibromomethane	µg/kg	5		<MRL	<MRL			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			
Toluene	µg/kg	5	33000000	<MRL	5.7	0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			
Dibromochloromethane	µg/kg	5		<MRL	<MRL			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0		
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0		
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0		
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0		
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0		
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0		
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0		
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			
Butylbenzene	µg/kg	5		<MRL	<MRL			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024
SVOCs								
Aniline	mg/kg	0.1		<MRL	<MRL			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			
Isophorone	mg/kg	0.2		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL			
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0		
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			
Azobenzene	mg/kg	0.3		<MRL	<MRL			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		
Carbazole	mg/kg	0.3		<MRL	<MRL			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			
Anthraquinone	mg/kg	0.3		<MRL	<MRL			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124155	125560
BH ID	RTP177	RBH129
Depth	1.20-1.30	6.50-6.60
Strata	PFA	PFA
Cut/In-Situ Waste	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/20/2024
Phenols by GC-MS								
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	8.3	8.1	8.3	8	8	
Electrical Conductivity	uS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0			< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		22	7400		2800	6700				
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0				190			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0				96.7			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000					2000	99	
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020					1020	49.7	
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15		3	2.1				
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4		1.5	1				
Total Sulphur	mg/kg	50		150	2700		1100	2300				
Total Sulphur	%	0.005		0.015	0.267		0.112	0.229				
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0	< 0.5	< 0.5					
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6	< 2.0	< 2.0					
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0			< 1.0	< 1.0	< 1.0	
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0			< 0.05	0.06	< 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0			< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0			< 0.05	< 0.05	< 0.05	
Fluorene	mg/kg	0.05	60000	0.11	0.11	0			< 0.05	< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0			< 0.05	0.06	0.56	
Anthracene	mg/kg	0.05	520000	0.1	0.28	0			< 0.05	< 0.05	0.14	
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0			< 0.05	0.08	0.93	
Pyrene	mg/kg	0.05	54000	0.06	1	0			< 0.05	0.09	0.76	
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0			< 0.05	< 0.05	0.39	
Chrysene	mg/kg	0.05	350	0.19	0.82	0			< 0.05	< 0.05	0.49	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0			< 0.05	< 0.05	0.57	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0			< 0.05	< 0.05	0.27	
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0			< 0.05	< 0.05	0.52	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0			< 0.05	< 0.05	0.24	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0			< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0			< 0.05	< 0.05	0.28	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024	
Total PAH												
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9				< 0.80	< 0.80	5.15	
Heavy Metals / Metalloids												
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0	16000	37000				
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0	3.9	8.9				
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	52	110	9.4	130	15	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0			0.55	3.8	1.3	
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	2.7	8.2	0.3	3.8	2.2	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0			< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	25	56	12	61	30	
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0			17	93	30	
Iron (aqua regia extractable)	mg/kg	40		14000	43000		18000	30000				
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	17	37	4.8	40	34	
Manganese (aqua regia extractable)	mg/kg	1		0.018	320		200	210				
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0			< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0	3.7	2.9				
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0			17	53	27	
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	< 1.0	2.1	< 1.0	< 1.0	1.6	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	61	130	21	130	39	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0			11	69	96	
Calcium (aqua regia extractable)	mg/kg	20		2400	13000		7100	7800				
Magnesium (aqua regia extractable)	mg/kg	20		960	3900		3300	3200				
Potassium (aqua regia extractable)	mg/kg	20		850	7600		2900	7400				
Sodium (aqua regia extractable)	mg/kg	20		480	3200		1200	2700				
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0			< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	<MRL	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	<MRL	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	<MRL	0			< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	63				< 8.0	< 8.0	< 8.0	
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	63				< 10	< 10	< 10	
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL				< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL				< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0			< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0			< 1.0	< 1.0	< 1.0	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0			< 2.0	< 2.0	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0			< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0			< 10	< 10	19	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36				< 10	< 10	19	
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	125600	128698	120004	120643	120646
BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
Strata	PFA	PFA	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	15000	<MRL	11	0			< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	33000000	<MRL	5.7	0			< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0			< 5.0		
p & m-Xylene	µg/kg	5	3400000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
							2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024	
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0				< 5.0	< 5.0	< 5.0
VOCs												
Chloromethane	µg/kg	5	560	<MRL	<MRL	0						
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0						
Bromomethane	µg/kg	5		<MRL	<MRL							
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL							
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL							
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL							
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL				< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL							
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Chloroform	µg/kg	5		<MRL	<MRL							
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL							
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL							
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	<MRL	0			< 5.0			
Benzene	µg/kg	5	15000	<MRL	11	0					< 5.0	< 5.0
Carbontetrachloride	µg/kg	5		<MRL	<MRL							
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL							
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0						
Dibromomethane	µg/kg	5		<MRL	<MRL							
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0						
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL							
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL				< 5.0			
Toluene	µg/kg	5	33000000	<MRL	5.7	0					< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL							
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL							
Dibromochloromethane	µg/kg	5		<MRL	<MRL							
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0						
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL							
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0						
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0			< 5.0			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0						
Bromoform	µg/kg	5	390000	<MRL	<MRL	0						
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0			< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0						
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	125600	128698	120004	120643	120646
							BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
							Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
							Strata	PFA	PFA	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024	
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	125600	128698	120004	120643	120646
						BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
						Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
						Strata	PFA	PFA	MG	MG	MG
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024
SVOCs											
Aniline	mg/kg	0.1		<MRL	<MRL						
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	125600	128698	120004	120643	120646
BH ID	RBH126	RBH143	RTP153	RTP186	RTP134
Depth	0.10-0.30	2.50-2.60	0.20-0.40	4.00-4.20	0.10-0.30
Strata	PFA	PFA	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/23/2024	2/13/2024	2/14/2024	2/14/2024
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024	
General Inorganics												
pH	pH Units	N/A	<5, >9	7.1	8.9	No	8	8.1				
Electrical Conductivity	uS/cm	10		0	0							
Total Cyanide	mg/kg	1	49	7.9	7.9	0	< 1.0	< 1.0				
Total Sulphate as SO4	mg/kg	50		22	7400							
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0							
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0							
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000		640	1100				
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020		321	555				
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15							
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4							
Total Sulphur	mg/kg	50		150	2700							
Total Sulphur	%	0.005		0.015	0.267							
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0							
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6							
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0							
Sulphide	mg/kg	1		0	0							
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9							
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8							
Dry solids	%	0.1		0	0							
Total Phenols												
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0	< 1.0				
Speciated PAHs												
Naphthalene	mg/kg	0.05	110	0.06	0.67	0	< 0.05	< 0.05				
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0	< 0.05	< 0.05				
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0	< 0.05	< 0.05				
Fluorene	mg/kg	0.05	60000	0.11	0.11	0	< 0.05	< 0.05				
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0	< 0.05	< 0.05				
Anthracene	mg/kg	0.05	520000	0.1	0.28	0	< 0.05	< 0.05				
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0	< 0.05	< 0.05				
Pyrene	mg/kg	0.05	54000	0.06	1	0	< 0.05	< 0.05				
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0	< 0.05	< 0.05				
Chrysene	mg/kg	0.05	350	0.19	0.82	0	< 0.05	< 0.05				
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0	< 0.05	< 0.05				
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0	< 0.05	< 0.05				
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0	< 0.05	< 0.05				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0	< 0.05	< 0.05				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0	< 0.05	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0	< 0.05	< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	122231	124151	124152	124154	124156
BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
Strata	MG	MG	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9		< 0.80	< 0.80			
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0					
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0	17	130			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0	0.89	3.3				
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0	1.6	1				
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0	< 0.2	< 0.2				
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0	< 1.8	< 1.8				
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0	17	60				
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0	110	100				
Iron (aqua regia extractable)	mg/kg	40		14000	43000							
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0	9.5	42				
Manganese (aqua regia extractable)	mg/kg	1		0.018	320							
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0	< 0.3	< 0.3				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0						
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0	21	56				
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0	< 1.0	< 1.0				
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0	34	130				
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0	17	89				
Calcium (aqua regia extractable)	mg/kg	20		2400	13000							
Magnesium (aqua regia extractable)	mg/kg	20		960	3900							
Potassium (aqua regia extractable)	mg/kg	20		850	7600							
Sodium (aqua regia extractable)	mg/kg	20		480	3200							
Petroleum Hydrocarbons												
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0	< 0.020	< 0.020				
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	<MRL	0	< 8.0	< 8.0				
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	63		< 8.0	54				
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	63		< 10	54				
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL		< 0.010	< 0.010				
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0	< 0.050	< 0.050				
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0	< 1.0	< 1.0				
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0	< 2.0	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0	< 10	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0	< 10	< 10				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36		< 10	< 10				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	122231	124151	124152	124154	124156
BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
Strata	MG	MG	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	<MRL	0	< 5.0	< 5.0			
Benzene	µg/kg	5	15000	<MRL	11	0	< 5.0	< 5.0			
Toluene	µg/kg	5	33000000	<MRL	5.7	0	< 5.0	< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	<MRL	0	< 5.0	< 5.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID					
						Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0			
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL						
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	<MRL	0					
Benzene	µg/kg	5	15000	<MRL	11	0	< 5.0	< 5.0			
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	33000000	<MRL	5.7	0	< 5.0	< 5.0			
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0	< 5.0	< 5.0			
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0	< 5.0	< 5.0			
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024	
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0						
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0						
2-Chlorotoluene	µg/kg	5		<MRL	<MRL							
4-Chlorotoluene	µg/kg	5		<MRL	<MRL							
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0						
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0						
sec-Butylbenzene	µg/kg	5		<MRL	<MRL							
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL							
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL							
Butylbenzene	µg/kg	5		<MRL	<MRL							
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL							
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL							
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL							
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	122231	124151	124152	124154	124156
							BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
							Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
							Strata	MG	MG	MG	MG	MG
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024	
SVOCs												
Aniline	mg/kg	0.1		<MRL	<MRL							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL							
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL							
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL							
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL							
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL							
2-Methylphenol	mg/kg	0.3		<MRL	<MRL							
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0						
Nitrobenzene	mg/kg	0.3		<MRL	<MRL							
4-Methylphenol	mg/kg	0.2		<MRL	<MRL							
Isophorone	mg/kg	0.2		<MRL	<MRL							
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL							
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL							
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL							
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL							
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL							
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL							
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL							
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL							
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL							
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL							
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL							
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL							
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL							
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL							
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL							
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0						
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL							
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0						
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL							
Azobenzene	mg/kg	0.3		<MRL	<MRL							
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL							
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0						
Carbazole	mg/kg	0.3		<MRL	<MRL							
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL							
Anthraquinone	mg/kg	0.3		<MRL	<MRL							
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL							

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	122231	124151	124152	124154	124156
BH ID	RTP154	RTP150	RTP150	RTP166	RTP177
Depth	0.50-0.70	1.10-1.20	4.10-4.20	3.80-3.90	3.00-3.10
Strata	MG	MG	MG	MG	MG
Cut/In-Situ Waste	Cut	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/16/2024	2/19/2024	2/19/2024	2/19/2024	2/19/2024
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	124158	134391	120644	
							BH ID	124158	134391	120644	RTP136
							Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
							Strata	MG	MG	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut
							2/19/2024	2/27/2024	2/14/2024	2/14/2024	
General Inorganics											
pH	pH Units	N/A	<5, >9	7.1	8.9	No	7.8	7.1	8.1	8.2	
Electrical Conductivity	µS/cm	10		0	0						
Total Cyanide	mg/kg	1	49	7.9	7.9	0	< 1.0	7.9			
Total Sulphate as SO4	mg/kg	50		22	7400				6900	22	
Water Soluble SO4 1hr extraction	mg/kg	2.5		0	0						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		0	0						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			31	2000			31			
Water Soluble SO4 16hr extraction (2:1)	mg/l			15.6	1020			15.6			
Water Soluble Chloride (2:1)	mg/kg	1		1.7	15				15		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.8	7.4				7.4		
Total Sulphur	mg/kg	50		150	2700				2300		
Total Sulphur	%	0.005		0.015	0.267				0.233		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0	0			< 0.5			
Water Soluble Nitrate (2:1) as N	mg/kg	2		2.6	2.6			< 2.0			
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		0	0						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.9		0.9			0.4	
Acid Neutralisation Capacity	+/- mmol/k	-999		1.5	3.8		1.5			3.8	
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0				
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.06	0.67	0		0.67			
Acenaphthylene	mg/kg	0.05	76000	0.12	0.12	0		0.12			
Acenaphthene	mg/kg	0.05	75000	0.18	0.18	0		0.18			
Fluorene	mg/kg	0.05	60000	0.11	0.11	0		0.11			
Phenanthrene	mg/kg	0.05	22000	0.06	1.3	0		1.3			
Anthracene	mg/kg	0.05	520000	0.1	0.28	0		0.28			
Fluoranthene	mg/kg	0.05	23000	0.06	1.6	0		1.6			
Pyrene	mg/kg	0.05	54000	0.06	1	0		1			
Benzo(a)anthracene	mg/kg	0.05	170	0.18	0.63	0		0.63			
Chrysene	mg/kg	0.05	350	0.19	0.82	0		0.82			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.24	1.2	0		1.2			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.1	0.55	0		0.55			
Benzo(a)pyrene	mg/kg	0.05	76	0.18	0.72	0		0.72			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.24	0.69	0		0.69			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.19	0.19	0		0.19			
Benzo(ghi)perylene	mg/kg	0.05	3900	0.28	0.86	0		0.86			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124158	134391	120644	
BH ID	RTP166	RBH125	RTP136	RTP136
Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
Strata	MG	MG	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024
Total PAH										
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.91	10.9			10.9		
Heavy Metals / Metalloids										
Aluminium (aqua regia extractable)	mg/kg	30	370000	5800	41000	0			36000	
Antimony (aqua regia extractable)	mg/kg	1	7400	3.9	11	0			9.5	< 0.017
Arsenic (aqua regia extractable)	mg/kg	1	640	0.209	160	0		41	120	0.209

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

							Report ID	124158	134391	120644	
							BH ID	RTP166	RBH125	RTP136	RTP136
							Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
							Strata	MG	MG	PFA	PFA
							Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.00255	3.8	0		1.7		0.00255	
Boron (water soluble)	mg/kg	0.2	240000	0.2	24	0		1.5	2.5		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	3.9	3.9	0		3.9	< 0.2		
Chromium (hexavalent)	mg/kg	1.8	49	4	4	0		< 1.8		< 0.00100	
Chromium (aqua regia extractable)	mg/kg	1	8600	12	160	0		93	50		
Copper (aqua regia extractable)	mg/kg	1	68000	17	120	0		120		< 0.0040	
Iron (aqua regia extractable)	mg/kg	40		14000	43000				38000	< 0.0070	
Lead (aqua regia extractable)	mg/kg	1	2300	4.8	150	0		150	37		
Manganese (aqua regia extractable)	mg/kg	1		0.018	320				250	0.018	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	1.5	1.5	0		1.5			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	1.2	4.8	0			2.8	< 0.00500	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0143	89	0		89		0.0143	
Selenium (aqua regia extractable)	mg/kg	1	12000	1.2	3.9	0		< 1.0	3.9	< 0.0030	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.075	140	0		56	130	0.075	
Zinc (aqua regia extractable)	mg/kg	1	730000	11	520	0		520		< 0.0040	
Calcium (aqua regia extractable)	mg/kg	20		2400	13000				8300		
Magnesium (aqua regia extractable)	mg/kg	20		960	3900				3200		
Potassium (aqua regia extractable)	mg/kg	20		850	7600				6500		
Sodium (aqua regia extractable)	mg/kg	20		480	3200				2500		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	<MRL	0		< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	<MRL	0		< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	<MRL	0		< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	<MRL	0		< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	<MRL	0		< 2.0			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	<MRL	0		< 8.0			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	63			63			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	63			63			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	<MRL			< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	<MRL			< 0.010			
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	<MRL	0		< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	<MRL	0		< 1.0			
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR #1 #2	mg/kg	2	35000	<MRL	<MRL	0		< 2.0			
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<MRL	<MRL	0		< 10			
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR #1 #2	mg/kg	10	29000	<LOD	36	0		36			
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR #1 #2	mg/kg	10		<LOD	36			36			
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124158	134391	120644	
BH ID	RTP166	RBH125	RTP136	RTP136
Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
Strata	MG	MG	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024
MTBE and BTEX										
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	<MRL	0		< 5.0		
Benzene	µg/kg	5	15000	<MRL	11	0		< 5.0		
Toluene	µg/kg	5	33000000	<MRL	5.7	0		< 5.0		
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0				
p & m-Xylene	µg/kg	5	3400000	<MRL	<MRL	0		< 5.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	124158	134391	120644	
						BH ID	RTP166	RBH125	RTP136	RTP136
						Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
						Strata	MG	MG	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0				
VOCs										
Chloromethane	µg/kg	5	560	<MRL	<MRL	0				
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0				
Bromomethane	µg/kg	5		<MRL	<MRL					
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL					
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL					
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL					
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL					
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			< 5.0		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL					
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL					
Chloroform	µg/kg	5		<MRL	<MRL					
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL					
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL					
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL					
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	<MRL	0				
Benzene	µg/kg	5	15000	<MRL	11	0		< 5.0		
Carbontetrachloride	µg/kg	5		<MRL	<MRL					
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL					
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0				
Dibromomethane	µg/kg	5		<MRL	<MRL					
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0				
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					
Toluene	µg/kg	5	33000000	<MRL	5.7	0		< 5.0		
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL					
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL					
Dibromochloromethane	µg/kg	5		<MRL	<MRL					
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0				
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL					
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0				
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL					
Ethylbenzene	µg/kg	5	3200000	<MRL	<MRL	0				
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	<MRL	0		< 5.0		
Styrene	µg/kg	5	1900000	<MRL	<MRL	0				
Bromoform	µg/kg	5	390000	<MRL	<MRL	0				
o-Xylene	µg/kg	5	3700000	<MRL	<MRL	0				
Isopropylbenzene	µg/kg	5	710000	<MRL	<MRL	0				
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124158	134391	120644	
BH ID	RTP166	RBH125	RTP136	RTP136
Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
Strata	MG	MG	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0				
n-Propylbenzene	µg/kg	5	2100000	<MRL	<MRL	0				
2-Chlorotoluene	µg/kg	5		<MRL	<MRL					
4-Chlorotoluene	µg/kg	5		<MRL	<MRL					
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	<MRL	0				
tert-Butylbenzene	µg/kg	5		<MRL	<MRL	0				
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	<MRL	0				
sec-Butylbenzene	µg/kg	5		<MRL	<MRL					
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
p-Isopropyltoluene	µg/kg	5		<MRL	<MRL					
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
Butylbenzene	µg/kg	5		<MRL	<MRL					
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL					
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL					
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	124158	134391	120644	
						BH ID	RTP166	RBH125	RTP136	RTP136
						Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
						Strata	MG	MG	PFA	PFA
						Cut/In-Situ Waste	Cut	Cut	Cut	Cut
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024
SVOCs										
Aniline	mg/kg	0.1		<MRL	<MRL					
Phenol	mg/kg	0.2	380	<MRL	<MRL	0				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL					
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL					
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL					
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL					
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0				
Nitrobenzene	mg/kg	0.3		<MRL	<MRL					
4-Methylphenol	mg/kg	0.2		<MRL	<MRL					
Isophorone	mg/kg	0.2		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL					
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL					
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2-Methylnaphthalene	mg/kg	0.1		<MRL	<MRL					
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL					
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL					
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL					
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL					
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL					
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL					
Azobenzene	mg/kg	0.3		<MRL	<MRL					
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL					
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0				
Carbazole	mg/kg	0.3		<MRL	<MRL					
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL					
Anthraquinone	mg/kg	0.3		<MRL	<MRL					
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	124158	134391	120644	
BH ID	RTP166	RBH125	RTP136	RTP136
Depth	1.80-1.90	0.00-0.10	0.20-0.40	2.2-2.4
Strata	MG	MG	PFA	PFA
Cut/In-Situ Waste	Cut	Cut	Cut	Cut

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/19/2024	2/27/2024	2/14/2024	2/14/2024
Phenols by GC-MS										
Phenol	mg/kg	0.2	380	<MRL	<MRL	0				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	120002	109702	109703	109705
						BH ID	RTP184	RBH116	RBH116	RBH119
						Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
						Strata	Topsoil	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/13/2024	1/31/2024	1/31/2024	2/2/2024
General Inorganics										
pH	pH Units	N/A	7.3	8.9	8.9	No	7.3	8.7	8.4	7.9
Electrical Conductivity	µS/cm	10	-	0	0					
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0			
Total Sulphate as SO4	mg/kg	50		820	9700			9200	2400	2600
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200		250			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120		124			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000					
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500					
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			79	25	37
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			39	13	
Total Sulphur	mg/kg	50		260	3600			3200	980	1600
Total Sulphur	%	0.005		0.026	0.356			0.322	0.098	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5			< 0.5	< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0			6.4	< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0					< 20
Sulphide	mg/kg	1		4.3	4.3					
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7					
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22					
Dry solids	%	0.1		0	0					
Total Phenols										
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0			
Speciated PAHs										
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05			
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05			
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05			
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05			
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05			
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05			
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	0.06			
Pyrene	mg/kg	0.05	54000	0.05	13	0	0.05			
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05			
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05			
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05			
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	RTP184	RBH116	RBH116	RBH119
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	1/31/2024	1/31/2024	2/2/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5			< 0.80			
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			29000	27000	3900
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0			8.1	8.2	7.4
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		19	120	120	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0		1.5			
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0		2	20	10	5.2
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0		0.7	< 0.2	< 0.2	3.1
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0		< 1.8			
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0		44	44	42	68
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0		29			
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				31000	32000	7800
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0		77	35	32	96
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				310	310	670
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0		< 0.3			
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0			14	5.7	5.3
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0		24			
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0		1.9	4	3.3	3.2
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		46	100	94	84
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0		220			
Calcium (aqua regia extractable)	mg/kg	20		2300	18000				11000	8300	5100
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900				3700	3200	4500
Potassium (aqua regia extractable)	mg/kg	20		1600	9900				6400	5400	5200
Sodium (aqua regia extractable)	mg/kg	20		1200	5800				2500	1900	2400
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0		< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0		< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0		< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0		< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0		< 2.0			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0		< 8.0			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500			10			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800			12			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023			< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12			< 0.010			
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0		< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0		< 1.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	120002	109702	109703	109705
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	1/31/2024	1/31/2024	2/2/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	< 2.0				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	< 10				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	< 10				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		< 10				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0				
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0				
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0				
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0				
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0				
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705
							BH ID	120002	109702	109703	109705
							Depth	0.20-0.40	0.50-0.60	5.50-5.70	1.00-1.20
							Strata	Topsoil	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	1/31/2024	1/31/2024	2/2/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	< 5.0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0				
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120002	109702	109703	109705				
							BH ID	Depth	Strata	Cut/In-Situ Waste	2/13/2024	1/31/2024	1/31/2024	2/2/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		RTP184	0.20-0.40	Topsoil	PFA	PFA	In-situ	In-situ	In-situ	In-situ
Isophorone	mg/kg	0.2		<MRL	<MRL										
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL										
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL										
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL										
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL										
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL										
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL										
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL										
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL										
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL										
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL										
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5										
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL										
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL										
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL										
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL										
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0									
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL										
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0									
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL										
Azobenzene	mg/kg	0.3		<MRL	<MRL										
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL										
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0									
Carbazole	mg/kg	0.3		<MRL	<MRL										
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL										
Anthraquinone	mg/kg	0.3		<MRL	<MRL										
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0									
Phenols by GC-MS															
Phenol	mg/kg	0.2	380	<MRL	<MRL	0									
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL										
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL										
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL										
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL										
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL										
2-Methylphenol	mg/kg	0.3		<MRL	<MRL										
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL										
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL										

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	112637	112640	116835	118281
						BH ID	RBH119	RBH119	RBH136	RBH138
						Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/5/2024	2/5/2024	2/9/2024	2/12/2024
General Inorganics										
pH	pH Units	N/A	7.3	8.9	8.9	No	8.7	8.7	8.1	7.8
Electrical Conductivity	µS/cm	10	-	0	0					
Total Cyanide	mg/kg	1	49	0	0	0				
Total Sulphate as SO4	mg/kg	50		820	9700		9100		7400	8700
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200					
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120					
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000					
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500					
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		45		120	23
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160				60	11
Total Sulphur	mg/kg	50		260	3600		3900		2500	2800
Total Sulphur	%	0.005		0.026	0.356				0.249	0.28
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5		< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0		< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0		< 20			
Sulphide	mg/kg	1		4.3	4.3					
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7			0.2		
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			16		
Dry solids	%	0.1		0	0					
Total Phenols										
Total Phenols (monohydric)	mg/kg	1	380	0	0	0		< 1.0		
Speciated PAHs										
Naphthalene	mg/kg	0.05	110	0.1	2.4	0				
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0				
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0				
Fluorene	mg/kg	0.05	60000	0.07	2	0				
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0				
Anthracene	mg/kg	0.05	520000	0.05	1.5	0				
Fluoranthene	mg/kg	0.05	23000	0.06	12	0				
Pyrene	mg/kg	0.05	54000	0.05	13	0				
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0				
Chrysene	mg/kg	0.05	350	0.3	7.4	0				
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0				
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0				
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	RBH119	RBH119	RBH136	RBH138
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/5/2024	2/9/2024	2/12/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	30000		19000	34000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	8.5		8.5	7.2	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0			96	79	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	12		40	4.3	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2		< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	47		54	48	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		27000		14000	37000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	36		48	34	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		330		240	240	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	13		11	3.2	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	3.2		4.1	2.4	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110		120	88	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		9800		5200	9700	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3800		4100	3400	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		7400		4200	6500	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		3300		5800	2800	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	RBH119	RBH119	RBH136	RBH138
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/5/2024	2/9/2024	2/12/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	112637	112640	116835	118281
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/5/2024	2/9/2024	2/12/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112637	112640	116835	118281
							BH ID	RBH119	RBH119	RBH136	RBH138
							Depth	6.90-7.00	6.90-7.00	13.50-13.60	4.00-4.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/5/2024	2/9/2024	2/12/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/7/2024	2/13/2024	2/12/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.4	8.1	8	8.1
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		2000	3300	4000		330
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		35	40	5.1		3.6
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			20	2.5		1.8
Total Sulphur	mg/kg	50		260	3600		2000	1100	1400		140
Total Sulphur	%	0.005		0.026	0.356			0.111	0.143		0.014
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5	< 0.5	4.5		< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0		< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0		< 20				
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Depth	PFA	PFA	PFA	PFA
							Strata	In-situ	In-situ	In-situ	In-situ
							Cut/In-Situ Waste	2/5/2024	2/7/2024	2/13/2024	2/12/2024
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	25000	29000	46000	27000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	5.8	7.3	8.6	7.4	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		85	92	66	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	10	1.4	5.2	0.3	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	43	49	46	110	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		29000	31000	34000	28000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	62	32	45	31	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		330	210	230	210	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	26	3.5	3.4	2.3	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	2.7	< 1.0	3.6	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	88	88	110	72	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		16000	6800	9200	5200	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		4500	2700	3600	2600	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		5400	6000	9400	4900	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		2000	2900	3700	2100	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/7/2024	2/13/2024	2/12/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/7/2024	2/13/2024	2/12/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112638	114576	120005	118278
							BH ID	RBH141	RBH141A	RTP153	RTP157
							Depth	7.50-7.60	3.00-3.10	2.90-3.10	0.40-0.60
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/7/2024	2/13/2024	2/12/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	2/13/2024	2/13/2024	2/14/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.1	8.7	8.8	8.3
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		940	5300	890	6400	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		12	17	4.1	3.3	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		6.2	8.6	2.1	1.6	
Total Sulphur	mg/kg	50		260	3600		410	2000	320	2100	
Total Sulphur	%	0.005		0.026	0.356		0.041	0.196	0.032	0.213	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	2/13/2024	2/13/2024	2/14/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	40000	50000	14000	37000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	9	8.8	3.9	8.9	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	95	89	48	93	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	1.1	18	1.1	6.4	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	48	52	28	64	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		35000	34000	25000	44000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	48	48	16	40	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		190	310	200	240	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	3.1	3.2	3.3	2.8	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	3.2	3.1	5.2	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	120	120	48	130	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		6900	15000	4900	9300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3100	4900	1800	3500	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		7700	9900	2200	6700	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		4000	5500	1200	3300	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	Depth	Strata	Cut/In-Situ Waste	2/13/2024
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	RTP181	0.40-0.60	PFA	In-situ	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	RTP182	0.50-0.70	PFA	In-situ	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	RTP184	1.70-1.90	PFA	In-situ	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		RBH124	5.00-5.10	PFA	In-situ	
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	120006	120007	120003	120588
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	2/13/2024	2/13/2024	2/14/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	120006	120007	120003	120588
							BH ID	RTP181	RTP182	RTP184	RBH124
							Depth	0.40-0.60	0.50-0.70	1.70-1.90	5.00-5.10
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/13/2024	2/13/2024	2/13/2024	2/14/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	RTP124	RTP138	RTP139	RTP155
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/15/2024	2/16/2024	2/16/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8.3	8	7.5	8.2	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700		820	7300	4500	3300	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		1.3	6	3.6	1.8	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		0.7	3	1.8	0.9	
Total Sulphur	mg/kg	50		260	3600		260	2200	1500	1200	
Total Sulphur	%	0.005		0.026	0.356		0.026	0.216	0.146	0.117	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5	< 0.5	< 0.5	< 0.5	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/15/2024	2/16/2024	2/16/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	30000	50000	29000	38000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	5.8	9.2	8.9	8.9	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	90	120	120	140	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	3.4	3.7	5.6	1.7	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	32	57	41	56	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		37000	58000	35000	42000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	26	36	35	36	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		320	220	200	160	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	2.6	4.9	2.4	3.1	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	4.7	2.4	2.6	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	81	130	100	110	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		13000	8200	8500	6300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3300	2800	3100	2700	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		5300	6400	5700	7000	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		1900	2500	1900	2500	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/15/2024	2/16/2024	2/16/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	121253	121259	122230	122234
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/15/2024	2/16/2024	2/16/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121253	121259	122230	122234
							BH ID	RTP124	RTP138	RTP139	RTP155
							Depth	1.20-1.40	3.50-3.70	3.50-3.70	2.60-2.80
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/15/2024	2/16/2024	2/16/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/20/2024	2/21/2024	2/21/2024	2/22/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8.2	8.3	8.4	8.2	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0	< 1.0		< 1.0	
Total Sulphate as SO4	mg/kg	50		820	9700				840	7100	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000			98		5000	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500			48.9		2500	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		3.7		15		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		1.9		7.7		
Total Sulphur	mg/kg	50		260	3600		760		320		
Total Sulphur	%	0.005		0.026	0.356		0.076		0.032		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5		< 0.5		
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0		< 2.0		
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3					4.3	
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0		< 1.0			
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0		0.1		< 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0		< 0.05		< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0		< 0.05		< 0.05	
Fluorene	mg/kg	0.05	60000	0.07	2	0		< 0.05		< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0		< 0.05		0.46	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0		< 0.05		0.12	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0		< 0.05		0.49	
Pyrene	mg/kg	0.05	54000	0.05	13	0		< 0.05		0.67	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0		< 0.05		0.32	
Chrysene	mg/kg	0.05	350	0.3	7.4	0		< 0.05		1.2	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0		< 0.05		< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0		< 0.05		< 0.05	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0		< 0.05		< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0		< 0.05		< 0.05	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0		< 0.05		< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0		< 0.05		< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/20/2024	2/21/2024	2/21/2024	2/22/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5			< 0.80			3.29
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	31000		24000		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	8.1		8.8		
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	87	120	140		91
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0		3.4			3.4
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	3.7	4	4.1		11
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2		< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0		< 1.8			< 1.8
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	53	59	38		45
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0		110			89
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		37000		33000		
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	48	56	29		42
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		350		310		
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0		< 0.3			0.4
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	6.3		2.8		
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0		55			48
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	13	3.8		3.4
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	160	130	85		110
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0		130			65
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		13000		8300		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3900		3100		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		5400		4400		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		1800		1500		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0		< 0.020			< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0		< 0.020			< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0		< 0.050			< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0		< 1.0			1.3
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0		4.5			38
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0		59			210
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500			49			1500
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800			110			1800
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023			< 0.010			< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12			< 0.010			< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0		< 0.050			< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0		< 1.0			< 1.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/20/2024	2/21/2024	2/21/2024	2/22/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0		< 2.0		20	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0		< 10		240	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0		< 10		1100	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500			< 10		1400	
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0		< 5.0		< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0		< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0		< 5.0		< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0				< 5.0	
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0		< 5.0		< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0		< 5.0	
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0				< 5.0	
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0				< 5.0	
Bromomethane	µg/kg	5		<MRL	<MRL					< 5.0	
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0				< 5.0	
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL					< 5.0	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL					< 5.0	
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL					< 5.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL			< 5.0		< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL					< 5.0	
Chloroform	µg/kg	5		<MRL	<MRL					< 5.0	
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL					< 5.0	
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0				< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		< 5.0		< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL					< 5.0	
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL					< 5.0	
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0				< 5.0	
Dibromomethane	µg/kg	5		<MRL	<MRL					< 5.0	
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0				< 5.0	
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					< 5.0	
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL					< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0		< 5.0		< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL					< 5.0	
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL					< 5.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/20/2024	2/21/2024	2/21/2024	2/22/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						< 5.0
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					< 5.0
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						< 5.0
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					< 5.0
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0		< 5.0			< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					< 5.0
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0			< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						< 5.0
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					< 5.0
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					< 5.0
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						< 5.0
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					< 5.0
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					< 5.0
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
p-Isopropyltoluene	µg/kg	5		<MRL	570						< 5.0
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
Butylbenzene	µg/kg	5		<MRL	<MRL						< 5.0
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						< 5.0
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						< 5.0
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						< 5.0
SVOCs											
Aniline	mg/kg	0.1									< 0.1
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					< 0.2
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						< 0.2
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						< 0.2
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						< 0.1
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						< 0.1
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					< 0.05
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						< 0.3

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	125505	125986	125987	128695
							BH ID	TRP143	RBH114	RBH114	RBH131
							Depth	0.40-0.50	0.20-0.40	0.40-0.60	5.00-5.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/20/2024	2/21/2024	2/21/2024	2/22/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						< 0.2
Isophorone	mg/kg	0.2		<MRL	<MRL						< 0.2
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						< 0.3
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						< 0.1
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						< 0.2
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						< 0.1
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						< 0.1
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						< 0.1
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						< 0.2
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						< 0.3
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					< 0.2
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						< 0.2
Azobenzene	mg/kg	0.3		<MRL	<MRL						< 0.3
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						< 0.2
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					< 0.20
Carbazole	mg/kg	0.3		<MRL	<MRL						< 0.3
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						< 0.2
Anthraquinone	mg/kg	0.3		<MRL	<MRL						< 0.3
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					< 0.3
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					< 0.2
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						< 0.2
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						< 0.1
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						< 0.3
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						< 0.3
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						< 0.1

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							Exceedances?	2/23/2024	2/26/2024	2/23/2024	2/27/2024
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.4	8.9	7.9	8.4
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0		< 1.0	< 1.0		< 1.0
Total Sulphate as SO4	mg/kg	50		820	9700			8800		4500	
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000			4900	1600		230
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500			2450	788		117
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310					11	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160					5.5	
Total Sulphur	mg/kg	50		260	3600					1600	
Total Sulphur	%	0.005		0.026	0.356					0.16	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5					1.1	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0					< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3			< 1.0			
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0			< 1.0		< 1.0
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0		< 0.05	0.26		< 0.05
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0		< 0.05	< 0.05		< 0.05
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0		< 0.05	< 0.05		< 0.05
Fluorene	mg/kg	0.05	60000	0.07	2	0		< 0.05	0.07		< 0.05
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0		< 0.05	0.23		< 0.05
Anthracene	mg/kg	0.05	520000	0.05	1.5	0		< 0.05	0.05		< 0.05
Fluoranthene	mg/kg	0.05	23000	0.06	12	0		< 0.05	0.21		< 0.05
Pyrene	mg/kg	0.05	54000	0.05	13	0		< 0.05	0.19		< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0		< 0.05	< 0.05		< 0.05
Chrysene	mg/kg	0.05	350	0.3	7.4	0		< 0.05	< 0.05		< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0		< 0.05	< 0.05		< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0		< 0.05	< 0.05		< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0		< 0.05	< 0.05		< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0		< 0.05	< 0.05		< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0		< 0.05	< 0.05		< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0		< 0.05	< 0.05		< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/23/2024	2/26/2024	2/23/2024	2/27/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5		< 0.80	1.01		< 0.80	
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0			34000		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0			6.8		
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	100	81	86	80	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	3.5	2.5		1.5	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	7.7	17	2.9	0.5	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 1.8	< 1.8		< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	52	48	49	23	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	89	91		59	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000				39000		
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	45	34	31	14	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100				240		
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	< 0.3	< 0.3		< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0			4		
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	49	51		37	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	3.4	2	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110	90	99	46	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	55	93		26	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000				9400		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900				3100		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900				5800		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800				2400		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	< 0.020	< 0.020			
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	< 0.020	< 0.020			
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050			
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0			
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	< 2.0	6.7			
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	< 8.0	39			
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		< 8.0	770			
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		< 10	820			
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		< 0.010	< 0.010			
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		< 0.010	< 0.010			
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050			
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/23/2024	2/26/2024	2/23/2024	2/27/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	< 2.0	6.4			
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	< 10	17			
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	< 10	130			
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		< 10	160			
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0		< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0		< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0		< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0				
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0		< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0			
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	< 5.0				
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	< 5.0				
Bromomethane	µg/kg	5		<MRL	<MRL		< 5.0				
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0	< 5.0				
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL		< 5.0				
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL		< 5.0				
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL		< 5.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0		< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0				
Chloroform	µg/kg	5		<MRL	<MRL		< 5.0				
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0				
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0				
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0		< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL		< 5.0				
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0				
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	< 5.0				
Dibromomethane	µg/kg	5		<MRL	<MRL		< 5.0				
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	< 5.0				
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0				
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0				
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0		< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL		< 5.0				
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL		< 5.0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/23/2024	2/26/2024	2/23/2024	2/27/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL			< 5.0			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		< 5.0			
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			< 5.0			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		< 5.0			
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0		< 5.0			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0		< 5.0	< 5.0		< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		< 5.0			
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0		< 5.0	< 5.0		
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		< 5.0			
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		< 5.0			
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		< 5.0			
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		< 5.0			
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		< 5.0			
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
p-Isopropyltoluene	µg/kg	5		<MRL	570			< 5.0			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
SVOCs											
Aniline	mg/kg	0.1						< 0.1			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		< 0.2			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		< 0.05			
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	128696	129904	130175	130723
							BH ID	RBH131	RBH132	RBH132	RBH137
							Depth	6.00-6.50	10.00-10.50	6.00-6.50	0.40-0.50
							Strata	PFA	PFA	PFA	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/23/2024	2/26/2024	2/23/2024	2/27/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		< 0.2				
Isophorone	mg/kg	0.2		<MRL	<MRL		< 0.2				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL		< 0.3				
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL		< 0.1				
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL		< 0.1				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2				
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5		< 0.1				
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL		< 0.1				
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL		< 0.2				
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0	< 0.2				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL		< 0.3				
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0	< 0.2				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL		< 0.2				
Azobenzene	mg/kg	0.3		<MRL	<MRL		< 0.3				
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL		< 0.2				
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0	< 0.20				
Carbazole	mg/kg	0.3		<MRL	<MRL		< 0.3				
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL		< 0.2				
Anthraquinone	mg/kg	0.3		<MRL	<MRL		< 0.3				
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0	< 0.3				
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	< 0.2				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		< 0.2				
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		< 0.1				
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		< 0.3				
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		< 0.1				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							Exceedances?	2/27/2024	2/27/2024	1/29/2024	2/6/2024
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.1	7.6	8.6	7.7
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0				< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50		820	9700		7200				
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						330
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						165
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000					35	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500					17.3	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		6.1				
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		3.1				
Total Sulphur	mg/kg	50		260	3600		2700				
Total Sulphur	%	0.005		0.026	0.356		0.269				
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		< 0.5				
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0				
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7			0.5			
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22			0.56			
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0				< 1.0	< 1.0
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0				2.4	< 0.05
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0				< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0				< 0.05	< 0.05
Fluorene	mg/kg	0.05	60000	0.07	2	0				< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0				< 0.05	< 0.05
Anthracene	mg/kg	0.05	520000	0.05	1.5	0				< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	23000	0.06	12	0				< 0.05	< 0.05
Pyrene	mg/kg	0.05	54000	0.05	13	0				< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0				< 0.05	< 0.05
Chrysene	mg/kg	0.05	350	0.3	7.4	0				< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0				< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0				< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0				< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0				< 0.05	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0				< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0				< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5					2.35	< 0.80
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0		22000			
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0		8.1			
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0		130		140	15
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0				3.2	1.4
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0		8.8		1	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0		< 0.2		< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0				< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0		28		46	72
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0				94	31
Iron (aqua regia extractable)	mg/kg	40		0.013	58000			36000			
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0		24		39	18
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100			300			
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0				< 0.3	< 0.3
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0		3			
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0				52	37
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0		4		3.1	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0		74		110	34
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0				46	56
Calcium (aqua regia extractable)	mg/kg	20		2300	18000			9000			
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900			3400			
Potassium (aqua regia extractable)	mg/kg	20		1600	9900			4500			
Sodium (aqua regia extractable)	mg/kg	20		1200	5800			1500			
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0				< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0				< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0				< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0				< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0				< 2.0	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0				< 8.0	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500					< 8.0	< 8.0
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800					< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023					< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12					< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0				< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0				< 1.0	< 1.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0				< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0				< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0				< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500					< 10	< 10
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0				< 5.0	< 5.0
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0				< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0				< 5.0	< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0				< 5.0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0				< 5.0	< 5.0
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL					< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					10
Benzene	µg/kg	5	15000	<MRL	28	0				< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0				< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0			< 5.0	< 5.0	
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0			< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0			< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	130724	130725	2942252	118280
							BH ID	RBH137	RBH137	RBH113	RBH138
							Depth	2.00-2.50	2.00-2.50	0.60-0.80	0.40-0.50
							Strata	PFA	PFA	MG	MG
							Cut/In-Situ Waste	In-situ	In-Situ	In-situ	In-situ
							2/27/2024	2/27/2024	1/29/2024	2/6/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	RBH141	RBH141	RTP185	RTP124
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/6/2024	2/14/2024	2/15/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	8.9	8.7	8.4	8.2	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Sulphate as SO4	mg/kg	50		820	9700						
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200		990	4200			
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120		495	2120			
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000				260	1200	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500				129	592	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310						
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160						
Total Sulphur	mg/kg	50		260	3600						
Total Sulphur	%	0.005		0.026	0.356						
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5						
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0						
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0		< 1.0	< 1.0	
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	0.15	1.2	1.7	< 0.05	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05	0.18	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	0.58	0.6	0.21	< 0.05	
Fluorene	mg/kg	0.05	60000	0.07	2	0	0.4	0.61	0.17	< 0.05	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	1.4	2.1	0.86	< 0.05	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	0.27	0.5	0.12	< 0.05	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	1.2	1.8	0.62	< 0.05	
Pyrene	mg/kg	0.05	54000	0.05	13	0	0.99	1.5	0.51	< 0.05	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	0.41	0.51	0.28	< 0.05	
Chrysene	mg/kg	0.05	350	0.3	7.4	0	0.45	0.57	0.3	< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	0.32	0.45	0.3	< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	0.14	0.14	0.13	< 0.05	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	0.23	0.33	0.2	< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	0.16	0.19	0.1	< 0.05	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	0.16	0.21	0.15	< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	112639	112643	120640	121252
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/6/2024	2/14/2024	2/15/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5			6.85	11	5.67	< 0.80
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0					
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	130	100	48	98	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	3.3	2.9	0.83	2.4	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	14	45	2.4	7	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	50	43	20	35	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	87	67	50	71	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000						
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	44	63	18	28	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100						
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	< 0.3	< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0					
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	49	41	18	38	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	< 1.0	1.8	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	110	88	28	78	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	97	130	70	34	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000						
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900						
Potassium (aqua regia extractable)	mg/kg	20		1600	9900						
Sodium (aqua regia extractable)	mg/kg	20		1200	5800						
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	2.9	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	1.5	< 1.0	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	< 2.0	4.8	3.9	< 2.0	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	< 8.0	12	12	< 8.0	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		16	170	450	< 8.0	
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		19	190	470	< 10	
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		< 0.010	0.023	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		< 0.010	0.12	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	58	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	2.2	< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	RBH141	RBH141	RTP185	RTP124
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/6/2024	2/14/2024	2/15/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	5.1	< 2.0	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	< 10	< 10	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	< 10	37	98	< 10	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		< 10	95	110	< 10	
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0		28	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0		130	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	640			
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	2100	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	6100	< 5.0	< 5.0	
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0		< 5.0			
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0		< 5.0			
Bromomethane	µg/kg	5		<MRL	<MRL			< 5.0			
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0		< 5.0			
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL			< 5.0			
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL			< 5.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
Chloroform	µg/kg	5		<MRL	<MRL			< 5.0			
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0			
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	< 5.0	< 5.0			
Benzene	µg/kg	5	15000	<MRL	28	0		28	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0		< 5.0			
Dibromomethane	µg/kg	5		<MRL	<MRL			< 5.0			
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0		< 5.0			
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL			< 5.0			
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0			
Toluene	µg/kg	5	3300000	<MRL	130	0		130	< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL			< 5.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	112639	112643	120640	121252
							BH ID	RBH141	RBH141	RTP185	RTP124
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/6/2024	2/14/2024	2/15/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL			< 5.0			
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0		< 5.0			
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL			< 5.0			
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0		< 5.0			
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0	640			
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	< 5.0	2100	< 5.0	< 5.0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0		< 5.0			
Bromoform	µg/kg	5	390000	<MRL	<MRL	0		< 5.0			
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	6100	< 5.0	< 5.0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0		20000			
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL			< 5.0			
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0		< 5.0			
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0		41000			
2-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
4-Chlorotoluene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1		25000			
tert-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1		41000			
sec-Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
p-Isopropyltoluene	µg/kg	5		<MRL	570			570			
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Butylbenzene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL			< 5.0			
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL			< 5.0			
SVOCs											
Aniline	mg/kg	0.1						< 0.1			
Phenol	mg/kg	0.2	380	<MRL	<MRL	0		< 0.2			
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL			< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL			< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL			< 0.1			
2-Methylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0		< 0.05			
Nitrobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			

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							BH ID	RBH141	RBH141	RTP185	RTP124
							Depth	9.10-9.20	13.50-13.60	0.20-0.40	0.20-0.40
							Strata	MG	WASTE	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/5/2024	2/6/2024	2/14/2024	2/15/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL			< 0.2			
Isophorone	mg/kg	0.2		<MRL	<MRL			< 0.2			
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL			< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL			< 0.3			
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL			< 0.1			
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL			< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL			< 0.2			
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5			0.5			
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL			< 0.1			
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL			< 0.1			
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL			< 0.2			
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0		0.4			
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL			< 0.3			
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0		< 0.2			
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL			< 0.2			
Azobenzene	mg/kg	0.3		<MRL	<MRL			< 0.3			
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL			< 0.2			
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0		< 0.20			
Carbazole	mg/kg	0.3		<MRL	<MRL			< 0.3			
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL			< 0.2			
Anthraquinone	mg/kg	0.3		<MRL	<MRL			< 0.3			
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0		< 0.3			
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	RTP138	TRP142	TRP143	TRP143
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/20/2024	2/20/2024	2/20/2024	
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No	7.9	8.5	7.4	8.3	
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0	< 1.0		< 1.0		
Total Sulphate as SO4	mg/kg	50		820	9700			1800			
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000		59	650	1100	960	
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500		29.3	325	532	480	
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310						
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160						
Total Sulphur	mg/kg	50		260	3600						
Total Sulphur	%	0.005		0.026	0.356						
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5						
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0						
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	< 1.0	< 1.0	< 1.0	< 1.0	
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05	0.3	0.93	1.5	
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05	0.11	0.18	1.8	
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05	0.09	0.35	2	
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05	0.55	1.2	7.3	
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05	0.08	0.27	1.5	
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	0.07	0.56	0.53	12	
Pyrene	mg/kg	0.05	54000	0.05	13	0	0.06	0.53	0.48	13	
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05	0.23	0.26	5.7	
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05	0.3	0.31	7.4	
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05	0.31	0.29	6.1	
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05	0.08	0.08	2	
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05	0.15	0.17	5.5	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05	< 0.05	< 0.05	2.5	
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05	< 0.05	< 0.05	0.85	
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05	< 0.05	< 0.05	2.5	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	RTP138	TRP142	TRP143	TRP143
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/20/2024	2/20/2024	2/20/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5		< 0.80	3.29	5.03	71.5	
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0					
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0					
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	19	120	17	38	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	1.6	2.5	1.7	1.8	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	2.6	17	13	5	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	0.7	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 1.8	< 1.8	< 1.8	< 1.8	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	34	97	41	41	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	38	280	48	81	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000						
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	48	54	140	25	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100						
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	< 0.3	< 0.3	< 0.3	< 0.3	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0					
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	35	210	41	44	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	5.2	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	46	92	41	57	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	99	350	110	81	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000						
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900						
Potassium (aqua regia extractable)	mg/kg	20		1600	9900						
Sodium (aqua regia extractable)	mg/kg	20		1200	5800						
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	< 0.020	< 0.020	< 0.020	< 0.020	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0	< 1.0	< 1.0	1.7	15	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0	< 2.0	< 2.0	2.2	120	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0	< 8.0	12	< 8.0	240	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500		< 8.0	270	32	710	
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800		< 10	280	36	1100	
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		< 0.010	< 0.010	< 0.010	< 0.010	
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	< 0.050	< 0.050	< 0.050	< 0.050	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0	< 1.0	< 1.0	< 1.0	8.4	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	121258	125504	125506	125507
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/20/2024	2/20/2024	2/20/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	< 2.0	< 2.0	5.9	150	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	< 10	< 10	11	440	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	< 10	56	31	880	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		< 10	56	48	1500	
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		< 5.0	< 5.0	< 5.0	< 5.0	
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0	< 5.0	< 5.0	< 5.0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	121258	125504	125506	125507
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/20/2024	2/20/2024	2/20/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

