

APPENDIX P

SUMMARY OF GROUNDWATER TEST RESULTS

	Determinand	Unit	Sample Location				Guideline Value		
			02/11/2021	02/11/2021	02/11/2021	02/11/2021	MAC-EQS Other Surface Water C3 50 - <100mg/lCa CO3	Coastal and Estuarine AA-EQS	UK (England and Wales) Drinking Water Standards
			BH2 Deep	BH3 Deep	BH4 Deep	BH3 Shallow			
Metals and Non-Metals	Arsenic	ug/l	19.00	44.90	27.70	16.30	-	25	10
	Beryllium	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-
	Boron	ug/l	45.00	180.00	1500.00	470.00	-	7000	1000
	Cadmium	ug/l	0.08	0.06	0.02	0.14	-	0.2	5
	Calcium	mg/l	80.00	130.00	58.00	80.00	-	-	-
	Chromium	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	32	0.6	50
	Copper	ug/l	7.7	16	23	22	-	17.25*	2000
	Cyanide	ug/l	< 10	< 10	< 10	< 10	5	1	50
	Lead	ug/l	< 0.2	< 0.2	< 0.2	0.60	14	1.3	10
	Mercury	ug/l	0.52	0.05	< 0.05	0.60	0.07	-	1
	Nickel	ug/l	6.60	7.80	4.70	5.80	34	8.6	20
	pH	pH Units	8.20	7.50	7.70	8.40	-	-	-
	Selenium	ug/l	6.9	19	13	5.4	-	-	10
	Sulphate as SO4	ug/l	25800.00	116000.00	76900.00	88700.00	-	-	250000
	Sulphide	ug/l	< 5.0	< 5.0	< 5.0	< 5.0	-	-	-
Vanadium	ug/l	11.00	24.00	22.00	9.80	-	100	-	
Zinc	ug/l	7.7	17	8.3	4.1	-	6.8	5000	
PAH	Acenaphthene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-
	Acenaphthylene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-
	Anthracene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.1	0.1	-
	Benzo (a) anthracene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-
	Benzo (g,h,i) perylene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.00082	-	-
	Benzo (a) pyrene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.027	0.00017	0.01
	Benzo (b) fluoranthene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.017	-	-
	Benzo (k) fluoranthene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.017	-	-
	Chrysene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-
	Dibenz (a,h) anthracene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	3.76	-
	Fluoranthene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.12	0.0063	-
	Fluorene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-
	Indeno (1,2,3) cd pyrene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-
	Naphthalene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	130	2	-
	Phenanthrene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-
Pyrene	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	-	5	-	
PAH, Total	ug/l	< 0.16	< 0.16	< 0.16	< 0.16	-	0.00017	0.1	
VPH/EPH	Aliphatic VPH >C5 - C6	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	50	8	1
	Aliphatic VPH >C6 - C8	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	50	8	1
	Aliphatic VPH >C8 - 10	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	50	8	1
	Aliphatic EPH >C10 - C12	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aliphatic EPH >C12 - C16	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aliphatic EPH >C16 - C21	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aliphatic EPH >C21 - C35	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aliphatic EPH >C35 - C44	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aromatic VPH >C5 - C7	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	50	8	1
	Aromatic VPH >C7 - C8	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	50	8	1
	Aromatic VPH >C8 - C10	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	50	8	1
	Aromatic EPH >C10 - C12	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aromatic EPH >C12 - C16	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aromatic EPH >C16 - C21	ug/l	< 10	< 10	< 10	< 10	50	8	1
	Aromatic EPH >C21 - C35	ug/l	< 10	< 10	< 10	< 10	50	8	1
Aromatic EPH >C35 - C44	ug/l	< 10	< 10	< 10	< 10	50	8	1	

Notes:

Benzo(a)pyrene is used as an indicator for PAH contamination.

EQS for Benzene used for all VPH/EPH compounds

*Copper Coastal EQS assumes DOC is <1mg/l. If >1mg/l EQS = (((DOC/2)-0.5)*2.677)+3.76)

All VOC/SVOC and PCB concentration are less than limits of detection.

Results exceeding the AA-EQS value, or the most conservative EQS/UKDWS guideline value where AA-EQS values are unavailable, are highlighted in **red bold type**

Sources:

MAC-EQS and AA-EQS values sourced from the Environment Agency/Water Framework Directive

Drinking Water Standards sourced from The Water Supply (Water Quality) Regulations 2018 Water, England and Wales: 2018 No.647 (W.121)