

**Agreement No. CE 50/2019 (DS)****Upgrading of Tai Po Sewage Treatment Works - Investigation****Summary of Chemical Screening Results and Disposal Options**

Drillhole No	Sample ID	Date of Sampling	Sampling Depth (mPD)		Sampling Depth (m bgl)		Silver	Arsenic	Cadmium	Chromium	Copper	Nickel	Lead	Zinc	Mercury	Total PCBs	Low M.W. PAHs	High M.W. PAHs	Tributyl Tin	Classification of Sediment	Require Biological Test?	Biological Test Pass?	Disposal Option
			From	To	From	To	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg				
<b>Reporting Limits</b>							0.1	1	0.2	1	1	1	1	1	0.05	18	550	1700	0.015				
<b>Lower Chemical Exceedance Level (LCEL)</b>							<b>1</b>	<b>12</b>	<b>1.5</b>	<b>80</b>	<b>65</b>	<b>40</b>	<b>75</b>	<b>200</b>	<b>0.5</b>	<b>23</b>	<b>550</b>	<b>1700</b>	<b>0.15</b>				
<b>Upper Chemical Exceedance Level (UCEL)</b>							<b><u>2</u></b>	<b><u>42</u></b>	<b><u>4</u></b>	<b><u>160</u></b>	<b><u>110</u></b>	<b><u>40</u></b>	<b><u>110</u></b>	<b><u>270</u></b>	<b><u>1</u></b>	<b><u>180</u></b>	<b><u>3160</u></b>	<b><u>9600</u></b>	<b><u>0.15</u></b>				
<b>10 x (LCEL)</b>							<b><u>10</u></b>	<b><u>120</u></b>	<b><u>15</u></b>	<b><u>800</u></b>	<b><u>650</u></b>	<b><u>400</u></b>	<b><u>750</u></b>	<b><u>2000</u></b>	<b><u>5</u></b>	<b><u>230</u></b>	<b><u>5500</u></b>	<b><u>17000</u></b>	<b><u>1.5</u></b>				
BH2	BH2-1	8/01/2022	-5.48	-6.38	11.10	12.00	0.2	9	<0.2	26	14	16	<b>94</b>	152	<0.05	<18	<550	<1700	IS	<b>M</b>	Yes	Yes	Type 1*
BH2	BH2-2	10/01/2022	-6.38	-7.38	12.00	13.00	0.2	11	<0.2	19	10	10	<b>79</b>	99	<0.05	<18	<550	<1700	<0.015	<b>M</b>	Yes	Yes	Type 1*
BH2	BH2-3	10/01/2022	-7.38	-8.38	13.00	14.00	0.2	10	<0.2	25	12	14	<b>96</b>	158	<0.05	<18	<550	<1700	IS	<b>M</b>	Yes	Yes	Type 1*
BH3	BH3-1	12/02/2022	-2.75	-3.65	9.20	10.10	0.2	10	<0.2	26	12	15	<b>95</b>	167	<0.05	<18	<550	<1700	IS	<b>M</b>	Yes	Yes	Type 1*
BH3	BH3-2	12/02/2022	-3.65	-4.65	10.10	11.10	0.2	11	<0.2	23	12	14	<b>94</b>	159	<0.05	<18	<550	<1700	IS	<b>M</b>	Yes	Yes	Type 1*
BH3	BH3-3	12/02/2022	-4.65	-5.27	11.10	11.72	0.2	11	0.3	31	20	10	<b><u>120</u></b>	166	0.14	<18	<550	<1700	IS	<b>H</b>	No	NA	Type 2
	Reference Sediment	23/01/2022	Surface		Surface		<0.1	8	<0.2	27	13	20	32	74	0.05	<18	<550	<1700	<0.015	L	No	NA	NA
	Reference Sediment	13/03/2022	Surface		Surface		<0.1	8	<0.2	28	14	21	30	75	<0.05	<18	<550	<1700	<0.015	L	No	NA	NA

Bold: Value that exceed LCEL

Bold Italic and Underlined: Value that exceed UCEL

Bold and Underlined: Value that exceed 10 x LCEL

Notes:

Low M.W. PAHs: Low molecular weight PAHs included acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene.

High M.W. PAHs: High molecular weight PAHs included benzo[a]anthracene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, flouranthene, pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, indeno[1,2,3-c,d]pyrene and benzo[g,h,i]perylene.

Total PCBs: Total polychlorinated biphenyls includes 2,4' diCB, 2,2',5' triCB, 2,4,4'triCB, 2,2',3,5' tetraCB, 2,2',5,5' tetraCB, 2,3',4,4' tetraCB, 3,3',4,4' tetraCB, 2,2',4,5,5' pentaCB, 2,3,3',4,4' pentaCB, 2,3',4,4',5 pentaCB, 3,3',4,4',5 pentaCB, 2,2',3,3',4,4' hexaCB, 2,2',3,4,4',5' hexaCB, 2,2',4,4',5,5' hexaCB, 3,3',4,4',5,5' hexaCB, 2,2',3,3',4,4',5 heptaCB, 2,2',3,4,4',5,5' heptaCB, 2,2',3,4',5,5',6 heptaCBpyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, indeno[1,2,3-c,d]pyrene and benzo[g,h,i]perylene.

IS Denoted: Insufficient interstitial water generated for TBT analysis.

NA: Not Applicable

Category L: Analytical results less than or equal to Lower Chemical Exceedance Level (LCEL)

Category M: Analytical results greater than Lower Chemical Exceedance Level (LCEL), but less than or equal to Upper Chemical Exceedance Level (UCEL)

Category H: Analytical results greater than Upper Chemical Exceedance Level (UCEL)

Category 10 x LCEL: Analytical results greater than 10x Lower Chemical Exceedance Level (10xLCEL)

Type 1: Open Sea Disposal

Type 1\*: Open Sea Disposal (Dedicated Site)

Type 2: Confined Marine Disposal

Type 3: Special Treatment / Disposal

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**Summary of Biological Screening Results**

Sampling ID	Sampling Date	Sampling Depth (m bgl)		Category	Test Result			
		From	To		10-Day Amphipod	20-Day Polychaete	48-60 hour Bivalve	Overall
BH2-1	8/01/2022	11.10	12.00	M	Pass	Pass	Pass	Pass
BH2-2	10/01/2022	12.00	13.00	M	Pass	Pass	Pass	Pass
BH2-3	10/01/2022	13.00	14.00	M	Pass	Pass	Pass	Pass
BH3-1	12/02/2022	9.20	10.10	M	Pass	Pass	Pass	Pass
BH3-2	12/02/2022	10.10	11.10	M	Pass	Pass	Pass	Pass