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Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	121258	125504	125506	125507
							BH ID	RTP138	TRP142	TRP143	TRP143
							Depth	0.10-0.30	0.30-0.40	0.90-1.00	1.50-1.60
							Strata	MG	MG	MG	MG
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/15/2024	2/20/2024	2/20/2024	2/20/2024	
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							Exceedances?	2/28/2024	2/28/2024	2/28/2024	2/12/2024
General Inorganics											
pH	pH Units	N/A	7.3	8.9	8.9	No		8.4	8	8.2	8.2
Electrical Conductivity	µS/cm	10	-	0	0						
Total Cyanide	mg/kg	1	49	0	0	0					
Total Sulphate as SO4	mg/kg	50		820	9700			6600	9700	5000	2800
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200						
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120						
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000						
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500						
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310			4.7	7.3	6.7	310
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160			2.4	3.6	3.4	160
Total Sulphur	mg/kg	50		260	3600			2600	3600	2000	980
Total Sulphur	%	0.005		0.026	0.356			0.256	0.356	0.201	0.098
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5			< 0.5	< 0.5	< 0.5	< 0.5
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0			< 2.0	< 2.0	< 2.0	< 2.0
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0						
Sulphide	mg/kg	1		4.3	4.3						
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7						
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22						
Dry solids	%	0.1		0	0						
Total Phenols											
Total Phenols (monohydric)	mg/kg	1	380	0	0	0					
Speciated PAHs											
Naphthalene	mg/kg	0.05	110	0.1	2.4	0					
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0					
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0					
Fluorene	mg/kg	0.05	60000	0.07	2	0					
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0					
Anthracene	mg/kg	0.05	520000	0.05	1.5	0					
Fluoranthene	mg/kg	0.05	23000	0.06	12	0					
Pyrene	mg/kg	0.05	54000	0.05	13	0					
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0					
Chrysene	mg/kg	0.05	350	0.3	7.4	0					
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0					
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0					
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0					
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0					
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/28/2024	2/28/2024	2/28/2024	2/12/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	44000	38000	45000	21000	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	7.7	8	8.4	< 1.0	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	100	88	110	14	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0					
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	16	19	4.6	16	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0					
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	55	57	55	39	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0					
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		41000	46000	43000	29000	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	36	71	39	22	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		200	230	230	290	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	3	38	3	2.6	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0					
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	8.9	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	120	100	120	42	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0					
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		9700	8700	9000	2300	
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3600	3200	3900	3300	
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		8200	7200	8400	1600	
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		3600	2400	3800	1300	
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	132251	132253	132255	147366
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/28/2024	2/28/2024	2/28/2024	2/12/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Toluene	µg/kg	5	3300000	<MRL	130	0					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/28/2024	2/28/2024	2/28/2024	2/12/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	132251	132253	132255	147366
							BH ID	RBH145	RBH145	RBH125	RBH136
							Depth	3.00-3.10	15.00-15.10	6.00-6.50	15.50-15.60
							Strata	PFA	PFA	PFA	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/28/2024	2/28/2024	2/28/2024	2/28/2024	2/12/2024
4-Methylphenol	mg/kg	0.2		<MRL	<MRL						
Isophorone	mg/kg	0.2		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL						
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL						
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5						
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL						
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL						
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL						
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL						
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0					
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL						
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0					
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL						
Azobenzene	mg/kg	0.3		<MRL	<MRL						
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL						
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0					
Carbazole	mg/kg	0.3		<MRL	<MRL						
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL						
Anthraquinone	mg/kg	0.3		<MRL	<MRL						
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0					
Phenols by GC-MS											
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL						
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL						
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL						
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL						
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL						
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

						Report ID	147367	147368	147369	
						BH ID	RBH138	RBH129	RBH137	RBH116
						Depth	9.50-9.60	22.10-22.20	8.60-9.00	3.5-3.7
						Strata	Superficial	Superficial	Superficial	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/12/2024	2/20/2024	2/28/2024	2/1/2024
General Inorganics										
pH	pH Units	N/A	7.3	8.9	8.9	No	8	8.5	8.4	8.6
Electrical Conductivity	µS/cm	10	-	0	0					
Total Cyanide	mg/kg	1	49	0	0	0				
Total Sulphate as SO4	mg/kg	50		820	9700		5100	5900	6400	2900
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200					
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120					
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000					
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500					
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		160	170	62	
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		78	84	31	
Total Sulphur	mg/kg	50		260	3600		1700	2100	2000	
Total Sulphur	%	0.005		0.026	0.356		0.167	0.21	0.201	
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		1	5	0.9	
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		< 2.0	< 2.0	< 2.0	
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0					
Sulphide	mg/kg	1		4.3	4.3					
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7					0.5
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22					12
Dry solids	%	0.1		0	0					
Total Phenols										
Total Phenols (monohydric)	mg/kg	1	380	0	0	0				
Speciated PAHs										
Naphthalene	mg/kg	0.05	110	0.1	2.4	0				0.12
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0				< 0.05
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0				< 0.05
Fluorene	mg/kg	0.05	60000	0.07	2	0				< 0.05
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0				< 0.05
Anthracene	mg/kg	0.05	520000	0.05	1.5	0				< 0.05
Fluoranthene	mg/kg	0.05	23000	0.06	12	0				< 0.05
Pyrene	mg/kg	0.05	54000	0.05	13	0				< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0				< 0.05
Chrysene	mg/kg	0.05	350	0.3	7.4	0				< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0				< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0				< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0				< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0				< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0				< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0				< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	147367	147368	147369	
							Depth	9.50-9.60	22.10-22.20	8.60-9.00	3.5-3.7
							Strata	Superficial	Superficial	Superficial	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/12/2024	2/20/2024	2/28/2024	2/1/2024	
Total PAH											
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5						
Heavy Metals / Metalloids											
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	24000	22000	15000		
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	5.1	3.3	< 1.0	< 0.017	
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	55	31	38	0.23	
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0				0.655	
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	16	13	37		
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	< 0.2	< 0.2	< 0.2		
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0				< 0.00100	
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	44	42	36		
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0				0.0049	
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		32000	38000	35000	0.013	
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	35	26	22		
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		670	1100	590	0.011	
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0					
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	7.2	22	91	< 0.00500	
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0				3.71	
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 1.0	< 1.0	< 1.0	0.0062	
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	79	54	46	< 0.040	
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0				0.0069	
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		5700	18000	17000		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		3800	6100	7900		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		4900	3800	4800		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		2300	2000	1700		
Petroleum Hydrocarbons											
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0					
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0					
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0					
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0					
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0					
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0					
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500						
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800						
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023						
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12						
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0					
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	147367	147368	147369	147369
							Depth	9.50-9.60	22.10-22.20	8.60-9.00	3.5-3.7
							Strata	Superficial	Superficial	Superficial	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/12/2024	2/20/2024	2/28/2024	2/1/2024	
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0					
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0					
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0					
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500						
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0						
MTBE and BTEX											
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0					
Benzene	µg/kg	5	15000	<MRL	28	0					< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0					< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0					< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					< 5.0
VOCs											
Chloromethane	µg/kg	5	560	<MRL	<MRL	0					
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0					
Bromomethane	µg/kg	5		<MRL	<MRL						
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0					
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL						
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL						
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL						
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL						
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Chloroform	µg/kg	5		<MRL	<MRL						
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL						
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL						
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0					
Benzene	µg/kg	5	15000	<MRL	28	0					
Carbontetrachloride	µg/kg	5		<MRL	<MRL						
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL						
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0					
Dibromomethane	µg/kg	5		<MRL	<MRL						
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0					
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL						
Toluene	µg/kg	5	3300000	<MRL	130	0					
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL						
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369	
							BH ID	147367	147368	147369	RBH116
							Depth	9.50-9.60	22.10-22.20	8.60-9.00	3.5-3.7
							Strata	Superficial	Superficial	Superficial	PFA
							Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
							2/12/2024	2/20/2024	2/28/2024	2/1/2024	
Dibromochloromethane	µg/kg	5		<MRL	<MRL						
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0					
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL						
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0					
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0					
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0					
Styrene	µg/kg	5	1900000	<MRL	<MRL	0					
Bromoform	µg/kg	5	390000	<MRL	<MRL	0					
o-Xylene	µg/kg	5	3700000	<MRL	6100	0					
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0					
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL						
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0					
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0					
2-Chlorotoluene	µg/kg	5		<MRL	<MRL						
4-Chlorotoluene	µg/kg	5		<MRL	<MRL						
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1					
tert-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1					
sec-Butylbenzene	µg/kg	5		<MRL	<MRL						
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
p-Isopropyltoluene	µg/kg	5		<MRL	570						
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL						
Butylbenzene	µg/kg	5		<MRL	<MRL						
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL						
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL						
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL						
SVOCs											
Aniline	mg/kg	0.1									
Phenol	mg/kg	0.2	380	<MRL	<MRL	0					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL						
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL						
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL						
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL						
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL						
2-Methylphenol	mg/kg	0.3		<MRL	<MRL						
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0					
Nitrobenzene	mg/kg	0.3		<MRL	<MRL						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID	147367	147368	147369
							BH ID	147367	147368	147369
							Depth	9.50-9.60	22.10-22.20	8.60-9.00
							Strata	Superficial	Superficial	Superficial
							Cut/In-Situ Waste	In-situ	In-situ	In-situ
							Exceedances?	2/12/2024	2/20/2024	2/28/2024
								2/1/2024		
4-Methylphenol	mg/kg	0.2		<MRL	<MRL					
Isophorone	mg/kg	0.2		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL					
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL					
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5					
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL					
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL					
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL					
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL					
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL					
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL					
Azobenzene	mg/kg	0.3		<MRL	<MRL					
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL					
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0				
Carbazole	mg/kg	0.3		<MRL	<MRL					
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL					
Anthraquinone	mg/kg	0.3		<MRL	<MRL					
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0				
Phenols by GC-MS										
Phenol	mg/kg	0.2	380	<MRL	<MRL	0				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID				
						BH ID	RBH124	RBH125	RBH136	RBH145
						Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Exceedances?	2/14/2024	2/28/2024	2/9/2024	2/28/2024						
General Inorganics										
pH	pH Units	N/A	7.3	8.9	8.9	No	7.9	7.7	8.6	8.7
Electrical Conductivity	µS/cm	10	-	0	0					
Total Cyanide	mg/kg	1	49	0	0	0				
Total Sulphate as SO4	mg/kg	50		820	9700		4600	2200	2200	3500
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200					
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120					
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000					
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500					
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310					
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160					
Total Sulphur	mg/kg	50		260	3600					
Total Sulphur	%	0.005		0.026	0.356					
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5					
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0					
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0					
Sulphide	mg/kg	1		4.3	4.3					
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7		0.4	0.7	0.4	0.7
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		3.5	4.5	5.1	22
Dry solids	%	0.1		0	0					
Total Phenols										
Total Phenols (monohydric)	mg/kg	1	380	0	0	0				
Speciated PAHs										
Naphthalene	mg/kg	0.05	110	0.1	2.4	0				
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0				
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0				
Fluorene	mg/kg	0.05	60000	0.07	2	0				
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0				
Anthracene	mg/kg	0.05	520000	0.05	1.5	0				
Fluoranthene	mg/kg	0.05	23000	0.06	12	0				
Pyrene	mg/kg	0.05	54000	0.05	13	0				
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0				
Chrysene	mg/kg	0.05	350	0.3	7.4	0				
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0				
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0				
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0				
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0				
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID				
						BH ID	RBH124	RBH125	RBH136	RBH145
						Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Exceedances?	2/14/2024	2/28/2024	2/9/2024	2/28/2024						
Total PAH										
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5					
Heavy Metals / Metalloids										
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0				
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	< 0.017	< 0.017	< 0.017	0.14
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	0.241	0.236	0.212	0.361
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	0.454	0.66	0.809	0.56
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0				
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0				
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 0.00100	< 0.00100	< 0.00100	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0				
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	0.036	0.011	0.033	0.028
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		0.054	0.063	0.045	0.056
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0				
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		< 0.010	< 0.010	< 0.010	< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0				
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	< 0.00500	< 0.00500	< 0.00500	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	0.18	0.179	0.244	0.192
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	< 0.0030	0.013	< 0.0030	0.0099
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	< 0.040	< 0.040	< 0.040	< 0.040
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0				
							0.13	0.11	0.078	0.092
Calcium (aqua regia extractable)	mg/kg	20		2300	18000					
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900					
Potassium (aqua regia extractable)	mg/kg	20		1600	9900					
Sodium (aqua regia extractable)	mg/kg	20		1200	5800					
Petroleum Hydrocarbons										
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0				
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0				
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0				
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	6100	<MRL	15	0				
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	43000	<MRL	120	0				
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	1000000	<MRL	240	0				
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8		<MRL	1500					
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10		<MRL	1800					
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023					
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12					
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0				
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	11000	<MRL	8.4	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	Report ID							
							BH ID	Depth	Strata	Cut/In-Situ Waste	2/14/2024	2/28/2024	2/9/2024	2/28/2024
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	RBH124	8.0-8.1	PFA	In-situ				
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	RBH125	7.0-7.5	PFA	In-situ				
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	RBH136	7.5-7.6	PFA	In-situ				
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		RBH145	6.0-6.1	PFA	In-situ				
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0									
MTBE and BTEX														
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0								
Benzene	µg/kg	5	15000	<MRL	28	0								
Toluene	µg/kg	5	3300000	<MRL	130	0								
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0								
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0								
o-Xylene	µg/kg	5	3700000	<MRL	6100	0								
VOCs														
Chloromethane	µg/kg	5	560	<MRL	<MRL	0								
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0								
Bromomethane	µg/kg	5		<MRL	<MRL									
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0								
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL									
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL									
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL									
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL									
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL									
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL									
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL									
Chloroform	µg/kg	5		<MRL	<MRL									
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL									
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL									
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL									
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0								
Benzene	µg/kg	5	15000	<MRL	28	0								
Carbontetrachloride	µg/kg	5		<MRL	<MRL									
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL									
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0								
Dibromomethane	µg/kg	5		<MRL	<MRL									
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0								
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL									
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL									
Toluene	µg/kg	5	3300000	<MRL	130	0								
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL									
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL									

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID				
						BH ID	RBH124	RBH125	RBH136	RBH145
						Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
Exceedances?	2/14/2024	2/28/2024	2/9/2024	2/28/2024						
Dibromochloromethane	µg/kg	5		<MRL	<MRL					
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0				
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL					
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0				
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL					
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0				
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0				
Styrene	µg/kg	5	1900000	<MRL	<MRL	0				
Bromoform	µg/kg	5	390000	<MRL	<MRL	0				
o-Xylene	µg/kg	5	3700000	<MRL	6100	0				
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0				
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL					
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0				
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0				
2-Chlorotoluene	µg/kg	5		<MRL	<MRL					
4-Chlorotoluene	µg/kg	5		<MRL	<MRL					
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1				
tert-Butylbenzene	µg/kg	5		<MRL	<MRL					
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1				
sec-Butylbenzene	µg/kg	5		<MRL	<MRL					
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
p-Isopropyltoluene	µg/kg	5		<MRL	570					
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL					
Butylbenzene	µg/kg	5		<MRL	<MRL					
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL					
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL					
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL					
SVOCs										
Aniline	mg/kg	0.1								
Phenol	mg/kg	0.2	380	<MRL	<MRL	0				
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL					
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL					
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL					
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL					
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0				
Nitrobenzene	mg/kg	0.3		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Report ID				
						Exceedances?	2/14/2024	2/28/2024	2/9/2024	2/28/2024
						BH ID	RBH124	RBH125	RBH136	RBH145
						Depth	8.0-8.1	7.0-7.5	7.5-7.6	6.0-6.1
						Strata	PFA	PFA	PFA	PFA
						Cut/In-Situ Waste	In-situ	In-situ	In-situ	In-situ
4-Methylphenol	mg/kg	0.2		<MRL	<MRL					
Isophorone	mg/kg	0.2		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL					
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL					
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5					
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL					
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL					
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL					
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL					
Dibenzofuran	mg/kg	0.2	670000	<MRL	<MRL	0				
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL					
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0				
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL					
Azobenzene	mg/kg	0.3		<MRL	<MRL					
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL					
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0				
Carbazole	mg/kg	0.3		<MRL	<MRL					
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL					
Anthraquinone	mg/kg	0.3		<MRL	<MRL					
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0				
Phenols by GC-MS										
Phenol	mg/kg	0.2	380	<MRL	<MRL	0				
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL					
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL					
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL					
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL					
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL					
2-Methylphenol	mg/kg	0.3		<MRL	<MRL					
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL					
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/15/2024
General Inorganics							
pH	pH Units	N/A	7.3	8.9	8.9	No	7.6
Electrical Conductivity	µS/cm	10	-	0	0		
Total Cyanide	mg/kg	1	49	0	0	0	
Total Sulphate as SO4	mg/kg	50		820	9700		3500
Water Soluble SO4 1hr extraction	mg/kg	2.5		4200	4200		
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25		2120	2120		
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg			35	5000		
Water Soluble SO4 16hr extraction (2:1)	mg/l			17.3	2500		
Water Soluble Chloride (2:1)	mg/kg	1		1.3	310		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5		0.7	160		
Total Sulphur	mg/kg	50		260	3600		
Total Sulphur	%	0.005		0.026	0.356		
Ammoniacal Nitrogen as NH3	mg/kg	0.5		0.9	5		
Water Soluble Nitrate (2:1) as N	mg/kg	2		0	0		
Water Soluble Nitrite (2:1) as N	mg/kg	20		0	0		
Sulphide	mg/kg	1		4.3	4.3		
Total Organic Carbon (TOC) - Automated	%	0.1		0.4	0.7		0.7
Acid Neutralisation Capacity	+/- mmol/kg	-999		0.56	22		1.4
Dry solids	%	0.1		0	0		
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	380	0	0	0	
Speciated PAHs							
Naphthalene	mg/kg	0.05	110	0.1	2.4	0	< 0.05
Acenaphthylene	mg/kg	0.05	76000	0.18	0.18	0	< 0.05
Acenaphthene	mg/kg	0.05	75000	0.11	1.8	0	< 0.05
Fluorene	mg/kg	0.05	60000	0.07	2	0	< 0.05
Phenanthrene	mg/kg	0.05	22000	0.23	7.3	0	< 0.05
Anthracene	mg/kg	0.05	520000	0.05	1.5	0	< 0.05
Fluoranthene	mg/kg	0.05	23000	0.06	12	0	< 0.05
Pyrene	mg/kg	0.05	54000	0.05	13	0	< 0.05
Benzo(a)anthracene	mg/kg	0.05	170	0.23	5.7	0	< 0.05
Chrysene	mg/kg	0.05	350	0.3	7.4	0	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	45	0.29	6.1	0	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	1200	0.08	2	0	< 0.05
Benzo(a)pyrene	mg/kg	0.05	76	0.15	5.5	0	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	510	0.1	2.5	0	< 0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	3.5	0.85	0.85	0	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	3900	0.15	2.5	0	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/15/2024
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8		1.01	71.5		
Heavy Metals / Metalloids							
Aluminium (aqua regia extractable)	mg/kg	30	370000	3900	50000	0	
Antimony (aqua regia extractable)	mg/kg	1	7400	0.14	9.2	0	< 0.017
Arsenic (aqua regia extractable)	mg/kg	1	640	0.212	140	0	0.299
Beryllium (aqua regia extractable)	mg/kg	0.06	12	0.454	3.5	0	0.531
Boron (water soluble)	mg/kg	0.2	240000	0.3	45	0	
Cadmium (aqua regia extractable)	mg/kg	0.2	410	<MRL	3.1	0	
Chromium (hexavalent)	mg/kg	1.8	49	<MRL	0	0	< 0.00100
Chromium (aqua regia extractable)	mg/kg	1	8600	20	110	0	
Copper (aqua regia extractable)	mg/kg	1	68000	<MRL	280	0	0.13
Iron (aqua regia extractable)	mg/kg	40		0.013	58000		0.073
Lead (aqua regia extractable)	mg/kg	1	2300	14	140	0	
Manganese (aqua regia extractable)	mg/kg	1		0.011	1100		< 0.010
Mercury (aqua regia extractable)	mg/kg	0.3	1100	<MRL	0.4	0	
Molybdenum (aqua regia extractable)	mg/kg	0.25	18000	2.3	91	0	< 0.00500
Nickel (aqua regia extractable)	mg/kg	1	980	0.0617	210	0	0.0617
Selenium (aqua regia extractable)	mg/kg	1	12000	<MRL	13	0	0.01
Vanadium (aqua regia extractable)	mg/kg	1	9000	0.06	160	0	0.06
Zinc (aqua regia extractable)	mg/kg	1	730000	26	350	0	0.14
Calcium (aqua regia extractable)	mg/kg	20		2300	18000		
Magnesium (aqua regia extractable)	mg/kg	20		1800	7900		
Potassium (aqua regia extractable)	mg/kg	20		1600	9900		
Sodium (aqua regia extractable)	mg/kg	20		1200	5800		
Petroleum Hydrocarbons							
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	2400	<MRL	0	0	
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	5300	<MRL	0	0	
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	1300	<MRL	2.9	0	
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL #1 #2	mg/kg	1	6100	<MRL	15	0	
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL #1 #2	mg/kg	2	43000	<MRL	120	0	
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL #1 #2	mg/kg	8	1000000	<MRL	240	0	
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL #1 #2	mg/kg	8		<MRL	1500		
TPHCWG - Aliphatic >C6 - C35 EH_CU+HS_1D_AL #1 #2	mg/kg	10		<MRL	1800		
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01		<MRL	0.023		
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01		<MRL	0.12		
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	2200	<MRL	58	0	
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR #1 #2	mg/kg	1	11000	<MRL	8.4	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/15/2024
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	35000	<MRL	150	0	
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	440	0	
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	29000	<MRL	1100	0	
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10		<MRL	1500		
TPH C10 - C40 EH_CU_1D_TOTAL	mg/kg	10		<MRL	0		
MTBE and BTEX							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	380000	<MRL	0	0	
Benzene	µg/kg	5	15000	<MRL	28	0	< 5.0
Toluene	µg/kg	5	3300000	<MRL	130	0	< 5.0
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	< 5.0
p & m-Xylene	µg/kg	5	3400000	<MRL	2100	0	< 5.0
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	< 5.0
VOCs							
Chloromethane	µg/kg	5	560	<MRL	<MRL	0	
Chloroethane	µg/kg	5	530000	<MRL	<MRL	0	
Bromomethane	µg/kg	5		<MRL	<MRL		
Vinyl Chloride	µg/kg	5	720	<MRL	<MRL	0	
Trichlorofluoromethane	µg/kg	5		<MRL	<MRL		
1,1-Dichloroethene	µg/kg	5		<MRL	<MRL		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5		<MRL	<MRL		
Trans 1,2-dichloroethylene	µg/kg	5		<MRL	<MRL		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5		<MRL	<MRL		
1,1-Dichloroethane	µg/kg	5		<MRL	<MRL		
2,2-Dichloropropane	µg/kg	5		<MRL	<MRL		
Chloroform	µg/kg	5		<MRL	<MRL		
1,1,1-Trichloroethane	µg/kg	5		<MRL	<MRL		
1,2-Dichloroethane	µg/kg	5		<MRL	<MRL		
1,1-Dichloropropene	µg/kg	5		<MRL	<MRL		
Cis-1,2-dichloroethene	µg/kg	5	7300	<MRL	10	0	
Benzene	µg/kg	5	15000	<MRL	28	0	
Carbontetrachloride	µg/kg	5		<MRL	<MRL		
1,2-Dichloropropane	µg/kg	5		<MRL	<MRL		
Trichloroethene	µg/kg	5	410	<MRL	<MRL	0	
Dibromomethane	µg/kg	5		<MRL	<MRL		
Bromodichloromethane	µg/kg	5	1000	<MRL	<MRL	0	
Cis-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		
Trans-1,3-dichloropropene	µg/kg	5		<MRL	<MRL		
Toluene	µg/kg	5	3300000	<MRL	130	0	
1,1,2-Trichloroethane	µg/kg	5		<MRL	<MRL		
1,3-Dichloropropane	µg/kg	5		<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/15/2024
Dibromochloromethane	µg/kg	5		<MRL	<MRL		
Tetrachloroethene	µg/kg	5	13000	<MRL	<MRL	0	
1,2-Dibromoethane	µg/kg	5		<MRL	<MRL		
Chlorobenzene	µg/kg	5	31000	<MRL	<MRL	0	
1,1,1,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		
Ethylbenzene	µg/kg	5	3200000	<MRL	640	0	
p & m-Xylene	µg/kg	5	3300000 / 3400000	<MRL	2100	0	
Styrene	µg/kg	5	1900000	<MRL	<MRL	0	
Bromoform	µg/kg	5	390000	<MRL	<MRL	0	
o-Xylene	µg/kg	5	3700000	<MRL	6100	0	
Isopropylbenzene	µg/kg	5	710000	<MRL	20000	0	
1,1,2,2-Tetrachloroethane	µg/kg	5		<MRL	<MRL		
Bromobenzene	µg/kg	5	51000	<MRL	<MRL	0	
n-Propylbenzene	µg/kg	5	2100000	<MRL	41000	0	
2-Chlorotoluene	µg/kg	5		<MRL	<MRL		
4-Chlorotoluene	µg/kg	5		<MRL	<MRL		
1,3,5-Trimethylbenzene	µg/kg	5	12000	<MRL	25000	1	
tert-Butylbenzene	µg/kg	5		<MRL	<MRL		
1,2,4-Trimethylbenzene	µg/kg	5	22000	<MRL	41000	1	
sec-Butylbenzene	µg/kg	5		<MRL	<MRL		
1,3-Dichlorobenzene	µg/kg	5		<MRL	<MRL		
p-Isopropyltoluene	µg/kg	5		<MRL	570		
1,4-Dichlorobenzene	µg/kg	5		<MRL	<MRL		
1,2-Dichlorobenzene	µg/kg	5		<MRL	<MRL		
Butylbenzene	µg/kg	5		<MRL	<MRL		
1,2-Dibromo-3-chloropropane	µg/kg	5		<MRL	<MRL		
1,2,4-Trichlorobenzene	µg/kg	5		<MRL	<MRL		
Hexachlorobutadiene	µg/kg	5		<MRL	<MRL		
1,2,3-Trichlorobenzene	µg/kg	5		<MRL	<MRL		
SVOCs							
Aniline	mg/kg	0.1					
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		
Bis(2-chloroethyl)ether	mg/kg	0.2		<MRL	<MRL		
1,3-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		
1,2-Dichlorobenzene	mg/kg	0.1		<MRL	<MRL		
1,4-Dichlorobenzene	mg/kg	0.2		<MRL	<MRL		
Bis(2-chloroisopropyl)ether	mg/kg	0.1		<MRL	<MRL		
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		
Hexachloroethane	mg/kg	0.05	11	<MRL	<MRL	0	
Nitrobenzene	mg/kg	0.3		<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Report ID	
BH ID	RTP138
Depth	1.5
Strata	PFA
Cut/In-Situ Waste	In-situ

Determinand	Units	LOD	Commercial Industrial GAC	Min Concentration	Max Concentration	Exceedances?	2/15/2024
4-Methylphenol	mg/kg	0.2		<MRL	<MRL		
Isophorone	mg/kg	0.2		<MRL	<MRL		
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		
Bis(2-chloroethoxy)methane	mg/kg	0.3		<MRL	<MRL		
1,2,4-Trichlorobenzene	mg/kg	0.3		<MRL	<MRL		
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		
4-Chloroaniline	mg/kg	0.1		<MRL	<MRL		
Hexachlorobutadiene	mg/kg	0.1		<MRL	<MRL		
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		
2-Methylnaphthalene	mg/kg	0.1		<MRL	0.5		
2-Chloronaphthalene	mg/kg	0.1		<MRL	<MRL		
Dimethylphthalate	mg/kg	0.1		<MRL	<MRL		
2,6-Dinitrotoluene	mg/kg	0.1		<MRL	<MRL		
2,4-Dinitrotoluene	mg/kg	0.2		<MRL	<MRL		
Dibenzofuran	mg/kg	0.2	6700000	<MRL	<MRL	0	
4-Chlorophenyl phenyl ether	mg/kg	0.3		<MRL	<MRL		
Diethyl phthalate	mg/kg	0.2	120000	<MRL	<MRL	0	
4-Nitroaniline	mg/kg	0.2		<MRL	<MRL		
Azobenzene	mg/kg	0.3		<MRL	<MRL		
Bromophenyl phenyl ether	mg/kg	0.2		<MRL	<MRL		
Hexachlorobenzene	mg/kg	0.2	91	<MRL	<MRL	0	
Carbazole	mg/kg	0.3		<MRL	<MRL		
Dibutyl phthalate	mg/kg	0.2		<MRL	<MRL		
Anthraquinone	mg/kg	0.3		<MRL	<MRL		
Butyl benzyl phthalate	mg/kg	0.3	940000	<MRL	<MRL	0	
Phenols by GC-MS							
Phenol	mg/kg	0.2	380	<MRL	<MRL	0	
2,4,5-Trichlorophenol	mg/kg	0.2		<MRL	<MRL		
2,4,6-Trichlorophenol	mg/kg	0.1		<MRL	<MRL		
2,4-Dichlorophenol	mg/kg	0.3		<MRL	<MRL		
2,4-Dimethylphenol	mg/kg	0.3		<MRL	<MRL		
2-Chlorophenol	mg/kg	0.1		<MRL	<MRL		
2-Methylphenol	mg/kg	0.3		<MRL	<MRL		
2-Nitrophenol	mg/kg	0.3		<MRL	<MRL		
4-Chloro-3-methylphenol	mg/kg	0.1		<MRL	<MRL		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002541	24-002891	
										PFA	PFA	
										RBH141A	RBH136	
										Date Sampled	2/7/2024	2/8/2024
										Depth	7.00-7.10	2.50-2.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		8.70	7.30	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	371.00	349.00	
Total Sulphur	mg/l	0.015					8.06	243	0	124.00	116.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	4.00	0.41	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	240.00	120.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	< 0.01	0.06	
Nitrite as N	µg/l	1		500		500	1	17	0	17.00	1.20	
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1				7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	1.10	0.07	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002541	24-002891	
										PFA	PFA	
										RBH141A	RBH136	
										Date Sampled	2/7/2024	2/8/2024
										Depth	7.00-7.10	2.50-2.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	8.10	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	27.00	37.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	910.00	100.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	0.80	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0	27.00		
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	0.03	0.04	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	2.10	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	63.00	78.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	63.00	11.27	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	21.00	2.20	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	4.00	7.10	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	22.00	17.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		150.00	130.00	
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16		1.10	3.20	
Potassium (dissolved)	mg/l	0.025					2	12		12.00	2.10	
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	15.00	1.20	
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002541	24-002891	
										PFA	PFA	
										RBH141A	RBH136	
										Date Sampled	2/7/2024	2/8/2024
										Depth	7.00-7.10	2.50-2.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-003270	24-003270	
										PFA	PFA	
										RTP157	RBH138	
										Date Sampled	2/12/2024	2/12/2024
										Depth	2.40-2.60	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.60	7.40	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	439.00	537.00	
Total Sulphur	mg/l	0.015					8.06	243	0	146.00	179.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.44	0.55	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	16.00	< 15	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	< 0.01	0.05	
Nitrite as N	µg/l	1		500		500	1	17	0	1.30	3.20	
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.06	0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-003270	24-003270	
										PFA	PFA	
										RTP157	RBH138	
										Date Sampled	2/12/2024	2/12/2024
										Depth	2.40-2.60	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	1.90	3.20	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	16.00	22.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	110.00	1600.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	8.00	4.10	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0	0.02	< 0.004	
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	< 1.0	< 1.0	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	32.00	35.00	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	5.80	52.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	1.50	9.12	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	12.00	< 4.0	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	9.90	11.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13			
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		200.00	200.00	
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16		2.40	16.00	
Potassium (dissolved)	mg/l	0.025					2	12		2.10	8.80	
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.10	5.60	
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-003270	24-003270	
										PFA	PFA	
										RTP157	RBH138	
										Date Sampled	2/12/2024	2/12/2024
										Depth	2.40-2.60	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP183	RTP184	
										Date Sampled	2/13/2024	2/13/2024
										Depth	0.40-0.60	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.20	7.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	350.00	208.00	
Total Sulphur	mg/l	0.015					8.06	243	0	117.00	69.40	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.68	0.76	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	73.00	27.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	0.03	0.10	
Nitrite as N	µg/l	1		500		500	1	17	0	1.00	2.90	
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.07	0.07	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP183	RTP184	
										Date Sampled	2/13/2024	2/13/2024
										Depth	0.40-0.60	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	26.00	16.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	630.00	130.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	2.30	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	0.01	0.02	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.00	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	43.00	54.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	5.12	6.43	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	15.00	5.70	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	9.00	6.70	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		140.00	91.00	
Calcium (dissolved)	µg/l	12					11000	300000		140000.00	91000.00	
Magnesium (dissolved)	mg/l	0.005					1.1	16		9.10	2.20	
Potassium (dissolved)	mg/l	0.025					2	12		3.30	2.30	
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.10	2.20	
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP183	RTP184	
										Date Sampled	2/13/2024	2/13/2024
										Depth	0.40-0.60	2.50-2.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP181	RTP182	
										Date Sampled	2/13/2024	2/13/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.30	7.50	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0		2360.00	
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	177.00	2.36	
Total Sulphur	mg/l	0.015					8.06	243	0	59.10		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	1.50		
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	21.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	< 0.01		
Nitrite as N	µg/l	1		500		500	1	17	0	1.60		
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0		< 1.0	
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.06		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP181	RTP182	
										Date Sampled	2/13/2024	2/13/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	8.50	1.70	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	190.00	140.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.90	0.60	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		32.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		1.85	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	< 0.004		
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.30	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	49.00		
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	7.08		
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	8.80		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		1.40	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.39	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	10.00	< 1.7	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		9.80	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		4.23	
Calcium (dissolved)	mg/l	0.012					11	770		81.00		
Calcium (dissolved)	µg/l	12					11000	300000		81000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16		2.60		
Potassium (dissolved)	mg/l	0.025					2	12		2.00		
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.10		
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	MG	
										RTP181	RTP182	
										Date Sampled	2/13/2024	2/13/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132252		
										PFA	PFA	
										RTP182	RBH145	
										Date Sampled	2/13/2024	2/28/2024
										Depth	1.50-1.70	9.00-9.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		8.60	9.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	254.00	730.00	
Total Sulphur	mg/l	0.015					8.06	243	0	84.80	243.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	1.40	0.55	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	18.00	45.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0	0.02	0.18	
Nitrite as N	µg/l	1		500		500	1	17	0	< 1.0	2.60	
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	1.20	2.00	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132252	
										PFA	
										RTP182	
										RBH145	
										Date Sampled	
										2/13/2024	
										2/28/2024	
										Depth	
										1.50-1.70	
										9.00-9.10	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	10.00
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	12.00	43.00
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0		
Beryllium (dissolved)	µg/l	0.2					0	0			
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	750.00	1200.00
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.50	4.90
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0		
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	0.01	0.15
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	41.00	50.00
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	41.00	50.00
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	7.00	17.00
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	8.30
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	9.90	79.00
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		
Calcium (dissolved)	mg/l	0.012					11	770		110.00	300.00
Calcium (dissolved)	µg/l	12					11000	300000		110000.00	300000.00
Magnesium (dissolved)	mg/l	0.005					1.1	16		2.10	1.40
Potassium (dissolved)	mg/l	0.025					2	12		2.50	7.40
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	2.30	3.40
							0	0			
							0	0			
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)											132252	
										PFA	PFA	
										RTP182	RBH145	
										Date Sampled	2/13/2024	2/28/2024
										Depth	1.50-1.70	9.00-9.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	109704	
										PFA	PFA	
										RBH125	RBH116	
										Date Sampled	2/28/2024	31/01/2024
										Depth	4.00-4.50	3.50-3.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.40	8.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0	< 1.0		
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	449.00	290.00	
Total Sulphur	mg/l	0.015					8.06	243	0			
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0		2.50	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0			
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0	< 1.0		
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1	0.96		
Acenaphthylene	µg/l	0.01					0	0		< 0.01		
Acenaphthene	µg/l	0.01	0.01				0	0		< 0.01		
Fluorene	µg/l	0.01					0	0		< 0.01		
Phenanthrene	µg/l	0.01					0	0		< 0.01		
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0	< 0.01		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0	< 0.01		
Pyrene	µg/l	0.01					0	0		< 0.01		
Benzo(a)anthracene	µg/l	0.01					0	0		< 0.01		
Chrysene	µg/l	0.01					0	0		< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
Dibenzo(a,h)anthracene	µg/l	0.01					0	0		< 0.01		
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0	< 0.01		
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0	0.96		
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	109704	
										PFA	PFA	
										RBH125	RBH116	
										Date Sampled	2/28/2024	31/01/2024
										Depth	4.00-4.50	3.50-3.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6			
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	31.00	23.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0		65.50	
Beryllium (dissolved)	µg/l	0.2					0	0		< 0.2		
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	140.00		
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0	< 5.0		
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.90	0.49	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	7.60	1.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.43	0.41	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.10	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0		371.00	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	1.70	0.62	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.44	0.62	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	10.00	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	29.00		
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	20.00	0.69	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	8.73	0.34	
Calcium (dissolved)	mg/l	0.012					0	0				
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0	< 1.0		
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0	< 1.0		
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0	< 1.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	109704	
										PFA	PFA	
										RBH125	RBH116	
										Date Sampled	2/28/2024	31/01/2024
										Depth	4.00-4.50	3.50-3.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0	< 10		
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0	< 10		
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0		< 10		
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0		< 10		
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0		< 10		
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0		< 1.0		
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0		< 1.0		
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0		< 1.0		
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0	< 10		
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0		< 10		
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0		< 3.0		
Benzene	µg/l	5	1				0	0		< 3.0		
Toluene	µg/l	5	4				0	0		< 3.0		
Ethylbenzene	µg/l	5	5				0	0		< 3.0		
p & m-xylene	µg/l	5	3				0	0		< 3.0		
o-xylene	µg/l	5					0	0		< 3.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										112640	120590	116448	
										PFA	PFA	PFA	
										RBH119	RBH124	RBH136	
										Date Sampled	05/02/2024	14/02/2024	09/02/2024
										Depth	6.90-7.00	8.00-8.10	7.50-7.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2			7.90	8.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0				
Sulphate as SO4	µg/l	45					2360	2360	0				
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	360.00	460.00	220.00	
Total Sulphur	mg/l	0.015					8.06	243	0				
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	4.60	0.22	0.64	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0				
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0				
Nitrite as N	µg/l	1		500		500	1	17	0				
							0	0					
							0	0					
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0				
							0	0					
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1				
Acenaphthylene	µg/l	0.01					0	0					
Acenaphthene	µg/l	0.01	0.01				0	0					
Fluorene	µg/l	0.01					0	0					
Phenanthrene	µg/l	0.01					0	0					
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0				
Pyrene	µg/l	0.01					0	0					
Benzo(a)anthracene	µg/l	0.01					0	0					
Chrysene	µg/l	0.01					0	0					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Dibenzo(a,h)anthracene	µg/l	0.01					0	0					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
							0	0					
Total PAH							0	0					
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0				
							0	0					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										112640	120590	116448	
										PFA	PFA	PFA	
										RBH119	RBH124	RBH136	
										Date Sampled	05/02/2024	14/02/2024	09/02/2024
										Depth	6.90-7.00	8.00-8.10	7.50-7.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6				
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	20.00	24.10	21.20	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	49.20	45.40	80.90	
Beryllium (dissolved)	µg/l	0.2					0	0					
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5				
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0				
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.57	3.60	3.30	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	5.50	5.40	4.50	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.48	0.19	0.53	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0				
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0				
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0				
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	527.00	18.00	24.40	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	1.50	< 0.3	< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.51	0.05	0.30	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	5.50	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13				
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	14.00	13.00	7.80	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	6.70	2.39	2.78	
Calcium (dissolved)	mg/l	0.012					0	0					
Calcium (dissolved)	µg/l	12					11000	300000					
Magnesium (dissolved)	mg/l	0.005					1.1	16					
Potassium (dissolved)	mg/l	0.025					2	12					
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0				
							0	0					
							0	0					
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										112640	120590	116448	
										PFA	PFA	PFA	
										RBH119	RBH124	RBH136	
										Date Sampled	05/02/2024	14/02/2024	09/02/2024
										Depth	6.90-7.00	8.00-8.10	7.50-7.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										130725	120653	121260	
										PFA	PFA	PFA	
										RBH137	RTP136	RTP138	
										Date Sampled	27/02/2024	14/02/2024	15/02/2024
										Depth	2.00-2.50	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.60	8.20	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0				
Sulphate as SO4	µg/l	45					2360	2360	0				
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	540.00	2.20	350.00	
Total Sulphur	mg/l	0.015					8.06	243	0				
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.65	0.72	0.33	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0				
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0				
Nitrite as N	µg/l	1		500		500	1	17	0				
							0	0					
							0	0					
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0				
							0	0					
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1				
Acenaphthylene	µg/l	0.01					0	0					
Acenaphthene	µg/l	0.01	0.01				0	0					
Fluorene	µg/l	0.01					0	0					
Phenanthrene	µg/l	0.01					0	0					
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0				
Pyrene	µg/l	0.01					0	0					
Benzo(a)anthracene	µg/l	0.01					0	0					
Chrysene	µg/l	0.01					0	0					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Dibenzo(a,h)anthracene	µg/l	0.01					0	0					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
							0	0					
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0				
							0	0					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										130725	120653	121260	
										PFA	PFA	PFA	
										RBH137	RTP136	RTP138	
										Date Sampled	27/02/2024	14/02/2024	15/02/2024
										Depth	2.00-2.50	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6				
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	69.00	20.90	29.90	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	41.40	0.26	53.10	
Beryllium (dissolved)	µg/l	0.2					0	0					
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5				
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0				
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	< 0.4	13.00	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	12.00	< 0.7	7.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	1.04	0.14	0.77	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0				
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0				
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.80	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0				
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	13.60	1.43	6.17	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	8.20	< 0.3	1.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	2.76	0.19	0.36	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	7.80	7.50	6.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13				
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	12.00	< 0.4	14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	5.73	0.19	7.04	
Calcium (dissolved)	mg/l	0.012					0	0					
Calcium (dissolved)	µg/l	12					11000	300000					
Magnesium (dissolved)	mg/l	0.005					1.1	16					
Potassium (dissolved)	mg/l	0.025					2	12					
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0				
							0	0					
							0	0					
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										130725	120653	121260	
										PFA	PFA	PFA	
										RBH137	RTP136	RTP138	
										Date Sampled	27/02/2024	14/02/2024	15/02/2024
										Depth	2.00-2.50	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	124158	
										PFA	MG	MG	
										RTP151	RTP143	RTP166	
										Date Sampled	12/02/2024	20/02/2024	19/02/2024
										Depth	0.50-0.70	0.90-1.00	1.80-1.90
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.80	7.80	7.80	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0				
Sulphate as SO4	µg/l	45					2360	2360	0				
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	0.77	17.00	250.00	
Total Sulphur	mg/l	0.015					8.06	243	0				
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	1.70	1.40	0.71	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0				
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0				
Nitrite as N	µg/l	1		500		500	1	17	0				
							0	0					
							0	0					
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1				7.7	7.7	0	0				
							0	0					
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1				
Acenaphthylene	µg/l	0.01					0	0					
Acenaphthene	µg/l	0.01	0.01				0	0					
Fluorene	µg/l	0.01					0	0					
Phenanthrene	µg/l	0.01					0	0					
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0				
Pyrene	µg/l	0.01					0	0					
Benzo(a)anthracene	µg/l	0.01					0	0					
Chrysene	µg/l	0.01					0	0					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
Dibenzo(a,h)anthracene	µg/l	0.01					0	0					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0				
							0	0					
Total PAH							0	0					
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0				
							0	0					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	124158	
										PFA	MG	MG	
										RTP151	RTP143	RTP166	
										Date Sampled	12/02/2024	20/02/2024	19/02/2024
										Depth	0.50-0.70	0.90-1.00	1.80-1.90
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6				
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	2.61	1.66	37.50	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	3.31	19.20	53.80	
Beryllium (dissolved)	µg/l	0.2					0	0					
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5				
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0				
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.76	< 0.4	4.30	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	2.10	6.50	5.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.05	0.20	0.36	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0				
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0				
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	2.40	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5				
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0				
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	0.44	10.20	14.70	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	< 0.3	2.00	1.50	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.06	0.24	0.50	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	7.30	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13				
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	2.00	11.00	20.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	0.44	1.52	8.10	
Calcium (dissolved)	mg/l	0.012					0	0					
Calcium (dissolved)	µg/l	12					11000	300000					
Magnesium (dissolved)	mg/l	0.005					1.1	16					
Potassium (dissolved)	mg/l	0.025					2	12					
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0				
							0	0					
							0	0					
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0				
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	124158	
										PFA	MG	MG	
										RTP151	RTP143	RTP166	
										Date Sampled	12/02/2024	20/02/2024	19/02/2024
										Depth	0.50-0.70	0.90-1.00	1.80-1.90
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0				
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0					
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0					
							0	0					
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0					
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0					
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0				
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0					
							0	0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0					
Benzene	µg/l	5	1				0	0					
Toluene	µg/l	5	4				0	0					
Ethylbenzene	µg/l	5	5				0	0					
p & m-xylene	µg/l	5	3				0	0					
o-xylene	µg/l	5					0	0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										147382	147383	
										PFA	PFA	
										RBH125	RBH145	
										Date Sampled	28/02/2024	28/02/2024
										Depth	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.70	8.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	220.00	350.00	
Total Sulphur	mg/l	0.015					8.06	243	0			
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0	0.41	0.22	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0			
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1				7.7	7.7	0	0	0		
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										147382	147383	
										PFA	PFA	
										RBH125	RBH145	
										Date Sampled	28/02/2024	28/02/2024
										Depth	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6			
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	23.60	36.10	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	66.00	56.00	
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5			
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	1.10	2.80	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	6.30	5.60	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	0.40	2.68	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	17.90	19.20	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	1.30	0.99	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	0.42	0.99	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13			
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	11.00	9.20	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	4.66	4.99	
Calcium (dissolved)	mg/l	0.012					0	0				
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										147382	147383	
										PFA	PFA	
										RBH125	RBH145	
										Date Sampled	28/02/2024	28/02/2024
										Depth	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RBH114	RBH124	
										Date Sampled	2/20/2024	2/14/2024
										Depth	6.0-6.5	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.50	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	24.20	1590.00	
Total Sulphur	mg/l	0.015					8.06	243	0	8.06		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	22.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1				7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.21		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RBH114	RBH124	
										Date Sampled	2/20/2024	2/14/2024
										Depth	6.0-6.5	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	4.20		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	34.00	< 1.0	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	95.00	12.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	0.60	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		13.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.83	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.10	2.50	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	11.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		1.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.38	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	22.00	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	12.00		
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		5.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		2.12	
Calcium (dissolved)	mg/l	0.012					11	770		11.00		
Calcium (dissolved)	µg/l	12					11000	300000		11000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	MG	
										RBH114	RBH124	
										Date Sampled	2/20/2024	2/14/2024
										Depth	6.0-6.5	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH124	RBH126	
										Date Sampled	2/16/2024	2/19/2024
										Depth	17.0-17.1	1.0-1.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		8.30	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	227.00	172.00	
Total Sulphur	mg/l	0.015					8.06	243	0	75.80		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.36		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH124	RBH126	
										Date Sampled	2/16/2024	2/19/2024
										Depth	17.0-17.1	1.0-1.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	19.00	31.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	1900.00	820.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	0.50	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		8.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.55	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.10	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	160.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		0.30	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.10	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	13.00	16.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		9.80	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		4.15	
Calcium (dissolved)	mg/l	0.012					0	0				
Calcium (dissolved)	µg/l	12					11000	300000				
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH124	RBH126	
										Date Sampled	2/16/2024	2/19/2024
										Depth	17.0-17.1	1.0-1.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH129	RBH132	
										Date Sampled	2/19/2024	2/23/2024
										Depth	15.5-15.6	3.5-4.0
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	191.00	523.00	
Total Sulphur	mg/l	0.015					8.06	243	0	63.70		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	35.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0		< 1.0	
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.34		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH129	RBH132	
										Date Sampled	2/19/2024	2/23/2024
										Depth	15.5-15.6	3.5-4.0
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	6.40		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	33.00	34.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	360.00	130.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	1.40	0.50	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		7.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.44	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	36.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		1.30	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.39	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	43.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	21.00	46.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		24.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		10.27	
Calcium (dissolved)	mg/l	0.012					11	770		770.00		
Calcium (dissolved)	µg/l	12					11000	300000		77000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH129	RBH132	
										Date Sampled	2/19/2024	2/23/2024
										Depth	15.5-15.6	3.5-4.0
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH143	RTP134	
										Date Sampled	2/23/2024	2/14/2024
										Depth	8.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.70	7.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	669.00	285.00	
Total Sulphur	mg/l	0.015					8.06	243	0	223.00	95.00	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	40.00	< 15	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
							0	0				
Total PAH							0	0				
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.33	0.08	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RBH143	RTP134	
										Date Sampled	2/23/2024	2/14/2024
										Depth	8.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	49.00	51.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	1300.00	93.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	17.00	5.60	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.30	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	56.00	3.70	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	8.20	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	42.00	20.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		280.00	130.00	
Calcium (dissolved)	µg/l	12					11000	300000		280000.00	130000.00	
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RBH143	RTP134	
										Date Sampled	2/23/2024	2/14/2024
										Depth	8.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP135	RTP136	
										Date Sampled	2/15/2024	2/14/2024
										Depth	4.2-4.4	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.90	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	242.00	284.00	
Total Sulphur	mg/l	0.015					8.06	243	0	80.80	94.80	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15	< 15	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.15	0.43	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP135	RTP136	
										Date Sampled	2/15/2024	2/14/2024
										Depth	4.2-4.4	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	54.00	26.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	96.00	1200.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	6.30	6.70	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.20	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	4.40	11.00	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	20.00	25.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		110.00		
Calcium (dissolved)	µg/l	12					11000	300000		110000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
											PFA	PFA
											RTP135	RTP136
										Date Sampled	2/15/2024	2/14/2024
										Depth	4.2-4.4	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP137	RTP139	
										Date Sampled	2/14/2024	2/16/2024
										Depth	2.6-2.8	1.5-1.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.00	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0			
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	189.00	262.00	
Total Sulphur	mg/l	0.015					8.06	243	0	63.00	87.40	
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15	16.00	
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0	0				
Acenaphthene	µg/l	0.01	0.01				0	0				
Fluorene	µg/l	0.01					0	0				
Phenanthrene	µg/l	0.01					0	0				
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0			
Pyrene	µg/l	0.01					0	0				
Benzo(a)anthracene	µg/l	0.01					0	0				
Chrysene	µg/l	0.01					0	0				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0	0				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0			
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.03	0.19	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	PFA	
										RTP137	RTP139	
										Date Sampled	2/14/2024	2/16/2024
										Depth	2.6-2.8	1.5-1.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7	8.50	
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	56.00	38.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0				
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	44.00	110.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	3.60	4.70	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3			
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	1.20	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0			
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	2.60	8.50	
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0			
Selenium (dissolved)	µg/l	4		10		10	4	43	10	10.00	9.20	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	20.00	13.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0			
Calcium (dissolved)	mg/l	0.012					11	770		87.00	110.00	
Calcium (dissolved)	µg/l	12					11000	300000		87000.00	110000.00	
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0			
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
											PFA	PFA
											RTP137	RTP139
										Date Sampled	2/14/2024	2/16/2024
										Depth	2.6-2.8	1.5-1.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				
Benzene	µg/l	5	1				0	0				
Toluene	µg/l	5	4				0	0				
Ethylbenzene	µg/l	5	5				0	0				
p & m-xylene	µg/l	5	3				0	0				
o-xylene	µg/l	5					0	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP140	RTP144	
										Date Sampled	2/15/2024	2/20/2024
										Depth	3.2-3.4	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.40	8.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	255.00	75.90	
Total Sulphur	mg/l	0.015					8.06	243	0	85.00		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.13		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP140	RTP144	
										Date Sampled	2/15/2024	2/20/2024
										Depth	3.2-3.4	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	29.00	30.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	28.00	690.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	4.70	0.50	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		8.20	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.92	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	2.10	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	2.80		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		0.70	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.37	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	14.00	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	15.00	24.00	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		9.70	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		3.99	
Calcium (dissolved)	mg/l	0.012					11	770		120.00		
Calcium (dissolved)	µg/l	12					11000	300000		120000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
											PFA	PFA
											RTP140	RTP144
										Date Sampled	2/15/2024	2/20/2024
										Depth	3.2-3.4	1.3-1.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			< 10
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			< 10
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				< 10
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				< 10
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				< 10
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				< 3.0
Benzene	µg/l	5	1				0	0				< 3.0
Toluene	µg/l	5	4				0	0				< 3.0
Ethylbenzene	µg/l	5	5				0	0				< 3.0
p & m-xylene	µg/l	5	3				0	0				< 3.0
o-xylene	µg/l	5					0	0				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP146	RTP150	
										Date Sampled	2/20/2024	2/19/2024
										Depth	0.7-0.8	4.1-4.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	170.00	397.00	
Total Sulphur	mg/l	0.015					8.06	243	0	56.80		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	69.00		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH							0	0				
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.22		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP146	RTP150	
										Date Sampled	2/20/2024	2/19/2024
										Depth	0.7-0.8	4.1-4.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	8.50		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	18.00	10.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	510.00	220.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	< 0.4	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		5.60	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.34	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	180.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		5.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		1.54	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	< 4.0	13.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	22.00	7.90	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		22.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		9.41	
Calcium (dissolved)	mg/l	0.012					11	770		65.00		
Calcium (dissolved)	µg/l	12					11000	300000		65000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
											PFA	PFA
											RTP146	RTP150
										Date Sampled	2/20/2024	2/19/2024
										Depth	0.7-0.8	4.1-4.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			< 10
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			< 10
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				< 10
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				< 10
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				< 10
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				< 3.0
Benzene	µg/l	5	1				0	0				< 3.0
Toluene	µg/l	5	4				0	0				< 3.0
Ethylbenzene	µg/l	5	5				0	0				< 3.0
p & m-xylene	µg/l	5	3				0	0				< 3.0
o-xylene	µg/l	5					0	0				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP155	RTP176	
										Date Sampled	2/16/2024	2/15/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.80	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	72.80	233.00	
Total Sulphur	mg/l	0.015					8.06	243	0	24.30		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.20		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	MG	
										RTP155	RTP176	
										Date Sampled	2/16/2024	2/15/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	7.40		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	120.00	15.00	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	42.00	140.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	3.40	3.60	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		2.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.17	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	2.40		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.10	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	5.90	16.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	47.00		
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		13.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		5.51	
Calcium (dissolved)	mg/l	0.012					11	770		37.00		
Calcium (dissolved)	µg/l	12					11000	300000		37000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
										PFA	MG	
										RTP155	RTP176	
										Date Sampled	2/16/2024	2/15/2024
										Depth	0.6-0.8	0.3-0.5
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0		< 10	
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0			< 10	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0			< 10	
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0			< 1.0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0			< 3.0	
Benzene	µg/l	5	1				0	0			< 3.0	
Toluene	µg/l	5	4				0	0			< 3.0	
Ethylbenzene	µg/l	5	5				0	0			< 3.0	
p & m-xylene	µg/l	5	3				0	0			< 3.0	
o-xylene	µg/l	5					0	0			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP176	RTP177	
										Date Sampled	2/15/2024	2/19/2024
										Depth	1.3-1.5	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2		7.60	7.40	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0		< 1.0	
Sulphate as SO4	µg/l	45					2360	2360	0			
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26	271.00	491.00	
Total Sulphur	mg/l	0.015					8.06	243	0	90.30		
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0	< 15		
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0			
Nitrite as N	µg/l	1		500		500	1	17	0			
							0	0				
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0			
							0	0				
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0	0			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0	0			< 0.01	
Fluorene	µg/l	0.01					0	0			< 0.01	
Phenanthrene	µg/l	0.01					0	0			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0		< 0.01	
Pyrene	µg/l	0.01					0	0			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0	0			< 0.01	
Chrysene	µg/l	0.01					0	0			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0	0			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0		< 0.01	
							0	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0		< 0.16	
							0	0				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0	0.07		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										PFA	PFA	
										RTP176	RTP177	
										Date Sampled	2/15/2024	2/19/2024
										Depth	1.3-1.5	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7		
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	14.00	4.80	
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0			
Beryllium (dissolved)	µg/l	0.2					0	0			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	200.00	250.00	
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	4.80	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0		9.50	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3		0.53	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0			
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0			
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0	1.30	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00	0.00	
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0			
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	10.00		
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0		2.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0		0.52	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	17.00	33.00	
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	4.90	< 1.7	
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0		14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0		6.11	
Calcium (dissolved)	mg/l	0.012					11	770		120.00		
Calcium (dissolved)	µg/l	12					11000	300000		120000.00		
Magnesium (dissolved)	mg/l	0.005					1.1	16				
Potassium (dissolved)	mg/l	0.025					2	12				
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0			
							0	0				
							0	0				
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0		< 1.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)												
											PFA	PFA
											RTP176	RTP177
										Date Sampled	2/15/2024	2/19/2024
										Depth	1.3-1.5	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			< 10
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0			< 10
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0				< 10
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0				< 10
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0				< 10
							0	0				
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0				< 1.0
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0				
							0	0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0				< 3.0
Benzene	µg/l	5	1				0	0				< 3.0
Toluene	µg/l	5	4				0	0				< 3.0
Ethylbenzene	µg/l	5	5				0	0				< 3.0
p & m-xylene	µg/l	5	3				0	0				< 3.0
o-xylene	µg/l	5					0	0				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)									
									PFA
									RTP186
									Date Sampled 2/14/2024
									Depth 2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
General Inorganics									
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7	9.2	7.30
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1	1	0	0	0
Sulphate as SO4	µg/l	45					2360	2360	0
Sulphate as SO4	mg/l	0.045		250	400	250	0.77	1590	26 326.00
Total Sulphur	mg/l	0.015					8.06	243	0 109.00
Chloride	mg/l	0.15		250	250	250	0.22	4.6	0
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500	16	240	0 < 15
Nitrate as N	mg/l	0.01		50		50	0.02	0.18	0
Nitrite as N	µg/l	1		500		500	1	17	0
							0	0	
Total Phenols									
Total Phenols (monohydric) low level	µg/l	1			7.7	7.7	0	0	0
							0	0	
Speciated PAHs									
Naphthalene	µg/l	0.01		0.075	2	0.075	0.96	0.96	1
Acenaphthylene	µg/l	0.01					0	0	
Acenaphthene	µg/l	0.01	0.01				0	0	
Fluorene	µg/l	0.01					0	0	
Phenanthrene	µg/l	0.01					0	0	
Anthracene	µg/l	0.01	0.01		0.1	0.1	0	0	0
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	0	0	0
Pyrene	µg/l	0.01					0	0	
Benzo(a)anthracene	µg/l	0.01					0	0	
Chrysene	µg/l	0.01					0	0	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00017	0	0	0
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
Dibenzo(a,h)anthracene	µg/l	0.01					0	0	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	0	0	0
							0	0	
Total PAH									
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96	0
							0	0	
Heavy Metals / Metalloids									
Aluminium (dissolved)	mg/l	0.012		200		200	0.026	2	0 0.06

