

APPENDIX M

SUMMARY OF CHEMICAL RESULTS – MADE GROUND

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 12923
Site: Land at Usk Way, Newport
Soil Type: Made Ground
Soil Organic Matter: 2.5%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	TP1	0.80	69	1.6	1.6	< 0.2	34	< 4.0	140	280	< 0.3	49	< 1.0	47	330
4	TP2	2.20	-	-	-	-	-	-	-	-	-	-	-	-	-
5	TP3	1.30	29	3.4	1.2	3.1	32	< 4.0	300	450	1.6	35	< 1.0	32	610
10	TP7	1.00	100	1.7	0.97	< 0.2	64	< 4.0	330	930	2.7	47	< 1.0	47	980
12	TP8	2.00	32	2.3	1.0	2.9	47	< 4.0	300	850	0.7	46	< 1.0	41	1100
13	TP9	1.00	39	1.2	1.5	1.5	27	< 4.0	260	670	< 0.3	38	< 1.0	45	230
16	Trench 1	2.00	32	4.4	1.1	4.4	73	< 4.0	240	290	< 0.3	59	< 1.0	35	890
17	Trench 2	1.10	32	1.4	0.81	1.6	46	< 4.0	360	1100	< 0.3	31	< 1.0	33	680
Screening Criteria Value			37.0	290.0	1.7	11.0	-	6.0	2400.0	200.0	1.2	130.0	250.0	410.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL



SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 12923
 Site: Land at Usk Way, Newport
 Soil Type: Made Ground
 Soil Organic Matter: 2.5%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	TP1	0.80	< 1.0	17.2	12	< 1.0	8.7	0.090	1200	5.2	860	3.9	6.71	Not-detected	#N/A
4	TP2	2.20	-	-	19	-	-	-	-	-	-	-	<0.1	-	#N/A
5	TP3	1.30	< 1.0	7.2	12	< 1.0	8.2	2.0	5000	110	4800	2.8	4.82	Detected	0.336
10	TP7	1.00	< 1.0	11.4	9.4	< 1.0	9.4	0.38	2300	140	2200	2.7	4.64	Not-detected	#N/A
12	TP8	2.00	< 1.0	8.7	17	< 1.0	8.0	2.5	6500	340	13000	3.7	6.36	Detected	<0.001
13	TP9	1.00	< 1.0	15.0	12	< 1.0	8.6	0.11	1200	2.1	800	5.1	8.77	Not-detected	#N/A
16	Trench 1	2.00	< 1.0	6.0	11	< 1.0	9.0	0.20	3400	51	1600	1.6	2.75	Detected	0.008
17	Trench 2	1.10	< 1.0	5.1	10	< 1.0	8.7	0.15	1600	13	950	1.7	2.92	Detected	<0.001
Screening Criteria Value			34.0	-	-	200.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 12923
 Site: Land at Usk Way, Newport
 Soil Type: Made Ground
 Soil Organic Matter: 2.5%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	TP1	0.80	< 0.05	< 0.05	0.36	1.5	0.83	1.2	0.60	0.50	1.3	0.20	2.0	< 0.05	0.58	< 0.05	1.3	1.9
4	TP2	2.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	TP3	1.30	< 0.05	< 0.05	0.42	1.7	1.0	1.3	0.81	0.91	1.4	< 0.05	2.4	0.50	0.81	< 0.05	1.4	2.4
10	TP7	1.00	1.3	0.59	1.8	5.5	3.1	3.7	2.1	2.4	3.9	0.70	8.8	1.7	2.0	3.0	8.4	7.7
12	TP8	2.00	0.71	0.32	0.98	2.7	1.6	2.3	1.1	0.84	2.8	0.35	4.4	0.73	1.1	0.51	2.7	4.0
13	TP9	1.00	19	3.7	47	76	33	42	16	20	49	6.7	78	41	17	9.4	110	70
16	Trench 1	2.00	< 0.05	< 0.05	0.61	2.9	1.9	2.5	1.3	1.5	2.6	0.51	3.6	< 0.05	1.3	< 0.05	1.8	3.3
17	Trench 2	1.10	< 0.05	< 0.05	0.40	2.6	1.9	2.0	1.4	1.7	2.5	0.44	3.0	< 0.05	1.3	< 0.05	1.3	2.9
Screening Criteria Value			510.0	420.0	5400.0	11.0	2.7	3.3	240.0	93.0	22.0	0.28	560.0	400.0	36.0	5.6	220.0	1200.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

Job No.: 12923
 Site: Land at Usk Way, Newport
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No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16-C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8-C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
1	TP1	0.80	< 0.001	< 0.001	< 0.001	< 1.0	< 2.0	55	< 8.4	< 0.001	< 0.001	< 0.001	< 1.0	< 2.0	13	49	13
4	TP2	2.20	< 0.001	< 0.001	< 0.001	< 1.0	< 2.0	< 10	< 8.4	< 0.001	< 0.001	< 0.001	< 1.0	< 2.0	< 10	< 10	< 8.4
5	TP3	1.30	< 0.001	< 0.001	< 0.001	< 1.0	46	830	160	< 0.001	< 0.001	< 0.001	< 1.0	11	99	260	110
10	TP7	1.00	< 0.001	< 0.001	< 0.001	< 1.0	17	500	89	< 0.001	< 0.001	< 0.001	< 1.0	8.1	96	210	120
12	TP8	2.00	< 0.001	< 0.001	< 0.001	< 1.0	39	1200	460	< 0.001	< 0.001	< 0.001	< 1.0	10	150	540	420
13	TP9	1.00	< 0.001	< 0.001	< 0.001	< 1.0	2.5	57	< 8.4	< 0.001	< 0.001	< 0.001	7.2	62	280	320	110
16	Trench 1	2.00	< 0.001	< 0.001	< 0.001	< 1.0	5.5	220	61	< 0.001	< 0.001	< 0.001	< 1.0	< 2.0	25	91	76
17	Trench 2	1.10	< 0.001	< 0.001	< 0.001	< 1.0	2.8	160	36	< 0.001	< 0.001	< 0.001	< 1.0	< 2.0	30	79	53
Screening Criteria Value			78.0	230.0	65.0	330.0	2400.0	92000.0	92000.0	0.2	290.0	83.0	180.0	330.0	540.0	1500.0	1500.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

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PCBs

No.	Location	Depth (m)	PCB Congener 28 (mg/kg)	PCB Congener 52 (mg/kg)	PCB Congener 101 (mg/kg)	PCB Congener 118 (mg/kg)	PCB Congener 138 (mg/kg)	PCB Congener 153 (mg/kg)	PCB Congener 180 (mg/kg)	Total PCBs (mg/kg)
1	TP1	0.80	< 0.001	< 0.001	< 0.001	0.003	0.003	0.003	< 0.001	0.009
4	TP2	2.20	-	-	-	-	-	-	-	-
5	TP3	1.30	0.032	0.013	0.013	0.013	0.011	0.011	0.007	0.1
10	TP7	1.00	0.008	0.003	0.003	0.006	0.004	0.004	< 0.001	0.029
12	TP8	2.00	0.062	0.023	0.020	0.024	0.029	0.042	0.043	0.24
13	TP9	1.00	< 0.001	0.021	0.062	0.040	0.059	0.038	0.013	0.23
16	Trench 1	2.00	0.003	< 0.001	0.006	0.004	0.010	0.010	0.009	0.042
17	Trench 2	1.10	< 0.001	0.003	0.003	0.003	0.003	0.004	0.004	0.02
Screening Criteria Value										0.39
Source of Screening Criteria Value										RIVM, 2014