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										
									PFA	
									RTP186	
									Date Sampled	
									2/14/2024	
									Depth	
									2.5-2.7	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	
Antimony (dissolved)	µg/l	1.7		5		5	1.9	10	6	< 1.7
Arsenic (dissolved)	µg/l	1	1	10	50	10	1.66	120	37	5.90
Barium (dissolved)	µg/l	-		700		700	0.255	80.9	0	
Beryllium (dissolved)	µg/l	0.2					0	0		
Boron (dissolved)	µg/l	10		1000	2000	1000	12	1900	5	48.00
Cadmium (dissolved)	µg/l	0.08		5	0.25 (Class 5)	0.25	0	0	0	< 0.08
Chromium (hexavalent)	µg/l	5	5	5	3.4	3.4	0	0	0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.7	0.49	17	10	1.80
Copper (dissolved)	µg/l	0.7		2000		2000	1.3	32	0	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1	0.05	2.68	3	
Iron (dissolved)	µg/l	4		200	1000	200	0.018	27	0	
Iron (dissolved)	mg/l	0.004		0.2	1	0.2	0.006	0.15	0	
Lead (dissolved)	µg/l	1	1	10		10	1	35	2	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.2	0	0	0	0.00
Manganese (dissolved)	µg/l	0.06		50		50	5.8	78	5	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.497944378	63	0	
Mercury (dissolved)	µg/l	0.5	0.01	1	0.07 (Inland Surface MAC)	0.07	0	0	0	
Molybdenum (dissolved)	µg/l	0.4					0.436	527	0	12.00
Nickel (dissolved)	µg/l	0.3		20		20	0.3	8.2	0	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4	0.051472016	2.75540128	0	
Selenium (dissolved)	µg/l	4		10		10	4	43	10	7.20
Vanadium (dissolved)	µg/l	1.7			20	20	4.9	79	13	16.00
Zinc (dissolved)	µg/l	0.4		5000		5000	0.69	24	0	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.9	0.19446805	10.26670983	0	
Calcium (dissolved)	mg/l	0.012					11	770		186.00
Calcium (dissolved)	µg/l	12					11000	300000		186000.00
Magnesium (dissolved)	mg/l	0.005					1.1	16		
Potassium (dissolved)	mg/l	0.025					2	12		
Sodium (dissolved)	mg/l	0.01		200		200	1.2	15	0	
							0	0		
							0	0		
TPH - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1		15000		15000	0	0	0	
TPH - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1		15000		15000	0	0	0	
TPH - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1		300		300	0	0	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)									
									PFA
									RTP186
									Date Sampled
									2/14/2024
									Depth
									2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
TPH - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10		300		300	0	0	0
TPH - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10		300		300	0	0	0
TPH - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10					0	0	
TPH - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10					0	0	
TPH - Aliphatic >C5 - C35 HS+EH_1D_AL_MS	µg/l	10					0	0	
							0	0	
TPH - Aromatic >EC5 - EC7 HS_1D_AR	µg/l	1					0	0	
TPH - Aromatic >EC7 - EC8 HS_1D_AR	µg/l	1					0	0	
TPH - Aromatic >EC8 - EC10 EH_1D_AR_MS	µg/l	1					0	0	
TPH - Aromatic >EC10 - EC12 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC12 - EC16 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC16 - EC21 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC21 - EC35 EH_1D_AR_MS	µg/l	10		90		90	0	0	0
TPH - Aromatic >EC6 - EC35 HS+EH_1D_AR_MS	µg/l	10					0	0	
							0	0	
MTBE (Methyl Tertiary Butyl Ether)	µg/l	5					0	0	
Benzene	µg/l	5	1				0	0	
Toluene	µg/l	5	4				0	0	
Ethylbenzene	µg/l	5	5				0	0	
p & m-xylene	µg/l	5	3				0	0	
o-xylene	µg/l	5					0	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002891		
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH136	RTP183
										Date Sampled	2/8/2024	2/13/2024
										Depth	2.50-2.60	0.40-0.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.30	7.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	349.00	350.00	
Total Sulphur	mg/l	0.015					63.00	117.00		116.00	117.00	
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	0.41	0.68	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0	120.00	73.00	
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0	0.06	0.03	
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0	1.20	1.00	
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0	0.07	0.07	
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1	8.10	< 1.7	
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	37.00	26.00	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0	100.00	630.00	
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4	0.80	2.30	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										24-002891		
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH136	RTP183
										Date Sampled	2/8/2024	2/13/2024
										Depth	2.50-2.60	0.40-0.60
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0	0.04	0.01	
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	1.00	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1	78.00	43.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0	11.27	5.12	
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0			
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		2.20	15.00	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0			
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.10	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	17.00	9.00	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0			
Calcium (dissolved)	mg/l	0.012					87.00	186.00		130.00	140.00	
Calcium (dissolved)	µg/l	12					87000.00	186000.00			140000.00	
Magnesium (dissolved)	mg/l	0.005					3.20	9.10		3.20	9.10	
Potassium (dissolved)	mg/l	0.025					2.10	3.30		2.10	3.30	
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0	1.20	2.10	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	130725	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH125	RBH137
										Date Sampled	2/28/2024	27/02/2024
										Depth	4.00-4.50	2.00-2.50
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.40	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0	< 1.0		
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	449.00	540.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0		0.65	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0	< 1.0		
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1	0.96		
Acenaphthylene	µg/l	0.01					0.00	0.00		< 0.01		
Acenaphthene	µg/l	0.01	0.01				0.00	0.00		< 0.01		
Fluorene	µg/l	0.01					0.00	0.00		< 0.01		
Phenanthrene	µg/l	0.01					0.00	0.00		< 0.01		
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0	< 0.01		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0	< 0.01		
Pyrene	µg/l	0.01					0.00	0.00		< 0.01		
Benzo(a)anthracene	µg/l	0.01					0.00	0.00		< 0.01		
Chrysene	µg/l	0.01					0.00	0.00		< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00		< 0.01		
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0	< 0.01		
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96		0.96		
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	31.00	69.00	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0		41.40	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00		< 0.2		
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0	140.00		
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.08	< 0.1	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0	< 5.0		
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4	0.90	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	7.60	12.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.43	1.04	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										132254	130725	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH125	RBH137
										Date Sampled	2/28/2024	27/02/2024
										Depth	4.00-4.50	2.00-2.50
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.34	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00			13.60	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	1.70	8.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.44	2.76	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	10.00	7.80	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	29.00		
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	20.00	12.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	8.73	5.73	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00		< 10		
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00		< 3.0		
Benzene			1.0				0.00	0.00		< 3.0		
Toluene			4.0				0.00	0.00		< 3.0		
Ethylbenzene			5.0				0.00	0.00		< 3.0		
p & m-xylene			3.0				0.00	0.00		< 3.0		
o-xylene							0.00	0.00		< 3.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										120653	121260	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP136	RTP138
										Date Sampled	14/02/2024	15/02/2024
										Depth	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		8.20	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	2.20	350.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	0.72	0.33	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	20.90	29.90	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0	0.26	53.10	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0			
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4	< 0.4	13.00	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	< 0.7	7.30	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.14	0.77	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										120653	121260	
										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP136	RTP138
										Date Sampled	14/02/2024	15/02/2024
										Depth	2.20-2.40	1.50-1.70
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	1.80	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.34	0.40	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		1.43	6.17	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	< 0.3	1.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.19	0.36	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.50	6.00	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4			
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	< 0.4	14.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	0.19	7.04	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	
										Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP151	RTP143
										Date Sampled	12/02/2024	20/02/2024
										Depth	0.50-0.70	0.90-1.00
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.80	7.80	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	0.77	17.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	1.70	1.40	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	2.61	1.66	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0	3.31	19.20	
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0			
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4	0.76	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	2.10	6.50	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.05	0.20	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										118284	125510	
										Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP151	RTP143
										Date Sampled	12/02/2024	20/02/2024
										Depth	0.50-0.70	0.90-1.00
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	2.40	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.21	0.05	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		0.44	10.20	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	< 0.3	2.00	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.06	0.24	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	< 4.0	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4			
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	2.00	11.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	0.44	1.52	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										124158		
										Strata (PFA/MG)	MG	MG
										Sample Reference	RTP166	RBH124
										Date Sampled	19/02/2024	2/14/2024
										Depth	1.80-1.90	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.80	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0		< 1.0	
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	250.00	1590.00	
Total Sulphur	mg/l	0.015					63.00	117.00				
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0	0.71		
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0.00	0.00			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0.00	0.00			< 0.01	
Fluorene	µg/l	0.01					0.00	0.00			< 0.01	
Phenanthrene	µg/l	0.01					0.00	0.00			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0		< 0.01	
Pyrene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0.00	0.00			< 0.01	
Chrysene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	37.50	< 1.0	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0	53.80		
Beryllium (dissolved)	µg/l	0.2					0.00	0.00			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		12.00	
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.1	< 0.08	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4	4.30	< 0.4	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0	5.70	13.00	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1	0.36	0.83	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										124158		
										Strata (PFA/MG)	MG	MG
										Sample Reference	RTP166	RBH124
										Date Sampled	19/02/2024	2/14/2024
										Depth	1.80-1.90	0.1-0.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	2.50	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	0.62	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5	< 0.5	
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		14.70		
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	1.50	1.20	
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.50	0.38	
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.30	< 4.0	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4			
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	20.00	5.00	
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	8.10	2.12	
Calcium (dissolved)	mg/l	0.012					87.00	186.00				
Calcium (dissolved)	µg/l	12					87000.00	186000.00				
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00			< 10	
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00			< 3.0	
Benzene			1.0				0.00	0.00			< 3.0	
Toluene			4.0				0.00	0.00			< 3.0	
Ethylbenzene			5.0				0.00	0.00			< 3.0	
p & m-xylene			3.0				0.00	0.00			< 3.0	
o-xylene							0.00	0.00			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH126	RTP134
										Date Sampled	2/19/2024	2/14/2024
										Depth	1.0-1.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.70	7.20
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0		< 1.0	
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		172.00	285.00
Total Sulphur	mg/l	0.015					63.00	117.00				95.00
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0			< 15
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1		< 0.01	
Acenaphthylene	µg/l	0.01					0.00	0.00			< 0.01	
Acenaphthene	µg/l	0.01	0.01				0.00	0.00			< 0.01	
Fluorene	µg/l	0.01					0.00	0.00			< 0.01	
Phenanthrene	µg/l	0.01					0.00	0.00			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0		< 0.01	
Pyrene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(a)anthracene	µg/l	0.01					0.00	0.00			< 0.01	
Chrysene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0			0.08
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1			< 1.7
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		31.00	51.00
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00			< 0.2	
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		820.00	93.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0		< 5.0	
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4		0.50	5.60
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0		8.70	
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1		0.55	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH126	RTP134
										Date Sampled	2/19/2024	2/14/2024
										Depth	1.0-1.5	3.5-3.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0		< 1.0
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25		0.25
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0	< 0.5		
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00				3.70
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0	0.30		
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0	0.10		
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	< 4.0		< 4.0
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	16.00		20.00
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0	9.80		
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0	4.15		
Calcium (dissolved)	mg/l	0.012					87.00	186.00				130.00
Calcium (dissolved)	µg/l	12					87000.00	186000.00				130000.00
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0	< 1.0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0	< 10		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00		< 10		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00		< 1.0		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0	< 10		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00		< 10		
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00		< 3.0		
Benzene			1.0				0.00	0.00		< 3.0		
Toluene			4.0				0.00	0.00		< 3.0		
Ethylbenzene			5.0				0.00	0.00		< 3.0		
p & m-xylene			3.0				0.00	0.00		< 3.0		
o-xylene							0.00	0.00		< 3.0		

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Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP135	RTP137
										Date Sampled	2/15/2024	2/14/2024
										Depth	4.2-4.4	2.6-2.8
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.90	7.00
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		242.00	189.00
Total Sulphur	mg/l	0.015					63.00	117.00			80.80	63.00
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0		< 15	< 15
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			
Acenaphthylene	µg/l	0.01					0.00	0.00				
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				
Fluorene	µg/l	0.01					0.00	0.00				
Phenanthrene	µg/l	0.01					0.00	0.00				
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			
Pyrene	µg/l	0.01					0.00	0.00				
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				
Chrysene	µg/l	0.01					0.00	0.00				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0		0.15	0.03
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1		< 1.7	< 1.7
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		54.00	56.00
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		96.00	44.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4		6.30	3.60
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0			
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP135	RTP137
										Date Sampled	2/15/2024	2/14/2024
										Depth	4.2-4.4	2.6-2.8
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0		1.20
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25		0.30
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0			
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		4.40		2.60
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0			
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	< 4.0		10.00
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	20.00		20.00
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0			
Calcium (dissolved)	mg/l	0.012					87.00	186.00		110.00		87.00
Calcium (dissolved)	µg/l	12					87000.00	186000.00		110000.00		87000.00
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				
Benzene			1.0				0.00	0.00				
Toluene			4.0				0.00	0.00				
Ethylbenzene			5.0				0.00	0.00				
p & m-xylene			3.0				0.00	0.00				
o-xylene							0.00	0.00				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP140	RTP177
										Date Sampled	2/15/2024	2/19/2024
										Depth	3.2-3.4	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20			7.40	7.40
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0			< 1.0
Sulphate as SO4	µg/l	45										
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11		255.00	491.00
Total Sulphur	mg/l	0.015					63.00	117.00			85.00	
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0			
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0		< 15	
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0			
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1			< 0.01
Acenaphthylene	µg/l	0.01					0.00	0.00				< 0.01
Acenaphthene	µg/l	0.01	0.01				0.00	0.00				< 0.01
Fluorene	µg/l	0.01					0.00	0.00				< 0.01
Phenanthrene	µg/l	0.01					0.00	0.00				< 0.01
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0			< 0.01
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0			< 0.01
Pyrene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(a)anthracene	µg/l	0.01					0.00	0.00				< 0.01
Chrysene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0			< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00				< 0.01
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0			< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96				< 0.16
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0		0.13	
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1		< 1.7	
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12		29.00	4.80
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0			
Beryllium (dissolved)	µg/l	0.2					0.00	0.00				< 0.2
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0		28.00	250.00
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0		< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0			< 5.0
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4		4.70	< 0.4
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0			9.50
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1			0.53

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP140	RTP177
										Date Sampled	2/15/2024	2/19/2024
										Depth	3.2-3.4	3.0-3.2
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0			
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0			
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0		1.30
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25		0.32
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0			
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0			< 0.5
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		2.80		
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0			2.00
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0			0.52
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	14.00		33.00
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	15.00		< 1.7
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0			14.00
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0			6.11
Calcium (dissolved)	mg/l	0.012					87.00	186.00		120.00		
Calcium (dissolved)	µg/l	12					87000.00	186000.00		120000.00		
Magnesium (dissolved)	mg/l	0.005					3.20	9.10				
Potassium (dissolved)	mg/l	0.025					2.10	3.30				
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0			< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0			< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0			< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00				< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00				< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00				< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00				< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00				< 1.0
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00				< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00				< 10
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00				< 3.0
Benzene			1.0				0.00	0.00				< 3.0
Toluene			4.0				0.00	0.00				< 3.0
Ethylbenzene			5.0				0.00	0.00				< 3.0
p & m-xylene			3.0				0.00	0.00				< 3.0
o-xylene							0.00	0.00				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA
										Sample Reference	RTP186
										Date Sampled	2/14/2024
										Depth	2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.00	8.20		7.30	
Total Cyanide (Low Level 1 µg/l)	µg/l	1		50	1.0	1.00	0.00	0.00	0		
Sulphate as SO4	µg/l	45									
Sulphate as SO4	mg/l	0.045		250	400.0	250.00	0.77	1590.00	11	326.00	
Total Sulphur	mg/l	0.015					63.00	117.00		109.00	
Chloride	mg/l	0.15		250	250	250.00	0.33	1.70	0		
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]	500.00	73.00	120.00	0	< 15	
Nitrate as N	mg/l	0.01		50		50.00	0.03	0.06	0		
Nitrite as N	µg/l	1		500		500.00	1.00	1.20	0		
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1			7.7	7.70	0.00	0.00	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.08	0.96	0.96	1		
Acenaphthylene	µg/l	0.01					0.00	0.00			
Acenaphthene	µg/l	0.01	0.01				0.00	0.00			
Fluorene	µg/l	0.01					0.00	0.00			
Phenanthrene	µg/l	0.01					0.00	0.00			
Anthracene	µg/l	0.01	0.01		0.1	0.10	0.00	0.00	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.01	0.00	0.00	0		
Pyrene	µg/l	0.01					0.00	0.00			
Benzo(a)anthracene	µg/l	0.01					0.00	0.00			
Chrysene	µg/l	0.01					0.00	0.00			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.01	0.00017	0.00	0.00	0.00	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Dibenzo(a,h)anthracene	µg/l	0.01					0.00	0.00			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00	0.00	0.00	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					0.96	0.96			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.012		200		200.00	0.03	0.15	0	0.06	
Antimony (dissolved)	µg/l	1.7		5.0		5.00	8.10	8.10	1	< 1.7	
Arsenic (dissolved)	µg/l	1	1.0	10	50.00	10.00	1.66	69.00	12	5.90	
Barium (dissolved)	µg/l	-		700		700.00	0.26	53.80	0		
Beryllium (dissolved)	µg/l	0.2					0.00	0.00			
Boron (dissolved)	µg/l	10		1000	2000.00	1000.00	12.00	820.00	0	48.00	
Cadmium (dissolved)	µg/l	0.08		5.0	0.25 (Class 5)	0.25	0.00	0.00	0	< 0.08	
Chromium (hexavalent)	µg/l	5	5.0	5.0	3.40	3.40	0.00	0.00	0		
Chromium (dissolved)	µg/l	0.4		50	4.7(CrIII)	4.70	0.50	13.00	4	1.80	
Copper (dissolved)	µg/l	0.7		2000		2000.00	2.10	13.00	0		
Bioavailable Copper (dissolved)	µg/l	0.5			1 (bioavailable)	1.00	0.05	1.04	1		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)										Strata (PFA/MG)	PFA
										Sample Reference	RTP186
										Date Sampled	2/14/2024
										Depth	2.5-2.7
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Iron (dissolved)	µg/l	4		200	1000	200.00	0.00	0.00	0		
Iron (dissolved)	mg/l	0.004		0.2	1.0	0.20	0.01	0.04	0		
Lead (dissolved)	µg/l	1	1.0	10		10.00	1.00	2.50	0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.2			1.2 (bioavailable)	1.20	0.05	0.62	0	0.25	
Manganese (dissolved)	µg/l	0.06		50		50.00	43.00	78.00	1		
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123.00	5.12	11.27	0		
Mercury (dissolved)	µg/l	0.5	0.01	1.0	0.07 (Inland Surface MAC)	0.07	0.00	0.00	0		
Molybdenum (dissolved)	µg/l	0.4					0.44	15.00		12.00	
Nickel (dissolved)	µg/l	0.3		20		20.00	0.30	8.20	0		
Bioavailable Nickel (dissolved)	µg/l	0.5			4 (bioavailable)	4.00	0.06	2.76	0		
Selenium (dissolved)	µg/l	4		10		10.00	6.00	33.00	4	7.20	
Vanadium (dissolved)	µg/l	1.7			20	20.00	9.00	29.00	4	16.00	
Zinc (dissolved)	µg/l	0.4		5000		5000.00	2.00	20.00	0		
Bioavailable Zinc (dissolved)	µg/l	0.5			10.9 (bioavailable)	10.90	0.19	8.73	0		
Calcium (dissolved)	mg/l	0.012					87.00	186.00		186.00	
Calcium (dissolved)	µg/l	12					87000.00	186000.00		186000.00	
Magnesium (dissolved)	mg/l	0.005					3.20	9.10			
Potassium (dissolved)	mg/l	0.025					2.10	3.30			
Sodium (dissolved)	mg/l	0.01		200		200.00	1.20	2.10	0		
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1		15000		15000.00	0.00	0.00	0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1		300		300.00	0.00	0.00	0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10		300		300.00	0.00	0.00	0		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10					0.00	0.00			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10					0.00	0.00			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10					0.00	0.00			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1					0.00	0.00			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1					0.00	0.00			
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1					0.00	0.00			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10		90		90.00	0.00	0.00	0		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10					0.00	0.00			
MTBE (Methyl Tertiary Butyl Ether)							0.00	0.00			
Benzene			1.0				0.00	0.00			
Toluene			4.0				0.00	0.00			
Ethylbenzene			5.0				0.00	0.00			
p & m-xylene			3.0				0.00	0.00			
o-xylene							0.00	0.00			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-002541	24-003270
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH141A	RTP157
Date Sampled	2/7/2024	2/12/2024
Depth	7.00-7.10	2.40-2.60

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.70	7.60
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	371.00	439.00
Total Sulphur	mg/l	0.02					8.06	243.00		124.00	146.00
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	4.00	0.44
Ammoniacal Nitrogen as N	µg/l	15.00		500	600	500	16.00	240.00	0	240.00	16.00
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	< 0.01	< 0.01
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	17.00	1.30
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		
Acenaphthylene	µg/l	0.01					<MRL	<MRL			
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			
Fluorene	µg/l	0.01					<MRL	<MRL			
Phenanthrene	µg/l	0.01					<MRL	<MRL			
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		
Pyrene	µg/l	0.01					<MRL	<MRL			
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			
Chrysene	µg/l	0.01					<MRL	<MRL			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	1.10	0.06
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7	1.90
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	27.00	16.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0		
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	910.00	110.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	< 0.4	8.00
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0	27.00	0.02

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-002541	24-003270
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH141A	RTP157
Date Sampled	2/7/2024	2/12/2024
Depth	7.00-7.10	2.40-2.60

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	0.03	< 1.0
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	2.10	32.00
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.52	7.94
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	63.00	5.80
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	63.00	1.50
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		21.00	12.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	4.00	9.90
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9	22.00	
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		
Calcium (dissolved)	mg/l	0.01					11.00	770.00		150.00	200.00
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		1.10	2.40
Potassium (dissolved)	mg/l	0.03					2.00	12.00		12.00	2.10
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	15.00	2.10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)											
Benzene			1.00				<MRL	<MRL			
Toluene			4.00				<MRL	<MRL			
Ethylbenzene			5.00				<MRL	<MRL			
p & m-xylene			3.00				<MRL	<MRL			
o-xylene							<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-003270	
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH138	RTP184
Date Sampled	2/12/2024	2/13/2024
Depth	6.00-6.10	2.50-2.70

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.40	7.20
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	537.00	208.00
Total Sulphur	mg/l	0.02					8.06	243.00		179.00	69.40
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	0.55	0.76
Ammoniacal Nitrogen as N	µg/l	15.00		500	600(1)	500	16.00	240.00	0	< 15	27.00
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	0.05	0.10
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	3.20	2.90
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		
Acenaphthylene	µg/l	0.01					<MRL	<MRL			
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			
Fluorene	µg/l	0.01					<MRL	<MRL			
Phenanthrene	µg/l	0.01					<MRL	<MRL			
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		
Pyrene	µg/l	0.01					<MRL	<MRL			
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			
Chrysene	µg/l	0.01					<MRL	<MRL			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.05	0.07
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	3.20	< 1.7
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	22.00	16.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0		
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	1600.00	130.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	4.10	< 0.4
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0	< 0.004	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	24-003270	
Strata (PFA/MG)	PFA	PFA
Sample Reference	RBH138	RTP184
Date Sampled	2/12/2024	2/13/2024
Depth	6.00-6.10	2.50-2.70

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	< 1.0	0.02
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	35.00	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	8.68	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	52.00	54.00
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	9.12	6.43
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		< 4.0	5.70
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	11.00	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		6.70
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		
Calcium (dissolved)	mg/l	0.01					11.00	770.00		200.00	91.00
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			91000.00
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		16.00	2.20
Potassium (dissolved)	mg/l	0.03					2.00	12.00		8.80	2.30
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	5.60	2.20
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)											
Benzene			1.00				<MRL	<MRL			
Toluene			4.00				<MRL	<MRL			
Ethylbenzene			5.00				<MRL	<MRL			
p & m-xylene			3.00				<MRL	<MRL			
o-xylene							<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP181	RTP182
										Date Sampled	2/13/2024	2/13/2024
										Depth	1.40-1.60	0.10-0.20
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.30	7.50	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			2360.00	
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	177.00	2.36	
Total Sulphur	mg/l	0.02					8.06	243.00		59.10		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	1.50		
Ammoniacal Nitrogen as N	µg/l	15.00		500	600(1)	500	16.00	240.00	0	21.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	< 0.01		
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	1.60		
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		< 1.0	
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.06		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	8.50	1.70	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	190.00	140.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.90	0.60	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		32.00	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		1.85	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP181	RTP182
										Date Sampled	2/13/2024	2/13/2024
										Depth	1.40-1.60	0.10-0.20
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0		< 0.004	
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		< 1.0	1.30
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.25	0.32
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4		49.00	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0		7.08	
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			8.80	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			1.40
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			0.39
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		< 4.0	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		10.00	< 1.7
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			9.80
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			4.23
Calcium (dissolved)	mg/l	0.01					11.00	770.00			81.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			81000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00			2.60	
Potassium (dissolved)	mg/l	0.03					2.00	12.00			2.00	
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0		2.10	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	132252
Sample Reference	RTP182	RBH145
Date Sampled	2/13/2024	2/28/2024
Depth	1.50-1.70	9.00-9.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
General Inorganics											
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.60	9.20
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		
Sulphate as SO4	µg/l	45.00					2360.00	2360.00			
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	254.00	730.00
Total Sulphur	mg/l	0.02					8.06	243.00		84.80	243.00
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	1.40	0.55
Ammoniacal Nitrogen as N	µg/l	15.00		500	600[1]	500	16.00	240.00	0	18.00	45.00
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	0.02	0.18
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	< 1.0	2.60
Total Phenols											
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		
Speciated PAHs											
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		
Acenaphthylene	µg/l	0.01					<MRL	<MRL			
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			
Fluorene	µg/l	0.01					<MRL	<MRL			
Phenanthrene	µg/l	0.01					<MRL	<MRL			
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		
Pyrene	µg/l	0.01					<MRL	<MRL			
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			
Chrysene	µg/l	0.01					<MRL	<MRL			
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		
Total PAH											
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			
Heavy Metals / Metalloids											
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	1.20	2.00
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7	10.00
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	12.00	43.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0		
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	750.00	1200.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.50	4.90
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA	132252
Sample Reference	RTP182	RBH145
Date Sampled	2/13/2024	2/28/2024
Depth	1.50-1.70	9.00-9.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances		
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	0.01	0.15
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	41.00	50.00
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	41.00	50.00
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		7.00	17.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	8.30
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9	9.90	79.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		
Calcium (dissolved)	mg/l	0.01					11.00	770.00		110.00	300.00
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		110000.00	300000.00
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		2.10	1.40
Potassium (dissolved)	mg/l	0.03					2.00	12.00		2.50	7.40
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	2.30	3.40
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			
MTBE (Methyl Tertiary Butyl Ether)											
Benzene			1.00				<MRL	<MRL			
Toluene			4.00				<MRL	<MRL			
Ethylbenzene			5.00				<MRL	<MRL			
p & m-xylene			3.00				<MRL	<MRL			
o-xylene							<MRL	<MRL			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										109704	112640	120590	
										Strata (PFA/MG)	PFA	PFA	PFA
										Sample Reference	RBH116	RBH119	RBH124
										Date Sampled	31/01/2024	05/02/2024	14/02/2024
										Depth	3.50-3.70	6.90-7.00	8.00-8.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.60		7.90	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0				
Sulphate as SO4	µg/l	45.00					2360.00	2360.00					
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	290.00	360.00	460.00	
Total Sulphur	mg/l	0.02					8.06	243.00					
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	2.50	4.60	0.22	
Ammoniacal Nitrogen as N	µg/l	15.00		500	600(1)	500	16.00	240.00	0				
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0				
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0				
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0				
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0				
Acenaphthylene	µg/l	0.01					<MRL	<MRL					
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL					
Fluorene	µg/l	0.01					<MRL	<MRL					
Phenanthrene	µg/l	0.01					<MRL	<MRL					
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0				
Pyrene	µg/l	0.01					<MRL	<MRL					
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL					
Chrysene	µg/l	0.01					<MRL	<MRL					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0				
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5				
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	23.00	20.00	24.10	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0	65.50	49.20	45.40	
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL					
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5				
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0				
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.49	0.57	3.60	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0	1.30	5.50	5.40	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2	0.41	0.48	0.19	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	109704	112640	120590
Strata (PFA/MG)	PFA	PFA	PFA
Sample Reference	RBH116	RBH119	RBH124
Date Sampled	31/01/2024	05/02/2024	14/02/2024
Depth	3.50-3.70	6.90-7.00	8.00-8.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	1.10	< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.41	0.34	0.07
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0	< 0.5	< 0.5	< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		371.00	527.00	18.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0	0.62	1.50	< 0.3
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0	0.62	0.51	0.05
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	5.50	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9			
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0	0.69	14.00	13.00
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0	0.34	6.70	2.39
Calcium (dissolved)	mg/l	0.01					11.00	770.00				
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00				
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										116448	147382	147383	
										Strata (PFA/MG)	PFA	PFA	PFA
										Sample Reference	RBH136	RBH125	RBH145
										Date Sampled	09/02/2024	28/02/2024	28/02/2024
										Depth	7.50-7.60	7.00-7.50	6.00-6.10
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
General Inorganics													
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		8.60	7.70	8.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0				
Sulphate as SO4	µg/l	45.00					2360.00	2360.00					
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	220.00	220.00	350.00	
Total Sulphur	mg/l	0.02					8.06	243.00					
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	0.64	0.41	0.22	
Ammoniacal Nitrogen as N	µg/l	15.00		500	600[1]	500	16.00	240.00	0				
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0				
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0				
Total Phenols													
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0				
Speciated PAHs													
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0				
Acenaphthylene	µg/l	0.01					<MRL	<MRL					
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL					
Fluorene	µg/l	0.01					<MRL	<MRL					
Phenanthrene	µg/l	0.01					<MRL	<MRL					
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0				
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0				
Pyrene	µg/l	0.01					<MRL	<MRL					
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL					
Chrysene	µg/l	0.01					<MRL	<MRL					
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL					
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0				
Total PAH													
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL					
Heavy Metals / Metalloids													
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0				
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5				
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	21.20	23.60	36.10	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0	80.90	66.00	56.00	
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL					
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5				
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.1	< 0.1	< 0.1	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0				
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	3.30	1.10	2.80	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0	4.50	6.30	5.60	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2	0.53	0.40	2.68	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

	116448	147382	147383
Strata (PFA/MG)	PFA	PFA	PFA
Sample Reference	RBH136	RBH125	RBH145
Date Sampled	09/02/2024	28/02/2024	28/02/2024
Depth	7.50-7.60	7.00-7.50	6.00-6.10

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.37	0.25	0.51
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0	< 0.5	< 0.5	< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		24.40	17.90	19.20
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0	< 0.3	1.30	0.99
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0	0.30	0.42	0.99
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	< 4.0	< 4.0	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9			
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0	7.80	11.00	9.20
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0	2.78	4.66	4.99
Calcium (dissolved)	mg/l	0.01					11.00	770.00				
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00				
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH114	RBH124
										Date Sampled	2/20/2024	2/16/2024
										Depth	6.0-6.5	17.0-17.1
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.50	8.30	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0			
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	24.20	227.00	
Total Sulphur	mg/l	0.02					8.06	243.00		8.06	75.80	
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600(1)	500	16.00	240.00	0	22.00	< 15	
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0			
Acenaphthylene	µg/l	0.01					<MRL	<MRL				
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL				
Fluorene	µg/l	0.01					<MRL	<MRL				
Phenanthrene	µg/l	0.01					<MRL	<MRL				
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0			
Pyrene	µg/l	0.01					<MRL	<MRL				
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL				
Chrysene	µg/l	0.01					<MRL	<MRL				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.21	0.36	
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	4.20	< 1.7	
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	34.00	19.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL				
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	95.00	1900.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0			
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	0.60	< 0.4	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0			
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2			
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH114	RBH124
										Date Sampled	2/20/2024	2/16/2024
										Depth	6.0-6.5	17.0-17.1
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		1.10	1.10
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.27	0.27
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			11.00	160.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		22.00	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		12.00	13.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			
Calcium (dissolved)	mg/l	0.01					11.00	770.00			11.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			11000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH129	RBH132
										Date Sampled	2/19/2024	2/23/2024
										Depth	15.5-15.6	3.5-4.0
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	191.00	523.00	
Total Sulphur	mg/l	0.02					8.06	243.00		63.70		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600(1)	500	16.00	240.00	0	35.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0		< 1.0	
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.34		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	6.40		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	33.00	34.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	360.00	130.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	1.40	0.50	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		7.30	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.44	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH129	RBH132
										Date Sampled	2/19/2024	2/23/2024
										Depth	15.5-15.6	3.5-4.0
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.25	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			36.00	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			1.30
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			0.39
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		< 4.0	43.00
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		21.00	46.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			24.00
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			10.27
Calcium (dissolved)	mg/l	0.01					11.00	770.00			770.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			77000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			< 10	
MTBE (Methyl Tertiary Butyl Ether)												< 3.0
Benzene			1.00				<MRL	<MRL				< 3.0
Toluene			4.00				<MRL	<MRL				< 3.0
Ethylbenzene			5.00				<MRL	<MRL				< 3.0
p & m-xylene			3.00				<MRL	<MRL				< 3.0
o-xylene							<MRL	<MRL				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

										Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH143	RTP136
										Date Sampled	2/23/2024	2/14/2024
										Depth	8.5	3.2-3.4
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances			
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.70	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0			
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	669.00	284.00	
Total Sulphur	mg/l	0.02					8.06	243.00		223.00	94.80	
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600[1]	500	16.00	240.00	0	40.00	< 15	
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0			
Acenaphthylene	µg/l	0.01					<MRL	<MRL				
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL				
Fluorene	µg/l	0.01					<MRL	<MRL				
Phenanthrene	µg/l	0.01					<MRL	<MRL				
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0			
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0			
Pyrene	µg/l	0.01					<MRL	<MRL				
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL				
Chrysene	µg/l	0.01					<MRL	<MRL				
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL				
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0			
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL				
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.33	0.43	
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7	< 1.7	
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	49.00	26.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL				
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	1300.00	1200.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0			
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	17.00	6.70	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0			
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2			
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RBH143	RTP136
										Date Sampled	2/23/2024	2/14/2024
										Depth	8.5	3.2-3.4
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		1.30	1.20
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.32	0.30
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			56.00	11.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		8.20	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		42.00	25.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			
Calcium (dissolved)	mg/l	0.01					11.00	770.00			280.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			280000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				
MTBE (Methyl Tertiary Butyl Ether)												
Benzene			1.00				<MRL	<MRL				
Toluene			4.00				<MRL	<MRL				
Ethylbenzene			5.00				<MRL	<MRL				
p & m-xylene			3.00				<MRL	<MRL				
o-xylene							<MRL	<MRL				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP139	RTP144
										Date Sampled	2/16/2024	2/20/2024
										Depth	1.5-1.7	1.3-1.4
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.60	8.20	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	262.00	75.90	
Total Sulphur	mg/l	0.02					8.06	243.00		87.40		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600[1]	500	16.00	240.00	0	16.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.19		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	8.50		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	38.00	30.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	110.00	690.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	4.70	0.50	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		8.20	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.92	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP139	RTP144
										Date Sampled	2/16/2024	2/20/2024
										Depth	1.5-1.7	1.3-1.4
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		< 1.0	2.10
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.25	0.52
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			8.50	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			0.70
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			0.37
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		9.20	< 4.0
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		13.00	24.00
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			9.70
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			3.99
Calcium (dissolved)	mg/l	0.01					11.00	770.00			110.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			110000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				< 10
MTBE (Methyl Tertiary Butyl Ether)												< 3.0
Benzene			1.00				<MRL	<MRL				< 3.0
Toluene			4.00				<MRL	<MRL				< 3.0
Ethylbenzene			5.00				<MRL	<MRL				< 3.0
p & m-xylene			3.00				<MRL	<MRL				< 3.0
o-xylene							<MRL	<MRL				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP146	RTP150
										Date Sampled	2/20/2024	2/19/2024
										Depth	0.7-0.8	4.1-4.2
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.50	7.60	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	170.00	397.00	
Total Sulphur	mg/l	0.02					8.06	243.00		56.80		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600[1]	500	16.00	240.00	0	69.00		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.22		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	8.50		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	18.00	10.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	510.00	220.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0		< 5.0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	< 0.4	< 0.4	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		5.60	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.34	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	PFA
										Sample Reference	RTP146	RTP150
										Date Sampled	2/20/2024	2/19/2024
										Depth	0.7-0.8	4.1-4.2
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2		< 1.0	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2		0.25	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0			< 0.5
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00			180.00	
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0			5.20
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0			1.54
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6		< 4.0	13.00
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9		22.00	7.90
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0			22.00
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0			9.41
Calcium (dissolved)	mg/l	0.01					11.00	770.00			65.00	
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00			65000.00	
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0			< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0			< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL				< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL				< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0			< 10
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL				< 10
MTBE (Methyl Tertiary Butyl Ether)												< 3.0
Benzene			1.00				<MRL	<MRL				< 3.0
Toluene			4.00				<MRL	<MRL				< 3.0
Ethylbenzene			5.00				<MRL	<MRL				< 3.0
p & m-xylene			3.00				<MRL	<MRL				< 3.0
o-xylene							<MRL	<MRL				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP155	RTP176
										Date Sampled	2/16/2024	2/15/2024
										Depth	0.6-0.8	0.3-0.5
General Inorganics												
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.80	7.70	
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0		< 1.0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00				
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	72.80	233.00	
Total Sulphur	mg/l	0.02					8.06	243.00		24.30		
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0			
Ammoniacal Nitrogen as N	µg/l	15.00		500	600[1]	500	16.00	240.00	0	< 15		
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0			
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0			
Total Phenols												
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0			
Speciated PAHs												
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0		< 0.01	
Acenaphthylene	µg/l	0.01					<MRL	<MRL			< 0.01	
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL			< 0.01	
Fluorene	µg/l	0.01					<MRL	<MRL			< 0.01	
Phenanthrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0		< 0.01	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0		< 0.01	
Pyrene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Chrysene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL			< 0.01	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0		< 0.01	
Total PAH												
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL			< 0.16	
Heavy Metals / Metalloids												
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.20		
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	7.40		
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	120.00	15.00	
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0			
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL			< 0.2	
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	42.00	140.00	
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08	< 0.08	
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0			
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	3.40	3.60	
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0		2.70	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2		0.17	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	Strata (PFA/MG)	PFA	MG
										Sample Reference	RTP155	RTP176
										Date Sampled	2/16/2024	2/15/2024
										Depth	0.6-0.8	0.3-0.5
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0			
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0	< 1.0	
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25	0.25	
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4			
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0			
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0		< 0.5	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		2.40		
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0		< 0.3	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0		0.10	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	5.90	16.00	
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9	47.00		
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0		13.00	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0		5.51	
Calcium (dissolved)	mg/l	0.01					11.00	770.00		37.00		
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		37000.00		
Magnesium (dissolved)	mg/l	0.01					1.10	16.00				
Potassium (dissolved)	mg/l	0.03					2.00	12.00				
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0		< 1.0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0		< 10	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL			< 10	
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL			< 1.0	
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0		< 10	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL			< 10	
MTBE (Methyl Tertiary Butyl Ether)											< 3.0	
Benzene			1.00				<MRL	<MRL			< 3.0	
Toluene			4.00				<MRL	<MRL			< 3.0	
Ethylbenzene			5.00				<MRL	<MRL			< 3.0	
p & m-xylene			3.00				<MRL	<MRL			< 3.0	
o-xylene							<MRL	<MRL			< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA
Sample Reference	RTP176
Date Sampled	2/15/2024
Depth	1.3-1.5

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	
General Inorganics										
pH (automated)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9		7.20	9.20		7.60
Total Cyanide (Low Level 1 µg/l)	µg/l	1.00		50	1.0	1.0	<MRL	<MRL	0	
Sulphate as SO4	µg/l	45.00					2360.00	2360.00		
Sulphate as SO4	mg/l	0.05		250	400	250	2.36	730.00	15	271.00
Total Sulphur	mg/l	0.02					8.06	243.00		90.30
Chloride	mg/l	0.15		250	250	250	0.22	4.60	0	
Ammoniacal Nitrogen as N	µg/l	15.00		500	600(1)	500	16.00	240.00	0	< 15
Nitrate as N	mg/l	0.01		50		50	<MRL	0.18	0	
Nitrite as N	µg/l	1.00		500		500	1.30	17.00	0	
Total Phenols										
Total Phenols (monohydric) low level	µg/l	1.00			7.7	7.7	<MRL	<MRL	0	
Speciated PAHs										
Naphthalene	µg/l	0.01		0.075	2.0	0.075	<MRL	<MRL	0	
Acenaphthylene	µg/l	0.01					<MRL	<MRL		
Acenaphthene	µg/l	0.01	0.01				<MRL	<MRL		
Fluorene	µg/l	0.01					<MRL	<MRL		
Phenanthrene	µg/l	0.01					<MRL	<MRL		
Anthracene	µg/l	0.01	0.01		0.1	0.1	<MRL	<MRL	0	
Fluoranthene	µg/l	0.01	0.01		0.0063	0.0063	<MRL	<MRL	0	
Pyrene	µg/l	0.01					<MRL	<MRL		
Benzo(a)anthracene	µg/l	0.01					<MRL	<MRL		
Chrysene	µg/l	0.01					<MRL	<MRL		
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Benzo(a)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Dibenzo(a,h)anthracene	µg/l	0.01					<MRL	<MRL		
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017	0.00017	<MRL	<MRL	0	
Total PAH										
Total EPA-16 PAHs	µg/l	0.16					<MRL	<MRL		
Heavy Metals / Metalloids										
Aluminium (dissolved)	mg/l	0.01		200		200	0.05	2.00	0	0.07
Antimony (dissolved)	µg/l	1.70		5.0		5.0	<MRL	10.00	5	< 1.7
Arsenic (dissolved)	µg/l	1.00	1.00	10	50	10	1.70	120.00	25	14.00
Barium (dissolved)	µg/l	-		700		700	45.40	80.90	0	
Beryllium (dissolved)	µg/l	0.20					<MRL	<MRL		
Boron (dissolved)	µg/l	10.00		1000	2000	1000	42.00	1900.00	5	200.00
Cadmium (dissolved)	µg/l	0.08	0.10	5.0	0.25 (Class 5)	0.25	<MRL	<MRL	0	< 0.08
Chromium (hexavalent)	µg/l	5.00	5.00	5.0	3.4	3.4	<MRL	<MRL	0	
Chromium (dissolved)	µg/l	0.40		50	4.7 (CrIII)	4.7	<MRL	17.00	6	4.80
Copper (dissolved)	µg/l	0.70		2000		2000	1.30	32.00	0	
Bioavailable Copper (dissolved)	µg/l	0.50			1 (bioavailable)	1.0	0.17	2.68	2	
Iron (dissolved)	µg/l	4.00		200	1000	200.00	0.02	27.00	0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Strata (PFA/MG)	PFA
Sample Reference	RTP176
Date Sampled	2/15/2024
Depth	1.3-1.5

Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential - risk based standards to protect potable water supply potential	Freshwater AA EQS	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	
Iron (dissolved)	mg/l	0.00		0.2	1.0	0.20	<MRL	0.15	0	
Lead (dissolved)	µg/l	1.00	1.00	10		10	<MRL	35.00	2	< 1.0
Bioavailable Lead (dissolved)	µg/l	0.20			1.2 (bioavailable)	1.2	0.07	8.68	2	0.25
Manganese (dissolved)	µg/l	0.06		50		50	5.80	63.00	4	
Bioavailable Manganese (dissolved)	µg/l	0.05			123 (bioavailable)	123	1.50	63.00	0	
Mercury (dissolved)	µg/l	0.50	0.01	1	0.07 (Inland Surface MAC)	0.07	<MRL	<MRL	0	
Molybdenum (dissolved)	µg/l	0.40					<MRL	527.00		10.00
Nickel (dissolved)	µg/l	0.30		20		20	0.62	5.20	0	
Bioavailable Nickel (dissolved)	µg/l	0.50			4 (bioavailable)	4.0	0.05	1.54	0	
Selenium (dissolved)	µg/l	4.00		10		10	<MRL	43.00	6	17.00
Vanadium (dissolved)	µg/l	1.70			20	20	<MRL	79.00	9	4.90
Zinc (dissolved)	µg/l	0.40		5000		5000	0.69	24.00	0	
Bioavailable Zinc (dissolved)	µg/l	0.50			10.9 (bioavailable)	10.9	0.34	10.27	0	
Calcium (dissolved)	mg/l	0.01					11.00	770.00		120.00
Calcium (dissolved)	µg/l	12.00					11000.00	300000.00		120000.00
Magnesium (dissolved)	mg/l	0.01					1.10	16.00		
Potassium (dissolved)	mg/l	0.03					2.00	12.00		
Sodium (dissolved)	mg/l	0.01		200		200	2.10	15.00	0	
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00		15000		15000	<MRL	<MRL	0	
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00		300		300	<MRL	<MRL	0	
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0	
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00		300		300	<MRL	<MRL	0	
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					<MRL	<MRL		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					<MRL	<MRL		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					<MRL	<MRL		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					<MRL	<MRL		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					<MRL	<MRL		
TPH - Aromatic >EC8 - EC10 EH 1D AR MS	µg/l	1.00					<MRL	<MRL		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00		90		90	<MRL	<MRL	0	
TPH - Aromatic >EC6 - EC35 HS+EH 1D AR MS	µg/l	10.00					<MRL	<MRL		
MTBE (Methyl Tertiary Butyl Ether)										
Benzene			1.00				<MRL	<MRL		
Toluene			4.00				<MRL	<MRL		
Ethylbenzene			5.00				<MRL	<MRL		
p & m-xylene			3.00				<MRL	<MRL		
o-xylene							<MRL	<MRL		

Groundwater Levels (m bcl)

	BH ID	Screened Strata	Well Cover Level (m AOD)		Well Screen Top (m hsl)	Well Screen Base (m hsl)	Screen Length (m)	5/26/2021	6/29/2021	8/24/2021	10/8/2021	10/26/2021	11/23/2021	3/8/2022	5/11/2022	11/16/2022	7/4/2023	01/11/2023	12/03/2024	15/04/2024	
Waste well	BH1	PFA	18.54		1.00	15.00	14.00	9.26	9.68	9.36	9.63	9.71	9.73	10.02	8.84	N/A	10.31	10.12	8.99	8.92	
Waste well	BH2	PFA	19.58		1.00	15.00	14.00	8.96	8.99	9.15	8.91	8.99	10.02	9.44	9.24	Dry	9.49	9.59	9.40	9.12	
Waste well	BH3	PFA	16.10		1.00	15.00	14.00	10.54	10.31	8.68	10.30	10.41	10.43	10.76	10.77	Dry	11.14	11.15	11.00	10.80	
Waste well	BH4	PFA	16.71		1.00	15.00	14.00	12.53	12.32	2.91	12.31	12.43	12.49	12.38	12.44	Dry	12.55	Dry	Dry	Dry	
Waste well	BH5	PFA	18.42		1.00	15.00	14.00	9.47	3.94	3.49	3.95	9.47	3.99	3.98	9.97	9.72	Dry	9.91	10.14	9.56	9.40
Waste well	BH6	PFA	18.47		1.00	15.00	14.00	8.67	8.88	9.26	8.83	8.91	8.96	9.44	9.26	Dry	9.61	9.83	9.02	8.71	
Peri well	MW1D	Drift	8.93		5.00	10.00	5.00	3.04	3.63	4.15	3.40	3.65	3.65	2.55	3.03	3.58	3.59	2.25	2.25	2.35	
Peri well	MW2	Drift	10.79		8.00	18.00	10.00	8.23	8.53	8.97	8.55	8.61	8.66	7.73	8.60	7.19	5.28	7.76	7.96	7.65	
Peri well	MW3	Drift	2.24		8.50	13.00	4.50	0.68	0.95		1.01	1.06	1.05	0.37	0.92	0.89	0.82	0.19	0.55	0.59	
Peri well	MW4D	Drift	10.98		11.20	15.00	3.80	8.18	10.10	10.02	9.98	10.13	10.15	8.13	9.11	9.12	7.76	8.55	8.73	8.84	
Peri well	MW4S	Sandstone	10.59		78.00	83.00	5.00		8.18	9.97	8.19	8.23	8.24	8.79	8.97	8.65	8.81	4.85	8.37	8.39	
Peri well	MW5S	Sandstone	10.93		36.00	45.00	9.00	9.42		9.54					9.58	9.70	9.64	8.98	9.12	9.15	
Peri well	MW6D	Drift	9.83		10.00	15.00	5.00	7.54	7.54	8.06	7.42	7.55	7.61	8.16	8.06	Dry	8.21	7.87	8.17	8.25	
Peri well	MW7S	Sandstone	12.15		45.00	50.00	5.00	6.15		6.97	6.65	6.74	6.79	6.15	6.46	6.88	6.68	6.00	6.10	6.17	
Peri well	MW5D/5DA	Drift	10.86		11.20	15.00	3.80	8.33	8.43	8.14	8.46	8.55	8.57	8.60	7.81	8.89	6.67	9.44	10.08	10.01	
Peri well	MW7D/7DA	Drift	10.86		1.00	15.00	14.00	6.41	7.22	7.11	7.19	7.46	7.49	6.32	6.41	6.90	6.75	5.95	6.30	6.40	
GEL Wells	RBH113	Drift	8.76		2.00	12.00	10.00												5.63	5.75	
GEL Wells	RBH116	Drift	9.65		9.00	11.00	2.00												6.78	6.78	
GEL Wells	RBH119	Drift	10.15		10.00	13.00	3.00												7.37	7.39	
GEL Wells	RBH124	PFA	24.92		2.00	24.00	22.00												16.72	N/A	
GEL Wells	RBH125	PFA	15.13		1.00	13.50	12.50												6.13	6.23	
GEL Wells	RBH126	Drift	3.39		3.00	15.50	12.50												1.48	1.51	
GEL Wells	RBH129	Drift	23.26		22.00	30.00	8.00												20.25	20.76	
GEL Wells	RBH131 (PFA)	PFA	10.04		2.00	9.00	7.00												0.77	0.86	
GEL Wells	RBH131 (D)	Drift	10.04		11.00	19.00	8.00												7.89	8.01	
GEL Wells	RBH132	PFA	17.01		2.00	15.00	13.00												7.45	7.47	
GEL Wells	RBH138	Drift	10.16		12.00	20.00	8.00												8.38	8.40	
GEL Wells	RBH141 (MG)	PFA	17.60		9.00	13.50	4.50												8.82	8.76	
GEL Wells	RBH141A (PFA)	PFA	11.10		2.00	9.00	7.00												3.61	3.57	
GEL Wells	RBH141A (D)	Drift	11.10		12.00	38.00	26.00												8.87	8.88	
GEL Wells	RBH143	Drift	22.99		2.00	21.00	19.00												N/A	13.43	
GEL Wells	RBH145	Drift	23.05		22.00	30.00	8.00												20.87	20.89	

Groundwater Levels (m AOD)

	BH ID	Screened Strata	Well Cover Level (m AOD)	Ground Level (m AOD)	Well Screen Top (m hsl)	Well Screen Base (m hsl)	Screen Length (m)	5/26/2021	6/29/2021	8/24/2021	10/8/2021	10/26/2021	11/23/2021	3/8/2022	5/11/2022	11/16/2022	7/4/2023	01/11/2023	12/03/2024	15/04/2024	
Waste well	BH1	PFA	18.54		1.00	15.00	14.00	9.28	8.86	9.18	8.91	8.83	8.81	8.52	9.70		8.23	8.42	9.55	9.62	
Waste well	BH2	PFA	19.58		1.00	15.00	14.00	10.62	10.59	10.43	10.67	10.59	9.56	10.14	10.34		10.09	9.99	10.18	10.46	
Waste well	BH3	PFA	16.10		1.00	15.00	14.00	5.56	5.79	7.42	5.80	5.69	5.67	5.34	5.33		4.96	4.95	5.10	5.30	
Waste well	BH4	PFA	16.71		1.00	15.00	14.00	4.18	4.39	13.80	4.40	4.28	4.22	4.33	4.27		4.16				
Waste well	BH5	PFA	18.42		1.00	15.00	14.00	8.95	14.48	14.93	14.47	14.43	14.44	8.45	8.70		8.51	8.28	8.86	9.02	
Waste well	BH6	PFA	18.47		1.00	15.00	14.00	9.80	9.59	9.21	9.64	9.56	9.51	9.03	9.21		8.86	8.64	9.45	9.76	
Peri well	MW1D	Drift	8.93		5.00	10.00	5.00	5.89	5.30	4.78	5.53	5.28	5.28	6.38	5.90	5.35	5.34	6.68	6.68	6.58	
Peri well	MW2	Drift	10.79		8.00	18.00	10.00	2.56	2.26	1.82	2.24	2.18	2.13	3.06	2.19	3.60	5.51	3.03	2.83	3.14	
Peri well	MW3	Drift	2.24		8.50	13.00	4.50	1.56	1.29		1.23	1.18	1.19	1.87	1.32	1.35	1.42	2.05	1.69	1.65	
Peri well	MW4D	Drift	10.98		11.20	15.00	3.80	2.80	0.88	0.96	1.00	0.85	0.83	2.85	1.87	1.86	3.22	2.43	2.25	2.14	
Peri well	MW4S	Sandstone	10.59		78.00	83.00	5.00		2.41	0.62	2.40	2.36	2.35	1.80	1.62	1.94	1.78	5.74	2.22	2.20	
Peri well	MW5S	Sandstone	10.93		36.00	45.00	9.00	1.51		1.39					1.35	1.23	1.29	1.95	1.81	1.78	
Peri well	MW6D	Drift	9.83		10.00	15.00	5.00	2.29	2.29	1.77	2.41	2.28	2.22	1.67	1.77		1.62	1.96	1.66	1.58	
Peri well	MW7S	Sandstone	12.15		45.00	50.00	5.00	6.00		5.18	5.50	5.41	5.36	6.00	5.69	5.27	5.47	6.15	6.05	5.98	
Peri well	MW5D/5DA	Drift	10.86		11.20	15.00	3.80	2.53	2.43	2.72	2.40	2.31	2.29	2.26	3.05	1.97	4.19	1.42	0.78	0.85	
Peri well	MW7D/7DA	Drift	10.86		1.00	15.00	14.00	4.45	3.64	3.75	3.67	3.40	3.37	4.54	4.45	3.96	4.11	4.91	4.56	4.46	
GEL Wells	RBH113	Drift	8.76		2.00	12.00	10.00												3.13	3.01	
GEL Wells	RBH116	Drift	9.65		9.00	11.00	2.00												2.87	2.87	
GEL Wells	RBH119	Drift	10.15		10.00	13.00	3.00												2.78	2.76	
GEL Wells	RBH124	PFA	24.92		2.00	24.00	22.00												8.20		
GEL Wells	RBH125	PFA	15.13		1.00	13.50	12.50												9.00	8.90	
GEL Wells	RBH126	Drift	3.39		3.00	15.50	12.50												1.91	1.88	
GEL Wells	RBH129	Drift	23.26		22.00	30.00	8.00												3.01	2.50	
GEL Wells	RBH131 (PFA)	PFA	10.04		2.00	9.00	7.00												9.27	9.18	
GEL Wells	RBH131 (D)	Drift	10.04		11.00	19.00	8.00												2.15	2.03	
GEL Wells	RBH132	PFA	17.01		2.00	15.00	13.00												9.56	9.54	
GEL Wells	RBH138	Drift	10.16		12.00	20.00	8.00												1.78	1.76	
GEL Wells	RBH141 (MG)	PFA	17.60		9.00	13.50	4.50												8.78	8.84	
GEL Wells	RBH141A (PFA)	PFA	11.10		2.00	9.00	7.00												7.49	7.53	
GEL Wells	RBH141A (D)	Drift	11.10		12.00	38.00	26.00												2.23	2.22	
GEL Wells	RBH143	Drift	22.99		2.00	21.00	19.00													9.56	
GEL Wells	RBH145	Drift	23.05		22.00	30.00	8.00												2.18	2.16	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										6/29/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
General Inorganics										
pH (L099)	pH Units	N/A		≥6.5 & ≤9.5	≥6 & ≤9	≥6, <9	≥6, <9	6.60	10.30	8.40
Electrical Conductivity at 20 °C (L031B)	µS/cm	10						590.00	12000.00	1200.00
Sulphate as SO4	mg/l	0.045		250	400		250.00	38.20	6930.00	52
Sulphide	µg/l	5						5.00	22.00	
Chloride	mg/l	0.15		250	250		250.00	14.00	560.00	9
Fluoride	µg/l	50						51.00	1200.00	
Ammoniacal Nitrogen as N	µg/l	15		500	600[1]		500.00	0.07	6700.00	27
Total Organic Carbon (TOC)	mg/l	0.1						1.17	16.70	11.20
Dissolved Organic Carbon (DOC)	mg/l	0.1						0.72	14.10	
Nitrate as N	mg/l	0.01		50			50.00	0.01	43.10	0
Nitrite as N	µg/l	1		500			500.00	<MRL	1300.00	4
Alkalinity as CaCO3	mg/l	3						66.00	990.00	100.00
Total Oxidised Nitrogen (TON)	mg/l	0.02						0.04	45.00	0.30
Total Suspended Solids (L004B)	mg/l	2				50		6.00	9200.00	
Speciated PAHs										
Naphthalene	µg/l	0.01		0.075	2.0		0.075	<MRL	3.90	4
Acenaphthylene	µg/l	0.01						<MRL	0.00	
Acenaphthene	µg/l	0.01	0.01					<MRL	6.50	
Fluorene	µg/l	0.01						<MRL	1.70	
Phenanthrene	µg/l	0.01						<MRL	1.60	
Anthracene	µg/l	0.01	0.01		0.1		0.10	<MRL	0.24	5
Fluoranthene	µg/l	0.01	0.01		0.0063		0.0063	<MRL	0.74	5
Pyrene	µg/l	0.01						<MRL	0.54	
Benzo(a)anthracene	µg/l	0.01						<MRL	0.16	
Chrysene	µg/l	0.01						<MRL	0.10	
Benzo(b)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	0.12	1
Benzo(k)fluoranthene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	0.05	1
Benzo(a)pyrene	µg/l	0.01	0.01	0.01 (sum of the 4 compounds)	0.00017		0.00017	<MRL	0.10	1
Indeno(1,2,3cd)pyrene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	<MRL	0
Dibenz(a,h)anthracene	µg/l	0.01						<MRL	<MRL	
Benzo(ghi)perylene	µg/l	0.01	0.01	0.1 (sum of the 4 compounds)	0.00017		0.00017	<MRL	<MRL	0
Total PAH										
Total EPA16 PAHs	µg/l	0.16						<MRL	18.30	12.00
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1		200			200.00	<MRL	200.00	1
Antimony (dissolved)	µg/l	0.4		5.0			5.00	<MRL	17.00	9
Arsenic (dissolved)	µg/l	0.15	1.00	10	50		10.00	0.35	399.00	29

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										6/29/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
Barium (dissolved)	ug/l	0.06		700			700.00	13.00	140.00	0
Cadmium (dissolved)	ug/l	0.02	0.1	5.0	0.25 (Class 5)		0.25	<MRL	25.00	24
Chromium (dissolved)	ug/l	0.2		50	4.7 (CrIII)		4.70	<MRL	340.00	16
Cobalt (dissolved)	ug/l	0.2						0.20	12.00	0
Copper (dissolved)	ug/l	0.5		2000			2000.00	0.50	12.00	0
Bioavailable Copper (dissolved)	ug/l	0.5			1 (bioavailable)		1.00	0.01	2.03	5
Lead (dissolved)	ug/l	0.2	1.00	10			10.00	0.20	1.70	0
Bioavailable Lead (dissolved)	ug/l	0.2			1.2 (bioavailable)		1.20	0.01	0.41	0
Manganese (dissolved)	ug/l	0.05		50			50.00	1.80	3600.00	79
Bioavailable Manganese (dissolved)	ug/l	0.05			123 (bioavailable)		123.00	1.80	1232.51	48
Mercury (dissolved)	ug/l	0.05	0.01	1	0.07 (Inland Surface MAC)		0.07	0.07	3.16	16
Molybdenum (dissolved)	ug/l	0.05						0.15	32000.00	
Nickel (dissolved)	ug/l	0.5		20			20.00	0.60	15.00	0
Bioavailable Nickel (dissolved)	ug/l	0.5			4 (bioavailable)		4.00	0.11	5.80	2
Selenium (dissolved)	ug/l	0.6		10			10.00	0.70	210.00	8
Silicon (dissolved)	ug/l	50						660.00	9100.00	
Tin (dissolved)	ug/l	0.2			25		25.00	0.21	0.74	0
Titanium (dissolved)	ug/l	1						1.20	1.90	
Vanadium (dissolved)	ug/l	0.2			20		20.00	<MRL	220.00	10
Zinc (dissolved)	ug/l	0.5		5000			5000.00	0.70	30.00	0
Bioavailable Zinc (dissolved)	ug/l	0.5			10.9 (bioavailable)		10.90	0.29	12.61	1
Boron (dissolved)	ug/l	10		1000	2000		1000.00	38.00	38000.00	39
Calcium (dissolved)	mg/l	0.012						85.00	760.00	
Chromium (hexavalent)	ug/l	5	5	5.0	3.4		3.40	<MRL	<MRL	0
Chromium (III)	ug/l	5			4.7		4.70	<MRL	<MRL	0
Iron (dissolved)	mg/l	0.004		0.20	1.0		0.20	<MRL	0.70	4
Magnesium (dissolved)	mg/l	0.005						0.49	530.00	
Phosphorus (dissolved)	ug/l	20						1.10	740.00	
Potassium (dissolved)	mg/l	0.025						1.30	930.00	
Selenium (dissolved)	ug/l	0.6		10			10.00	1.50	220.00	8
Sodium (dissolved)	mg/l	0.01		200			200.00	23.00	2000.00	24
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10				10000	1000.00	<MRL	65.00	0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										6/29/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
Total Phenols										
Total Phenols (monohydric)	ug/l	10			7.7		7.70	<MRL	<MRL	0
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	ug/l	1		15000			15000.00	<MRL	<MRL	0
TPH Aliphatic >C6 C8 HS 1D AL	ug/l	1		15000			15000.00	<MRL	<MRL	0
TPH Aliphatic >C8 C10 HS 1D AL	ug/l	1		300			300.00	<MRL	<MRL	0
TPH Aliphatic >C10 C12 EH 1D AL MS	ug/l	10		300			300.00	<MRL	22.00	0
TPH Aliphatic >C12 C16 EH 1D AL MS	ug/l	10		300			300.00	<MRL	34.00	0
TPH Aliphatic >C16 C21 EH 1D AL MS	ug/l	10						<MRL	43.00	
TPH Aliphatic >C21 C35 EH 1D AL MS	ug/l	10						<MRL	2200.00	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	ug/l	10						<MRL	2200.00	
TPH Aromatic >EC5 EC7 HS 1D AR	ug/l	1						<MRL	<MRL	
TPH Aromatic >EC7 EC8 HS 1D AR	ug/l	1						<MRL	<MRL	
TPH Aromatic >EC8 EC10 HS 1D AR	ug/l	1						<MRL	<MRL	
TPH Aromatic >EC10 EC12 EH 1D AR MS	ug/l	10		90			90.00	<MRL	15.00	0
TPH Aromatic >EC12 EC16 EH 1D AR MS	ug/l	10		90			90.00	<MRL	110.00	1
TPH Aromatic >EC16 EC21 EH 1D AR MS	ug/l	10		90			90.00	<MRL	120.00	1
TPH Aromatic >EC21 EC35 EH 1D AR MS	ug/l	10		90			90.00	<MRL	35.00	0
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	ug/l	10						<MRL	280.00	
VOCs										
Chloromethane	ug/l	3						<MRL	<MRL	
Chloroethane	ug/l	3						<MRL	<MRL	
Bromomethane	ug/l	3						<MRL	<MRL	
Vinyl Chloride	ug/l	3	3.00					<MRL	<MRL	
Trichlorofluoromethane	ug/l	3						<MRL	<MRL	
1,1Dichloroethene	ug/l	3						<MRL	<MRL	
1,1,2Trichloro1,2,2trifluoroethane	ug/l	3						<MRL	<MRL	
Trans 1,2dichloroethylene	ug/l	3						<MRL	<MRL	
MTBE (Methyl Tertiary Butyl Ether)	ug/l	3						<MRL	<MRL	
1,1Dichloroethane	ug/l	3						<MRL	<MRL	
2,2Dichloropropane	ug/l	3						<MRL	<MRL	
Chloroform	ug/l	3						<MRL	<MRL	
1,1,1Trichloroethane	ug/l	3						<MRL	<MRL	
1,2Dichloroethane	ug/l	3						<MRL	<MRL	
1,1Dichloropropene	ug/l	3						<MRL	<MRL	
Cis1,2dichloroethene	ug/l	3						<MRL	<MRL	
Benzene	ug/l	3						<MRL	<MRL	
Carbontetrachloride	ug/l	3	0.1					<MRL	<MRL	
1,2Dichloropropane	ug/l	3	3.00					<MRL	<MRL	
Trichloroethene	ug/l	3						<MRL	<MRL	
Dibromomethane	ug/l	3						<MRL	<MRL	
Bromodichloromethane	ug/l	3						<MRL	<MRL	
Cis1,3dichloropropene	ug/l	3	3.00					<MRL	<MRL	
Trans1,3dichloropropene	ug/l	3						<MRL	<MRL	
Toluene	ug/l	3	4					<MRL	<MRL	
1,1,2Trichloroethane	ug/l	3						<MRL	<MRL	
1,3Dichloropropane	ug/l	3						<MRL	<MRL	
Dibromochloromethane	ug/l	3						<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										6/29/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
Tetrachloroethene (PCE)	ug/l	3	0.1					<MRL	<MRL	
1,2Dibromoethane	ug/l	3	3.00					<MRL	<MRL	
Chlorobenzene	ug/l	3	3.00					<MRL	<MRL	
1,1,1,2Tetrachloroethane	ug/l	3						<MRL	<MRL	
Ethylbenzene	ug/l	3	3.00					<MRL	<MRL	
p & mxylene	ug/l	3	3					<MRL	<MRL	
Styrene	ug/l	3	3.00					<MRL	<MRL	
Bromoform	ug/l	3						<MRL	<MRL	
oxylene	ug/l	3	3.00					<MRL	<MRL	
Isopropylbenzene	ug/l	3						<MRL	<MRL	
1,1,2,2Tetrachloroethane	ug/l	3	3.00					<MRL	<MRL	
Bromobenzene	ug/l	3						<MRL	<MRL	
nPropylbenzene	ug/l	3						<MRL	<MRL	
2Chlorotoluene	ug/l	3	3.00					<MRL	<MRL	
4Chlorotoluene	ug/l	3	3.00					<MRL	<MRL	
1,3,5Trimethylbenzene	ug/l	3						<MRL	<MRL	
tertButylbenzene	ug/l	3						<MRL	<MRL	
1,2,4Trimethylbenzene	ug/l	3	3.00					<MRL	<MRL	
secButylbenzene	ug/l	3						<MRL	<MRL	
1,3Dichlorobenzene	ug/l	3	3.00					<MRL	<MRL	
pIsopropyltoluene	ug/l	3						<MRL	<MRL	
1,4Dichlorobenzene	ug/l	3	3.00					<MRL	<MRL	
1,2Dichlorobenzene	ug/l	3	3					<MRL	<MRL	
Butylbenzene	ug/l	3						<MRL	<MRL	
1,2Dibromo3chloropropane	ug/l	3						<MRL	<MRL	
1,2,4Trichlorobenzene	ug/l	3	0.01					<MRL	<MRL	
Hexachlorobutadiene	ug/l	3						<MRL	<MRL	
1,2,3Trichlorobenzene	ug/l	3	0.01					<MRL	<MRL	
SVOCs										
Aniline	ug/l	0.05						<MRL	<MRL	
Phenol	ug/l	0.05						<MRL	<MRL	
2Chlorophenol	ug/l	0.05						<MRL	<MRL	
Bis(2chloroethyl)ether	ug/l	0.05						<MRL	<MRL	
1,3Dichlorobenzene	ug/l	0.05	0.05					<MRL	0.15	
1,2Dichlorobenzene	ug/l	0.05	0.05					<MRL	1.40	
1,4Dichlorobenzene	ug/l	0.05	0.05					<MRL	0.12	
Bis(2chloroisopropyl)ether	ug/l	0.05	0.05					<MRL	<MRL	
2Methylphenol	ug/l	0.05						<MRL	<MRL	
Hexachloroethane	ug/l	0.05	0.05					<MRL	<MRL	
Nitrobenzene	ug/l	0.05						<MRL	<MRL	
4Methylphenol	ug/l	0.05						<MRL	<MRL	
Isophorone	ug/l	0.05						<MRL	<MRL	
2Nitrophenol	ug/l	0.05						<MRL	<MRL	
2,4Dimethylphenol	ug/l	0.05						<MRL	0.44	
Bis(2chloroethoxy)methane	ug/l	0.05						<MRL	<MRL	
1,2,4Trichlorobenzene	ug/l	0.05	0.01					<MRL	<MRL	
2,4Dichlorophenol	ug/l	0.05	0.05					<MRL	<MRL	
4Chloroaniline	ug/l	0.05	0.05					<MRL	<MRL	
Hexachlorobutadiene	ug/l	0.05	0.05					<MRL	<MRL	
4Chloro3methylphenol	ug/l	0.05	0.05					<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater										
Sample Reference										MW1D
Date Sampled										6/29/2021
Strata Screened										
Analytical Parameter (Water Analysis)	Units	Limit of detection	Minimum reporting values (hazardous substances only)	Groundwater resource potential risk based standards to protect potable water supply potential	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances
2,4,6Trichlorophenol	ug/l	0.05	0.05					<MRL	<MRL	
2,4,5Trichlorophenol	ug/l	0.05	0.05					<MRL	<MRL	
2Methylnaphthalene	ug/l	0.05						<MRL	0.31	
2Chloronaphthalene	ug/l	0.05						<MRL	<MRL	
Dimethylphthalate	ug/l	0.05						<MRL	<MRL	
2,6Dinitrotoluene	ug/l	0.05						<MRL	<MRL	
2,4Dinitrotoluene	ug/l	0.05						<MRL	<MRL	
Dibenzofuran	ug/l	0.05						<MRL	0.91	
4Chlorophenyl phenyl ether	ug/l	0.05						<MRL	<MRL	
Diethyl phthalate	ug/l	0.05						<MRL	<MRL	
4Nitroaniline	ug/l	0.05						<MRL	<MRL	
Azobenzene	ug/l	0.05						<MRL	<MRL	
Bromophenyl phenyl ether	ug/l	0.05						<MRL	<MRL	
Hexachlorobenzene	ug/l	0.05	0.001					<MRL	<MRL	
Carbazole	ug/l	0.05						<MRL	2.20	
Dibutyl phthalate	ug/l	0.05						<MRL	<MRL	
Anthraquinone	ug/l	0.05						<MRL	0.22	
Butyl benzyl phthalate	ug/l	0.05						<MRL	<MRL	
3+4Methylphenol	ug/l	0.1						<MRL	<MRL	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater							142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	1/24/2024	3/12/2024	15/04/2024	11/15/2022	6/29/2021	
Strata Screened			Drift							Sandstone	
Analytical Parameter (Water Analysis)	Units	Limit of detection									
General Inorganics											
pH (L099)	pH Units	N/A	7.20	8.40	7.90	8.50	7.40	8.30	8.40	7.30	
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	650.00	1300.00	1600.00	1500.00	6400.00	1500.00	1300.00	2000.00	
Sulphate as SO4	mg/l	0.045	266.00	893.00	734.00	717.00	938.00	707.00	893.00	1280.00	
Sulphide	µg/l	5					7.80	6.30			
Chloride	mg/l	0.15	28.00	44.00	25.00	39.00	35.00	34.00	44.00	120.00	
Fluoride	µg/l	50					980.00	800.00			
Ammoniacal Nitrogen as N	µg/l	15	0.11	5.90	6700.00	5800.00	5900.00	5900.00	5900.00	130.00	
Total Organic Carbon (TOC)	mg/l	0.1	4.40	8.93	9.85	7.37			8.93	3.97	
Dissolved Organic Carbon (DOC)	mg/l	0.1					7.84	6.60			
Nitrate as N	mg/l	0.01	0.01	0.09	0.08	0.04	0.07	0.07	0.09	0.98	
Nitrite as N	µg/l	1			3.10	< 1.0	3.50	< 1.0	15.00		
Alkalinity as CaCO3	mg/l	3	440.00	97.00	91.00	100.00	97.00	100.00	97.00	340.00	
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.30	0.11	0.08	0.04			0.11	1.00	
Total Suspended Solids (L004B)	mg/l	2				230.00	360.00	130.00			
Speciated PAHs											
Naphthalene	µg/l	0.01			0.98	1.95	3.90	2.10	< 0.01		
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01			1.21	2.86	6.50	3.40	< 0.01		
Fluorene	µg/l	0.01			0.19	0.75	1.70	0.86	< 0.01		
Phenanthrene	µg/l	0.01			< 0.01	0.86	1.60	0.77	< 0.01		
Anthracene	µg/l	0.01			< 0.01	0.11	0.24	0.12	< 0.01		
Fluoranthene	µg/l	0.01			< 0.01	0.24	0.74	0.20	< 0.01		
Pyrene	µg/l	0.01			< 0.01	0.17	0.54	0.13	< 0.01		
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01	0.16	< 0.01	< 0.01		
Chrysene	µg/l	0.01			< 0.01	< 0.01	0.10	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01	0.12	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01	0.05	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01	0.10	< 0.01	< 0.01		
Indeno(1,2,3cd)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Total PAH											
Total EPA16 PAHs	µg/l	0.16	0.16	0.16	2.38	6.94			< 0.16	0.16	
Heavy Metals / Metalloids											
Aluminium (dissolved)	µg/l	1					5.30	1.90			
Antimony (dissolved)	µg/l	0.4					0.70	0.80			
Arsenic (dissolved)	µg/l	0.15	1.28	0.52	61.90	45.70	37.30	53.50	0.52	9.13	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	1/24/2024	3/12/2024	15/04/2024	11/15/2022	6/29/2021	
Strata Screened			Drift							Sandstone	
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Barium (dissolved)	ug/l	0.06					44.00	56.00			
Cadmium (dissolved)	ug/l	0.02	0.02	0.02	0.02	0.03	0.03	0.03	< 0.02	0.83	
Chromium (dissolved)	ug/l	0.2	8.00	0.20	< 0.2	0.50	0.30	0.30	< 0.2	2.20	
Cobalt (dissolved)	ug/l	0.2					0.30	< 0.2			
Copper (dissolved)	ug/l	0.5	2.70	0.60	1.20	0.60	0.50	1.50	0.60	12.00	
Bioavailable Copper (dissolved)	ug/l	0.5	0.15	0.09	0.09	0.10	0.01	0.10	0.09	0.66	
Lead (dissolved)	ug/l	0.2	0.20	0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.05	0.05	0.03	0.03	0.05	0.05	
Manganese (dissolved)	ug/l	0.05	890.00	250.00	63.00	100.00	63.00	97.00	250.00	2900.00	
Bioavailable Manganese (dissolved)	ug/l	0.05	105.96	250.00	29.08	100.00	11.05	97.00	250.00	419.03	
Mercury (dissolved)	ug/l	0.05					0.07	0.09			
Molybdenum (dissolved)	ug/l	0.05	1.90	320.00	73.00	98.00	110.00	120.00	320.00	730.00	
Nickel (dissolved)	ug/l	0.5	6.20	0.80	1.50	0.90	0.90		0.80	6.60	
Bioavailable Nickel (dissolved)	ug/l	0.5	1.41	0.58	0.57	0.81	0.17		0.58	1.59	
Selenium (dissolved)	ug/l	0.6					1.70	1.40			
Silicon (dissolved)	ug/l	50					3300.00	8900.00			
Tin (dissolved)	ug/l	0.2					< 0.20	< 0.20			
Titanium (dissolved)	ug/l	1					< 1.0	1.70			
Vanadium (dissolved)	ug/l	0.2					2.00	1.20			
Zinc (dissolved)	ug/l	0.5	11.00	4.90	7.00	2.80	1.10	5.10	4.90	6.50	
Bioavailable Zinc (dissolved)	ug/l	0.5	4.88	2.00	2.88	1.14	0.36	1.59	2.00	2.85	
Boron (dissolved)	ug/l	10	87.00	3700.00	3400.00	3400.00	3600.00	3200.00	3700.00	4600.00	
Calcium (dissolved)	mg/l	0.012	160.00	290.00	240.00	240.00	320.00	250.00	290.00	270.00	
Chromium (hexavalent)	ug/l	5					< 5.0	< 5.0			
Chromium (III)	ug/l	5					< 5.0	< 5.0			
Iron (dissolved)	mg/l	0.004	0.01	0.03	0.03	0.01	0.01	0.01	0.03	0.02	
Magnesium (dissolved)	mg/l	0.005	76.00	18.00	14.00	18.00	16.00	18.00	18.00	95.00	
Phosphorus (dissolved)	ug/l	20	4.40	84.00			473.00	491.00		40.00	
Potassium (dissolved)	mg/l	0.025			69.00	69.00	71.00	82.00	84.00		
Selenium (dissolved)	ug/l	0.6									
Sodium (dissolved)	mg/l	0.01	29.00	120.00	85.00	86.00	81.00	92.00	120.00	310.00	
Petroleum Hydrocarbons											
TPH (C10 C40)	ug/l	10				65.00					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	1/24/2024	3/12/2024	15/04/2024	11/15/2022	6/29/2021	
Strata Screened			Drift						Sandstone		
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Total Phenols											
Total Phenols (monohydric)	ug/l	10					< 10	< 10			
Petroleum Hydrocarbons											
TPH Aliphatic >C5 C6 HS 1D AL	ug/l	1					< 1.0	< 1.0			
TPH Aliphatic >C6 C8 HS 1D AL	ug/l	1					< 1.0	< 1.0			
TPH Aliphatic >C8 C10 HS 1D AL	ug/l	1					< 1.0	< 1.0			
TPH Aliphatic >C10 C12 EH 1D AL MS	ug/l	10					< 10	< 10			
TPH Aliphatic >C12 C16 EH 1D AL MS	ug/l	10					< 10	< 10			
TPH Aliphatic >C16 C21 EH 1D AL MS	ug/l	10					< 10	< 10			
TPH Aliphatic >C21 C35 EH 1D AL MS	ug/l	10					< 10	< 10			
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	ug/l	10					< 10	< 10			
TPH Aromatic >EC5 EC7 HS 1D AR	ug/l	1					< 1.0	< 1.0			
TPH Aromatic >EC7 EC8 HS 1D AR	ug/l	1					< 1.0	< 1.0			
TPH Aromatic >EC8 EC10 HS 1D AR	ug/l	1					< 1.0	< 1.0			
TPH Aromatic >EC10 EC12 EH 1D AR MS	ug/l	10					15.00	15.00			
TPH Aromatic >EC12 EC16 EH 1D AR MS	ug/l	10					110.00	40.00			
TPH Aromatic >EC16 EC21 EH 1D AR MS	ug/l	10					120.00	65.00			
TPH Aromatic >EC21 EC35 EH 1D AR MS	ug/l	10					30.00	35.00			
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	ug/l	10					280.00	160.00			
VOCs											
Chloromethane	ug/l	3					< 3.0	< 3.0			
Chloroethane	ug/l	3					< 3.0	< 3.0			
Bromomethane	ug/l	3					< 3.0	< 3.0			
Vinyl Chloride	ug/l	3					< 3.0	< 3.0			
Trichlorofluoromethane	ug/l	3					< 3.0	< 3.0			
1,1Dichloroethene	ug/l	3					< 3.0	< 3.0			
1,1,2Trichloro1,2,2trifluoroethane	ug/l	3					< 3.0	< 3.0			
Trans 1,2dichloroethylene	ug/l	3					< 3.0	< 3.0			
MTBE (Methyl Tertiary Butyl Ether)	ug/l	3					< 3.0	< 3.0			
1,1Dichloroethane	ug/l	3					< 3.0	< 3.0			
2,2Dichloropropane	ug/l	3					< 3.0	< 3.0			
Chloroform	ug/l	3					< 3.0	< 3.0			
1,1,1Trichloroethane	ug/l	3					< 3.0	< 3.0			
1,2Dichloroethane	ug/l	3					< 3.0	< 3.0			
1,1Dichloropropene	ug/l	3					< 3.0	< 3.0			
Cis1,2dichloroethene	ug/l	3					< 3.0	< 3.0			
Benzene	ug/l	3					< 3.0	< 3.0			
Carbontetrachloride	ug/l	3					< 3.0	< 3.0			
1,2Dichloropropane	ug/l	3					< 3.0	< 3.0			
Trichloroethene	ug/l	3					< 3.0	< 3.0			
Dibromomethane	ug/l	3					< 3.0	< 3.0			
Bromodichloromethane	ug/l	3					< 3.0	< 3.0			
Cis1,3dichloropropene	ug/l	3					< 3.0	< 3.0			
Trans1,3dichloropropene	ug/l	3					< 3.0	< 3.0			
Toluene	ug/l	3					< 3.0	< 3.0			
1,1,2Trichloroethane	ug/l	3					< 3.0	< 3.0			
1,3Dichloropropane	ug/l	3					< 3.0	< 3.0			
Dibromochloromethane	ug/l	3					< 3.0	< 3.0			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			MW1D	MW1D	MW1D	MW1D	142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	1/24/2024	3/12/2024	15/04/2024	11/15/2022	6/29/2021	
Strata Screened			Drift						Sandstone		
Analytical Parameter (Water Analysis)	Units	Limit of detection									
Tetrachloroethene (PCE)	ug/l	3					< 3.0	< 3.0			
1,2Dibromoethane	ug/l	3					< 3.0	< 3.0			
Chlorobenzene	ug/l	3					< 3.0	< 3.0			
1,1,1,2Tetrachloroethane	ug/l	3					< 3.0	< 3.0			
Ethylbenzene	ug/l	3					< 3.0	< 3.0			
p & mxylene	ug/l	3					< 3.0	< 3.0			
Styrene	ug/l	3					< 3.0	< 3.0			
Bromoform	ug/l	3					< 3.0	< 3.0			
oxylene	ug/l	3					< 3.0	< 3.0			
Isopropylbenzene	ug/l	3					< 3.0	< 3.0			
1,1,2,2Tetrachloroethane	ug/l	3					< 3.0	< 3.0			
Bromobenzene	ug/l	3					< 3.0	< 3.0			
nPropylbenzene	ug/l	3					< 3.0	< 3.0			
2Chlorotoluene	ug/l	3					< 3.0	< 3.0			
4Chlorotoluene	ug/l	3					< 3.0	< 3.0			
1,3,5Trimethylbenzene	ug/l	3					< 3.0	< 3.0			
tertButylbenzene	ug/l	3					< 3.0	< 3.0			
1,2,4Trimethylbenzene	ug/l	3					< 3.0	< 3.0			
secButylbenzene	ug/l	3					< 3.0	< 3.0			
1,3Dichlorobenzene	ug/l	3					< 3.0	< 3.0			
pIsopropyltoluene	ug/l	3					< 3.0	< 3.0			
1,4Dichlorobenzene	ug/l	3					< 3.0	< 3.0			
1,2Dichlorobenzene	ug/l	3					< 3.0	< 3.0			
Butylbenzene	ug/l	3					< 3.0	< 3.0			
1,2Dibromo3chloropropane	ug/l	3					< 3.0	< 3.0			
1,2,4Trichlorobenzene	ug/l	3					< 3.0	< 3.0			
Hexachlorobutadiene	ug/l	3					< 3.0	< 3.0			
1,2,3Trichlorobenzene	ug/l	3					< 3.0	< 3.0			
SVOCs											
Aniline	ug/l	0.05					< 0.05	< 0.05			
Phenol	ug/l	0.05					< 0.05	< 0.05			
2Chlorophenol	ug/l	0.05					< 0.05	< 0.05			
Bis(2chloroethyl)ether	ug/l	0.05					< 0.05	< 0.05			
1,3Dichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
1,2Dichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
1,4Dichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
Bis(2chloroisopropyl)ether	ug/l	0.05					< 0.05	< 0.05			
2Methylphenol	ug/l	0.05					< 0.05	< 0.05			
Hexachloroethane	ug/l	0.05					< 0.05	< 0.05			
Nitrobenzene	ug/l	0.05					< 0.05	< 0.05			
4Methylphenol	ug/l	0.05					< 0.05	< 0.05			
Isophorone	ug/l	0.05					< 0.05	< 0.05			
2Nitrophenol	ug/l	0.05					< 0.05	< 0.05			
2,4Dimethylphenol	ug/l	0.05					0.44	0.32			
Bis(2chloroethoxy)methane	ug/l	0.05					< 0.05	< 0.05			
1,2,4Trichlorobenzene	ug/l	0.05					< 0.05	< 0.05			
2,4Dichlorophenol	ug/l	0.05					< 0.05	< 0.05			
4Chloroaniline	ug/l	0.05					< 0.05	< 0.05			
Hexachlorobutadiene	ug/l	0.05					< 0.05	< 0.05			
4Chloro3methylphenol	ug/l	0.05					< 0.05	< 0.05			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater							142825	171194	2503701		
Sample Reference			MW1D	MW1D	MW1D	MW1D	MW1D	MW1D	MW1S	MW2	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	1/24/2024	3/12/2024	15/04/2024	11/15/2022	6/29/2021	
Strata Screened			Drift						Sandstone		
Analytical Parameter (Water Analysis)	Units	Limit of detection									
2,4,6Trichlorophenol	ug/l	0.05					< 0.05	< 0.05			
2,4,5Trichlorophenol	ug/l	0.05					< 0.05	< 0.05			
2Methylnaphthalene	ug/l	0.05					0.31	0.12			
2Chloronaphthalene	ug/l	0.05					< 0.05	< 0.05			
Dimethylphthalate	ug/l	0.05					< 0.05	< 0.05			
2,6Dinitrotoluene	ug/l	0.05					< 0.05	< 0.05			
2,4Dinitrotoluene	ug/l	0.05					< 0.05	< 0.05			
Dibenzofuran	ug/l	0.05					0.91	0.40			
4Chlorophenyl phenyl ether	ug/l	0.05					< 0.05	< 0.05			
Diethyl phthalate	ug/l	0.05					< 0.05	< 0.05			
4Nitroaniline	ug/l	0.05					< 0.05	< 0.05			
Azobenzene	ug/l	0.05					< 0.05	< 0.05			
Bromophenyl phenyl ether	ug/l	0.05					< 0.05	< 0.05			
Hexachlorobenzene	ug/l	0.05					< 0.05	< 0.05			
Carbazole	ug/l	0.05					2.20	1.50			
Dibutyl phthalate	ug/l	0.05					< 0.05	< 0.05			
Anthraquinone	ug/l	0.05					< 0.05	< 0.05			
Butyl benzyl phthalate	ug/l	0.05					< 0.05	< 0.05			
3+4Methylphenol	ug/l	0.1					< 0.10	< 0.10			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	2503702	2503702	2503702	142826	171195		
Sample Reference			MW2	MW2	MW2	MW2	MW2	MW2	MW3	MW3
Date Sampled			11/23/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024	15/04/2024	6/29/2021	11/23/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.70	8.70	8.00	8.50	8.30	7.70	7.00	7.30
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	610.00	3200.00	3900.00	4000.00	1400.00	4200.00	640.00	600.00
Sulphate as SO4	mg/l	0.045	200.00	2350.00	2160.00	2170.00	2500.00	2350.00	38.20	61.80
Sulphide	µg/l	5					< 5.0	< 5.0		
Chloride	mg/l	0.15	30.00	170.00	140.00	130.00	150.00	150.00	50.00	50.00
Fluoride	µg/l	50					190.00	150.00		
Ammoniacal Nitrogen as N	µg/l	15	0.08	790.00	1000.00	1100.00	970.00	1200.00	180.00	0.64
Total Organic Carbon (TOC)	mg/l	0.1	3.74	5.46	4.58	6.94			1.40	1.87
Dissolved Organic Carbon (DOC)	mg/l	0.1					4.21	3.54		
Nitrate as N	mg/l	0.01	0.01	0.29	0.37	0.58	0.85	1.73	0.20	0.09
Nitrite as N	µg/l	1		530.00	470.00	540.00	430.00	340.00		
Alkalinity as CaCO3	mg/l	3	480.00	92.00	130.00	86.00	110.00	110.00	310.00	230.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.30	0.82	0.85	1.10			1.00	0.10
Total Suspended Solids (L004B)	mg/l	2				480.00	1300.00	370.00		
Speciated PAHs										
Naphthalene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Fluorene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Phenanthrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3cd)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Total PAH										
Total EPA16 PAHs	µg/l	0.16	0.16	< 0.16	< 0.16	< 0.16			0.16	0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1					29.00	4.60		
Antimony (dissolved)	µg/l	0.4					9.40	11.00		
Arsenic (dissolved)	µg/l	0.15	0.58	12.20	60.90	81.90	32.70	51.30	0.39	1.65

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	2503702	142826	142826	171195	171195	MW3	MW3
Sample Reference			MW2	MW2	MW2	MW2	MW2	MW2	MW3	MW3
Date Sampled			11/23/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024	15/04/2024	6/29/2021	11/23/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06						22.00	26.00	
Cadmium (dissolved)	ug/l	0.02	0.02	0.09	1.10	0.84	0.64	0.85	0.02	0.03
Chromium (dissolved)	ug/l	0.2	4.00	0.30	0.70	11.00	9.50	18.00	2.10	2.90
Cobalt (dissolved)	ug/l	0.2					0.60	0.70		
Copper (dissolved)	ug/l	0.5	5.20	0.80	1.70	1.00	1.30	2.60	9.00	1.10
Bioavailable Copper (dissolved)	ug/l	0.5	0.32	0.14	0.14	0.17	0.16	0.19	0.54	0.06
Lead (dissolved)	ug/l	0.2	0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.20
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05
Manganese (dissolved)	ug/l	0.05	580.00	200.00	550.00	390.00	1100.00	1100.00	2500.00	2200.00
Bioavailable Manganese (dissolved)	ug/l	0.05	181.79	200.00	308.13	390.00	1100.00	344.77	202.10	317.88
Mercury (dissolved)	ug/l	0.05					0.26	0.35		
Molybdenum (dissolved)	ug/l	0.05	4.70	4000.00	3800.00	4600.00	3800.00	2900.00	0.94	0.77
Nickel (dissolved)	ug/l	0.5	3.50	2.70	5.10	2.20	4.20	5.30	2.90	4.30
Bioavailable Nickel (dissolved)	ug/l	0.5	1.11	2.70	2.12	1.99	2.52	1.80	0.58	1.04
Selenium (dissolved)	ug/l	0.6					100.00	120.00		
Silicon (dissolved)	ug/l	50					1200.00	3300.00		
Tin (dissolved)	ug/l	0.2					0.39	0.74		
Titanium (dissolved)	ug/l	1					< 1.0	1.20		
Vanadium (dissolved)	ug/l	0.2					53.00	49.00		
Zinc (dissolved)	ug/l	0.5	18.00	2.80	6.40	3.50	2.20	11.00	7.10	8.50
Bioavailable Zinc (dissolved)	ug/l	0.5	7.62	1.14	2.61	1.43	0.89	4.90	3.35	3.85
Boron (dissolved)	ug/l	10	86.00	13000.00	11000.00	18000.00	15000.00	15000.00	58.00	45.00
Calcium (dissolved)	mg/l	0.012	140.00	470.00	440.00	440.00	480.00	480.00	85.00	92.00
Chromium (hexavalent)	ug/l	5								
Chromium (III)	ug/l	5								
Iron (dissolved)	mg/l	0.004	0.01	0.02	< 0.004	< 0.004	0.01	< 0.004	0.04	0.06
Magnesium (dissolved)	mg/l	0.005	61.00	35.00	56.00	86.00	93.00	120.00	34.00	36.00
Phosphorus (dissolved)	ug/l	20	4.40				401.00	445.00	2.80	2.80
Potassium (dissolved)	mg/l	0.025		270.00	220.00	270.00	210.00	240.00		
Selenium (dissolved)	ug/l	0.6								
Sodium (dissolved)	mg/l	0.01	30.00	630.00	560.00	460.00	520.00	460.00	23.00	25.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10				< 10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	142826	171195			
Sample Reference			MW2	MW2	MW2	MW2	MW3	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	24/01/2024	6/29/2021	
Strata Screened			Drift					11/23/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	ug/l	10				< 10	< 10	
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	ug/l	1				< 1.0	< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	ug/l	1				< 1.0	< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	ug/l	1				< 1.0	< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	ug/l	1				< 1.0	< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	ug/l	1				< 1.0	< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	ug/l	1				< 1.0	< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	ug/l	10				< 10	< 10	
VOCs								
Chloromethane	ug/l	3				< 3.0	< 3.0	
Chloroethane	ug/l	3				< 3.0	< 3.0	
Bromomethane	ug/l	3				< 3.0	< 3.0	
Vinyl Chloride	ug/l	3				< 3.0	< 3.0	
Trichlorofluoromethane	ug/l	3				< 3.0	< 3.0	
1,1Dichloroethene	ug/l	3				< 3.0	< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	ug/l	3				< 3.0	< 3.0	
Trans 1,2dichloroethylene	ug/l	3				< 3.0	< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/l	3				< 3.0	< 3.0	
1,1Dichloroethane	ug/l	3				< 3.0	< 3.0	
2,2Dichloropropane	ug/l	3				< 3.0	< 3.0	
Chloroform	ug/l	3				< 3.0	< 3.0	
1,1,1Trichloroethane	ug/l	3				< 3.0	< 3.0	
1,2Dichloroethane	ug/l	3				< 3.0	< 3.0	
1,1Dichloropropene	ug/l	3				< 3.0	< 3.0	
Cis1,2dichloroethene	ug/l	3				< 3.0	< 3.0	
Benzene	ug/l	3				< 3.0	< 3.0	
Carbontetrachloride	ug/l	3				< 3.0	< 3.0	
1,2Dichloropropane	ug/l	3				< 3.0	< 3.0	
Trichloroethene	ug/l	3				< 3.0	< 3.0	
Dibromomethane	ug/l	3				< 3.0	< 3.0	
Bromodichloromethane	ug/l	3				< 3.0	< 3.0	
Cis1,3dichloropropene	ug/l	3				< 3.0	< 3.0	
Trans1,3dichloropropene	ug/l	3				< 3.0	< 3.0	
Toluene	ug/l	3				< 3.0	< 3.0	
1,1,2Trichloroethane	ug/l	3				< 3.0	< 3.0	
1,3Dichloropropane	ug/l	3				< 3.0	< 3.0	
Dibromochloromethane	ug/l	3				< 3.0	< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	142826	171195			
Sample Reference			MW2	MW2	MW2	MW2	MW3	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	24/01/2024	6/29/2021	
Strata Screened			Drift					11/23/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Tetrachloroethene (PCE)	ug/l	3				< 3.0	< 3.0	
1,2Dibromoethane	ug/l	3				< 3.0	< 3.0	
Chlorobenzene	ug/l	3				< 3.0	< 3.0	
1,1,1,2Tetrachloroethane	ug/l	3				< 3.0	< 3.0	
Ethylbenzene	ug/l	3				< 3.0	< 3.0	
p & mxylene	ug/l	3				< 3.0	< 3.0	
Styrene	ug/l	3				< 3.0	< 3.0	
Bromoform	ug/l	3				< 3.0	< 3.0	
oxylene	ug/l	3				< 3.0	< 3.0	
Isopropylbenzene	ug/l	3				< 3.0	< 3.0	
1,1,2,2Tetrachloroethane	ug/l	3				< 3.0	< 3.0	
Bromobenzene	ug/l	3				< 3.0	< 3.0	
nPropylbenzene	ug/l	3				< 3.0	< 3.0	
2Chlorotoluene	ug/l	3				< 3.0	< 3.0	
4Chlorotoluene	ug/l	3				< 3.0	< 3.0	
1,3,5Trimethylbenzene	ug/l	3				< 3.0	< 3.0	
tertButylbenzene	ug/l	3				< 3.0	< 3.0	
1,2,4Trimethylbenzene	ug/l	3				< 3.0	< 3.0	
secButylbenzene	ug/l	3				< 3.0	< 3.0	
1,3Dichlorobenzene	ug/l	3				< 3.0	< 3.0	
pIsopropyltoluene	ug/l	3				< 3.0	< 3.0	
1,4Dichlorobenzene	ug/l	3				< 3.0	< 3.0	
1,2Dichlorobenzene	ug/l	3				< 3.0	< 3.0	
Butylbenzene	ug/l	3				< 3.0	< 3.0	
1,2Dibromo3chloropropane	ug/l	3				< 3.0	< 3.0	
1,2,4Trichlorobenzene	ug/l	3				< 3.0	< 3.0	
Hexachlorobutadiene	ug/l	3				< 3.0	< 3.0	
1,2,3Trichlorobenzene	ug/l	3				< 3.0	< 3.0	
SVOCs								
Aniline	ug/l	0.05				< 0.05	< 0.05	
Phenol	ug/l	0.05				< 0.05	< 0.05	
2Chlorophenol	ug/l	0.05				< 0.05	< 0.05	
Bis(2chloroethyl)ether	ug/l	0.05				< 0.05	< 0.05	
1,3Dichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
1,2Dichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
1,4Dichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
Bis(2chloroisopropyl)ether	ug/l	0.05				< 0.05	< 0.05	
2Methylphenol	ug/l	0.05				< 0.05	< 0.05	
Hexachloroethane	ug/l	0.05				< 0.05	< 0.05	
Nitrobenzene	ug/l	0.05				< 0.05	< 0.05	
4Methylphenol	ug/l	0.05				< 0.05	< 0.05	
Isophorone	ug/l	0.05				< 0.05	< 0.05	
2Nitrophenol	ug/l	0.05				< 0.05	< 0.05	
2,4Dimethylphenol	ug/l	0.05				< 0.05	< 0.05	
Bis(2chloroethoxy)methane	ug/l	0.05				< 0.05	< 0.05	
1,2,4Trichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
2,4Dichlorophenol	ug/l	0.05				< 0.05	< 0.05	
4Chloroaniline	ug/l	0.05				< 0.05	< 0.05	
Hexachlorobutadiene	ug/l	0.05				< 0.05	< 0.05	
4Chloro3methylphenol	ug/l	0.05				< 0.05	< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503702	142826	171195				
Sample Reference			MW2	MW2	MW2	MW2	MW3		
Date Sampled			11/23/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024		
Strata Screened			Drift					6/29/2021	11/23/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection							
2,4,6Trichlorophenol	ug/l	0.05					< 0.05	< 0.05	
2,4,5Trichlorophenol	ug/l	0.05					< 0.05	< 0.05	
2Methylnaphthalene	ug/l	0.05					< 0.05	< 0.05	
2Chloronaphthalene	ug/l	0.05					< 0.05	< 0.05	
Dimethylphthalate	ug/l	0.05					< 0.05	< 0.05	
2,6Dinitrotoluene	ug/l	0.05					< 0.05	< 0.05	
2,4Dinitrotoluene	ug/l	0.05					< 0.05	< 0.05	
Dibenzofuran	ug/l	0.05					< 0.05	< 0.05	
4Chlorophenyl phenyl ether	ug/l	0.05					< 0.05	< 0.05	
Diethyl phthalate	ug/l	0.05					< 0.05	< 0.05	
4Nitroaniline	ug/l	0.05					< 0.05	< 0.05	
Azobenzene	ug/l	0.05					< 0.05	< 0.05	
Bromophenyl phenyl ether	ug/l	0.05					< 0.05	< 0.05	
Hexachlorobenzene	ug/l	0.05					< 0.05	< 0.05	
Carbazole	ug/l	0.05					< 0.05	< 0.05	
Dibutyl phthalate	ug/l	0.05					< 0.05	< 0.05	
Anthraquinone	ug/l	0.05					< 0.05	< 0.05	
Butyl benzyl phthalate	ug/l	0.05					< 0.05	< 0.05	
3+4Methylphenol	ug/l	0.1					< 0.10	< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			11/15/2022	10/31/2023	25/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.20	7.20	7.30	7.70	7.30	7.70	7.10	6.70
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	630.00	700.00	660.00	4100.00	8100.00	600.00	5500.00	6600.00
Sulphate as SO4	mg/l	0.045	50.30	58.50	60.40	60.60	4180.00	229.00	2780.00	3460.00
Sulphide	µg/l	5				5.10				
Chloride	mg/l	0.15	59.00	60.00	65.00	60.00	560.00	30.00	500.00	490.00
Fluoride	µg/l	50				140.00				
Ammoniacal Nitrogen as N	µg/l	15	250.00	240.00	290.00	200.00	2900.00	0.08	2200.00	3300.00
Total Organic Carbon (TOC)	mg/l	0.1	2.79	7.66	2.68		6.58	4.36	4.15	3.66
Dissolved Organic Carbon (DOC)	mg/l	0.1				1.78				
Nitrate as N	mg/l	0.01	0.26	0.16	< 0.01	0.12	0.45	0.01	0.47	0.41
Nitrite as N	µg/l	1	12.00	< 1.0	< 1.0	3.40			5.30	1.20
Alkalinity as CaCO3	mg/l	3	280.00	300.00	280.00	280.00	340.00	390.00	380.00	330.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.28	0.16	< 0.020		0.50	0.30	0.48	0.41
Total Suspended Solids (L004B)	mg/l	2			210.00	2400.00				
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16	< 0.16	< 0.16	< 0.16		0.16	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1				2.30				
Antimony (dissolved)	µg/l	0.4				0.60				
Arsenic (dissolved)	µg/l	0.15	0.57	0.52	0.87	0.60	15.40	0.62	1.65	23.40

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			11/15/2022	10/31/2023	25/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06				130.00				
Cadmium (dissolved)	ug/l	0.02	0.09	< 0.02	0.09	0.03	5.90	0.03	1.40	1.10
Chromium (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	3.50	4.80	< 0.2	< 0.2
Cobalt (dissolved)	ug/l	0.2				1.10				
Copper (dissolved)	ug/l	0.5	0.80	0.80	1.30	0.70	1.70	7.50	1.60	1.00
Bioavailable Copper (dissolved)	ug/l	0.5	0.04	0.04	0.07	0.12	0.09	0.47	0.09	0.08
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.20	< 0.2	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.05	0.11	0.05	0.05	0.05	0.05
Manganese (dissolved)	ug/l	0.05	2000.00	1600.00	2100.00	1400.00	1100.00	540.00	1700.00	1900.00
Bioavailable Manganese (dissolved)	ug/l	0.05	238.12	190.50	303.43	438.80	158.94	169.25	166.78	85.93
Mercury (dissolved)	ug/l	0.05				< 0.05				
Molybdenum (dissolved)	ug/l	0.05	1.20	0.33	0.42	1.80	5100.00	5.80	1400.00	2600.00
Nickel (dissolved)	ug/l	0.5	2.60	1.90	2.30	1.20	15.00	4.10	7.70	8.60
Bioavailable Nickel (dissolved)	ug/l	0.5	0.59	0.43	0.55	0.51	3.62	1.30	1.65	1.49
Selenium (dissolved)	ug/l	0.6				1.20				
Silicon (dissolved)	ug/l	50				2900.00				
Tin (dissolved)	ug/l	0.2				< 0.20				
Titanium (dissolved)	ug/l	1				< 1.0				
Vanadium (dissolved)	ug/l	0.2				< 0.2				
Zinc (dissolved)	ug/l	0.5	6.90	3.80	4.10	2.80	12.00	30.00	3.40	10.00
Bioavailable Zinc (dissolved)	ug/l	0.5	3.13	1.73	1.86	1.65	5.26	12.61	1.52	4.69
Boron (dissolved)	ug/l	10	53.00	67.00	38.00	110.00	8200.00	97.00	4200.00	5200.00
Calcium (dissolved)	mg/l	0.012	110.00	98.00	91.00	89.00	400.00	160.00	550.00	560.00
Chromium (hexavalent)	ug/l	5				< 5.0				
Chromium (III)	ug/l	5				< 5.0				
Iron (dissolved)	mg/l	0.004	0.04	< 0.004	< 0.004	0.01	0.01	0.01	0.02	0.06
Magnesium (dissolved)	mg/l	0.005	42.00	39.00	37.00	35.00	120.00	67.00	220.00	210.00
Phosphorus (dissolved)	ug/l	20				387.00	180.00	4.50		
Potassium (dissolved)	mg/l	0.025	3.40	3.50	2.70	2.80			140.00	280.00
Selenium (dissolved)	ug/l	0.6								
Sodium (dissolved)	mg/l	0.01	33.00	25.00	25.00	23.00	1600.00	41.00	830.00	1200.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10			< 10					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			11/15/2022	10/31/2023	25/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Total Phenols										
Total Phenols (monohydric)	µg/l	10				< 10				
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1				< 1.0				
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1				< 1.0				
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1				< 1.0				
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10				< 10				
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10				< 10				
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1				< 1.0				
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1				< 1.0				
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1				< 1.0				
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10				< 10				
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10				< 10				
VOCs										
Chloromethane	µg/l	3				< 3.0				
Chloroethane	µg/l	3				< 3.0				
Bromomethane	µg/l	3				< 3.0				
Vinyl Chloride	µg/l	3				< 3.0				
Trichlorofluoromethane	µg/l	3				< 3.0				
1,1Dichloroethene	µg/l	3				< 3.0				
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3				< 3.0				
Trans 1,2dichloroethylene	µg/l	3				< 3.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3				< 3.0				
1,1Dichloroethane	µg/l	3				< 3.0				
2,2Dichloropropane	µg/l	3				< 3.0				
Chloroform	µg/l	3				< 3.0				
1,1,1Trichloroethane	µg/l	3				< 3.0				
1,2Dichloroethane	µg/l	3				< 3.0				
1,1Dichloropropene	µg/l	3				< 3.0				
Cis1,2dichloroethene	µg/l	3				< 3.0				
Benzene	µg/l	3				< 3.0				
Carbontetrachloride	µg/l	3				< 3.0				
1,2Dichloropropane	µg/l	3				< 3.0				
Trichloroethene	µg/l	3				< 3.0				
Dibromomethane	µg/l	3				< 3.0				
Bromodichloromethane	µg/l	3				< 3.0				
Cis1,3dichloropropene	µg/l	3				< 3.0				
Trans1,3dichloropropene	µg/l	3				< 3.0				
Toluene	µg/l	3				< 3.0				
1,1,2Trichloroethane	µg/l	3				< 3.0				
1,3Dichloropropane	µg/l	3				< 3.0				
Dibromochloromethane	µg/l	3				< 3.0				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			11/15/2022	10/31/2023	25/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Tetrachloroethene (PCE)	ug/l	3				< 3.0				
1,2Dibromoethane	ug/l	3				< 3.0				
Chlorobenzene	ug/l	3				< 3.0				
1,1,1,2Tetrachloroethane	ug/l	3				< 3.0				
Ethylbenzene	ug/l	3				< 3.0				
p & mxylyene	ug/l	3				< 3.0				
Styrene	ug/l	3				< 3.0				
Bromoform	ug/l	3				< 3.0				
oxylyene	ug/l	3				< 3.0				
Isopropylbenzene	ug/l	3				< 3.0				
1,1,2,2Tetrachloroethane	ug/l	3				< 3.0				
Bromobenzene	ug/l	3				< 3.0				
nPropylbenzene	ug/l	3				< 3.0				
2Chlorotoluene	ug/l	3				< 3.0				
4Chlorotoluene	ug/l	3				< 3.0				
1,3,5Trimethylbenzene	ug/l	3				< 3.0				
tertButylbenzene	ug/l	3				< 3.0				
1,2,4Trimethylbenzene	ug/l	3				< 3.0				
secButylbenzene	ug/l	3				< 3.0				
1,3Dichlorobenzene	ug/l	3				< 3.0				
pIsopropyltoluene	ug/l	3				< 3.0				
1,4Dichlorobenzene	ug/l	3				< 3.0				
1,2Dichlorobenzene	ug/l	3				< 3.0				
Butylbenzene	ug/l	3				< 3.0				
1,2Dibromo3chloropropane	ug/l	3				< 3.0				
1,2,4Trichlorobenzene	ug/l	3				< 3.0				
Hexachlorobutadiene	ug/l	3				< 3.0				
1,2,3Trichlorobenzene	ug/l	3				< 3.0				
SVOCs										
Aniline	ug/l	0.05				< 0.05				
Phenol	ug/l	0.05				< 0.05				
2Chlorophenol	ug/l	0.05				< 0.05				
Bis(2chloroethyl)ether	ug/l	0.05				< 0.05				
1,3Dichlorobenzene	ug/l	0.05				< 0.05				
1,2Dichlorobenzene	ug/l	0.05				< 0.05				
1,4Dichlorobenzene	ug/l	0.05				< 0.05				
Bis(2chloroisopropyl)ether	ug/l	0.05				< 0.05				
2Methylphenol	ug/l	0.05				< 0.05				
Hexachloroethane	ug/l	0.05				< 0.05				
Nitrobenzene	ug/l	0.05				< 0.05				
4Methylphenol	ug/l	0.05				< 0.05				
Isophorone	ug/l	0.05				< 0.05				
2Nitrophenol	ug/l	0.05				< 0.05				
2,4Dimethylphenol	ug/l	0.05				< 0.05				
Bis(2chloroethoxy)methane	ug/l	0.05				< 0.05				
1,2,4Trichlorobenzene	ug/l	0.05				< 0.05				
2,4Dichlorophenol	ug/l	0.05				< 0.05				
4Chloroaniline	ug/l	0.05				< 0.05				
Hexachlorobutadiene	ug/l	0.05				< 0.05				
4Chloro3methylphenol	ug/l	0.05				< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503691			142827			2503690	
Sample Reference			MW3	MW3	MW3	MW3	MW4D	MW4D	MW4D	MW4D
Date Sampled			11/15/2022	10/31/2023	25/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	ug/l	0.05				< 0.05				
2,4,5Trichlorophenol	ug/l	0.05				< 0.05				
2Methylnaphthalene	ug/l	0.05				< 0.05				
2Chloronaphthalene	ug/l	0.05				< 0.05				
Dimethylphthalate	ug/l	0.05				< 0.05				
2,6Dinitrotoluene	ug/l	0.05				< 0.05				
2,4Dinitrotoluene	ug/l	0.05				< 0.05				
Dibenzofuran	ug/l	0.05				< 0.05				
4Chlorophenyl phenyl ether	ug/l	0.05				< 0.05				
Diethyl phthalate	ug/l	0.05				< 0.05				
4Nitroaniline	ug/l	0.05				< 0.05				
Azobenzene	ug/l	0.05				< 0.05				
Bromophenyl phenyl ether	ug/l	0.05				< 0.05				
Hexachlorobenzene	ug/l	0.05				< 0.05				
Carbazole	ug/l	0.05				< 0.05				
Dibutyl phthalate	ug/l	0.05				< 0.05				
Anthraquinone	ug/l	0.05				< 0.05				
Butyl benzyl phthalate	ug/l	0.05				< 0.05				
3+4Methylphenol	ug/l	0.1				< 0.10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	2503703	2503703	142828	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
General Inorganics								
pH (L099)	pH Units	N/A	7.20	7.30	7.30	7.70	7.20	7.30
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	6500.00	980.00	1000.00	590.00	720.00	1000.00
Sulphate as SO4	mg/l	0.045	2540.00	3060.00	210.00	246.00	121.00	172.00
Sulphide	µg/l	5		< 5.0				5.00
Chloride	mg/l	0.15	460.00	460.00	43.00	30.00	36.00	40.00
Fluoride	µg/l	50		350.00				51.00
Ammoniacal Nitrogen as N	µg/l	15	3700.00	3900.00	160.00	0.08	61.00	38.00
Total Organic Carbon (TOC)	mg/l	0.1	3.26		2.26	3.66	3.80	11.50
Dissolved Organic Carbon (DOC)	mg/l	0.1		3.37				3.48
Nitrate as N	mg/l	0.01	0.01	0.13	0.30	0.01	0.05	0.12
Nitrite as N	µg/l	1	4.60	18.00			< 1.0	1.60
Alkalinity as CaCO3	mg/l	3	280.00	230.00	480.00	390.00	380.00	380.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	< 0.020		0.30	0.30	0.05	0.12
Total Suspended Solids (L004B)	mg/l	2	9200.00	2800.00				9.00
Speciated PAHs								
Naphthalene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH								
Total EPA16 PAHs	µg/l	0.16	< 0.16		0.16	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids								
Aluminium (dissolved)	µg/l	1		10.00				< 1.0
Antimony (dissolved)	µg/l	0.4		2.10				< 0.4
Arsenic (dissolved)	µg/l	0.15	5.86	5.59	1.17	0.54	1.01	2.90

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	MW4S	MW4S	2503703	MW4S	MW4S	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024
Strata Screened			Sandstone							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06		20.00						22.00
Cadmium (dissolved)	ug/l	0.02	1.30	1.10	0.17	0.02	< 0.02	0.03	< 0.02	< 0.02
Chromium (dissolved)	ug/l	0.2	0.40	< 0.2	5.50	4.60	< 0.2	0.30	< 0.2	< 0.2
Cobalt (dissolved)	ug/l	0.2		1.30						0.20
Copper (dissolved)	ug/l	0.5	1.50	1.90	6.90	5.80	1.70	1.10	1.20	0.70
Bioavailable Copper (dissolved)	ug/l	0.5	0.08	0.13	0.38	0.36	0.09	0.06	0.07	0.11
Lead (dissolved)	ug/l	0.2	0.20	< 0.2	0.20	0.20	< 0.2	1.70	< 0.2	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.06	0.05	0.05	0.05	0.41	0.05	0.12
Manganese (dissolved)	ug/l	0.05	2500.00	1500.00	670.00	560.00	380.00	440.00	580.00	440.00
Bioavailable Manganese (dissolved)	ug/l	0.05	297.65	216.74	96.81	175.52	45.24	63.58	123.43	63.58
Mercury (dissolved)	ug/l	0.05		0.15						< 0.05
Molybdenum (dissolved)	ug/l	0.05	3900.00	3800.00	120.00	4.20	6.60	42.00	18.00	11.00
Nickel (dissolved)	ug/l	0.5	7.50	6.10	7.00	3.40	< 0.5	0.80	0.90	< 0.5
Bioavailable Nickel (dissolved)	ug/l	0.5	1.70	1.57	1.69	1.08	0.11	0.19	0.25	0.16
Selenium (dissolved)	ug/l	0.6								0.70
Silicon (dissolved)	ug/l	50		2300.00						2300.00
Tin (dissolved)	ug/l	0.2		< 0.20						< 0.20
Titanium (dissolved)	ug/l	1		1.90						< 1.0
Vanadium (dissolved)	ug/l	0.2		67.00						< 0.2
Zinc (dissolved)	ug/l	0.5	4.20	3.00	10.00	16.00	8.40	12.00	3.00	1.30
Bioavailable Zinc (dissolved)	ug/l	0.5	1.86	1.40	4.42	6.73	3.77	5.30	1.30	0.74
Boron (dissolved)	ug/l	10	6400.00	5800.00	250.00	85.00	100.00	110.00	70.00	64.00
Calcium (dissolved)	mg/l	0.012	520.00	580.00	140.00	180.00	130.00	140.00	140.00	120.00
Chromium (hexavalent)	ug/l	5		< 5.0						< 5.0
Chromium (III)	ug/l	5		< 5.0						< 5.0
Iron (dissolved)	mg/l	0.004	0.01	0.01	0.01	0.01	< 0.004	< 0.004	0.01	< 0.004
Magnesium (dissolved)	mg/l	0.005	150.00	180.00	69.00	71.00	62.00	71.00	64.00	60.00
Phosphorus (dissolved)	ug/l	20		317.00	10.00	5.80				497.00
Potassium (dissolved)	mg/l	0.025	250.00	310.00			4.60	7.20	5.10	4.70
Selenium (dissolved)	ug/l	0.6		14.00						
Sodium (dissolved)	mg/l	0.01	1100.00	1100.00	56.00	48.00	30.00	45.00	31.00	31.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10	< 10						< 10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829			2503703		142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	µg/l	10	< 10					< 10
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0					< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0					< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0					< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10					< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0					< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0					< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0					< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10					< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10					< 10
VOCs								
Chloromethane	µg/l	3	< 3.0					< 3.0
Chloroethane	µg/l	3	< 3.0					< 3.0
Bromomethane	µg/l	3	< 3.0					< 3.0
Vinyl Chloride	µg/l	3	< 3.0					< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0					< 3.0
1,1Dichloroethane	µg/l	3	< 3.0					< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0					< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0					< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0					< 3.0
1,1Dichloroethane	µg/l	3	< 3.0					< 3.0
2,2Dichloropropane	µg/l	3	< 3.0					< 3.0
Chloroform	µg/l	3	< 3.0					< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0					< 3.0
1,2Dichloroethane	µg/l	3	< 3.0					< 3.0
1,1Dichloropropene	µg/l	3	< 3.0					< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0					< 3.0
Benzene	µg/l	3	< 3.0					< 3.0
Carbontetrachloride	µg/l	3	< 3.0					< 3.0
1,2Dichloropropane	µg/l	3	< 3.0					< 3.0
Trichloroethene	µg/l	3	< 3.0					< 3.0
Dibromomethane	µg/l	3	< 3.0					< 3.0
Bromodichloromethane	µg/l	3	< 3.0					< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0					< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0					< 3.0
Toluene	µg/l	3	< 3.0					< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0					< 3.0
1,3Dichloropropane	µg/l	3	< 3.0					< 3.0
Dibromochloromethane	µg/l	3	< 3.0					< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	2503703	2503703	142828	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Tetrachloroethene (PCE)	ug/l	3	< 3.0					< 3.0
1,2Dibromoethane	ug/l	3	< 3.0					< 3.0
Chlorobenzene	ug/l	3	< 3.0					< 3.0
1,1,1,2Tetrachloroethane	ug/l	3	< 3.0					< 3.0
Ethylbenzene	ug/l	3	< 3.0					< 3.0
p & mxylene	ug/l	3	< 3.0					< 3.0
Styrene	ug/l	3	< 3.0					< 3.0
Bromoform	ug/l	3	< 3.0					< 3.0
oxylene	ug/l	3	< 3.0					< 3.0
Isopropylbenzene	ug/l	3	< 3.0					< 3.0
1,1,2,2Tetrachloroethane	ug/l	3	< 3.0					< 3.0
Bromobenzene	ug/l	3	< 3.0					< 3.0
nPropylbenzene	ug/l	3	< 3.0					< 3.0
2Chlorotoluene	ug/l	3	< 3.0					< 3.0
4Chlorotoluene	ug/l	3	< 3.0					< 3.0
1,3,5Trimethylbenzene	ug/l	3	< 3.0					< 3.0
tertButylbenzene	ug/l	3	< 3.0					< 3.0
1,2,4Trimethylbenzene	ug/l	3	< 3.0					< 3.0
secButylbenzene	ug/l	3	< 3.0					< 3.0
1,3Dichlorobenzene	ug/l	3	< 3.0					< 3.0
pIsopropyltoluene	ug/l	3	< 3.0					< 3.0
1,4Dichlorobenzene	ug/l	3	< 3.0					< 3.0
1,2Dichlorobenzene	ug/l	3	< 3.0					< 3.0
Butylbenzene	ug/l	3	< 3.0					< 3.0
1,2Dibromo3chloropropane	ug/l	3	< 3.0					< 3.0
1,2,4Trichlorobenzene	ug/l	3	< 3.0					< 3.0
Hexachlorobutadiene	ug/l	3	< 3.0					< 3.0
1,2,3Trichlorobenzene	ug/l	3	< 3.0					< 3.0
SVOCs								
Aniline	ug/l	0.05	< 0.05					< 0.05
Phenol	ug/l	0.05	< 0.05					< 0.05
2Chlorophenol	ug/l	0.05	< 0.05					< 0.05
Bis(2chloroethyl)ether	ug/l	0.05	< 0.05					< 0.05
1,3Dichlorobenzene	ug/l	0.05	< 0.05					< 0.05
1,2Dichlorobenzene	ug/l	0.05	< 0.05					< 0.05
1,4Dichlorobenzene	ug/l	0.05	< 0.05					< 0.05
Bis(2chloroisopropyl)ether	ug/l	0.05	< 0.05					< 0.05
2Methylphenol	ug/l	0.05	< 0.05					< 0.05
Hexachloroethane	ug/l	0.05	< 0.05					< 0.05
Nitrobenzene	ug/l	0.05	< 0.05					< 0.05
4Methylphenol	ug/l	0.05	< 0.05					< 0.05
Isophorone	ug/l	0.05	< 0.05					< 0.05
2Nitrophenol	ug/l	0.05	< 0.05					< 0.05
2,4Dimethylphenol	ug/l	0.05	< 0.05					< 0.05
Bis(2chloroethoxy)methane	ug/l	0.05	< 0.05					< 0.05
1,2,4Trichlorobenzene	ug/l	0.05	< 0.05					< 0.05
2,4Dichlorophenol	ug/l	0.05	< 0.05					< 0.05
4Chloroaniline	ug/l	0.05	< 0.05					< 0.05
Hexachlorobutadiene	ug/l	0.05	< 0.05					< 0.05
4Chloro3methylphenol	ug/l	0.05	< 0.05					< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			142829	142829	2503703	2503703	142828	142828
Sample Reference			MW4D	MW4D	MW4S	MW4S	MW4S	MW4S
Date Sampled			24/01/2024	3/12/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Sandstone					
Analytical Parameter (Water Analysis)	Units	Limit of detection						
2,4,6Trichlorophenol	ug/l	0.05	< 0.05					< 0.05
2,4,5Trichlorophenol	ug/l	0.05	< 0.05					< 0.05
2Methylnaphthalene	ug/l	0.05	< 0.05					< 0.05
2Chloronaphthalene	ug/l	0.05	< 0.05					< 0.05
Dimethylphthalate	ug/l	0.05	< 0.05					< 0.05
2,6Dinitrotoluene	ug/l	0.05	< 0.05					< 0.05
2,4Dinitrotoluene	ug/l	0.05	< 0.05					< 0.05
Dibenzofuran	ug/l	0.05	< 0.05					< 0.05
4Chlorophenyl phenyl ether	ug/l	0.05	< 0.05					< 0.05
Diethyl phthalate	ug/l	0.05	< 0.05					< 0.05
4Nitroaniline	ug/l	0.05	< 0.05					< 0.05
Azobenzene	ug/l	0.05	< 0.05					< 0.05
Bromophenyl phenyl ether	ug/l	0.05	< 0.05					< 0.05
Hexachlorobenzene	ug/l	0.05	< 0.05					< 0.05
Carbazole	ug/l	0.05	< 0.05					< 0.05
Dibutyl phthalate	ug/l	0.05	< 0.05					< 0.05
Anthraquinone	ug/l	0.05	< 0.05					< 0.05
Butyl benzyl phthalate	ug/l	0.05	< 0.05					< 0.05
3+4Methylphenol	ug/l	0.1	< 0.10					< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503692	144010	174089					
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5S	
Date Sampled			6/29/2021	11/23/2021	11/15/2022	10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	10.30	7.30	9.90	7.80	7.70	7.50	7.80	7.30
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	8800.00	700.00	5700.00	2700.00	2300.00	780.00	740.00	840.00
Sulphate as SO4	mg/l	0.045	3580.00	89.70	3600.00	1120.00	933.00	158.00	160.00	106.00
Sulphide	µg/l	5						5.80	< 5.0	
Chloride	mg/l	0.15	390.00	32.00	280.00	110.00	97.00	44.00	41.00	33.00
Fluoride	µg/l	50						150.00	140.00	
Ammoniacal Nitrogen as N	µg/l	15	1100.00	0.07	310.00	120.00	72.00	160.00	180.00	33.00
Total Organic Carbon (TOC)	mg/l	0.1	1.57	4.63	2.37	5.62	3.01			2.13
Dissolved Organic Carbon (DOC)	mg/l	0.1						1.58	1.49	
Nitrate as N	mg/l	0.01	43.10	0.12	24.30	3.27	3.25	0.57	0.52	0.33
Nitrite as N	µg/l	1			490.00	280.00	110.00	15.00	20.00	
Alkalinity as CaCO3	mg/l	3	250.00	420.00	180.00	270.00	270.00	290.00	280.00	470.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	45.00	0.10	25.00	3.60	3.40			0.30
Total Suspended Solids (L004B)	mg/l	2					800.00	410.00	450.00	
Speciated PAHs										
Naphthalene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16	0.16	0.16	< 0.16	< 0.16	< 0.16			0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1						49.00	8.60	
Antimony (dissolved)	µg/l	0.4						0.50	0.90	
Arsenic (dissolved)	µg/l	0.15	55.20	0.51	61.20	6.72	8.43	1.50	2.51	0.69

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					2503692			144010	174089	
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5DA	MW5S
Date Sampled			6/29/2021	11/23/2021	11/15/2022	10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06						50.00	54.00	
Cadmium (dissolved)	ug/l	0.02	25.00	0.05	< 0.08	1.60	1.20	0.11	0.10	0.08
Chromium (dissolved)	ug/l	0.2	0.80	4.40	< 0.2	< 0.2	0.70	< 0.2	0.20	5.50
Cobalt (dissolved)	ug/l	0.2						0.90	0.60	
Copper (dissolved)	ug/l	0.5	12.00	3.60	0.60	< 0.5	2.70	0.80	0.90	7.20
Bioavailable Copper (dissolved)	ug/l	0.5	2.03	0.20	0.10	0.03	0.17	0.13	0.20	0.39
Lead (dissolved)	ug/l	0.2	0.20	0.20	< 0.2	< 0.2	0.50	< 0.2	< 0.2	0.30
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.05	0.05	0.12	0.13	0.13	0.07
Manganese (dissolved)	ug/l	0.05	5.30	510.00	1.80	600.00	600.00	530.00	530.00	510.00
Bioavailable Manganese (dissolved)	ug/l	0.05	5.30	73.69	1.80	228.23	188.06	112.79	201.60	73.69
Mercury (dissolved)	ug/l	0.05						< 0.05	< 0.05	
Molybdenum (dissolved)	ug/l	0.05	32000.00	10.00	24000.00	6100.00	4900.00	3100.00	360.00	26.00
Nickel (dissolved)	ug/l	0.5	2.60	2.60	0.90	1.00	1.20	0.90	0.80	2.60
Bioavailable Nickel (dissolved)	ug/l	0.5	2.60	0.63	0.90	0.34	0.38	0.33	0.40	0.63
Selenium (dissolved)	ug/l	0.6						3.40	3.90	
Silicon (dissolved)	ug/l	50						3100.00	7900.00	
Tin (dissolved)	ug/l	0.2						< 0.20	< 0.20	
Titanium (dissolved)	ug/l	1						< 1.0	< 1.0	
Vanadium (dissolved)	ug/l	0.2						6.10	8.70	
Zinc (dissolved)	ug/l	0.5	13.00	11.00	0.70	5.20	4.00	2.60	1.40	17.00
Bioavailable Zinc (dissolved)	ug/l	0.5	5.30	4.93	0.29	2.17	1.70	1.54	0.86	7.46
Boron (dissolved)	ug/l	10	38000.00	82.00	32000.00	3900.00	4500.00	560.00	680.00	180.00
Calcium (dissolved)	mg/l	0.012	320.00	110.00	450.00	150.00	130.00	100.00	94.00	160.00
Chromium (hexavalent)	ug/l	5						< 5.0	< 5.0	
Chromium (III)	ug/l	5						< 5.0	< 5.0	
Iron (dissolved)	mg/l	0.004	0.08	0.01	0.02	0.10	< 0.004	0.02	0.03	0.01
Magnesium (dissolved)	mg/l	0.005	0.49	39.00	13.00	35.00	32.00	41.00	38.00	52.00
Phosphorus (dissolved)	ug/l	20	740.00	3.60					513.00	5.10
Potassium (dissolved)	mg/l	0.025			620.00	170.00	100.00	< 20.0	12.00	
Selenium (dissolved)	ug/l	0.6						12.00		
Sodium (dissolved)	mg/l	0.01	1200.00	26.00	1500.00	490.00	400.00	78.00	76.00	37.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10					< 10			

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503692	144010	174089					
Sample Reference	Units	Limit of detection	WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5DA	MW5S
Date Sampled			6/29/2021	11/23/2021	11/15/2022	10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Total Phenols										
Total Phenols (monohydric)	ug/l	10						< 10		
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	ug/l	1						< 1.0	< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	ug/l	1						< 1.0	< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	ug/l	1						< 1.0	< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	ug/l	10						< 10	< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	ug/l	10						< 10	< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	ug/l	10						< 10	< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	ug/l	10						< 10	< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	ug/l	10						< 10	< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	ug/l	1						< 1.0	< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	ug/l	1						< 1.0	< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	ug/l	1						< 1.0	< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	ug/l	10						< 10	< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	ug/l	10						< 10	< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	ug/l	10						< 10	< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	ug/l	10						< 10	< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	ug/l	10						< 10	< 10	
VOCs										
Chloromethane	ug/l	3						< 3.0	< 3.0	
Chloroethane	ug/l	3						< 3.0	< 3.0	
Bromomethane	ug/l	3						< 3.0	< 3.0	
Vinyl Chloride	ug/l	3						< 3.0	< 3.0	
Trichlorofluoromethane	ug/l	3						< 3.0	< 3.0	
1,1Dichloroethene	ug/l	3						< 3.0	< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	ug/l	3						< 3.0	< 3.0	
Trans 1,2dichloroethylene	ug/l	3						< 3.0	< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/l	3						< 3.0	< 3.0	
1,1Dichloroethane	ug/l	3						< 3.0	< 3.0	
2,2Dichloropropane	ug/l	3						< 3.0	< 3.0	
Chloroform	ug/l	3						< 3.0	< 3.0	
1,1,1Trichloroethane	ug/l	3						< 3.0	< 3.0	
1,2Dichloroethane	ug/l	3						< 3.0	< 3.0	
1,1Dichloropropene	ug/l	3						< 3.0	< 3.0	
Cis1,2dichloroethene	ug/l	3						< 3.0	< 3.0	
Benzene	ug/l	3						< 3.0	< 3.0	
Carbontetrachloride	ug/l	3						< 3.0	< 3.0	
1,2Dichloropropane	ug/l	3						< 3.0	< 3.0	
Trichloroethene	ug/l	3						< 3.0	< 3.0	
Dibromomethane	ug/l	3						< 3.0	< 3.0	
Bromodichloromethane	ug/l	3						< 3.0	< 3.0	
Cis1,3dichloropropene	ug/l	3						< 3.0	< 3.0	
Trans1,3dichloropropene	ug/l	3						< 3.0	< 3.0	
Toluene	ug/l	3						< 3.0	< 3.0	
1,1,2Trichloroethane	ug/l	3						< 3.0	< 3.0	
1,3Dichloropropane	ug/l	3						< 3.0	< 3.0	
Dibromochloromethane	ug/l	3						< 3.0	< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					2503692		144010	174089	
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5S
Date Sampled			6/29/2021	11/23/2021	11/15/2022	10/31/2023	25/01/2024	3/13/2024	4/17/2024
Strata Screened			Drift						
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Tetrachloroethene (PCE)	ug/l	3						< 3.0	< 3.0
1,2Dibromoethane	ug/l	3						< 3.0	< 3.0
Chlorobenzene	ug/l	3						< 3.0	< 3.0
1,1,1,2Tetrachloroethane	ug/l	3						< 3.0	< 3.0
Ethylbenzene	ug/l	3						< 3.0	< 3.0
p & mxylyene	ug/l	3						< 3.0	< 3.0
Styrene	ug/l	3						< 3.0	< 3.0
Bromoform	ug/l	3						< 3.0	< 3.0
oxylyene	ug/l	3						< 3.0	< 3.0
Isopropylbenzene	ug/l	3						< 3.0	< 3.0
1,1,2,2Tetrachloroethane	ug/l	3						< 3.0	< 3.0
Bromobenzene	ug/l	3						< 3.0	< 3.0
nPropylbenzene	ug/l	3						< 3.0	< 3.0
2Chlorotoluene	ug/l	3						< 3.0	< 3.0
4Chlorotoluene	ug/l	3						< 3.0	< 3.0
1,3,5Trimethylbenzene	ug/l	3						< 3.0	< 3.0
tertButylbenzene	ug/l	3						< 3.0	< 3.0
1,2,4Trimethylbenzene	ug/l	3						< 3.0	< 3.0
secButylbenzene	ug/l	3						< 3.0	< 3.0
1,3Dichlorobenzene	ug/l	3						< 3.0	< 3.0
pIsopropyltoluene	ug/l	3						< 3.0	< 3.0
1,4Dichlorobenzene	ug/l	3						< 3.0	< 3.0
1,2Dichlorobenzene	ug/l	3						< 3.0	< 3.0
Butylbenzene	ug/l	3						< 3.0	< 3.0
1,2Dibromo3chloropropane	ug/l	3						< 3.0	< 3.0
1,2,4Trichlorobenzene	ug/l	3						< 3.0	< 3.0
Hexachlorobutadiene	ug/l	3						< 3.0	< 3.0
1,2,3Trichlorobenzene	ug/l	3						< 3.0	< 3.0
SVOCs									
Aniline	ug/l	0.05						< 0.05	< 0.05
Phenol	ug/l	0.05						< 0.05	< 0.05
2Chlorophenol	ug/l	0.05						< 0.05	< 0.05
Bis(2chloroethyl)ether	ug/l	0.05						< 0.05	< 0.05
1,3Dichlorobenzene	ug/l	0.05						< 0.05	0.15
1,2Dichlorobenzene	ug/l	0.05						< 0.05	1.40
1,4Dichlorobenzene	ug/l	0.05						< 0.05	0.12
Bis(2chloroisopropyl)ether	ug/l	0.05						< 0.05	< 0.05
2Methylphenol	ug/l	0.05						< 0.05	< 0.05
Hexachloroethane	ug/l	0.05						< 0.05	< 0.05
Nitrobenzene	ug/l	0.05						< 0.05	< 0.05
4Methylphenol	ug/l	0.05						< 0.05	< 0.05
Isophorone	ug/l	0.05						< 0.05	< 0.05
2Nitrophenol	ug/l	0.05						< 0.05	< 0.05
2,4Dimethylphenol	ug/l	0.05						< 0.05	< 0.05
Bis(2chloroethoxy)methane	ug/l	0.05						< 0.05	< 0.05
1,2,4Trichlorobenzene	ug/l	0.05						< 0.05	< 0.05
2,4Dichlorophenol	ug/l	0.05						< 0.05	< 0.05
4Chloroaniline	ug/l	0.05						< 0.05	< 0.05
Hexachlorobutadiene	ug/l	0.05						< 0.05	< 0.05
4Chloro3methylphenol	ug/l	0.05						< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503692	144010	174089					
Sample Reference			WM5D	WM5D	MW5D	MW5D	MW5DA	MW5DA	MW5S	
Date Sampled			6/29/2021	11/23/2021	11/15/2022	10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021
Strata Screened			Drift							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	ug/l	0.05						< 0.05	< 0.05	
2,4,5Trichlorophenol	ug/l	0.05						< 0.05	< 0.05	
2Methylnaphthalene	ug/l	0.05						< 0.05	< 0.05	
2Chloronaphthalene	ug/l	0.05						< 0.05	< 0.05	
Dimethylphthalate	ug/l	0.05						< 0.05	< 0.05	
2,6Dinitrotoluene	ug/l	0.05						< 0.05	< 0.05	
2,4Dinitrotoluene	ug/l	0.05						< 0.05	< 0.05	
Dibenzofuran	ug/l	0.05						< 0.05	< 0.05	
4Chlorophenyl phenyl ether	ug/l	0.05						< 0.05	< 0.05	
Diethyl phthalate	ug/l	0.05						< 0.05	< 0.05	
4Nitroaniline	ug/l	0.05						< 0.05	< 0.05	
Azobenzene	ug/l	0.05						< 0.05	< 0.05	
Bromophenyl phenyl ether	ug/l	0.05						< 0.05	< 0.05	
Hexachlorobenzene	ug/l	0.05						< 0.05	< 0.05	
Carbazole	ug/l	0.05						< 0.05	< 0.05	
Dibutyl phthalate	ug/l	0.05						< 0.05	< 0.05	
Anthraquinone	ug/l	0.05						< 0.05	< 0.05	
Butyl benzyl phthalate	ug/l	0.05						< 0.05	< 0.05	
3+4Methylphenol	ug/l	0.1						< 0.10	< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704	2503704	144009	174088				
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW5S	MW6D	MW6D	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	11/23/2021
Strata Screened	Sandstone									
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.40	7.10	7.20	7.30	7.30	7.70	8.60	7.40
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	700.00	900.00	950.00	970.00	890.00	830.00	2500.00	700.00
Sulphate as SO4	mg/l	0.045	101.00	102.00	110.00	139.00	131.00	123.00	1900.00	109.00
Sulphide	µg/l	5					< 5.0	< 5.0		
Chloride	mg/l	0.15	32.00	32.00	34.00	34.00	37.00	32.00	90.00	32.00
Fluoride	µg/l	50					56.00	100.00		
Ammoniacal Nitrogen as N	µg/l	15	0.11	99.00	94.00	130.00	99.00	160.00	1000.00	0.09
Total Organic Carbon (TOC)	mg/l	0.1	4.57	4.74	14.10	2.18			1.17	5.11
Dissolved Organic Carbon (DOC)	mg/l	0.1					1.77	1.75		
Nitrate as N	mg/l	0.01	0.16	0.03	0.10	< 0.01	0.08	0.15	1.89	0.01
Nitrite as N	µg/l	1		14.00	8.20	2.00	8.20	14.00		
Alkalinity as CaCO3	mg/l	3	410.00	460.00	450.00	500.00	450.00	450.00	66.00	420.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	0.20	0.05	0.11	< 0.020			2.30	0.30
Total Suspended Solids (L004B)	mg/l	2				250.00	150.00	280.00		
Speciated PAHs										
Naphthalene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Fluorene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Phenanthrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3cd)pyrene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01		
Total PAH										
Total EPA16 PAHs	µg/l	0.16	0.16	< 0.16	< 0.16	< 0.16			0.16	0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1					9.80	13.00		
Antimony (dissolved)	µg/l	0.4					< 0.4	1.40		
Arsenic (dissolved)	µg/l	0.15	0.64	0.46	1.40	1.16	0.39	1.21	3.02	0.80

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater				2503704			144009	174088		
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW5S	MW5S	MW6D	MW6D
Date Sampled			11/23/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	11/23/2021
Strata Screened			Sandstone							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06						47.00	67.00	
Cadmium (dissolved)	ug/l	0.02	0.05	0.03	0.02	0.03	0.02	0.08	3.90	0.05
Chromium (dissolved)	ug/l	0.2	3.80	< 0.2	< 0.2	< 0.2	< 0.2	0.20	35.00	4.80
Cobalt (dissolved)	ug/l	0.2					0.40	2.20		
Copper (dissolved)	ug/l	0.5	6.30	2.30	1.30	2.00	1.60	1.10	8.90	6.30
Bioavailable Copper (dissolved)	ug/l	0.5	0.35	0.13	0.07	0.11	0.22	0.18	1.50	0.35
Lead (dissolved)	ug/l	0.2	0.20	< 0.2	0.20	< 0.2	< 0.2	< 0.2	0.20	0.20
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.05	0.05	0.11	0.11	0.05	0.05
Manganese (dissolved)	ug/l	0.05	500.00	400.00	410.00	550.00	460.00	560.00	54.00	480.00
Bioavailable Manganese (dissolved)	ug/l	0.05	87.68	39.24	48.81	79.47	66.47	175.52	54.00	84.17
Mercury (dissolved)	ug/l	0.05					< 0.05	< 0.05		
Molybdenum (dissolved)	ug/l	0.05	11.00	3.70	35.00	0.51	0.86	7.80	4000.00	11.00
Nickel (dissolved)	ug/l	0.5	3.20	1.90	0.80	1.60	0.60	3.50	5.80	3.10
Bioavailable Nickel (dissolved)	ug/l	0.5	0.82	0.41	0.18	0.39	0.18	1.51	5.80	0.80
Selenium (dissolved)	ug/l	0.6					< 0.6	0.90		
Silicon (dissolved)	ug/l	50					2600.00	6900.00		
Tin (dissolved)	ug/l	0.2					< 0.20	< 0.20		
Titanium (dissolved)	ug/l	1					< 1.0	< 1.0		
Vanadium (dissolved)	ug/l	0.2					< 0.2	0.90		
Zinc (dissolved)	ug/l	0.5	16.00	8.30	10.00	3.20	3.10	3.20	6.70	17.00
Bioavailable Zinc (dissolved)	ug/l	0.5	6.99	3.72	4.45	1.40	1.66	1.77	2.73	7.40
Boron (dissolved)	ug/l	10	77.00	50.00	99.00	41.00	51.00	120.00	12000.00	84.00
Calcium (dissolved)	mg/l	0.012	140.00	180.00	150.00	180.00	180.00	150.00	520.00	150.00
Chromium (hexavalent)	ug/l	5					< 5.0	< 5.0		
Chromium (III)	ug/l	5					< 5.0	< 5.0		
Iron (dissolved)	mg/l	0.004	0.01	0.01	0.01	< 0.004	< 0.004	0.03	0.03	0.02
Magnesium (dissolved)	mg/l	0.005	48.00	57.00	49.00	61.00	59.00	49.00	20.00	49.00
Phosphorus (dissolved)	ug/l	20	4.00						190.00	3.90
Potassium (dissolved)	mg/l	0.025		3.90	4.70	2.90	425.00	595.00		
Selenium (dissolved)	ug/l	0.6					3.50	4.30		
Sodium (dissolved)	mg/l	0.01	26.00	27.00	37.00	190.00	35.00	29.00	350.00	27.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10				< 10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704	144009	174088			
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW6D	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	25/01/2024	6/29/2021	
Strata Screened			Sandstone					11/23/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	ug/l	10				< 10		
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	ug/l	1				< 1.0	< 1.0	
TPH Aliphatic >C6 C8 HS 1D AL	ug/l	1				< 1.0	< 1.0	
TPH Aliphatic >C8 C10 HS 1D AL	ug/l	1				< 1.0	< 1.0	
TPH Aliphatic >C10 C12 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C12 C16 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C16 C21 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C21 C35 EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC5 EC7 HS 1D AR	ug/l	1				< 1.0	< 1.0	
TPH Aromatic >EC7 EC8 HS 1D AR	ug/l	1				< 1.0	< 1.0	
TPH Aromatic >EC8 EC10 HS 1D AR	ug/l	1				< 1.0	< 1.0	
TPH Aromatic >EC10 EC12 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC12 EC16 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC16 EC21 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC21 EC35 EH 1D AR MS	ug/l	10				< 10	< 10	
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	ug/l	10				< 10	< 10	
VOCs								
Chloromethane	ug/l	3				< 3.0	< 3.0	
Chloroethane	ug/l	3				< 3.0	< 3.0	
Bromomethane	ug/l	3				< 3.0	< 3.0	
Vinyl Chloride	ug/l	3				< 3.0	< 3.0	
Trichlorofluoromethane	ug/l	3				< 3.0	< 3.0	
1,1Dichloroethene	ug/l	3				< 3.0	< 3.0	
1,1,2Trichloro1,2,2trifluoroethane	ug/l	3				< 3.0	< 3.0	
Trans 1,2dichloroethylene	ug/l	3				< 3.0	< 3.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/l	3				< 3.0	< 3.0	
1,1Dichloroethane	ug/l	3				< 3.0	< 3.0	
2,2Dichloropropane	ug/l	3				< 3.0	< 3.0	
Chloroform	ug/l	3				< 3.0	< 3.0	
1,1,1Trichloroethane	ug/l	3				< 3.0	< 3.0	
1,2Dichloroethane	ug/l	3				< 3.0	< 3.0	
1,1Dichloropropene	ug/l	3				< 3.0	< 3.0	
Cis1,2dichloroethene	ug/l	3				< 3.0	< 3.0	
Benzene	ug/l	3				< 3.0	< 3.0	
Carbontetrachloride	ug/l	3				< 3.0	< 3.0	
1,2Dichloropropane	ug/l	3				< 3.0	< 3.0	
Trichloroethene	ug/l	3				< 3.0	< 3.0	
Dibromomethane	ug/l	3				< 3.0	< 3.0	
Bromodichloromethane	ug/l	3				< 3.0	< 3.0	
Cis1,3dichloropropene	ug/l	3				< 3.0	< 3.0	
Trans1,3dichloropropene	ug/l	3				< 3.0	< 3.0	
Toluene	ug/l	3				< 3.0	< 3.0	
1,1,2Trichloroethane	ug/l	3				< 3.0	< 3.0	
1,3Dichloropropane	ug/l	3				< 3.0	< 3.0	
Dibromochloromethane	ug/l	3				< 3.0	< 3.0	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704	144009	174088			
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW6D	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	25/01/2024	6/29/2021	
Strata Screened			Sandstone					11/23/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Tetrachloroethene (PCE)	ug/l	3				< 3.0	< 3.0	
1,2Dibromoethane	ug/l	3				< 3.0	< 3.0	
Chlorobenzene	ug/l	3				< 3.0	< 3.0	
1,1,1,2Tetrachloroethane	ug/l	3				< 3.0	< 3.0	
Ethylbenzene	ug/l	3				< 3.0	< 3.0	
p & mxylene	ug/l	3				< 3.0	< 3.0	
Styrene	ug/l	3				< 3.0	< 3.0	
Bromoform	ug/l	3				< 3.0	< 3.0	
oxylene	ug/l	3				< 3.0	< 3.0	
Isopropylbenzene	ug/l	3				< 3.0	< 3.0	
1,1,2,2Tetrachloroethane	ug/l	3				< 3.0	< 3.0	
Bromobenzene	ug/l	3				< 3.0	< 3.0	
nPropylbenzene	ug/l	3				< 3.0	< 3.0	
2Chlorotoluene	ug/l	3				< 3.0	< 3.0	
4Chlorotoluene	ug/l	3				< 3.0	< 3.0	
1,3,5Trimethylbenzene	ug/l	3				< 3.0	< 3.0	
tertButylbenzene	ug/l	3				< 3.0	< 3.0	
1,2,4Trimethylbenzene	ug/l	3				< 3.0	< 3.0	
secButylbenzene	ug/l	3				< 3.0	< 3.0	
1,3Dichlorobenzene	ug/l	3				< 3.0	< 3.0	
pIsopropyltoluene	ug/l	3				< 3.0	< 3.0	
1,4Dichlorobenzene	ug/l	3				< 3.0	< 3.0	
1,2Dichlorobenzene	ug/l	3				< 3.0	< 3.0	
Butylbenzene	ug/l	3				< 3.0	< 3.0	
1,2Dibromo3chloropropane	ug/l	3				< 3.0	< 3.0	
1,2,4Trichlorobenzene	ug/l	3				< 3.0	< 3.0	
Hexachlorobutadiene	ug/l	3				< 3.0	< 3.0	
1,2,3Trichlorobenzene	ug/l	3				< 3.0	< 3.0	
SVOCs								
Aniline	ug/l	0.05				< 0.05	< 0.05	
Phenol	ug/l	0.05				< 0.05	< 0.05	
2Chlorophenol	ug/l	0.05				< 0.05	< 0.05	
Bis(2chloroethyl)ether	ug/l	0.05				< 0.05	< 0.05	
1,3Dichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
1,2Dichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
1,4Dichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
Bis(2chloroisopropyl)ether	ug/l	0.05				< 0.05	< 0.05	
2Methylphenol	ug/l	0.05				< 0.05	< 0.05	
Hexachloroethane	ug/l	0.05				< 0.05	< 0.05	
Nitrobenzene	ug/l	0.05				< 0.05	< 0.05	
4Methylphenol	ug/l	0.05				< 0.05	< 0.05	
Isophorone	ug/l	0.05				< 0.05	< 0.05	
2Nitrophenol	ug/l	0.05				< 0.05	< 0.05	
2,4Dimethylphenol	ug/l	0.05				< 0.05	< 0.05	
Bis(2chloroethoxy)methane	ug/l	0.05				< 0.05	< 0.05	
1,2,4Trichlorobenzene	ug/l	0.05				< 0.05	< 0.05	
2,4Dichlorophenol	ug/l	0.05				< 0.05	< 0.05	
4Chloroaniline	ug/l	0.05				< 0.05	< 0.05	
Hexachlorobutadiene	ug/l	0.05				< 0.05	< 0.05	
4Chloro3methylphenol	ug/l	0.05				< 0.05	< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			2503704	144009	174088			
Sample Reference			MW5S	MW5S	MW5S	MW5S	MW6D	
Date Sampled			11/23/2021	11/15/2022	11/1/2023	25/01/2024	6/29/2021	
Strata Screened			Sandstone					11/23/2021
Analytical Parameter (Water Analysis)	Units	Limit of detection						
2,4,6Trichlorophenol	ug/l	0.05				< 0.05	< 0.05	
2,4,5Trichlorophenol	ug/l	0.05				< 0.05	< 0.05	
2Methylnaphthalene	ug/l	0.05				< 0.05	< 0.05	
2Chloronaphthalene	ug/l	0.05				< 0.05	< 0.05	
Dimethylphthalate	ug/l	0.05				< 0.05	< 0.05	
2,6Dinitrotoluene	ug/l	0.05				< 0.05	< 0.05	
2,4Dinitrotoluene	ug/l	0.05				< 0.05	< 0.05	
Dibenzofuran	ug/l	0.05				< 0.05	< 0.05	
4Chlorophenyl phenyl ether	ug/l	0.05				< 0.05	< 0.05	
Diethyl phthalate	ug/l	0.05				< 0.05	< 0.05	
4Nitroaniline	ug/l	0.05				< 0.05	< 0.05	
Azobenzene	ug/l	0.05				< 0.05	< 0.05	
Bromophenyl phenyl ether	ug/l	0.05				< 0.05	< 0.05	
Hexachlorobenzene	ug/l	0.05				< 0.05	< 0.05	
Carbazole	ug/l	0.05				< 0.05	< 0.05	
Dibutyl phthalate	ug/l	0.05				< 0.05	< 0.05	
Anthraquinone	ug/l	0.05				< 0.05	< 0.05	
Butyl benzyl phthalate	ug/l	0.05				< 0.05	< 0.05	
3+4Methylphenol	ug/l	0.1				< 0.10	< 0.10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			144011	174090	2503693					
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D	MW7D	MW7D	
Date Sampled			10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.50	8.90	8.40	8.50	7.10	7.20	7.30	7.10
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	2400.00	3100.00	3200.00	2800.00	960.00	870.00	720.00	1200.00
Sulphate as SO4	mg/l	0.045	1590.00	1840.00	2350.00	2410.00	111.00	299.00	141.00	284.00
Sulphide	µg/l	5			5.90	< 5.0				
Chloride	mg/l	0.15	33.00	78.00	120.00	110.00	39.00	29.00	36.00	66.00
Fluoride	µg/l	50			340.00	280.00				
Ammoniacal Nitrogen as N	µg/l	15	< 15	290.00	500.00	770.00	53.00	0.11	97.00	210.00
Total Organic Carbon (TOC)	mg/l	0.1	8.39	5.62			10.40	4.99	5.71	2.51
Dissolved Organic Carbon (DOC)	mg/l	0.1			0.89	0.72				
Nitrate as N	mg/l	0.01	4.13	2.74	2.90	2.39	0.63	0.01	0.36	0.41
Nitrite as N	µg/l	1	23.00	280.00	430.00	420.00			7.20	< 1.0
Alkalinity as CaCO3	mg/l	3	90.00	72.00	87.00	66.00	550.00	440.00	410.00	380.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	4.20	3.00			0.60	0.30	0.36	0.41
Total Suspended Solids (L004B)	mg/l	2		930.00	550.00	1300.00				
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01			< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16	< 0.16	< 0.16			18.30	0.16	< 0.16	< 0.16
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1			200.00	78.00				
Antimony (dissolved)	µg/l	0.4			4.00	7.10				
Arsenic (dissolved)	µg/l	0.15	12.40	26.50	30.40	41.40	0.35	0.68	0.71	1.32

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090			2503693	
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D		MW7D	MW7D
Date Sampled			10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06			15.00	45.00				
Cadmium (dissolved)	ug/l	0.02	0.21	0.99	1.20	1.20	0.12	0.02	0.25	< 0.02
Chromium (dissolved)	ug/l	0.2	340.00	170.00	35.00	14.00	5.30	4.40	< 0.2	< 0.2
Cobalt (dissolved)	ug/l	0.2			< 0.2	< 0.2				
Copper (dissolved)	ug/l	0.5	4.00	6.20	< 0.5	< 0.5	8.30	1.70	3.00	0.70
Bioavailable Copper (dissolved)	ug/l	0.5	0.23	1.05	0.42	0.46	0.47	0.09	0.16	0.04
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.20	< 0.2	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.05	0.20	0.20	0.05	0.05	0.05	0.05
Manganese (dissolved)	ug/l	0.05	16.00	41.00	63.00	150.00	1200.00	960.00	570.00	1500.00
Bioavailable Manganese (dissolved)	ug/l	0.05	3.40	41.00	63.00	150.00	117.73	114.30	82.36	147.16
Mercury (dissolved)	ug/l	0.05			< 0.5	0.64				
Molybdenum (dissolved)	ug/l	0.05	850.00	4400.00	4900.00	5600.00	2.20	0.51	160.00	1.20
Nickel (dissolved)	ug/l	0.5	1.50	< 0.5	< 0.5		6.50	3.60	3.90	3.80
Bioavailable Nickel (dissolved)	ug/l	0.5	0.41	0.50	0.50		1.39	0.82	0.94	0.81
Selenium (dissolved)	ug/l	0.6			120.00	140.00				
Silicon (dissolved)	ug/l	50			690.00	1800.00				
Tin (dissolved)	ug/l	0.2			< 0.20	< 0.20				
Titanium (dissolved)	ug/l	1			< 1.0	< 1.0				
Vanadium (dissolved)	ug/l	0.2			220.00	180.00				
Zinc (dissolved)	ug/l	0.5	23.00	1.30	1.10	0.70	5.50	13.00	4.80	1.50
Bioavailable Zinc (dissolved)	ug/l	0.5	9.88	0.53	0.71	0.47	2.48	5.76	2.12	0.67
Boron (dissolved)	ug/l	10	13000.00	15000.00	10000.00	12000.00	180.00	84.00	360.00	65.00
Calcium (dissolved)	mg/l	0.012	580.00	510.00	520.00	570.00	150.00	180.00	140.00	180.00
Chromium (hexavalent)	ug/l	5								
Chromium (III)	ug/l	5								
Iron (dissolved)	mg/l	0.004	0.01	< 0.004	0.01	0.11	0.02	0.01	0.02	0.45
Magnesium (dissolved)	mg/l	0.005	3.60	9.80	18.00	19.00	62.00	84.00	63.00	90.00
Phosphorus (dissolved)	ug/l	20				1.10	4.10	4.20		
Potassium (dissolved)	mg/l	0.025	96.00	160.00	20.60	506.00			7.60	2.50
Selenium (dissolved)	ug/l	0.6			220.00	200.00				
Sodium (dissolved)	mg/l	0.01	95.00	300.00	470.00	530.00	41.00	27.00	50.00	68.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10		< 10						

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			144011	174090	2503693			
Sample Reference			MW6D	MW6D	MW7D		MW7D	
Date Sampled			10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	
Strata Screened			Drift			Drift		
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Total Phenols								
Total Phenols (monohydric)	µg/l	10			< 10			
Petroleum Hydrocarbons								
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1			< 1.0	< 1.0		
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1			< 1.0	< 1.0		
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1			< 1.0	< 1.0		
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10			< 10	< 10		
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10			< 10	< 10		
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10			< 10	< 10		
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10			< 10	< 10		
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10			< 10	< 10		
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1			< 1.0	< 1.0		
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1			< 1.0	< 1.0		
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1			< 1.0	< 1.0		
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10			< 10	< 10		
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10			< 10	< 10		
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10			< 10	< 10		
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10			< 10	< 10		
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10			< 10	< 10		
VOCs								
Chloromethane	µg/l	3			< 3.0	< 3.0		
Chloroethane	µg/l	3			< 3.0	< 3.0		
Bromomethane	µg/l	3			< 3.0	< 3.0		
Vinyl Chloride	µg/l	3			< 3.0	< 3.0		
Trichlorofluoromethane	µg/l	3			< 3.0	< 3.0		
1,1Dichloroethene	µg/l	3			< 3.0	< 3.0		
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3			< 3.0	< 3.0		
Trans 1,2dichloroethylene	µg/l	3			< 3.0	< 3.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3			< 3.0	< 3.0		
1,1Dichloroethane	µg/l	3			< 3.0	< 3.0		
2,2Dichloropropane	µg/l	3			< 3.0	< 3.0		
Chloroform	µg/l	3			< 3.0	< 3.0		
1,1,1Trichloroethane	µg/l	3			< 3.0	< 3.0		
1,2Dichloroethane	µg/l	3			< 3.0	< 3.0		
1,1Dichloropropene	µg/l	3			< 3.0	< 3.0		
Cis1,2dichloroethene	µg/l	3			< 3.0	< 3.0		
Benzene	µg/l	3			< 3.0	< 3.0		
Carbontetrachloride	µg/l	3			< 3.0	< 3.0		
1,2Dichloropropane	µg/l	3			< 3.0	< 3.0		
Trichloroethene	µg/l	3			< 3.0	< 3.0		
Dibromomethane	µg/l	3			< 3.0	< 3.0		
Bromodichloromethane	µg/l	3			< 3.0	< 3.0		
Cis1,3dichloropropene	µg/l	3			< 3.0	< 3.0		
Trans1,3dichloropropene	µg/l	3			< 3.0	< 3.0		
Toluene	µg/l	3			< 3.0	< 3.0		
1,1,2Trichloroethane	µg/l	3			< 3.0	< 3.0		
1,3Dichloropropane	µg/l	3			< 3.0	< 3.0		
Dibromochloromethane	µg/l	3			< 3.0	< 3.0		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090		2503693		
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D	MW7D	MW7D	
Date Sampled			10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Tetrachloroethene (PCE)	ug/l	3			< 3.0	< 3.0				
1,2Dibromoethane	ug/l	3			< 3.0	< 3.0				
Chlorobenzene	ug/l	3			< 3.0	< 3.0				
1,1,1,2Tetrachloroethane	ug/l	3			< 3.0	< 3.0				
Ethylbenzene	ug/l	3			< 3.0	< 3.0				
p & mxylyene	ug/l	3			< 3.0	< 3.0				
Styrene	ug/l	3			< 3.0	< 3.0				
Bromoform	ug/l	3			< 3.0	< 3.0				
oxylyene	ug/l	3			< 3.0	< 3.0				
Isopropylbenzene	ug/l	3			< 3.0	< 3.0				
1,1,2,2Tetrachloroethane	ug/l	3			< 3.0	< 3.0				
Bromobenzene	ug/l	3			< 3.0	< 3.0				
nPropylbenzene	ug/l	3			< 3.0	< 3.0				
2Chlorotoluene	ug/l	3			< 3.0	< 3.0				
4Chlorotoluene	ug/l	3			< 3.0	< 3.0				
1,3,5Trimethylbenzene	ug/l	3			< 3.0	< 3.0				
tertButylbenzene	ug/l	3			< 3.0	< 3.0				
1,2,4Trimethylbenzene	ug/l	3			< 3.0	< 3.0				
secButylbenzene	ug/l	3			< 3.0	< 3.0				
1,3Dichlorobenzene	ug/l	3			< 3.0	< 3.0				
pIsopropyltoluene	ug/l	3			< 3.0	< 3.0				
1,4Dichlorobenzene	ug/l	3			< 3.0	< 3.0				
1,2Dichlorobenzene	ug/l	3			< 3.0	< 3.0				
Butylbenzene	ug/l	3			< 3.0	< 3.0				
1,2Dibromo3chloropropane	ug/l	3			< 3.0	< 3.0				
1,2,4Trichlorobenzene	ug/l	3			< 3.0	< 3.0				
Hexachlorobutadiene	ug/l	3			< 3.0	< 3.0				
1,2,3Trichlorobenzene	ug/l	3			< 3.0	< 3.0				
SVOCs										
Aniline	ug/l	0.05			< 0.05	< 0.05				
Phenol	ug/l	0.05			< 0.05	< 0.05				
2Chlorophenol	ug/l	0.05			< 0.05	< 0.05				
Bis(2chloroethyl)ether	ug/l	0.05			< 0.05	< 0.05				
1,3Dichlorobenzene	ug/l	0.05			< 0.05	< 0.05				
1,2Dichlorobenzene	ug/l	0.05			< 0.05	< 0.05				
1,4Dichlorobenzene	ug/l	0.05			< 0.05	< 0.05				
Bis(2chloroisopropyl)ether	ug/l	0.05			< 0.05	< 0.05				
2Methylphenol	ug/l	0.05			< 0.05	< 0.05				
Hexachloroethane	ug/l	0.05			< 0.05	< 0.05				
Nitrobenzene	ug/l	0.05			< 0.05	< 0.05				
4Methylphenol	ug/l	0.05			< 0.05	< 0.05				
Isophorone	ug/l	0.05			< 0.05	< 0.05				
2Nitrophenol	ug/l	0.05			< 0.05	< 0.05				
2,4Dimethylphenol	ug/l	0.05			< 0.05	< 0.05				
Bis(2chloroethoxy)methane	ug/l	0.05			< 0.05	< 0.05				
1,2,4Trichlorobenzene	ug/l	0.05			< 0.05	< 0.05				
2,4Dichlorophenol	ug/l	0.05			< 0.05	< 0.05				
4Chloroaniline	ug/l	0.05			< 0.05	< 0.05				
Hexachlorobutadiene	ug/l	0.05			< 0.05	< 0.05				
4Chloro3methylphenol	ug/l	0.05			< 0.05	< 0.05				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater					144011	174090			2503693	
Sample Reference			MW6D	MW6D	MW6D	MW6D	MW7D		MW7D	MW7D
Date Sampled			10/31/2023	25/01/2024	3/13/2024	4/17/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Drift				Drift			
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	ug/l	0.05			< 0.05	< 0.05				
2,4,5Trichlorophenol	ug/l	0.05			< 0.05	< 0.05				
2Methylnaphthalene	ug/l	0.05			< 0.05	< 0.05				
2Chloronaphthalene	ug/l	0.05			< 0.05	< 0.05				
Dimethylphthalate	ug/l	0.05			< 0.05	< 0.05				
2,6Dinitrotoluene	ug/l	0.05			< 0.05	< 0.05				
2,4Dinitrotoluene	ug/l	0.05			< 0.05	< 0.05				
Dibenzofuran	ug/l	0.05			< 0.05	< 0.05				
4Chlorophenyl phenyl ether	ug/l	0.05			< 0.05	< 0.05				
Diethyl phthalate	ug/l	0.05			< 0.05	< 0.05				
4Nitroaniline	ug/l	0.05			< 0.05	< 0.05				
Azobenzene	ug/l	0.05			< 0.05	< 0.05				
Bromophenyl phenyl ether	ug/l	0.05			< 0.05	< 0.05				
Hexachlorobenzene	ug/l	0.05			< 0.05	< 0.05				
Carbazole	ug/l	0.05			< 0.05	< 0.05				
Dibutyl phthalate	ug/l	0.05			< 0.05	< 0.05				
Anthraquinone	ug/l	0.05			< 0.05	< 0.05				
Butyl benzyl phthalate	ug/l	0.05			< 0.05	< 0.05				
3+4Methylphenol	ug/l	0.1			< 0.10	< 0.10				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594			2503700			145595	
Sample Reference			MW7DA	MW7DA	MW7S	MW7S	MW7S	MW7S	MW7S	
Date Sampled			25/01/2024	3/14/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023	25/01/2024	
Strata Screened			Sandstone							
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.10	7.40	7.30	7.20	7.10	7.40	7.10	7.40
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	1200.00	1100.00	1200.00	880.00	930.00	1000.00	1300.00	1300.00
Sulphate as SO4	mg/l	0.045	269.00	249.00	355.00	281.00	310.00	206.00	358.00	380.00
Sulphide	µg/l	5		5.30						< 5.0
Chloride	mg/l	0.15	70.00	68.00	31.00	29.00	29.00	20.00	31.00	29.00
Fluoride	µg/l	50		110.00						86.00
Ammoniacal Nitrogen as N	µg/l	15	140.00	170.00	120.00	0.11	110.00	16.00	110.00	81.00
Total Organic Carbon (TOC)	mg/l	0.1	3.45		3.09	8.66	3.89	16.70	3.51	
Dissolved Organic Carbon (DOC)	mg/l	0.1		2.25						2.57
Nitrate as N	mg/l	0.01	< 0.01	0.05	0.28	0.02	0.03	0.73	< 0.01	0.06
Nitrite as N	µg/l	1	< 1.0	6.30			< 1.0	70.00	< 1.0	< 1.0
Alkalinity as CaCO3	mg/l	3	370.00	400.00	520.00	460.00	510.00	430.00	480.00	500.00
Total Oxidised Nitrogen (TON)	mg/l	0.02	< 0.020		0.30	0.30	0.04	0.80	< 0.020	
Total Suspended Solids (L004B)	mg/l	2	280.00	190.00					6.00	< 2.0
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16	< 0.16		0.16	0.16	< 0.16	< 0.16	< 0.16	
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1		1.10						< 1.0
Antimony (dissolved)	µg/l	0.4		0.70						0.50
Arsenic (dissolved)	µg/l	0.15	1.10	0.92	0.45	0.63	3.04	1.14	0.89	0.82

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594	145594	2503700	2503700	2503700	2503700	145595
Sample Reference			MW7DA	MW7DA	MW7S	MW7S	MW7S	MW7S	MW7S
Date Sampled			25/01/2024	3/14/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023	25/01/2024
Strata Screened			Sandstone						
Analytical Parameter (Water Analysis)	Units	Limit of detection							
Barium (dissolved)	ug/l	0.06		42.00					13.00
Cadmium (dissolved)	ug/l	0.02	< 0.02	< 0.02	0.04	0.02	0.02	0.02	< 0.02
Chromium (dissolved)	ug/l	0.2	< 0.2	< 0.2	5.40	5.20	0.80	< 0.2	< 0.2
Cobalt (dissolved)	ug/l	0.2		2.80					0.70
Copper (dissolved)	ug/l	0.5	< 0.5	0.60	8.00	3.90	2.60	3.60	0.90
Bioavailable Copper (dissolved)	ug/l	0.5	0.03	0.06	0.44	0.22	0.15	0.20	0.05
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	0.20	0.20	< 0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.09	0.05	0.05	0.05	0.05	0.05
Manganese (dissolved)	ug/l	0.05	1900.00	1600.00	1100.00	870.00	110.00	250.00	1000.00
Bioavailable Manganese (dissolved)	ug/l	0.05	186.40	280.57	158.94	103.58	10.79	43.84	98.11
Mercury (dissolved)	ug/l	0.05		< 0.05					< 0.05
Molybdenum (dissolved)	ug/l	0.05	3.70	0.57	3.90	0.33	0.24	4.90	0.91
Nickel (dissolved)	ug/l	0.5	3.50	2.80	7.70	3.70	1.90	2.30	0.80
Bioavailable Nickel (dissolved)	ug/l	0.5	0.75	0.87	1.86	0.84	0.41	0.59	0.17
Selenium (dissolved)	ug/l	0.6		< 0.6					< 0.6
Silicon (dissolved)	ug/l	50		2700.00					2100.00
Tin (dissolved)	ug/l	0.2		< 0.20					< 0.20
Titanium (dissolved)	ug/l	1		< 1.0					< 1.0
Vanadium (dissolved)	ug/l	0.2		< 0.2					< 0.2
Zinc (dissolved)	ug/l	0.5	1.50	4.20	7.90	12.00	6.20	14.00	1.50
Bioavailable Zinc (dissolved)	ug/l	0.5	0.67	2.17	3.47	5.32	2.78	6.12	0.67
Boron (dissolved)	ug/l	10	78.00	56.00	200.00	84.00	82.00	130.00	80.00
Calcium (dissolved)	mg/l	0.012	160.00	150.00	200.00	170.00	210.00	140.00	200.00
Chromium (hexavalent)	ug/l	5		< 5.0					< 5.0
Chromium (III)	ug/l	5		< 5.0					< 5.0
Iron (dissolved)	mg/l	0.004	0.03	0.07	0.00	0.01	0.01	0.01	0.01
Magnesium (dissolved)	mg/l	0.005	88.00	80.00	92.00	80.00	96.00	65.00	95.00
Phosphorus (dissolved)	ug/l	20	476.00	6.00	4.30				446.00
Potassium (dissolved)	mg/l	0.025	2.00	2.50			4.60	8.80	4.10
Selenium (dissolved)	ug/l	0.6							
Sodium (dissolved)	mg/l	0.01	60.00	57.00	40.00	27.00	34.00	120.00	33.00
Petroleum Hydrocarbons									
TPH (C10 C40)	ug/l	10	< 10					< 10	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594		2503700		145595
Sample Reference			MW7DA	MW7S	MW7S	MW7S	MW7S
Date Sampled			25/01/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023
Strata Screened			Sandstone				
Analytical Parameter (Water Analysis)	Units	Limit of detection					
Total Phenols							
Total Phenols (monohydric)	µg/l	10	< 10				< 10
Petroleum Hydrocarbons							
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0				< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0				< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0				< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10				< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10				< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10				< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10				< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10				< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0				< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0				< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0				< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10				< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10				< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10				< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10				< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10				< 10
VOCs							
Chloromethane	µg/l	3	< 3.0				< 3.0
Chloroethane	µg/l	3	< 3.0				< 3.0
Bromomethane	µg/l	3	< 3.0				< 3.0
Vinyl Chloride	µg/l	3	< 3.0				< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0				< 3.0
1,1Dichloroethene	µg/l	3	< 3.0				< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0				< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0				< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0				< 3.0
1,1Dichloroethane	µg/l	3	< 3.0				< 3.0
2,2Dichloropropane	µg/l	3	< 3.0				< 3.0
Chloroform	µg/l	3	< 3.0				< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0				< 3.0
1,2Dichloroethane	µg/l	3	< 3.0				< 3.0
1,1Dichloropropene	µg/l	3	< 3.0				< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0				< 3.0
Benzene	µg/l	3	< 3.0				< 3.0
Carbontetrachloride	µg/l	3	< 3.0				< 3.0
1,2Dichloropropane	µg/l	3	< 3.0				< 3.0
Trichloroethene	µg/l	3	< 3.0				< 3.0
Dibromomethane	µg/l	3	< 3.0				< 3.0
Bromodichloromethane	µg/l	3	< 3.0				< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0				< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0				< 3.0
Toluene	µg/l	3	< 3.0				< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0				< 3.0
1,3Dichloropropane	µg/l	3	< 3.0				< 3.0
Dibromochloromethane	µg/l	3	< 3.0				< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594		2503700		145595	
Sample Reference			MW7DA	MW7S	MW7S	MW7S	MW7S	
Date Sampled			25/01/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023	
Strata Screened			Sandstone					25/01/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Tetrachloroethene (PCE)	ug/l	3	< 3.0				< 3.0	
1,2Dibromoethane	ug/l	3	< 3.0				< 3.0	
Chlorobenzene	ug/l	3	< 3.0				< 3.0	
1,1,1,2Tetrachloroethane	ug/l	3	< 3.0				< 3.0	
Ethylbenzene	ug/l	3	< 3.0				< 3.0	
p & mxylyene	ug/l	3	< 3.0				< 3.0	
Styrene	ug/l	3	< 3.0				< 3.0	
Bromoform	ug/l	3	< 3.0				< 3.0	
oxylyene	ug/l	3	< 3.0				< 3.0	
Isopropylbenzene	ug/l	3	< 3.0				< 3.0	
1,1,2,2Tetrachloroethane	ug/l	3	< 3.0				< 3.0	
Bromobenzene	ug/l	3	< 3.0				< 3.0	
nPropylbenzene	ug/l	3	< 3.0				< 3.0	
2Chlorotoluene	ug/l	3	< 3.0				< 3.0	
4Chlorotoluene	ug/l	3	< 3.0				< 3.0	
1,3,5Trimethylbenzene	ug/l	3	< 3.0				< 3.0	
tertButylbenzene	ug/l	3	< 3.0				< 3.0	
1,2,4Trimethylbenzene	ug/l	3	< 3.0				< 3.0	
secButylbenzene	ug/l	3	< 3.0				< 3.0	
1,3Dichlorobenzene	ug/l	3	< 3.0				< 3.0	
pIsopropyltoluene	ug/l	3	< 3.0				< 3.0	
1,4Dichlorobenzene	ug/l	3	< 3.0				< 3.0	
1,2Dichlorobenzene	ug/l	3	< 3.0				< 3.0	
Butylbenzene	ug/l	3	< 3.0				< 3.0	
1,2Dibromo3chloropropane	ug/l	3	< 3.0				< 3.0	
1,2,4Trichlorobenzene	ug/l	3	< 3.0				< 3.0	
Hexachlorobutadiene	ug/l	3	< 3.0				< 3.0	
1,2,3Trichlorobenzene	ug/l	3	< 3.0				< 3.0	
SVOCs								
Aniline	ug/l	0.05	< 0.05				< 0.05	
Phenol	ug/l	0.05	< 0.05				< 0.05	
2Chlorophenol	ug/l	0.05	< 0.05				< 0.05	
Bis(2chloroethyl)ether	ug/l	0.05	< 0.05				< 0.05	
1,3Dichlorobenzene	ug/l	0.05	< 0.05				< 0.05	
1,2Dichlorobenzene	ug/l	0.05	< 0.05				< 0.05	
1,4Dichlorobenzene	ug/l	0.05	< 0.05				< 0.05	
Bis(2chloroisopropyl)ether	ug/l	0.05	< 0.05				< 0.05	
2Methylphenol	ug/l	0.05	< 0.05				< 0.05	
Hexachloroethane	ug/l	0.05	< 0.05				< 0.05	
Nitrobenzene	ug/l	0.05	< 0.05				< 0.05	
4Methylphenol	ug/l	0.05	< 0.05				< 0.05	
Isophorone	ug/l	0.05	< 0.05				< 0.05	
2Nitrophenol	ug/l	0.05	< 0.05				< 0.05	
2,4Dimethylphenol	ug/l	0.05	< 0.05				< 0.05	
Bis(2chloroethoxy)methane	ug/l	0.05	< 0.05				< 0.05	
1,2,4Trichlorobenzene	ug/l	0.05	< 0.05				< 0.05	
2,4Dichlorophenol	ug/l	0.05	< 0.05				< 0.05	
4Chloroaniline	ug/l	0.05	< 0.05				< 0.05	
Hexachlorobutadiene	ug/l	0.05	< 0.05				< 0.05	
4Chloro3methylphenol	ug/l	0.05	< 0.05				< 0.05	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			145594			2503700			145595
Sample Reference			MW7DA	MW7DA	MW7S	MW7S	MW7S	MW7S	MW7S
Date Sampled			25/01/2024	3/14/2024	6/29/2021	11/23/2021	11/15/2022	11/1/2023	25/01/2024
Strata Screened			Sandstone						
Analytical Parameter (Water Analysis)	Units	Limit of detection							
2,4,6Trichlorophenol	ug/l	0.05	< 0.05						< 0.05
2,4,5Trichlorophenol	ug/l	0.05	< 0.05						< 0.05
2Methylnaphthalene	ug/l	0.05	< 0.05						< 0.05
2Chloronaphthalene	ug/l	0.05	< 0.05						< 0.05
Dimethylphthalate	ug/l	0.05	< 0.05						< 0.05
2,6Dinitrotoluene	ug/l	0.05	< 0.05						< 0.05
2,4Dinitrotoluene	ug/l	0.05	< 0.05						< 0.05
Dibenzofuran	ug/l	0.05	< 0.05						< 0.05
4Chlorophenyl phenyl ether	ug/l	0.05	< 0.05						< 0.05
Diethyl phthalate	ug/l	0.05	< 0.05						< 0.05
4Nitroaniline	ug/l	0.05	< 0.05						< 0.05
Azobenzene	ug/l	0.05	< 0.05						< 0.05
Bromophenyl phenyl ether	ug/l	0.05	< 0.05						< 0.05
Hexachlorobenzene	ug/l	0.05	< 0.05						< 0.05
Carbazole	ug/l	0.05	< 0.05						< 0.05
Dibutyl phthalate	ug/l	0.05	< 0.05						< 0.05
Anthraquinone	ug/l	0.05	< 0.05						< 0.05
Butyl benzyl phthalate	ug/l	0.05	< 0.05						< 0.05
3+4Methylphenol	ug/l	0.1	< 0.10						< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171190	171191	171191	171192	171192	174086	
Sample Reference			RBH113	RBH113	RBH116	RBH116	RBH119	RBH119	RBH125	
Date Sampled			27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	
Strata Screened			Drift		Drift		Drift		Drift	
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.10	7.60	7.80	8.20	7.60	8.00	7.60	7.50
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	1800.00	2400.00	5400.00	6100.00	1700.00	1500.00	3100.00	2200.00
Sulphate as SO4	mg/l	0.045	846.00	818.00	2160.00	2630.00	452.00	425.00	2170.00	2260.00
Sulphide	µg/l	5	6.50	< 5.0	6.00	< 5.0	7.90	< 5.0	5.80	11.00
Chloride	mg/l	0.15	120.00	210.00	170.00	170.00	120.00	110.00	16.00	14.00
Fluoride	µg/l	50	180.00	160.00	400.00	350.00	180.00	130.00	240.00	230.00
Ammoniacal Nitrogen as N	µg/l	15	64.00	71.00	130.00	380.00	23.00	130.00	210.00	620.00
Total Organic Carbon (TOC)	mg/l	0.1								
Dissolved Organic Carbon (DOC)	mg/l	0.1	3.29	2.72	14.10	14.00	3.55	3.00	2.27	1.71
Nitrate as N	mg/l	0.01	0.06	0.02	1.75	1.36	0.02	0.06	0.58	0.92
Nitrite as N	µg/l	1	18.00	< 1.0	1200.00	1300.00	23.00	17.00	110.00	44.00
Alkalinity as CaCO3	mg/l	3	300.00	510.00	380.00	370.00	450.00	420.00	610.00	510.00
Total Oxidised Nitrogen (TON)	mg/l	0.02								
Total Suspended Solids (L004B)	mg/l	2	550.00	170.00	220.00	81.00	96.00	120.00	410.00	500.00
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16								
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1	23.00	1.80	9.10	3.00	21.00	< 1.0	48.00	15.00
Antimony (dissolved)	µg/l	0.4	< 0.4	0.60	6.20	6.20	0.40	0.70	6.70	7.80
Arsenic (dissolved)	µg/l	0.15	2.90	2.99	22.70	33.80	9.67	11.90	48.70	33.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171190	171191	171191	171192	171192	174086	
Sample Reference			RBH113	RBH113	RBH116	RBH116	RBH119	RBH119	RBH125	
Date Sampled			27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	
Strata Screened			Drift		Drift		Drift		Drift	
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06	32.00	24.00	32.00	32.00	33.00	29.00	35.00	34.00
Cadmium (dissolved)	ug/l	0.02	< 0.02	< 0.02	1.30	2.50	0.10	0.05	0.20	0.16
Chromium (dissolved)	ug/l	0.2	< 0.2	< 0.2	0.50	0.50	< 0.2	< 0.2	0.30	< 0.2
Cobalt (dissolved)	ug/l	0.2	8.00	6.20	1.40	1.30	4.90	5.00	8.00	6.00
Copper (dissolved)	ug/l	0.5	2.00	1.50	6.90	4.60	4.20	0.50	4.30	2.10
Bioavailable Copper (dissolved)	ug/l	0.5	0.15	0.14	0.19	1.36	0.29	0.06	0.50	0.32
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.20	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.06	0.07	0.01	0.01	0.06	0.07	0.09	0.12
Manganese (dissolved)	ug/l	0.05	3600.00	2500.00	900.00	880.00	2600.00	2200.00	1200.00	1100.00
Bioavailable Manganese (dissolved)	ug/l	0.05	353.18	645.67	342.34	726.11	671.49	1232.51	309.92	234.09
Mercury (dissolved)	ug/l	0.05	< 0.05	< 0.05	0.32	0.54	< 0.05	< 0.05	0.07	0.07
Molybdenum (dissolved)	ug/l	0.05	3.70	1.30	7600.00	8700.00	210.00	200.00	500.00	580.00
Nickel (dissolved)	ug/l	0.5	6.70	6.60	4.20	4.10	3.60	2.90	11.00	8.20
Bioavailable Nickel (dissolved)	ug/l	0.5	1.53	2.28	0.67	0.92	1.13	1.40	4.02	2.97
Selenium (dissolved)	ug/l	0.6	2.60	5.50	210.00	210.00	7.70		63.00	73.00
Silicon (dissolved)	ug/l	50	2500.00	7900.00	1300.00	3600.00	3100.00	8100.00	2400.00	6300.00
Tin (dissolved)	ug/l	0.2	< 0.20	< 0.20	< 0.20	0.34	< 0.20	0.21	< 0.20	< 0.20
Titanium (dissolved)	ug/l	1	< 1.0	< 1.0	1.30	1.20	< 1.0	1.30	< 1.0	< 1.0
Vanadium (dissolved)	ug/l	0.2	< 0.2	< 0.2	49.00	87.00	0.40	< 0.2	24.00	27.00
Zinc (dissolved)	ug/l	0.5	2.40	4.40	14.00	14.00	20.00	4.30	9.50	9.40
Bioavailable Zinc (dissolved)	ug/l	0.5	1.14	2.15	2.65	2.48	8.97	2.01	4.88	5.12
Boron (dissolved)	ug/l	10	1500.00	620.00	7400.00	8700.00	370.00	230.00	13000.00	16000.00
Calcium (dissolved)	mg/l	0.012	180.00	220.00	280.00	260.00	190.00	190.00	640.00	750.00
Chromium (hexavalent)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	0.03	0.01	0.03	< 0.004	0.48	0.11	0.01	0.01
Magnesium (dissolved)	mg/l	0.005	150.00	220.00	60.00	58.00	80.00	81.00	220.00	240.00
Phosphorus (dissolved)	ug/l	20	< 20.0	< 20.0	< 20.0	394.00	< 20.0	29.20	29.30	
Potassium (dissolved)	mg/l	0.025	3.20	1.30	220.00	250.00	9.70	6.20	93.00	501.00
Selenium (dissolved)	ug/l	0.6	2.60		210.00		7.70	< 4.0	63.00	110.00
Sodium (dissolved)	mg/l	0.01	170.00	200.00	890.00	1200.00	140.00	140.00	60.00	65.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10								

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171191	171191	171192	174086
Sample Reference			RBH113	RBH116	RBH116	RBH119	RBH125
Date Sampled			27/03/2024	15/04/2024	15/04/2024	27/03/2024	27/03/2024
Strata Screened			Drift	Drift	Drift	Drift	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection					
Total Phenols							
Total Phenols (monohydric)	µg/l	10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons							
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	40.00	< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	270.00	< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10	< 10	< 10	310.00	< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10
VOCs							
Chloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171191	171191	171192	171192	174086
Sample Reference			RBH113	RBH116	RBH116	RBH119	RBH119	RBH125
Date Sampled			27/03/2024	15/04/2024	27/03/2024	15/04/2024	27/03/2024	27/03/2024
Strata Screened			Drift	Drift	Drift	Drift	Drift	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection						
Tetrachloroethene (PCE)	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromoethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & mxylyene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
oxylyene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
nPropylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2Chlorotoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4Chlorotoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5Trimethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tertButylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trimethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
secButylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
pIsopropyltoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromo3chloropropane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3Trichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs								
Aniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethyl)ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroisopropyl)ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Nitrophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dimethylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethoxy)methane	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4Trichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloroaniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloro3methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171190	171191	171191	171192	174086
Sample Reference			RBH113	RBH116	RBH116	RBH119	RBH125
Date Sampled			27/03/2024	27/03/2024	15/04/2024	27/03/2024	27/03/2024
Strata Screened			Drift	Drift	Drift	Drift	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection					
2,4,6Trichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5Trichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylnaphthalene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chloronaphthalene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6Dinitrotoluene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dinitrotoluene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chlorophenyl phenyl ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Nitroaniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Azobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbazole	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibutyl phthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
3+4Methylphenol	ug/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	4/17/2024	4/17/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift		Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
General Inorganics										
pH (L099)	pH Units	N/A	7.30	6.60	7.50	6.60	7.60	7.40	7.00	8.20
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	960.00	5700.00	2500.00	2000.00	3900.00	2500.00	900.00	2500.00
Sulphate as SO4	mg/l	0.045	182.00	2950.00	1620.00	798.00	2370.00	1940.00	248.00	1190.00
Sulphide	µg/l	5	6.90	6.80	14.00	7.10	< 5.0	5.10	22.00	7.70
Chloride	mg/l	0.15	49.00	260.00	52.00	180.00	26.00	25.00	53.00	70.00
Fluoride	µg/l	50	110.00	280.00	300.00	230.00	380.00	270.00	120.00	1100.00
Ammoniacal Nitrogen as N	µg/l	15	240.00	2500.00	120.00	850.00	2300.00	1500.00	270.00	4500.00
Total Organic Carbon (TOC)	mg/l	0.1								
Dissolved Organic Carbon (DOC)	mg/l	0.1	2.62	5.96	3.19	11.60	5.37	2.81	1.98	7.76
Nitrate as N	mg/l	0.01	0.05	0.02	0.02	0.05	0.05	0.28	0.08	0.05
Nitrite as N	µg/l	1	16.00	16.00	1.60	4.50	4.90	5.30	< 1.0	8.60
Alkalinity as CaCO3	mg/l	3	320.00	190.00	210.00	160.00	970.00	990.00	320.00	240.00
Total Oxidised Nitrogen (TON)	mg/l	0.02								
Total Suspended Solids (L004B)	mg/l	2	140.00	450.00	300.00	130.00	360.00	710.00	140.00	380.00
Speciated PAHs										
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	2.60
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	1.10
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.75
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.23
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.25
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.17
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH										
Total EPA16 PAHs	µg/l	0.16								
Heavy Metals / Metalloids										
Aluminium (dissolved)	µg/l	1	14.00	3.20	18.00	2.30	4.40	13.00	3.70	64.00
Antimony (dissolved)	µg/l	0.4	< 0.4	1.30	2.70	< 0.4	0.90	11.00	0.50	0.80
Arsenic (dissolved)	µg/l	0.15	0.90	1.58	134.00	0.80	86.10	39.20	2.18	399.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	RBH132	RBH138	RBH141
Date Sampled			Drift	Drift	PFA	Drift	Drift	4/17/2024	4/17/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Barium (dissolved)	ug/l	0.06	59.00	24.00	34.00	140.00	43.00	56.00	25.00	27.00
Cadmium (dissolved)	ug/l	0.02	< 0.02	0.72	0.12	0.04	0.27	0.67	< 0.02	0.13
Chromium (dissolved)	ug/l	0.2	< 0.2	0.40	< 0.2	0.30	< 0.2	< 0.2	< 0.2	0.40
Cobalt (dissolved)	ug/l	0.2	4.50	6.70	0.40	12.00	4.60	11.00	4.40	0.30
Copper (dissolved)	ug/l	0.5	2.40	1.80	0.90	2.50	2.60	1.10	1.10	3.40
Bioavailable Copper (dissolved)	ug/l	0.5	0.22	0.10	0.07	0.09	0.11	0.09	0.15	0.17
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.90
Bioavailable Lead (dissolved)	ug/l	0.2	0.08	0.03	0.06	0.02	0.04	0.07	0.10	0.12
Manganese (dissolved)	ug/l	0.05	1400.00	2900.00	610.00	970.00	2600.00	1900.00	3500.00	210.00
Bioavailable Manganese (dissolved)	ug/l	0.05	202.29	108.07	129.81	36.15	671.49	333.17	282.93	173.28
Mercury (dissolved)	ug/l	0.05	< 0.05	< 0.05	0.14	< 0.05	0.09	0.07	< 0.05	0.14
Molybdenum (dissolved)	ug/l	0.05	28.00	2000.00	420.00	130.00	700.00	1900.00	8.20	89.00
Nickel (dissolved)	ug/l	0.5	3.30	4.60	2.30	6.10	3.70	12.00	2.70	1.30
Bioavailable Nickel (dissolved)	ug/l	0.5	0.92	0.69	0.70	0.72	0.96	3.52	0.65	0.46
Selenium (dissolved)	ug/l	0.6	1.50		5.90		2.20	9.10	1.00	5.30
Silicon (dissolved)	ug/l	50	3000.00	2300.00	1800.00	2700.00	3000.00	8100.00	9100.00	2000.00
Tin (dissolved)	ug/l	0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.28
Titanium (dissolved)	ug/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (dissolved)	ug/l	0.2	< 0.2	0.30	6.60	< 0.2	1.40	3.60	0.20	2.40
Zinc (dissolved)	ug/l	0.5	17.00	10.00	3.60	4.30	9.00	7.50	3.50	12.00
Bioavailable Zinc (dissolved)	ug/l	0.5	8.68	4.46	1.68	1.61	3.40	3.65	1.87	3.35
Boron (dissolved)	ug/l	10	130.00	5900.00	7000.00	850.00	17000.00	10000.00	95.00	14000.00
Calcium (dissolved)	mg/l	0.012	120.00	370.00	620.00	210.00	600.00	760.00	130.00	100.00
Chromium (hexavalent)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	0.05	0.03	0.03	0.09	0.70	0.20	0.13	0.03
Magnesium (dissolved)	mg/l	0.005	52.00	110.00	78.00	68.00	490.00	530.00	64.00	90.00
Phosphorus (dissolved)	ug/l	20	< 20.0	< 20.0	29.20	< 20.0	95.90			176.00
Potassium (dissolved)	mg/l	0.025	5.00	220.00	79.00	22.00	120.00	499.00	494.00	240.00
Selenium (dissolved)	ug/l	0.6	1.50		5.90		2.20	120.00	3.90	5.30
Sodium (dissolved)	mg/l	0.01	58.00	1100.00	120.00	190.00	70.00	69.00	64.00	230.00
Petroleum Hydrocarbons										
TPH (C10 C40)	ug/l	10								

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	4/17/2024	4/17/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Total Phenols										
Total Phenols (monohydric)	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons										
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	34.00	< 10	< 10	< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	17.00	< 10	< 10	< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	300.00	2200.00	< 10	< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	< 10	< 10	< 10	< 10	350.00	2200.00	< 10	< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	22.00
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	60.00
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	82.00
VOCs										
Chloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1Dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichloropropane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	4/17/2024	4/17/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift		Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
Tetrachloroethene (PCE)	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromoethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & mxylyene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
oxylyene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
nPropylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2Chlorotoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4Chlorotoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5Trimethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tertButylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trimethylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
secButylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
pIsopropyltoluene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2Dibromo3chloropropane	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4Trichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3Trichlorobenzene	ug/l	3	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs										
Aniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethyl)ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroisopropyl)ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Nitrophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dimethylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2chloroethoxy)methane	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4Trichlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloroaniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Chloro3methylphenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	174087	174091	
Sample Reference			RBH126	RBH129	RBH131(S)	RBH131(D)	RBH132	RBH132	RBH138	RBH141
Date Sampled			27/03/2024	27/03/2024	27/03/2024	27/03/2024	27/03/2024	4/17/2024	4/17/2024	27/03/2024
Strata Screened			Drift	Drift	PFA	Drift	Drift	Drift	Drift	PFA
Analytical Parameter (Water Analysis)	Units	Limit of detection								
2,4,6Trichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5Trichlorophenol	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Methylnaphthalene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2Chloronaphthalene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6Dinitrotoluene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4Dinitrotoluene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.73
4Chlorophenyl phenyl ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4Nitroaniline	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Azobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbazole	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.31
Dibutyl phthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	ug/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
3+4Methylphenol	ug/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
General Inorganics				
pH (L099)	pH Units	N/A	8.30	8.80
Electrical Conductivity at 20 °C (L031B)	µS/cm	10	2700.00	12000.00
Sulphate as SO4	mg/l	0.045	1170.00	6930.00
Sulphide	µg/l	5	5.40	6.20
Chloride	mg/l	0.15	67.00	480.00
Fluoride	µg/l	50	1200.00	960.00
Ammoniacal Nitrogen as N	µg/l	15	4900.00	3700.00
Total Organic Carbon (TOC)	mg/l	0.1		
Dissolved Organic Carbon (DOC)	mg/l	0.1	4.42	3.10
Nitrate as N	mg/l	0.01	0.06	0.02
Nitrite as N	µg/l	1	< 1.0	12.00
Alkalinity as CaCO3	mg/l	3	240.00	200.00
Total Oxidised Nitrogen (TON)	mg/l	0.02		
Total Suspended Solids (L004B)	mg/l	2	810.00	180.00
Speciated PAHs				
Naphthalene	µg/l	0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	3.90	< 0.01
Fluorene	µg/l	0.01	1.60	< 0.01
Phenanthrene	µg/l	0.01	0.71	< 0.01
Anthracene	µg/l	0.01	0.20	< 0.01
Fluoranthene	µg/l	0.01	0.33	< 0.01
Pyrene	µg/l	0.01	0.25	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01
Indeno(1,2,3cd)pyrene	µg/l	0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01
Total PAH				
Total EPA16 PAHs	µg/l	0.16		
Heavy Metals / Metalloids				
Aluminium (dissolved)	µg/l	1	14.00	160.00
Antimony (dissolved)	µg/l	0.4	2.70	17.00
Arsenic (dissolved)	µg/l	0.15	349.00	28.00

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
Barium (dissolved)	ug/l	0.06	24.00	24.00
Cadmium (dissolved)	ug/l	0.02	0.03	4.30
Chromium (dissolved)	ug/l	0.2	< 0.2	< 0.2
Cobalt (dissolved)	ug/l	0.2	0.20	0.30
Copper (dissolved)	ug/l	0.5	< 0.5	5.20
Bioavailable Copper (dissolved)	ug/l	0.5	0.06	1.33
Lead (dissolved)	ug/l	0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	ug/l	0.2	0.05	0.06
Manganese (dissolved)	ug/l	0.05	130.00	220.00
Bioavailable Manganese (dissolved)	ug/l	0.05	130.00	220.00
Mercury (dissolved)	ug/l	0.05	0.17	3.16
Molybdenum (dissolved)	ug/l	0.05	130.00	27000.00
Nickel (dissolved)	ug/l	0.5	2.10	2.00
Bioavailable Nickel (dissolved)	ug/l	0.5	1.23	2.00
Selenium (dissolved)	ug/l	0.6		
Silicon (dissolved)	ug/l	50	4800.00	660.00
Tin (dissolved)	ug/l	0.2	0.31	< 0.20
Titanium (dissolved)	ug/l	1	1.20	< 1.0
Vanadium (dissolved)	ug/l	0.2	7.90	65.00
Zinc (dissolved)	ug/l	0.5	1.20	9.20
Bioavailable Zinc (dissolved)	ug/l	0.5	0.48	4.25
Boron (dissolved)	ug/l	10	16000.00	20000.00
Calcium (dissolved)	mg/l	0.012	110.00	380.00
Chromium (hexavalent)	ug/l	5	< 5.0	< 5.0
Chromium (III)	ug/l	5	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.004	< 0.004	0.03
Magnesium (dissolved)	mg/l	0.005	95.00	63.00
Phosphorus (dissolved)	ug/l	20	496.00	< 20.0
Potassium (dissolved)	mg/l	0.025	280.00	930.00
Selenium (dissolved)	ug/l	0.6	< 4.0	
Sodium (dissolved)	mg/l	0.01	290.00	2000.00
Petroleum Hydrocarbons				
TPH (C10 C40)	ug/l	10		

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
Total Phenols				
Total Phenols (monohydric)	µg/l	10	< 10	< 10
Petroleum Hydrocarbons				
TPH Aliphatic >C5 C6 HS 1D AL	µg/l	1	< 1.0	< 1.0
TPH Aliphatic >C6 C8 HS 1D AL	µg/l	1	< 1.0	< 1.0
TPH Aliphatic >C8 C10 HS 1D AL	µg/l	1	< 1.0	< 1.0
TPH Aliphatic >C10 C12 EH 1D AL MS	µg/l	10	22.00	< 10
TPH Aliphatic >C12 C16 EH 1D AL MS	µg/l	10	24.00	< 10
TPH Aliphatic >C16 C21 EH 1D AL MS	µg/l	10	43.00	< 10
TPH Aliphatic >C21 C35 EH 1D AL MS	µg/l	10	50.00	< 10
TPH Aliphatic >C5 C35 HS+EH 1D AL MS	µg/l	10	140.00	< 10
TPH Aromatic >EC5 EC7 HS 1D AR	µg/l	1	< 1.0	< 1.0
TPH Aromatic >EC7 EC8 HS 1D AR	µg/l	1	< 1.0	< 1.0
TPH Aromatic >EC8 EC10 HS 1D AR	µg/l	1	< 1.0	< 1.0
TPH Aromatic >EC10 EC12 EH 1D AR MS	µg/l	10	10.00	< 10
TPH Aromatic >EC12 EC16 EH 1D AR MS	µg/l	10	40.00	< 10
TPH Aromatic >EC16 EC21 EH 1D AR MS	µg/l	10	24.00	< 10
TPH Aromatic >EC21 EC35 EH 1D AR MS	µg/l	10	< 10	< 10
TPH Aromatic >EC5 EC35 HS+EH 1D AR MS	µg/l	10	74.00	< 10
VOCs				
Chloromethane	µg/l	3	< 3.0	< 3.0
Chloroethane	µg/l	3	< 3.0	< 3.0
Bromomethane	µg/l	3	< 3.0	< 3.0
Vinyl Chloride	µg/l	3	< 3.0	< 3.0
Trichlorofluoromethane	µg/l	3	< 3.0	< 3.0
1,1Dichloroethene	µg/l	3	< 3.0	< 3.0
1,1,2Trichloro1,2,2trifluoroethane	µg/l	3	< 3.0	< 3.0
Trans 1,2dichloroethylene	µg/l	3	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	< 3.0	< 3.0
1,1Dichloroethane	µg/l	3	< 3.0	< 3.0
2,2Dichloropropane	µg/l	3	< 3.0	< 3.0
Chloroform	µg/l	3	< 3.0	< 3.0
1,1,1Trichloroethane	µg/l	3	< 3.0	< 3.0
1,2Dichloroethane	µg/l	3	< 3.0	< 3.0
1,1Dichloropropene	µg/l	3	< 3.0	< 3.0
Cis1,2dichloroethene	µg/l	3	< 3.0	< 3.0
Benzene	µg/l	3	< 3.0	< 3.0
Carbontetrachloride	µg/l	3	< 3.0	< 3.0
1,2Dichloropropane	µg/l	3	< 3.0	< 3.0
Trichloroethene	µg/l	3	< 3.0	< 3.0
Dibromomethane	µg/l	3	< 3.0	< 3.0
Bromodichloromethane	µg/l	3	< 3.0	< 3.0
Cis1,3dichloropropene	µg/l	3	< 3.0	< 3.0
Trans1,3dichloropropene	µg/l	3	< 3.0	< 3.0
Toluene	µg/l	3	< 3.0	< 3.0
1,1,2Trichloroethane	µg/l	3	< 3.0	< 3.0
1,3Dichloropropane	µg/l	3	< 3.0	< 3.0
Dibromochloromethane	µg/l	3	< 3.0	< 3.0

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
Tetrachloroethene (PCE)	ug/l	3	< 3.0	< 3.0
1,2Dibromoethane	ug/l	3	< 3.0	< 3.0
Chlorobenzene	ug/l	3	< 3.0	< 3.0
1,1,1,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0
Ethylbenzene	ug/l	3	< 3.0	< 3.0
p & mxylyene	ug/l	3	< 3.0	< 3.0
Styrene	ug/l	3	< 3.0	< 3.0
Bromoform	ug/l	3	< 3.0	< 3.0
oxylyene	ug/l	3	< 3.0	< 3.0
Isopropylbenzene	ug/l	3	< 3.0	< 3.0
1,1,2,2Tetrachloroethane	ug/l	3	< 3.0	< 3.0
Bromobenzene	ug/l	3	< 3.0	< 3.0
nPropylbenzene	ug/l	3	< 3.0	< 3.0
2Chlorotoluene	ug/l	3	< 3.0	< 3.0
4Chlorotoluene	ug/l	3	< 3.0	< 3.0
1,3,5Trimethylbenzene	ug/l	3	< 3.0	< 3.0
tertButylbenzene	ug/l	3	< 3.0	< 3.0
1,2,4Trimethylbenzene	ug/l	3	< 3.0	< 3.0
secButylbenzene	ug/l	3	< 3.0	< 3.0
1,3Dichlorobenzene	ug/l	3	< 3.0	< 3.0
pIsopropyltoluene	ug/l	3	< 3.0	< 3.0
1,4Dichlorobenzene	ug/l	3	< 3.0	< 3.0
1,2Dichlorobenzene	ug/l	3	< 3.0	< 3.0
Butylbenzene	ug/l	3	< 3.0	< 3.0
1,2Dibromo3chloropropane	ug/l	3	< 3.0	< 3.0
1,2,4Trichlorobenzene	ug/l	3	< 3.0	< 3.0
Hexachlorobutadiene	ug/l	3	< 3.0	< 3.0
1,2,3Trichlorobenzene	ug/l	3	< 3.0	< 3.0
SVOCs				
Aniline	ug/l	0.05	< 0.05	< 0.05
Phenol	ug/l	0.05	< 0.05	< 0.05
2Chlorophenol	ug/l	0.05	< 0.05	< 0.05
Bis(2chloroethyl)ether	ug/l	0.05	< 0.05	< 0.05
1,3Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05
1,2Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05
1,4Dichlorobenzene	ug/l	0.05	< 0.05	< 0.05
Bis(2chloroisopropyl)ether	ug/l	0.05	< 0.05	< 0.05
2Methylphenol	ug/l	0.05	< 0.05	< 0.05
Hexachloroethane	ug/l	0.05	< 0.05	< 0.05
Nitrobenzene	ug/l	0.05	< 0.05	< 0.05
4Methylphenol	ug/l	0.05	< 0.05	< 0.05
Isophorone	ug/l	0.05	< 0.05	< 0.05
2Nitrophenol	ug/l	0.05	< 0.05	< 0.05
2,4Dimethylphenol	ug/l	0.05	0.27	< 0.05
Bis(2chloroethoxy)methane	ug/l	0.05	< 0.05	< 0.05
1,2,4Trichlorobenzene	ug/l	0.05	< 0.05	< 0.05
2,4Dichlorophenol	ug/l	0.05	< 0.05	< 0.05
4Chloroaniline	ug/l	0.05	< 0.05	< 0.05
Hexachlorobutadiene	ug/l	0.05	< 0.05	< 0.05
4Chloro3methylphenol	ug/l	0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Ene

Risk to Groundwater Receptors from Groundwater			171193	
Sample Reference			RBH141	RBH145
Date Sampled			15/04/2024	27/03/2024
Strata Screened			/MG	Drift
Analytical Parameter (Water Analysis)	Units	Limit of detection		
2,4,6Trichlorophenol	ug/l	0.05	< 0.05	< 0.05
2,4,5Trichlorophenol	ug/l	0.05	< 0.05	< 0.05
2Methylnaphthalene	ug/l	0.05	< 0.05	< 0.05
2Chloronaphthalene	ug/l	0.05	< 0.05	< 0.05
Dimethylphthalate	ug/l	0.05	< 0.05	< 0.05
2,6Dinitrotoluene	ug/l	0.05	< 0.05	< 0.05
2,4Dinitrotoluene	ug/l	0.05	< 0.05	< 0.05
Dibenzofuran	ug/l	0.05	0.91	< 0.05
4Chlorophenyl phenyl ether	ug/l	0.05	< 0.05	< 0.05
Diethyl phthalate	ug/l	0.05	< 0.05	< 0.05
4Nitroaniline	ug/l	0.05	< 0.05	< 0.05
Azobenzene	ug/l	0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	ug/l	0.05	< 0.05	< 0.05
Hexachlorobenzene	ug/l	0.05	< 0.05	< 0.05
Carbazole	ug/l	0.05	0.26	< 0.05
Dibutyl phthalate	ug/l	0.05	< 0.05	< 0.05
Anthraquinone	ug/l	0.05	0.22	< 0.05
Butyl benzyl phthalate	ug/l	0.05	< 0.05	< 0.05
3+4Methylphenol	ug/l	0.1	< 0.10	< 0.10

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699	DP1	DP1
									DP1	DP1	DP1	DP1
									5/26/2021	11/15/2022	10/31/2023	1/25/2024
General Inorganics												
pH (L099)	pH Units	N/A	≥6 & ≤9	≥6,≤9		7.40	8.20		7.70	7.60	7.40	7.70
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00				400.00	3600.00					
Sulphate as SO4	mg/l	0.05	400.00		400.00	43.30	1890.00	20				
Sulphide						5.10	12.00					
Chloride	mg/l	0.15	250.00		250.00	19.00	180.00	0				
Fluoride						260.00	540.00					
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]		600.00	17.00	850.00	3				
Ammoniacal Nitrogen as NH3	µg/l	15.00				20.00	730.00					
Total Organic Carbon (TOC)	mg/l	0.10										
Dissolved Organic Carbon (DOC)						4.96	21.60					
Nitrate as N	mg/l	0.01				0.02	12.00					
Nitrite as N	µg/l	1.00				1.10	260.00					
Alkalinity as CaCO3	mg/l	3.00				170.00	400.00					
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00		50.00	50.00	2.00	490.00	17	55.00	300.00	10.00	490.00
Speciated PAHs												
Naphthalene	µg/l	0.01	2.00		2.00	<MRL	<MRL	0				
Acenaphthylene	µg/l	0.01				<MRL	<MRL					
Acenaphthene	µg/l	0.01				<MRL	<MRL					
Fluorene	µg/l	0.01				<MRL	<MRL					
Phenanthrene	µg/l	0.01				<MRL	<MRL					
Anthracene	µg/l	0.01	0.10		0.10	<MRL	<MRL	0				
Fluoranthene	µg/l	0.01	0.01		0.01	<MRL	<MRL	0				
Pyrene	µg/l	0.01				<MRL	<MRL					
Benzo(a)anthracene	µg/l	0.01				<MRL	<MRL					
Chrysene	µg/l	0.01				<MRL	<MRL					
Benzo(b)fluoranthene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Benzo(k)fluoranthene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Benzo(a)pyrene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Dibenz(a,h)anthracene	µg/l	0.01				<MRL	<MRL					
Benzo(ghi)perylene	µg/l	0.01	0.00		0.00	<MRL	<MRL	0				
Total PAH												
Total EPA-16 PAHs	µg/l	0.16				<MRL	<MRL					
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00				1.10	19.00					
Antimony (dissolved)	µg/l	0.40				0.60	5.00					
Arsenic (dissolved)	µg/l	0.15	50.00		50.00	0.45	20.00	0				
Barium (dissolved)	µg/l	0.06				14.00	56.00					
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 5)		0.25	<MRL	0.61	4				
Chromium (dissolved)	µg/l	0.20	4.7(CrIII)		4.70	0.30	1.80	0				
Cobalt (dissolved)	µg/l	0.20				0.20	0.80					
Copper (dissolved)	µg/l	0.50				1.00	11.00					
Bioavailable Copper (dissolved)	µg/l	0.50	1 (bioavailable)		1.00	0.03	1.16	1				
Lead (dissolved)	µg/l	0.20				<MRL	0.30					
Bioavailable Lead (dissolved)	µg/l	0.20	1.2 (bioavailable)		1.20	<MRL	0.02	0				
Manganese (dissolved)	µg/l	0.05				0.69	1500.00					
Bioavailable Manganese (dissolved)	µg/l	0.05	123 (bioavailable)		123.00	1.80	673.10	15				

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

1887410	2503699		
DP1	DP1	DP1	DP1
5/26/2021	11/15/2022	10/31/2023	1/25/2024

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances				
Mercury (dissolved)	µg/l	0.05	0.07 (Inland Surface MAC)		0.07	<MRL	0.21	3				
Molybdenum (dissolved)	µg/l	0.05				0.48	2800.00					
Nickel (dissolved)	µg/l	0.50				1.10	17.00					
Bioavailable Nickel (dissolved)	µg/l	0.50	4 (bioavailable)		4.00	0.22	5.88	1				
Selenium (dissolved)	µg/l	0.60				0.60	30.00					
Silicon (dissolved)	µg/l	50.00				1300.00	9300.00					
Tin (dissolved)	µg/l	0.20	25.00		25.00	<MRL	<MRL	0				
Titanium (dissolved)	µg/l	1.00				<MRL	<MRL					
Vanadium (dissolved)	µg/l	0.20	20.00		20.00	0.20	21.00	1				
Zinc (dissolved)	µg/l	0.50				1.70	14.00					
Bioavailable Zinc (dissolved)	µg/l	0.50	10.9 (bioavailable)		10.90	0.32	4.59	0				
Boron (dissolved)	µg/l	10.00	2000.00		2000.00	28.00	14000.00	17				
Calcium (dissolved)	mg/l	0.01				63.00	350.00					
Chromium (hexavalent)	µg/l	5.00	3.40		3.40	<MRL	<MRL	0				
Chromium (III)	µg/l	5.00	4.70		4.70	<MRL	<MRL	0				
Iron (dissolved)	mg/l	0.00	1.00		1.00	<MRL	0.62	0				
Magnesium (dissolved)	mg/l	0.01				8.90	85.00					
Phosphorus (dissolved)	µg/l	20.00				40.30	939.00					
Potassium (dissolved)	mg/l	0.03				2.30	230.00					
Selenium (dissolved)	µg/l	0.60				<MRL	<MRL					
Sodium (dissolved)	mg/l	0.01				21.00	530.00					
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00		10000.00	10000.00	<MRL	<MRL	0	< 10	< 10	< 10	< 10
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	7.70		7.70	<MRL	14.00	1				
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00				<MRL	<MRL					
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00				<MRL	<MRL					
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00				<MRL	<MRL					
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00				<MRL	<MRL					
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00				<MRL	<MRL					
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00				<MRL	<MRL					
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00				<MRL	<MRL					
VOCs												
Chloromethane	µg/l	3.00				<MRL	<MRL					
Chloroethane	µg/l	3.00				<MRL	<MRL					
Bromomethane	µg/l	3.00				<MRL	<MRL					
Vinyl Chloride	µg/l	3.00				<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699	DP1	DP1
									DP1	DP1	DP1	DP1
									5/26/2021	11/15/2022	10/31/2023	1/25/2024
Trichlorofluoromethane	µg/l	3.00				<MRL	<MRL					
1,1-Dichloroethene	µg/l	3.00				<MRL	<MRL					
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00				<MRL	<MRL					
Trans 1,2-dichloroethylene	µg/l	3.00				<MRL	<MRL					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00				<MRL	<MRL					
1,1-Dichloroethane	µg/l	3.00				<MRL	<MRL					
2,2-Dichloropropane	µg/l	3.00				<MRL	<MRL					
Chloroform	µg/l	3.00				<MRL	<MRL					
1,1,1-Trichloroethane	µg/l	3.00				<MRL	<MRL					
1,2-Dichloroethane	µg/l	3.00				<MRL	<MRL					
1,1-Dichloropropene	µg/l	3.00				<MRL	<MRL					
Cis-1,2-dichloroethene	µg/l	3.00				<MRL	<MRL					
Benzene	µg/l	3.00				<MRL	<MRL					
Carbontetrachloride	µg/l	3.00				<MRL	<MRL					
1,2-Dichloropropane	µg/l	3.00				<MRL	<MRL					
Trichloroethene	µg/l	3.00				<MRL	<MRL					
Dibromomethane	µg/l	3.00				<MRL	<MRL					
Bromodichloromethane	µg/l	3.00				<MRL	<MRL					
Cis-1,3-dichloropropene	µg/l	3.00				<MRL	<MRL					
Trans-1,3-dichloropropene	µg/l	3.00				<MRL	<MRL					
Toluene	µg/l	3.00				<MRL	<MRL					
1,1,2-Trichloroethane	µg/l	3.00				<MRL	<MRL					
1,3-Dichloropropane	µg/l	3.00				<MRL	<MRL					
Dibromochloromethane	µg/l	3.00				<MRL	<MRL					
Tetrachloroethene	µg/l	3.00				<MRL	<MRL					
1,2-Dibromoethane	µg/l	3.00				<MRL	<MRL					
Chlorobenzene	µg/l	3.00				<MRL	<MRL					
1,1,1,2-Tetrachloroethane	µg/l	3.00				<MRL	<MRL					
Ethylbenzene	µg/l	3.00				<MRL	<MRL					
p & m-xylene	µg/l	3.00				<MRL	<MRL					
Styrene	µg/l	3.00				<MRL	<MRL					
Bromoform	µg/l	3.00				<MRL	<MRL					
o-xylene	µg/l	3.00				<MRL	<MRL					
Isopropylbenzene	µg/l	3.00				<MRL	<MRL					
1,1,2,2-Tetrachloroethane	µg/l	3.00				<MRL	<MRL					
Bromobenzene	µg/l	3.00				<MRL	<MRL					
n-Propylbenzene	µg/l	3.00				<MRL	<MRL					
2-Chlorotoluene	µg/l	3.00				<MRL	<MRL					
4-Chlorotoluene	µg/l	3.00				<MRL	<MRL					
1,3,5-Trimethylbenzene	µg/l	3.00				<MRL	<MRL					
tert-Butylbenzene	µg/l	3.00				<MRL	<MRL					
1,2,4-Trimethylbenzene	µg/l	3.00				<MRL	<MRL					
sec-Butylbenzene	µg/l	3.00				<MRL	<MRL					
1,3-Dichlorobenzene	µg/l	3.00				<MRL	<MRL					
p-Isopropyltoluene	µg/l	3.00				<MRL	<MRL					
1,4-Dichlorobenzene	µg/l	3.00				<MRL	<MRL					
1,2-Dichlorobenzene	µg/l	3.00				<MRL	<MRL					
Butylbenzene	µg/l	3.00				<MRL	<MRL					
1,2-Dibromo-3-chloropropane	µg/l	3.00				<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/l	3.00				<MRL	<MRL					
Hexachlorobutadiene	µg/l	3.00				<MRL	<MRL					
1,2,3-Trichlorobenzene	µg/l	3.00				<MRL	<MRL					
SVOCs												
Aniline	µg/l	0.05				<MRL	<MRL					
Phenol	µg/l	0.05				<MRL	<MRL					
2-Chlorophenol	µg/l	0.05				<MRL	<MRL					
Bis(2-chloroethyl)ether	µg/l	0.05				<MRL	<MRL					
1,3-Dichlorobenzene	µg/l	0.05				<MRL	<MRL					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS	Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration	Number of Exceedances	1887410	2503699		
									DP1	DP1	DP1	DP1
									5/26/2021	11/15/2022	10/31/2023	1/25/2024
1,2-Dichlorobenzene	µg/l	0.05				<MRL	<MRL					
1,4-Dichlorobenzene	µg/l	0.05				<MRL	<MRL					
Bis(2-chloroisopropyl)ether	µg/l	0.05				<MRL	<MRL					
2-Methylphenol	µg/l	0.05				<MRL	<MRL					
Hexachloroethane	µg/l	0.05				<MRL	<MRL					
Nitrobenzene	µg/l	0.05				<MRL	<MRL					
4-Methylphenol	µg/l	0.05				<MRL	<MRL					
Isophorone	µg/l	0.05				<MRL	<MRL					
2-Nitrophenol	µg/l	0.05				<MRL	<MRL					
2,4-Dimethylphenol	µg/l	0.05				<MRL	<MRL					
Bis(2-chloroethoxy)methane	µg/l	0.05				<MRL	<MRL					
1,2,4-Trichlorobenzene	µg/l	0.05				<MRL	<MRL					
2,4-Dichlorophenol	µg/l	0.05				<MRL	<MRL					
4-Chloroaniline	µg/l	0.05				<MRL	<MRL					
Hexachlorobutadiene	µg/l	0.05				<MRL	<MRL					
4-Chloro-3-methylphenol	µg/l	0.05				<MRL	<MRL					
2,4,6-Trichlorophenol	µg/l	0.05				<MRL	<MRL					
2,4,5-Trichlorophenol	µg/l	0.05				<MRL	<MRL					
2-Methylnaphthalene	µg/l	0.05				<MRL	<MRL					
2-Chloronaphthalene	µg/l	0.05				<MRL	<MRL					
Dimethylphthalate	µg/l	0.05				<MRL	<MRL					
2,6-Dinitrotoluene	µg/l	0.05				<MRL	<MRL					
2,4-Dinitrotoluene	µg/l	0.05				<MRL	<MRL					
Dibenzofuran	µg/l	0.05				<MRL	<MRL					
4-Chlorophenyl phenyl ether	µg/l	0.05				<MRL	<MRL					
Diethyl phthalate	µg/l	0.05				<MRL	<MRL					
4-Nitroaniline	µg/l	0.05				<MRL	<MRL					
Azobenzene	µg/l	0.05				<MRL	<MRL					
Bromophenyl phenyl ether	µg/l	0.05				<MRL	<MRL					
Hexachlorobenzene	µg/l	0.05				<MRL	<MRL					
Carbazole	µg/l	0.05				<MRL	<MRL					
Dibutyl phthalate	µg/l	0.05				<MRL	<MRL					
Anthraquinone	µg/l	0.05				<MRL	<MRL					
Butyl benzyl phthalate	µg/l	0.05				<MRL	<MRL					
3+4-Methylphenol	µg/l	0.10				<MRL	<MRL					

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	143955	172077	1887411	2503705		142819	171281	1887404	2503694	
			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024	15/04/2024	5/26/2021	11/15/2022
General Inorganics												
pH (L099)	pH Units	N/A	8.00	7.80	7.60	7.60	7.50	7.80	8.00	8.00	7.80	7.50
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	1700.00	1500.00					860.00	990.00	1800.00	840.00
Sulphate as SO4	mg/l	0.05	814.00	653.00					165.00	203.00	1030.00	192.00
Sulphide			6.70	< 5.0					5.90	7.50		
Chloride	mg/l	0.15	76.00	69.00					62.00	69.00		
Fluoride			420.00	340.00					360.00	270.00		
Ammoniacal Nitrogen as N	µg/l	15.00	17.00	21.00					300.00	120.00	72.00	230.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	-	-					-	-	87.00	280.00
Total Organic Carbon (TOC)	mg/l	0.10	-	-					-	-		
Dissolved Organic Carbon (DOC)			10.50	14.50					6.25	4.96		
Nitrate as N	mg/l	0.01	0.25	0.07					11.00	11.40		
Nitrite as N	µg/l	1.00	2.50	< 1.0					150.00	130.00		
Alkalinity as CaCO3	mg/l	3.00	300.00	270.00					210.00	230.00		
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00	3.00	30.00	6.00	10.00	82.00	21.00	8.00	72.00		
Speciated PAHs												
Naphthalene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluorene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Chrysene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Total PAH												
Total EPA-16 PAHs	µg/l	0.16	-	-					-	-		
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00	4.00	4.60					8.60	11.00		
Antimony (dissolved)	µg/l	0.40	1.30	1.30					1.00	0.80		
Arsenic (dissolved)	µg/l	0.15	2.07	2.83					0.76	0.77	4.39	0.45
Barium (dissolved)	µg/l	0.06	26.00	26.00					46.00	51.00		
Cadmium (dissolved)	µg/l	0.02	0.16	0.17					0.02	0.03		
Chromium (dissolved)	µg/l	0.20	1.10	1.20					0.50	0.90		
Cobalt (dissolved)	µg/l	0.20	0.20	0.60					0.40	0.50		
Copper (dissolved)	µg/l	0.50	2.80	2.20					3.00	11.00		
Bioavailable Copper (dissolved)	µg/l	0.50	0.09	0.06					0.15	0.71		
Lead (dissolved)	µg/l	0.20	< 0.2	< 0.2					< 0.2	< 0.2		
Bioavailable Lead (dissolved)	µg/l	0.20	0.02	0.01					0.03	0.04		
Manganese (dissolved)	µg/l	0.05	330.00	44.00					77.00	200.00	250.00	5.40
Bioavailable Manganese (dissolved)	µg/l	0.05	184.88	16.74					43.14	112.05	95.10	1.15

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			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024	15/04/2024	5/26/2021	11/15/2022
Mercury (dissolved)	µg/l	0.05	< 0.05	< 0.05				< 0.05	0.09			
Molybdenum (dissolved)	µg/l	0.05	590.00	560.00				5.90	9.00	720.00	57.00	
Nickel (dissolved)	µg/l	0.50	3.00	17.00				3.20	3.50			
Bioavailable Nickel (dissolved)	µg/l	0.50	0.69	2.65				1.05	1.32			
Selenium (dissolved)	µg/l	0.60	7.40	8.10				1.30	1.10			
Silicon (dissolved)	µg/l	50.00	2800.00	5200.00				1700.00	3700.00			
Tin (dissolved)	µg/l	0.20	< 0.20	0.39				< 0.20	< 0.20			
Titanium (dissolved)	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
Vanadium (dissolved)	µg/l	0.20	2.00	3.60				0.50	0.60			
Zinc (dissolved)	µg/l	0.50	2.50	5.00				9.80	6.20			
Bioavailable Zinc (dissolved)	µg/l	0.50	0.56	0.93				3.18	2.31			
Boron (dissolved)	µg/l	10.00	3100.00	2800.00				170.00	110.00		110.00	
Calcium (dissolved)	mg/l	0.01	200.00	170.00				99.00	120.00			
Chromium (hexavalent)	µg/l	5.00	< 5.0	< 5.0				< 5.0	< 5.0			
Chromium (III)	µg/l	5.00	< 5.0	< 5.0				< 5.0	< 5.0			
Iron (dissolved)	mg/l	0.00	0.03	0.25				0.02	0.02	0.03	0.01	
Magnesium (dissolved)	mg/l	0.01	66.00	57.00				40.00	51.00	65.00	75.00	
Phosphorus (dissolved)	µg/l	20.00	522.00	533.00				853.00	372.00			
Potassium (dissolved)	mg/l	0.03	56.00	44.00				6.80	7.80			
Selenium (dissolved)	µg/l	0.60	-	-				-	-			
Sodium (dissolved)	mg/l	0.01	160.00	130.00				47.00	62.00			
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00	-	-	< 10	< 10	< 10	< 10	-	-		
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	< 10					< 10	-			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00	< 1.0	< 1.0				< 1.0	< 1.0			
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00	< 10	< 10				< 10	< 10			
VOCs												
Chloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Vinyl Chloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			

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			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024	15/04/2024	5/26/2021	11/15/2022
Trichlorofluoromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans 1,2-dichloroethylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,2-dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Benzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Toluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p & m-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Styrene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromoform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
o-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Phenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			

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			DP1	DP1	DP2	DP2	DP2	DP2	DP2	DP2	SS1	SS1
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	24/01/2024	3/12/2024	15/04/2024	5/26/2021	11/15/2022
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Isophorone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Azobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Carbazole	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Anthraquinone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10				< 0.10	< 0.10			

[1] Based on Good standard for Type 7.

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 Sample Reference
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Analytical Parameter (Water Analysis)	Units	Limit of detection	SS1	SSW1	143951	172073	1887405	2503695		142818	172074	
			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			10/31/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022	10/31/2023	24/01/2024	3/12/2024	16/04/2024
General Inorganics												
pH (L099)	pH Units	N/A	7.80	7.80	7.90	7.80	7.70	7.70	7.60	7.80	7.90	7.80
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	1000.00	1800.00	1600.00	1500.00	2200.00	1100.00	3000.00	3500.00	3600.00	3200.00
Sulphate as SO4	mg/l	0.05	344.00	748.00	838.00	672.00	1300.00	546.00	1430.00	1870.00	1790.00	1890.00
Sulphide					7.20	9.50					< 5.0	8.90
Chloride	mg/l	0.15			79.00	70.00					180.00	160.00
Fluoride					370.00	370.00					470.00	410.00
Ammoniacal Nitrogen as N	µg/l	15.00	23.00	150.00	24.00	60.00	28.00	82.00	17.00	24.00	28.00	28.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	27.00	180.00	-	-	34.00	100.00	20.00	29.00		
Total Organic Carbon (TOC)	mg/l	0.10			-	-						
Dissolved Organic Carbon (DOC)					11.90	14.10					7.34	6.48
Nitrate as N	mg/l	0.01			0.27	0.22					0.64	0.45
Nitrite as N	µg/l	1.00			< 1.0	< 1.0					1.10	< 1.0
Alkalinity as CaCO3	mg/l	3.00			240.00	310.00					200.00	210.00
Total Oxidised Nitrogen (TON)	mg/l	0.02			-	-						
Total Suspended Solids (L004B)	mg/l	2.00		32.00	2.00	39.00				56.00	9.00	78.00
Speciated PAHs												
Naphthalene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Acenaphthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Fluorene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Phenanthrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Anthracene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Fluoranthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Pyrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Chrysene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01					< 0.01	< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00			4.20	3.50					1.10	1.40
Antimony (dissolved)	µg/l	0.40			1.80	1.50					2.60	2.70
Arsenic (dissolved)	µg/l	0.15	6.51	3.43	2.24	2.81	5.29	0.94	6.75	4.55	7.03	5.61
Barium (dissolved)	µg/l	0.06			25.00	25.00					18.00	15.00
Cadmium (dissolved)	µg/l	0.02			0.17	0.19					0.55	0.61
Chromium (dissolved)	µg/l	0.20			1.80	1.70					0.70	0.80
Cobalt (dissolved)	µg/l	0.20			0.20	< 0.2					< 0.2	< 0.2
Copper (dissolved)	µg/l	0.50			1.80	2.30					2.20	2.40
Bioavailable Copper (dissolved)	µg/l	0.50			0.05	0.06					0.08	0.09
Lead (dissolved)	µg/l	0.20			< 0.2	< 0.2					< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.20			0.02	0.01					0.03	0.03
Manganese (dissolved)	µg/l	0.05	37.00	150.00	320.00	18.00	250.00	230.00	230.00	990.00	240.00	110.00
Bioavailable Manganese (dissolved)	µg/l	0.05	14.07	57.06	147.72	6.85	78.36	72.09	59.40	376.58	110.79	41.84

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			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			10/31/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022	10/31/2023	24/01/2024	3/12/2024	16/04/2024
Mercury (dissolved)	µg/l	0.05			< 0.05	< 0.05			< 0.05	< 0.05		
Molybdenum (dissolved)	µg/l	0.05	190.00	680.00	620.00	570.00	1200.00	22.00	1200.00	2800.00	2500.00	2000.00
Nickel (dissolved)	µg/l	0.50			2.90	3.60					1.10	1.30
Bioavailable Nickel (dissolved)	µg/l	0.50			0.56	0.57					0.30	0.35
Selenium (dissolved)	µg/l	0.60			5.50	8.80					30.00	-
Silicon (dissolved)	µg/l	50.00			2700.00	5400.00					2900.00	5900.00
Tin (dissolved)	µg/l	0.20			< 0.20	< 0.20					< 0.20	< 0.20
Titanium (dissolved)	µg/l	1.00			< 1.0	< 1.0					< 1.0	1.10
Vanadium (dissolved)	µg/l	0.20			2.20	3.00					3.70	2.80
Zinc (dissolved)	µg/l	0.50			3.00	3.90					3.30	2.80
Bioavailable Zinc (dissolved)	µg/l	0.50			0.63	0.74					0.99	0.92
Boron (dissolved)	µg/l	10.00	970.00	4600.00	1800.00	3200.00	7000.00	1900.00	7500.00	13000.00	14000.00	13000.00
Calcium (dissolved)	mg/l	0.01			200.00	180.00					310.00	340.00
Chromium (hexavalent)	µg/l	5.00			< 5.0	< 5.0					< 5.0	< 5.0
Chromium (III)	µg/l	5.00			< 5.0	< 5.0					< 5.0	< 5.0
Iron (dissolved)	mg/l	0.00	0.22	0.02	0.04	0.03	0.05	0.02	0.07	0.01	0.01	0.31
Magnesium (dissolved)	mg/l	0.01	56.00	76.00	65.00	58.00	65.00	55.00	74.00	75.00	82.00	72.00
Phosphorus (dissolved)	µg/l	20.00			300.00	484.00					511.00	497.00
Potassium (dissolved)	mg/l	0.03			57.00	48.00					210.00	170.00
Selenium (dissolved)	µg/l	0.60			-	-					-	16.00
Sodium (dissolved)	mg/l	0.01			170.00	150.00					530.00	520.00
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00								< 10		
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00			< 1.0	< 1.0					< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00			< 10	< 10					< 10	< 10
VOCs												
Chloromethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Chloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Bromomethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Vinyl Chloride	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0

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			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			10/31/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022	10/31/2023	24/01/2024	3/12/2024	16/04/2024
Trichlorofluoromethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Chloroform	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Benzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Carbontetrachloride	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2-Dichloropropane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Trichloroethene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Dibromomethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Bromodichloromethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Cis-1,3-dichloropropene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Trans-1,3-dichloropropene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Toluene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,2-Trichloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,3-Dichloropropane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Dibromochloromethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Tetrachloroethene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2-Dibromoethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Chlorobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,1,2-Tetrachloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Ethylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
p & m-xylene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Styrene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Bromoform	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
o-xylene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Isopropylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,1,2,2-Tetrachloroethane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Bromobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
n-Propylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
2-Chlorotoluene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
4-Chlorotoluene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,3,5-Trimethylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
tert-Butylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2,4-Trimethylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
sec-Butylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,3-Dichlorobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
p-Isopropyltoluene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,4-Dichlorobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2-Dichlorobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Butylbenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2-Dibromo-3-chloropropane	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2,4-Trichlorobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
1,2,3-Trichlorobenzene	µg/l	3.00			< 3.0	< 3.0					< 3.0	< 3.0
SVOCs												
Aniline	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Phenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Bis(2-chloroethyl)ether	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
1,3-Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05

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			SS1	SSW1	SSW1	SSW1	SS2	SS2	SS2	SS2	SSW2	SSW2
			10/31/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022	10/31/2023	24/01/2024	3/12/2024	16/04/2024
1,2-Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
1,4-Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Bis(2-chloroisopropyl)ether	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Methylphenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Hexachloroethane	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Nitrobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Methylphenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Isophorone	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Bis(2-chloroethoxy)methane	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
1,2,4-Trichlorobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Chloroaniline	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Methylnaphthalene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2-Chloronaphthalene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,6-Dinitrotoluene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
2,4-Dinitrotoluene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Dibenzofuran	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Chlorophenyl phenyl ether	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
4-Nitroaniline	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Azobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Carbazole	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Anthraquinone	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05			< 0.05	< 0.05					< 0.05	< 0.05
3+4-Methylphenol	µg/l	0.10			< 0.10	< 0.10					< 0.10	< 0.10

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	4/17/2024	5/26/2021	11/15/2022	10/31/2023	25/01/2024	
General Inorganics													
pH (L099)	pH Units	N/A	7.80	7.80	7.60	7.90	7.90	7.90	7.80	7.60	7.50	7.90	
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	920.00	810.00	680.00	1000.00	850.00	860.00	2300.00	2000.00	1600.00	3200.00	
Sulphate as SO4	mg/l	0.05	193.00	185.00	127.00	207.00	185.00	181.00	1350.00	1210.00	591.00	1600.00	
Sulphide							7.00	< 5.0					
Chloride	mg/l	0.15					63.00	64.00					
Fluoride							330.00	280.00					
Ammoniacal Nitrogen as N	µg/l	15.00	200.00	64.00	440.00	320.00	320.00	160.00	18.00	47.00	< 15	19.00	
Ammoniacal Nitrogen as NH3	µg/l	15.00	240.00	78.00	540.00	390.00	-	-	21.00	56.00	< 15	23.00	
Total Organic Carbon (TOC)	mg/l	0.10				-	-	-				-	
Dissolved Organic Carbon (DOC)						-	6.38	5.18				-	
Nitrate as N	mg/l	0.01				-	11.40	11.40				-	
Nitrite as N	µg/l	1.00				-	170.00	160.00				-	
Alkalinity as CaCO3	mg/l	3.00				-	220.00	230.00				-	
Total Oxidised Nitrogen (TON)	mg/l	0.02				-	-	-				-	
Total Suspended Solids (L004B)	mg/l	2.00				27.00	14.00	12.00				19.00	
Speciated PAHs													
Naphthalene	µg/l	0.01				-	< 0.01	< 0.01					
Acenaphthylene	µg/l	0.01				-	< 0.01	< 0.01					
Acenaphthene	µg/l	0.01				-	< 0.01	< 0.01					
Fluorene	µg/l	0.01				-	< 0.01	< 0.01					
Phenanthrene	µg/l	0.01				-	< 0.01	< 0.01					
Anthracene	µg/l	0.01				-	< 0.01	< 0.01					
Fluoranthene	µg/l	0.01				-	< 0.01	< 0.01					
Pyrene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(a)anthracene	µg/l	0.01				-	< 0.01	< 0.01					
Chrysene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(b)fluoranthene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(k)fluoranthene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(a)pyrene	µg/l	0.01				-	< 0.01	< 0.01					
Indeno(1,2,3-cd)pyrene	µg/l	0.01				-	< 0.01	< 0.01					
Dibenz(a,h)anthracene	µg/l	0.01				-	< 0.01	< 0.01					
Benzo(ghi)perylene	µg/l	0.01				-	< 0.01	< 0.01					
Total PAH													
Total EPA-16 PAHs	µg/l	0.16											
Heavy Metals / Metalloids													
Aluminium (dissolved)	µg/l	1.00					7.20	6.60					
Antimony (dissolved)	µg/l	0.40					1.30	2.30					
Arsenic (dissolved)	µg/l	0.15	1.20	0.73	1.06	0.94	0.53	0.74	7.29	3.02	2.07	12.50	
Barium (dissolved)	µg/l	0.06					39.00	48.00					
Cadmium (dissolved)	µg/l	0.02					< 0.02	0.02					
Chromium (dissolved)	µg/l	0.20					0.70	0.50					
Cobalt (dissolved)	µg/l	0.20					0.30	0.60					
Copper (dissolved)	µg/l	0.50					2.10	3.60					
Bioavailable Copper (dissolved)	µg/l	0.50					0.09	0.20					
Lead (dissolved)	µg/l	0.20					< 0.2	< 0.2					
Bioavailable Lead (dissolved)	µg/l	0.20					0.03	0.04					
Manganese (dissolved)	µg/l	0.05	7.60	11.00	9.40	24.00	40.00	110.00	180.00	6.50	430.00	62.00	
Bioavailable Manganese (dissolved)	µg/l	0.05	2.89	4.18	2.43	11.08	18.47	50.78	68.47	1.68	91.51	28.62	

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
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Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	4/17/2024	5/26/2021	11/15/2022	10/31/2023	25/01/2024	
Mercury (dissolved)	µg/l	0.05				-	< 0.05	< 0.05					
Molybdenum (dissolved)	µg/l	0.05	17.00	5.70	1.50	1.80	0.82	5.90	1400.00	1000.00	530.00	2700.00	
Nickel (dissolved)	µg/l	0.50					2.90	3.50					
Bioavailable Nickel (dissolved)	µg/l	0.50					0.86	1.17					
Selenium (dissolved)	µg/l	0.60					0.90	1.50					
Silicon (dissolved)	µg/l	50.00					1600.00	3700.00					
Tin (dissolved)	µg/l	0.20					< 0.20	< 0.20					
Titanium (dissolved)	µg/l	1.00					< 1.0	< 1.0					
Vanadium (dissolved)	µg/l	0.20					0.40	0.80					
Zinc (dissolved)	µg/l	0.50					6.40	12.00					
Bioavailable Zinc (dissolved)	µg/l	0.50					2.09	4.44					
Boron (dissolved)	µg/l	10.00	160.00	110.00	100.00	97.00	160.00	99.00	8000.00	6200.00	2800.00	13000.00	
Calcium (dissolved)	mg/l	0.01					120.00	110.00					
Chromium (hexavalent)	µg/l	5.00					< 5.0	< 5.0					
Chromium (III)	µg/l	5.00					< 5.0	< 5.0					
Iron (dissolved)	mg/l	0.00	0.02	0.03	0.62	0.03	0.04	0.02	0.04	0.03	0.07	0.02	
Magnesium (dissolved)	mg/l	0.01	47.00	51.00	32.00	51.00	57.00	44.00	65.00	80.00	55.00	85.00	
Phosphorus (dissolved)	µg/l	20.00					719.00	691.00					
Potassium (dissolved)	mg/l	0.03					8.00	7.50					
Selenium (dissolved)	µg/l	0.60					-	-					
Sodium (dissolved)	mg/l	0.01					100.00	52.00					
Petroleum Hydrocarbons													
TPH (C10 - C40)	µg/l	10.00				< 10						< 10	
Total Phenols													
Total Phenols (monohydric)	µg/l	10.00					< 10	< 10					
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00				-	< 1.0	< 1.0	-	-	-	-	
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00					< 1.0	< 1.0					
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00					< 1.0	< 1.0					
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00					< 10	< 10					
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00					< 10	< 10					
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00					< 10	< 10					
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00					< 10	< 10					
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00					< 10	< 10					
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00					< 1.0	< 1.0					
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00					< 1.0	< 1.0					
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00					< 1.0	< 1.0					
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00					< 10	< 10					
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00					< 10	< 10					
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00					< 10	< 10					
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00					< 10	< 10					
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00					< 10	< 10					
VOCs													
Chloromethane	µg/l	3.00					< 3.0	< 3.0					
Chloroethane	µg/l	3.00					< 3.0	< 3.0					
Bromomethane	µg/l	3.00					< 3.0	< 3.0					
Vinyl Chloride	µg/l	3.00					< 3.0	< 3.0					

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
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Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	4/17/2024	5/26/2021	11/15/2022	10/31/2023	25/01/2024	
Trichlorofluoromethane	µg/l	3.00					< 3.0	< 3.0					
1,1-Dichloroethene	µg/l	3.00					< 3.0	< 3.0					
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00					< 3.0	< 3.0					
Trans 1,2-dichloroethylene	µg/l	3.00					< 3.0	< 3.0					
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00					< 3.0	< 3.0					
1,1-Dichloroethane	µg/l	3.00					< 3.0	< 3.0					
2,2-Dichloropropane	µg/l	3.00					< 3.0	< 3.0					
Chloroform	µg/l	3.00					< 3.0	< 3.0					
1,1,1-Trichloroethane	µg/l	3.00					< 3.0	< 3.0					
1,2-Dichloroethane	µg/l	3.00					< 3.0	< 3.0					
1,1-Dichloropropene	µg/l	3.00					< 3.0	< 3.0					
Cis-1,2-dichloroethene	µg/l	3.00					< 3.0	< 3.0					
Benzene	µg/l	3.00					< 3.0	< 3.0					
Carbontetrachloride	µg/l	3.00					< 3.0	< 3.0					
1,2-Dichloropropane	µg/l	3.00					< 3.0	< 3.0					
Trichloroethene	µg/l	3.00					< 3.0	< 3.0					
Dibromomethane	µg/l	3.00					< 3.0	< 3.0					
Bromodichloromethane	µg/l	3.00					< 3.0	< 3.0					
Cis-1,3-dichloropropene	µg/l	3.00					< 3.0	< 3.0					
Trans-1,3-dichloropropene	µg/l	3.00					< 3.0	< 3.0					
Toluene	µg/l	3.00					< 3.0	< 3.0					
1,1,2-Trichloroethane	µg/l	3.00					< 3.0	< 3.0					
1,3-Dichloropropane	µg/l	3.00					< 3.0	< 3.0					
Dibromochloromethane	µg/l	3.00					< 3.0	< 3.0					
Tetrachloroethene	µg/l	3.00					< 3.0	< 3.0					
1,2-Dibromoethane	µg/l	3.00					< 3.0	< 3.0					
Chlorobenzene	µg/l	3.00					< 3.0	< 3.0					
1,1,1,2-Tetrachloroethane	µg/l	3.00					< 3.0	< 3.0					
Ethylbenzene	µg/l	3.00					< 3.0	< 3.0					
p & m-xylene	µg/l	3.00					< 3.0	< 3.0					
Styrene	µg/l	3.00					< 3.0	< 3.0					
Bromoform	µg/l	3.00					< 3.0	< 3.0					
o-xylene	µg/l	3.00					< 3.0	< 3.0					
Isopropylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,1,2,2-Tetrachloroethane	µg/l	3.00					< 3.0	< 3.0					
Bromobenzene	µg/l	3.00					< 3.0	< 3.0					
n-Propylbenzene	µg/l	3.00					< 3.0	< 3.0					
2-Chlorotoluene	µg/l	3.00					< 3.0	< 3.0					
4-Chlorotoluene	µg/l	3.00					< 3.0	< 3.0					
1,3,5-Trimethylbenzene	µg/l	3.00					< 3.0	< 3.0					
tert-Butylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,2,4-Trimethylbenzene	µg/l	3.00					< 3.0	< 3.0					
sec-Butylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,3-Dichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
p-Isopropyltoluene	µg/l	3.00					< 3.0	< 3.0					
1,4-Dichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
1,2-Dichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
Butylbenzene	µg/l	3.00					< 3.0	< 3.0					
1,2-Dibromo-3-chloropropane	µg/l	3.00					< 3.0	< 3.0					
1,2,4-Trichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
Hexachlorobutadiene	µg/l	3.00					< 3.0	< 3.0					
1,2,3-Trichlorobenzene	µg/l	3.00					< 3.0	< 3.0					
SVOCs													
Aniline	µg/l	0.05					< 0.05	< 0.05					
Phenol	µg/l	0.05					< 0.05	< 0.05					
2-Chlorophenol	µg/l	0.05					< 0.05	< 0.05					
Bis(2-chloroethyl)ether	µg/l	0.05					< 0.05	< 0.05					
1,3-Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05					

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Analytical Parameter (Water Analysis)	Units	Limit of detection	1887406	2503696			143952	173985	1887407	2503697			
			SS3	SS3	SS3	SSW3	SSW3	SSW3	SSW3	SS4	SS4	SS4	SSW4
			5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	4/17/2024	5/26/2021	11/15/2022	10/31/2023	25/01/2024	
1,2-Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
1,4-Dichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
Bis(2-chloroisopropyl)ether	µg/l	0.05					< 0.05	< 0.05					
2-Methylphenol	µg/l	0.05					< 0.05	< 0.05					
Hexachloroethane	µg/l	0.05					< 0.05	< 0.05					
Nitrobenzene	µg/l	0.05					< 0.05	< 0.05					
4-Methylphenol	µg/l	0.05					< 0.05	< 0.05					
Isophorone	µg/l	0.05					< 0.05	< 0.05					
2-Nitrophenol	µg/l	0.05					< 0.05	< 0.05					
2,4-Dimethylphenol	µg/l	0.05					< 0.05	< 0.05					
Bis(2-chloroethoxy)methane	µg/l	0.05					< 0.05	< 0.05					
1,2,4-Trichlorobenzene	µg/l	0.05					< 0.05	< 0.05					
2,4-Dichlorophenol	µg/l	0.05					< 0.05	< 0.05					
4-Chloroaniline	µg/l	0.05					< 0.05	< 0.05					
Hexachlorobutadiene	µg/l	0.05					< 0.05	< 0.05					
4-Chloro-3-methylphenol	µg/l	0.05					< 0.05	< 0.05					
2,4,6-Trichlorophenol	µg/l	0.05					< 0.05	< 0.05					
2,4,5-Trichlorophenol	µg/l	0.05					< 0.05	< 0.05					
2-Methylnaphthalene	µg/l	0.05					< 0.05	< 0.05					
2-Chloronaphthalene	µg/l	0.05					< 0.05	< 0.05					
Dimethylphthalate	µg/l	0.05					< 0.05	< 0.05					
2,6-Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05					
2,4-Dinitrotoluene	µg/l	0.05					< 0.05	< 0.05					
Dibenzofuran	µg/l	0.05					< 0.05	< 0.05					
4-Chlorophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05					
Diethyl phthalate	µg/l	0.05					< 0.05	< 0.05					
4-Nitroaniline	µg/l	0.05					< 0.05	< 0.05					
Azobenzene	µg/l	0.05					< 0.05	< 0.05					
Bromophenyl phenyl ether	µg/l	0.05					< 0.05	< 0.05					
Hexachlorobenzene	µg/l	0.05					< 0.05	< 0.05					
Carbazole	µg/l	0.05					< 0.05	< 0.05					
Dibutyl phthalate	µg/l	0.05					< 0.05	< 0.05					
Anthraquinone	µg/l	0.05					< 0.05	< 0.05					
Butyl benzyl phthalate	µg/l	0.05					< 0.05	< 0.05					
3+4-Methylphenol	µg/l	0.10					< 0.10	< 0.10					

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
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 Sample Reference
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Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698			143954	172076	1887409	2503706
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022
General Inorganics												
pH (L099)	pH Units	N/A	7.90	7.80	7.90	8.10	7.60	8.00	8.00	8.20	7.70	7.50
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	1700.00	1400.00	620.00	610.00	400.00	450.00	460.00	510.00	960.00	730.00
Sulphate as SO4	mg/l	0.05	756.00	467.00	143.00	174.00	43.30	89.90	86.30	97.30	197.00	131.00
Sulphide			6.20	8.00					7.30	8.80		
Chloride	mg/l	0.15	78.00	65.00					19.00	19.00		
Fluoride			390.00	370.00					380.00	340.00		
Ammoniacal Nitrogen as N	µg/l	15.00	20.00	64.00	160.00	69.00	160.00	140.00	66.00	18.00	150.00	600.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	-	-	200.00	83.00	200.00	170.00	-	-	190.00	730.00
Total Organic Carbon (TOC)	mg/l	0.10	-	-					-	-		
Dissolved Organic Carbon (DOC)			11.20	14.80					16.70	14.50		
Nitrate as N	mg/l	0.01	0.25	0.17					0.59	0.05		
Nitrite as N	µg/l	1.00	3.10	< 1.0					18.00	< 1.0		
Alkalinity as CaCO3	mg/l	3.00	270.00	280.00					170.00	170.00		
Total Oxidised Nitrogen (TON)	mg/l	0.02	-	-					-	-		
Total Suspended Solids (L004B)	mg/l	2.00	11.00	42.00				62.00	140.00	53.00		
Speciated PAHs												
Naphthalene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluorene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Chrysene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01					< 0.01	< 0.01		
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00	5.10	9.80					4.70	16.00		
Antimony (dissolved)	µg/l	0.40	1.30	1.00					0.90	1.20		
Arsenic (dissolved)	µg/l	0.15	2.19	2.06	1.12	0.80	1.45	1.18	0.52	1.09	1.10	0.83
Barium (dissolved)	µg/l	0.06	29.00	26.00					19.00	42.00		
Cadmium (dissolved)	µg/l	0.02	0.37	0.12					< 0.02	0.03		
Chromium (dissolved)	µg/l	0.20	1.10	1.00					0.50	0.50		
Cobalt (dissolved)	µg/l	0.20	0.20	< 0.2					< 0.2	0.30		
Copper (dissolved)	µg/l	0.50	2.40	2.20					1.80	6.70		
Bioavailable Copper (dissolved)	µg/l	0.50	0.07	0.07					0.10	1.16		
Lead (dissolved)	µg/l	0.20	< 0.2	< 0.2					< 0.2	0.30		
Bioavailable Lead (dissolved)	µg/l	0.20	0.02	0.01					0.01	0.02		
Manganese (dissolved)	µg/l	0.05	290.00	150.00	1.60	0.69	30.00	120.00	18.00	4.20	7.80	2.50
Bioavailable Manganese (dissolved)	µg/l	0.05	133.87	57.06	0.74	0.47	7.75	67.23	18.00	4.20	2.44	0.53

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Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698		143954	172076	1887409	2503706	
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022
Mercury (dissolved)	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Molybdenum (dissolved)	µg/l	0.05	560.00	410.00	130.00	140.00	24.00	52.00	28.00	65.00	9.30	5.50
Nickel (dissolved)	µg/l	0.50	3.10	4.20					1.30	3.00		
Bioavailable Nickel (dissolved)	µg/l	0.50	0.63	0.65					0.25	0.77		
Selenium (dissolved)	µg/l	0.60	8.00	6.20					1.00	1.30		
Silicon (dissolved)	µg/l	50.00	2700.00	5400.00					1900.00	2600.00		
Tin (dissolved)	µg/l	0.20	< 0.20	0.27					< 0.20	< 0.20		
Titanium (dissolved)	µg/l	1.00	< 1.0	< 1.0					< 1.0	< 1.0		
Vanadium (dissolved)	µg/l	0.20	1.80	1.50					0.20	0.50		
Zinc (dissolved)	µg/l	0.50	3.10	4.60					2.20	3.80		
Bioavailable Zinc (dissolved)	µg/l	0.50	0.68	0.84					0.32	0.62		
Boron (dissolved)	µg/l	10.00	2900.00	2100.00	710.00	920.00	180.00	400.00	390.00	400.00	120.00	96.00
Calcium (dissolved)	mg/l	0.01	190.00	160.00					64.00	67.00		
Chromium (hexavalent)	µg/l	5.00	< 5.0	< 5.0					< 5.0	< 5.0		
Chromium (III)	µg/l	5.00	< 5.0	< 5.0					< 5.0	< 5.0		
Iron (dissolved)	mg/l	0.00	0.03	0.17	0.16	0.03	0.24	0.36	0.09	0.09	0.12	0.03
Magnesium (dissolved)	mg/l	0.01	63.00	57.00	22.00	25.00	8.90	18.00	19.00	19.00	50.00	37.00
Phosphorus (dissolved)	µg/l	20.00	547.00	513.00					538.00	502.00		
Potassium (dissolved)	mg/l	0.03	49.00	37.00					11.00	10.00		
Selenium (dissolved)	µg/l	0.60	-	-								
Sodium (dissolved)	mg/l	0.01	150.00	120.00					21.00	22.00		
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00						< 10				
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	< 10	< 10					< 10			
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	-	-	-		< 1.0	< 1.0	-	-
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00	< 1.0	< 1.0					< 1.0	< 1.0		
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00	< 1.0	< 1.0					< 1.0	< 1.0		
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00	< 1.0	< 1.0					< 1.0	< 1.0		
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00	< 1.0	< 1.0					< 1.0	< 1.0		
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00	< 1.0	< 1.0					< 1.0	< 1.0		
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00	< 10	< 10					< 10	< 10		
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00	< 10	< 10					< 10	< 10		
VOCs												
Chloromethane	µg/l	3.00	< 3.0	< 3.0					< 3.0	< 3.0		
Chloroethane	µg/l	3.00	< 3.0	< 3.0					< 3.0	< 3.0		
Bromomethane	µg/l	3.00	< 3.0	< 3.0					< 3.0	< 3.0		
Vinyl Chloride	µg/l	3.00	< 3.0	< 3.0					< 3.0	< 3.0		

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 Risk to Groundwater Receptors from Groundwater
 Sample Reference
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Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698		143954	172076	1887409	2503706	
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022
Trichlorofluoromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans 1,2-dichloroethylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chloroform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1-Dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,2-dichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Benzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trichloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromomethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Toluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p & m-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Styrene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromoform	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
o-xylene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Bromobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Butylbenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0				< 3.0	< 3.0			
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Phenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			

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Analytical Parameter (Water Analysis)	Units	Limit of detection	143953	172075	1887408	2503698		143954	172076	1887409	2503706	
			SSW4	SSW4	SS5	SS5	SS5	SSW5	SSW5	SSW5	SS6	SS6
			3/13/2024	16/04/2024	5/26/2021	11/15/2022	11/1/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021	11/15/2022
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Isophorone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Azobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Carbazole	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Anthraquinone	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05				< 0.05	< 0.05			
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10				< 0.10	< 0.10			

[1] Based on Good standard for Type 7.

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 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	145759	171280	143896	172078	145584	173986	172079	145585		
			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			11/1/2023	24/01/2024	3/12/2024	15/04/2024	3/13/2024	16/04/2024	3/14/2024	4/17/2024	16/04/2024	3/14/2024
General Inorganics												
pH (L099)	pH Units	N/A	7.40	7.60	7.60	8.10	8.00	7.80	8.20	8.10	7.90	7.80
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	510.00	570.00	590.00	600.00	800.00	870.00	850.00	920.00	1600.00	920.00
Sulphate as SO4	mg/l	0.05	67.30	130.00	86.80	75.80	198.00	193.00	244.00	245.00	696.00	185.00
Sulphide					12.00	7.20	5.20	6.90	5.80	< 5.0	7.10	5.10
Chloride	mg/l	0.15			40.00	40.00	43.00	38.00	52.00	58.00	66.00	67.00
Fluoride					330.00	280.00	540.00	410.00	370.00	270.00	330.00	320.00
Ammoniacal Nitrogen as N	µg/l	15.00	270.00	34.00	38.00	26.00	120.00	18.00	39.00	47.00	19.00	850.00
Ammoniacal Nitrogen as NH3	µg/l	15.00	330.00	42.00								
Total Organic Carbon (TOC)	mg/l	0.10										
Dissolved Organic Carbon (DOC)					8.62	9.84	20.70	21.60	7.99	6.93	8.97	6.30
Nitrate as N	mg/l	0.01			0.64	0.02	0.12	0.02	0.76	0.02	0.04	10.70
Nitrite as N	µg/l	1.00			14.00	< 1.0	< 1.0	3.50	7.20	< 1.0	< 1.0	260.00
Alkalinity as CaCO3	mg/l	3.00			190.00	220.00	280.00	290.00	220.00	300.00	240.00	240.00
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00		19.00	65.00	19.00	8.00	2.00	100.00	5.00	50.00	23.00
Speciated PAHs												
Naphthalene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01			< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00			4.10	3.30	6.60	5.10	12.00	1.80	< 1.0	7.40
Antimony (dissolved)	µg/l	0.40			0.70	0.70	0.90	1.00	1.10	0.70	1.20	1.10
Arsenic (dissolved)	µg/l	0.15	2.77	0.64	0.64	0.95	0.61	0.89	0.45	0.57	1.34	0.75
Barium (dissolved)	µg/l	0.06			29.00	29.00	14.00	19.00	36.00	49.00	31.00	53.00
Cadmium (dissolved)	µg/l	0.02			< 0.02	< 0.02	< 0.02	< 0.02	0.04	< 0.02	0.05	0.03
Chromium (dissolved)	µg/l	0.20			< 0.2	< 0.2	0.70	0.60	0.30	0.30	0.30	0.90
Cobalt (dissolved)	µg/l	0.20			0.40	0.50	0.30	0.30	0.40	0.40	< 0.2	0.30
Copper (dissolved)	µg/l	0.50			2.60	5.90	3.50	3.40	2.80	2.70	2.30	2.60
Bioavailable Copper (dissolved)	µg/l	0.50			0.07	0.23	0.30	0.10	0.14	0.13	0.07	0.11
Lead (dissolved)	µg/l	0.20			< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.20			0.02	0.02	0.01	0.01	0.03	0.03	0.02	0.03
Manganese (dissolved)	µg/l	0.05	1200.00	1500.00	810.00	990.00	94.00	180.00	290.00	520.00	3.90	11.00
Bioavailable Manganese (dissolved)	µg/l	0.05	210.43	387.40	374.70	673.10	52.66	68.47	239.29	353.55	1.80	4.18

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Analytical Parameter (Water Analysis)	Units	Limit of detection	145759	171280	143896	172078	145584	173986	172079	145585		
			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			11/1/2023	24/01/2024	3/12/2024	15/04/2024	3/13/2024	16/04/2024	3/14/2024	4/17/2024	16/04/2024	3/14/2024
Mercury (dissolved)	µg/l	0.05			< 0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Molybdenum (dissolved)	µg/l	0.05	6.40	2.00	2.70	4.20	2.70	2.70	0.48	0.99	160.00	7.90
Nickel (dissolved)	µg/l	0.50			3.10	3.70	5.90	5.10	17.00	4.30	1.30	3.60
Bioavailable Nickel (dissolved)	µg/l	0.50			0.67	1.03	0.82	0.62	5.88	1.46	0.31	0.99
Selenium (dissolved)	µg/l	0.60			1.00	0.70	0.60	1.00	0.70	< 0.6	2.40	1.30
Silicon (dissolved)	µg/l	50.00			1300.00	3500.00	2500.00	5100.00	2200.00	1300.00	5400.00	1600.00
Tin (dissolved)	µg/l	0.20			< 0.20	0.27	< 0.20	0.20	< 0.20	0.27	< 0.20	< 0.20
Titanium (dissolved)	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (dissolved)	µg/l	0.20			< 0.2	< 0.2	< 0.2	< 0.2	0.20	0.30	0.40	0.50
Zinc (dissolved)	µg/l	0.50			14.00	2.00	8.30	6.20	1.70	3.80	4.10	6.70
Bioavailable Zinc (dissolved)	µg/l	0.50			3.97	0.46	1.03	0.84	0.47	1.15	1.07	2.25
Boron (dissolved)	µg/l	10.00	72.00	85.00	75.00	100.00	63.00	67.00	28.00	40.00	2200.00	120.00
Calcium (dissolved)	mg/l	0.01			63.00	72.00	110.00	120.00	110.00	130.00	230.00	110.00
Chromium (hexavalent)	µg/l	5.00			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5.00			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.00	0.20	0.08	0.10	0.14	0.08	0.06	0.01	0.02	0.55	0.03
Magnesium (dissolved)	mg/l	0.01	23.00	31.00	23.00	33.00	59.00	61.00	62.00	70.00	47.00	47.00
Phosphorus (dissolved)	µg/l	20.00			40.30	392.00	485.00	494.00	448.00	516.00	552.00	858.00
Potassium (dissolved)	mg/l	0.03			4.40	4.30	4.10	3.20	2.30	2.70	64.00	8.10
Selenium (dissolved)	µg/l	0.60										
Sodium (dissolved)	mg/l	0.01			35.00	43.00	39.00	39.00	43.00	44.00	120.00	53.00
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00		< 10								
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00		-	14.00		< 10		< 10	< 10		< 10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs												
Chloromethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

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Analytical Parameter (Water Analysis)	Units	Limit of detection	SS6	SS6	145759	171280	143896	172078	145584	173986	172079	145585
			11/1/2023	24/01/2024	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
Trichlorofluoromethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloropropane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,3-dichloropropene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans-1,3-dichloropropene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3-Dichloropropane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Tetrachloroethene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dibromoethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2-Tetrachloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2-Tetrachloroethane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
n-Propylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2-Chlorotoluene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4-Chlorotoluene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5-Trimethylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tert-Butylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4-Trimethylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
sec-Butylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3-Dichlorobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p-Isopropyltoluene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4-Dichlorobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichlorobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dibromo-3-chloropropane	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4-Trichlorobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3-Trichlorobenzene	µg/l	3.00			< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs												
Aniline	µg/l	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	µg/l	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethyl)ether	µg/l	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/l	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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			SS6	SS6	SSW6	SSW6	SSW7	SSW7	SSW8	SSW8	SSW9	SSW10
			11/1/2023	24/01/2024	3/12/2024	15/04/2024	3/13/2024	16/04/2024	3/14/2024	4/17/2024	16/04/2024	3/14/2024
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Isophorone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Azobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Carbazole	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Anthraquinone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		

[1] Based on Good standard for Type 7.

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			173987	145586	173988	171282	171283	171284	145587	171285	143897	175038
			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	3/14/2024	4/17/2024	15/04/2024	15/04/2024	15/04/2024	3/14/2024	15/04/2024	3/13/2024	18/04/2024
Analytical Parameter (Water Analysis)	Units	Limit of detection										
General Inorganics												
pH (L099)	pH Units	N/A	7.70	7.70	7.70	7.80	7.50	7.90	7.80	8.00	7.90	8.10
Electrical Conductivity at 20 °C (L031B)	µS/cm	10.00	870.00	680.00	690.00	3300.00	1300.00	990.00	930.00	980.00	470.00	500.00
Sulphate as SO4	mg/l	0.05	182.00	122.00	114.00	1560.00	380.00	200.00	220.00	199.00	86.10	82.10
Sulphide			< 5.0	7.30	< 5.0	5.50	9.70	7.50	6.70	6.10	7.60	8.00
Chloride	mg/l	0.15	74.00	52.00	53.00	140.00	34.00	83.00	69.00	72.00	19.00	19.00
Fluoride			270.00	430.00	450.00	340.00	430.00	280.00	340.00	260.00	380.00	440.00
Ammoniacal Nitrogen as N	µg/l	15.00	130.00	48.00	59.00	20.00	26.00	140.00	740.00	120.00	47.00	74.00
Ammoniacal Nitrogen as NH3	µg/l	15.00										
Total Organic Carbon (TOC)	mg/l	0.10										
Dissolved Organic Carbon (DOC)			5.16	5.80	-	6.03	7.77	5.53	6.45	5.01	17.70	16.50
Nitrate as N	mg/l	0.01	9.51	3.48	2.60	0.27	0.14	8.59	10.60	12.00	0.76	0.09
Nitrite as N	µg/l	1.00	120.00	22.00	15.00	< 1.0	2.00	82.00	230.00	140.00	18.00	2.50
Alkalinity as CaCO3	mg/l	3.00	210.00	200.00	220.00	200.00	400.00	220.00	230.00	220.00	180.00	200.00
Total Oxidised Nitrogen (TON)	mg/l	0.02										
Total Suspended Solids (L004B)	mg/l	2.00	13.00	3.00	11.00	480.00	22.00	120.00	13.00	81.00	74.00	38.00
Speciated PAHs												
Naphthalene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH												
Total EPA-16 PAHs	µg/l	0.16										
Heavy Metals / Metalloids												
Aluminium (dissolved)	µg/l	1.00	6.90	2.80	3.80	4.20	1.30	9.30	7.40	5.50	6.30	19.00
Antimony (dissolved)	µg/l	0.40	1.00	0.60	< 0.4	5.00	0.60	0.90	1.20	1.00	1.80	1.10
Arsenic (dissolved)	µg/l	0.15	0.79	0.60	0.76	20.00	1.14	1.06	0.72	0.86	0.90	0.98
Barium (dissolved)	µg/l	0.06	47.00	30.00	33.00	47.00	31.00	56.00	54.00	50.00	25.00	39.00
Cadmium (dissolved)	µg/l	0.02	0.03	< 0.02	0.02	0.58	< 0.02	0.03	0.03	0.02	0.03	0.02
Chromium (dissolved)	µg/l	0.20	0.50	0.50	0.60	0.50	< 0.2	0.50	0.50	0.70	0.60	0.50
Cobalt (dissolved)	µg/l	0.20	0.80	< 0.2	0.30	0.40	0.50	0.50	0.30	0.50	0.20	0.20
Copper (dissolved)	µg/l	0.50	5.60	4.20	2.80	4.70	1.00	3.10	3.90	3.00	4.80	3.90
Bioavailable Copper (dissolved)	µg/l	0.50	0.27	0.18	0.07	0.20	0.03	0.16	0.15	0.19	0.17	0.55
Lead (dissolved)	µg/l	0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bioavailable Lead (dissolved)	µg/l	0.20	0.04	0.03	0.02	0.03	0.03	0.04	0.03	0.04	0.01	0.01
Manganese (dissolved)	µg/l	0.05	530.00	450.00	1200.00	110.00	1000.00	200.00	41.00	220.00	28.00	13.00
Bioavailable Manganese (dissolved)	µg/l	0.05	166.12	141.04	376.12	41.84	212.81	92.33	15.60	123.25	23.83	8.84

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			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	3/14/2024	4/17/2024	15/04/2024	15/04/2024	15/04/2024	3/14/2024	15/04/2024	3/13/2024	18/04/2024
Mercury (dissolved)	µg/l	0.05	< 0.05	< 0.05	< 0.05	0.21	< 0.05	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Molybdenum (dissolved)	µg/l	0.05	17.00	0.86	1.40	2500.00	3.40	20.00	6.20	12.00	53.00	73.00
Nickel (dissolved)	µg/l	0.50	4.10	3.30	3.50	1.90	1.10	3.30	3.60	3.60	2.40	3.00
Bioavailable Nickel (dissolved)	µg/l	0.50	1.17	0.86	0.67	0.54	0.22	1.06	0.98	1.35	0.40	0.60
Selenium (dissolved)	µg/l	0.60	2.10	0.70	1.00	27.00	1.40	1.30	0.80	1.50	1.10	1.60
Silicon (dissolved)	µg/l	50.00	4000.00	2100.00	5000.00	4400.00	9300.00	4200.00	1500.00	3900.00	1300.00	3100.00
Tin (dissolved)	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Titanium (dissolved)	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	1.20	1.10	< 1.0	< 1.0	< 1.0	3.30
Vanadium (dissolved)	µg/l	0.20	0.70	< 0.2	0.20	21.00	< 0.2	0.70	0.50	0.60	0.40	0.40
Zinc (dissolved)	µg/l	0.50	12.00	2.40	3.20	13.00	6.00	6.70	7.10	9.00	3.10	2.30
Bioavailable Zinc (dissolved)	µg/l	0.50	4.59	0.86	0.79	4.46	1.91	2.38	2.35	3.33	0.44	0.34
Boron (dissolved)	µg/l	10.00	130.00	95.00	84.00	11000.00	770.00	180.00	100.00	130.00	300.00	380.00
Calcium (dissolved)	mg/l	0.01	110.00	83.00	83.00	350.00	190.00	120.00	130.00	120.00	66.00	73.00
Chromium (hexavalent)	µg/l	5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (III)	µg/l	5.00	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Iron (dissolved)	mg/l	0.00	0.03	0.01	0.00	0.01	0.09	0.16	0.02	0.02	0.09	0.05
Magnesium (dissolved)	mg/l	0.01	45.00	40.00	40.00	77.00	71.00	51.00	55.00	49.00	20.00	20.00
Phosphorus (dissolved)	µg/l	20.00	326.00	485.00	355.00	516.00	458.00	688.00	939.00	788.00	513.00	440.00
Potassium (dissolved)	mg/l	0.03	7.40	3.70	3.10	230.00	7.20	7.10	7.40	8.60	11.00	11.00
Selenium (dissolved)	µg/l	0.60										
Sodium (dissolved)	mg/l	0.01	54.00	46.00	47.00	380.00	47.00	62.00	62.00	60.00	22.00	24.00
Petroleum Hydrocarbons												
TPH (C10 - C40)	µg/l	10.00										
Total Phenols												
Total Phenols (monohydric)	µg/l	10.00	< 10	< 10	< 10				< 10		< 10	< 10
TPH - Aliphatic >C5 - C6 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C6 - C8 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C8 - C10 HS 1D AL	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aliphatic >C10 - C12 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C12 - C16 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C16 - C21 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C21 - C35 EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aliphatic >C5 - C35 HS+EH 1D AL MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC7 HS 1D AR	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC7 - EC8 HS 1D AR	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC8 - EC10 HS 1D AR	µg/l	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH - Aromatic >EC10 - EC12 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC12 - EC16 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC16 - EC21 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC21 - EC35 EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH - Aromatic >EC5 - EC35 HS+EH 1D AR MS	µg/l	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
VOCs												
Chloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromomethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Vinyl Chloride	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

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			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	3/14/2024	4/17/2024	15/04/2024	15/04/2024	15/04/2024	3/14/2024	15/04/2024	3/13/2024	18/04/2024
Trichlorofluoromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans 1,2-dichloroethylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chloroform	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1-Trichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1-Dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,2-dichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Benzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Carbontetrachloride	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trichloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromomethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromodichloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cis-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Trans-1,3-dichloropropene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2-Trichloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3-Dichloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Dibromochloromethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Tetrachloroethene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dibromoethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,1,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Styrene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromoform	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Isopropylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,1,2,2-Tetrachloroethane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Bromobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
n-Propylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4-Chlorotoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3,5-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
tert-Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4-Trimethylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
sec-Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,3-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p-Isopropyltoluene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,4-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Butylbenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-Dibromo-3-chloropropane	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,4-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Hexachlorobutadiene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2,3-Trichlorobenzene	µg/l	3.00	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SVOCs												
Aniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage
 Risk to Groundwater Receptors from Groundwater
 Sample Reference
 Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	173987	145586	173988	171282	171283	171284	145587	171285	143897	175038
			SSW10	SSW11	SSW11	SSW12	SSW13	SSW14	SSW15	SSW15	SSW16	SSW16
			17/04/2024	3/14/2024	4/17/2024	15/04/2024	15/04/2024	15/04/2024	3/14/2024	15/04/2024	3/13/2024	18/04/2024
1,2-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroisopropyl)ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethoxy)methane	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chloronaphthalene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dinitrotoluene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Nitroaniline	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Azobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbazole	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Butyl benzyl phthalate	µg/l	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
3+4-Methylphenol	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

[1] Based on Good standard for Type 7.

Project / Site name: Thorpe Marsh Green Energy Hub: Battery Energy Storage System (BESS)

Risk to Groundwater Receptors from Groundwater

Sample Reference

Date Sampled

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS
Sulphate as SO4	mg/l	0.05	400.00
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]
Total Suspended Solids (L004B)	mg/l	2.00	
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 5)
Bioavailable Copper (dissolved)	µg/l	0.50	1 (bioavailable)
Bioavailable Manganese (dissolved)	µg/l	0.05	123 (bioavailable)
Mercury (dissolved)	µg/l	0.05	0.07 (Inland Surface MAC)
Bioavailable Nickel (dissolved)	µg/l	0.50	4 (bioavailable)
Vanadium (dissolved)	µg/l	0.20	20.00
Boron (dissolved)	µg/l	10.00	2000.00
Total Phenols (monohydric)	µg/l	10.00	7.70

[1] Based on Good standard for Type 7.

First Toe Drain

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS
Sulphate as SO4	mg/l	0.05	400.00
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]
Total Suspended Solids (L004B)	mg/l	2.00	
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 5)
Bioavailable Copper (dissolved)	µg/l	0.50	1 (bioavailable)
Bioavailable Manganese (dissolved)	µg/l	0.05	123 (bioavailable)
Mercury (dissolved)	µg/l	0.05	0.07 (Inland Surface MAC)
Bioavailable Nickel (dissolved)	µg/l	0.50	4 (bioavailable)
Vanadium (dissolved)	µg/l	0.20	20.00
Boron (dissolved)	µg/l	10.00	2000.00
Total Phenols (monohydric)	µg/l	10.00	7.70

Second Toe Drain

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS
Sulphate as SO4	mg/l	0.05	400.00
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]
Total Suspended Solids (L004B)	mg/l	2.00	
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 5)

Bioavailable Copper (dissolved)	µg/l	0.50	1 (bioavailable)
Bioavailable Manganese (dissolved)	µg/l	0.05	123 (bioavailable)
Mercury (dissolved)	µg/l	0.05	0.07 (Inland Surface MAC)
Bioavailable Nickel (dissolved)	µg/l	0.50	4 (bioavailable)
Vanadium (dissolved)	µg/l	0.20	20.00
Boron (dissolved)	µg/l	10.00	2000.00
Total Phenols (monohydric)	µg/l	10.00	7.70

TMD

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS
Sulphate as SO4	mg/l	0.05	400.00
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]
Total Suspended Solids (L004B)	mg/l	2.00	
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 5)
Bioavailable Copper (dissolved)	µg/l	0.50	1 (bioavailable)
Bioavailable Manganese (dissolved)	µg/l	0.05	123 (bioavailable)
Mercury (dissolved)	µg/l	0.05	0.07 (Inland Surface MAC)
Bioavailable Nickel (dissolved)	µg/l	0.50	4 (bioavailable)
Vanadium (dissolved)	µg/l	0.20	20.00
Boron (dissolved)	µg/l	10.00	2000.00
Total Phenols (monohydric)	µg/l	10.00	7.70

Thorpemere Pond

Analytical Parameter (Water Analysis)	Units	Limit of detection	Freshwater AA EQS
Sulphate as SO4	mg/l	0.05	400.00
Ammoniacal Nitrogen as N	µg/l	15.00	600[1]
Total Suspended Solids (L004B)	mg/l	2.00	
Cadmium (dissolved)	µg/l	0.02	0.25 (Class 5)
Bioavailable Copper (dissolved)	µg/l	0.50	1 (bioavailable)
Bioavailable Manganese (dissolved)	µg/l	0.05	123 (bioavailable)
Mercury (dissolved)	µg/l	0.05	0.07 (Inland Surface MAC)
Bioavailable Nickel (dissolved)	µg/l	0.50	4 (bioavailable)
Vanadium (dissolved)	µg/l	0.20	20.00
Boron (dissolved)	µg/l	10.00	2000.00
Total Phenols (monohydric)	µg/l	10.00	7.70

Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration (where detected)	Number of Exceedances (and location)
	400.00	67.30	814.00	2
	600.00	17.00	600.00	1
50.00	50.00	3.00	490.00	7
	0.25	<MRL	0.61	0
	1.00	0.03	1.16	0
	123.00	1.80	673.10	9
	0.07	<MRL	0.21	1
	4.00	0.22	5.88	1
	20.00	0.20	21.00	0
	2000.00	28.00	14000.00	2
	7.70	<MRL	14.00	1

Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration (where detected)	Number of Exceedances (and location)
	400.00	467.00	1890.00	17
	600.00	17.00	150.00	0
50.00	50.00	2.00	480.00	3
	0.25	<MRL	0.61	4
	1.00	0.03	1.16	0
	123.00	1.80	673.10	3
	0.07	<MRL	0.21	1
	4.00	0.22	5.88	0
	20.00	0.20	21.00	1
	2000.00	28.00	14000.00	14
	7.70	<MRL	14.00	0

Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration (where detected)	Number of Exceedances (and location)
	400.00	380.00	696.00	1
	600.00	19.00	26.00	0
50.00	50.00	22.00	50.00	1
	0.25	<MRL	0.61	0

	1.00	0.03	1.16	0
	123.00	1.80	673.10	1
	0.07	<MRL	0.21	0
	4.00	0.22	5.88	0
	20.00	0.20	21.00	0
	2000.00	28.00	14000.00	1
	7.70	<MRL	14.00	0

Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration (where detected)	Number of Exceedances (and location)
	400.00	45365.00	45365.00	2
	600.00	0.00	0.00	0
50.00	50.00	182.00	220.00	5
	0.25	<MRL	0.61	5
	1.00	0.03	1.16	5
	123.00	1.80	673.10	0
	0.07	<MRL	0.21	5
	4.00	0.22	5.88	5
	20.00	0.20	21.00	0
	2000.00	28.00	14000.00	0
	7.70	<MRL	14.00	0

Compliance Concentration (DP1 and DP2 only)	Lowest GAC	Minimum Concentration	Maximum Concentration (where detected)	Number of Exceedances (and location)
	400.00	45364.00	45364.00	2
	600.00	0.00	0.00	0
50.00	50.00	86.10	97.30	4
	0.25	<MRL	0.61	4
	1.00	0.03	1.16	4
	123.00	1.80	673.10	0
	0.07	<MRL	0.21	3
	4.00	0.22	5.88	4
	20.00	0.20	21.00	0
	2000.00	28.00	14000.00	0
	7.70	<MRL	14.00	0

	1887410	2503699		143955	172077
	DP1	DP1	DP1	DP1	DP1
	5/26/2021	11/15/2022	1/25/2024	3/13/2024	16/04/2024
Total Number of Samples					
12				814.00	653.00
12				17.00	21.00
14	55.00	300.00	490.00	3.00	30.00
9				0.16	0.17
9				0.09	0.06
12				184.88	16.74
9				< 0.05	< 0.05
9				0.69	2.65
9				2.00	3.60
12				3100.00	2800.00
8				< 10	

	1887404		143951	172073	1887407
	SS1	SSW1	SSW1	SSW1	SS4
	5/26/2021	25/01/2024	3/13/2024	16/04/2024	5/26/2021
Total Number of Samples					
17	1030.00	748.00	838.00	672.00	1350.00
17	72.00	150.00	24.00	60.00	18.00
10		32.00	2.00	39.00	
7			0.17	0.19	
7			0.05	0.06	
17	95.10	57.06	147.72	6.85	68.47
8			< 0.05	< 0.05	
7			0.56	0.57	
7			2.20	3.00	
16		4600.00	1800.00	3200.00	8000.00
6			< 10	< 10	

	172079	171283
	SSW9	SSW13
	16/04/2024	15/04/2024
Total Number of Samples		
2	696.00	380.00
2	19.00	26.00
2	50.00	22.00
2	0.05	< 0.02

2	0.07	0.03
2	1.80	212.81
2	< 0.05	< 0.05
2	0.31	0.22
2	0.40	< 0.2
2	2200.00	770.00
0		

	145585	173987	171284	145587	171285
	SSW10	SSW10	SSW14	SSW15	SSW15
	3/14/2024	17/04/2024	15/04/2024	3/14/2024	15/04/2024
Total Number of Samples					
5	185.00	182.00	200.00	220.00	199.00
0	850.00	130.00	140.00	740.00	120.00
5	23.00	13.00	120.00	13.00	81.00
5	0.03	0.03	0.03	0.03	0.02
5	0.11	0.27	0.16	0.15	0.19
5	4.18	166.12	92.33	15.60	123.25
5	< 0.05	< 0.05	< 0.05	< 0.05	0.09
5	0.99	1.17	1.06	0.98	1.35
5	0.50	0.70	0.70	0.50	0.60
5	120.00	130.00	180.00	100.00	130.00
5	< 10	< 10		< 10	

	143954	172076	143897	
	SSW5	SSW5	SSW5	SSW16
	25/01/2024	3/13/2024	16/04/2024	3/13/2024
Total Number of Samples				
4	89.90	86.30	97.30	86.10
0	140.00	66.00	18.00	47.00
4	62.00	140.00	53.00	74.00
4		< 0.02	0.03	0.03
4		0.10	1.16	0.17
3	67.23	18.00	4.20	23.83
3	-	< 0.05	< 0.05	< 0.05
4		0.25	0.77	0.40
4		0.20	0.50	0.40
3	400.00	390.00	400.00	300.00
3		< 10		< 10

	171281
DP2	DP2
11/1/2023	15/04/2024
	203.00
	120.00
82.00	72.00
	0.03
	0.71
	112.05
	0.09
	1.32
	0.60
	110.00
	-

2503697			143953	172075	1887405
SS4	SS4	SSW4	SSW4	SSW4	SS2
11/15/2022	10/31/2023	25/01/2024	3/13/2024	16/04/2024	5/26/2021
1210.00	591.00	1600.00	756.00	467.00	1300.00
47.00	< 15	19.00	20.00	64.00	28.00
		19.00	11.00	42.00	
			0.37	0.12	
			0.07	0.07	
1.68	91.51	28.62	133.87	57.06	78.36
		-	< 0.05	< 0.05	
			0.63	0.65	
			1.80	1.50	
6200.00	2800.00	13000.00	2900.00	2100.00	7000.00
			< 10	< 10	

2503695			142818	172074	171282
SS2	SS2	SS2	SSW2	SSW2	SSW12
11/15/2022	10/31/2023	24/01/2024	3/12/2024	16/04/2024	15/04/2024
546.00	1430.00	1870.00	1790.00	1890.00	1560.00
82.00	17.00	24.00	28.00	28.00	20.00
		56.00	9.00	78.00	480.00
			0.55	0.61	0.58
			0.08	0.09	0.20
72.09	59.40	376.58	110.79	41.84	41.84
			< 0.05	< 0.05	0.21
			0.30	0.35	0.54
			3.70	2.80	21.00
1900.00	7500.00	13000.00	14000.00	13000.00	11000.00
			< 10	< 10	

2503706		
SS6	SS6	SS6
11/15/2022	11/1/2023	24/01/2024
131.00	67.30	130.00
600.00	270.00	34.00
		19.00
0.53	210.43	387.40
96.00	72.00	85.00
		-

145759	171280	145584	173986
SSW6	SSW6	SSW8	SSW8
3/12/2024	15/04/2024	3/14/2024	4/17/2024
86.80	75.80	244.00	245.00
38.00	26.00	39.00	47.00
65.00	19.00	100.00	5.00
< 0.02	< 0.02	0.04	< 0.02
0.07	0.23	0.14	0.13
374.70	673.10	239.29	353.55
< 0.05	0.05	< 0.05	< 0.05
0.67	1.03	5.88	1.46
< 0.2	< 0.2	0.20	0.30
75.00	100.00	28.00	40.00
14.00		< 10	< 10

145586	173988
SSW11	SSW11
3/14/2024	4/17/2024
122.00	114.00
48.00	59.00
3.00	11.00
< 0.02	0.02
0.18	0.07
141.04	376.12
< 0.05	< 0.05
0.86	0.67
< 0.2	0.20
95.00	84.00
< 10	< 10