

4 MAY 2023

⁽¹⁾ LYME REGIS MARINE SEDIMENT ANALYSIS: POLYCYCLIC AROMATIC HYDROCARBONS								
SUBSTANCE		SAMPLE					⁽²⁾ BENCHMARK LIMITS	
		Z1LR	Z2LR	Z3LR	Z4LR	Z5LR	⁽³⁾ TEL	⁽⁴⁾ PEL
Acenaphthene	µg/Kg (Dry Weight)	2.20	<1	<1	<1	<1	6.71	88.9
Acenaphthylene	µg/Kg (Dry Weight)	2.63	<1	<1	<1	<1	5.87	128
Anthracene	µg/Kg (Dry Weight)	6.10	1.52	<1	<1	<1	46.9	245
Benzo(a)anthracene	µg/Kg (Dry Weight)	20.7	5.53	2.56	2.51	2.61	74.8	693
Benzo(a)pyrene	µg/Kg (Dry Weight)	21.9	5.95	3.17	3.15	3.02	88.8	763
Chrysene	µg/Kg (Dry Weight)	20.5	5.55	2.67	3.08	2.63	108	846
Dibenzo(a,h)anthracene	µg/Kg (Dry Weight)	3.39	<1	<1	<1	<1	6.22	135
Fluoranthene	µg/Kg (Dry Weight)	38.7	11.9	4.93	2.97	5.05	113	1494
Fluorene	µg/Kg (Dry Weight)	3.41	<1	<1	<1	<1	21.2	144
Naphthalene	µg/Kg (Dry Weight)	13.3	<1	<1	<1	<1	34.6	391
Phenanthrene	µg/Kg (Dry Weight)	18.4	5.97	1.41	<1	1.38	86.7	544
Pyrene	µg/Kg (Dry Weight)	35.4	9.33	4.33	2.75	4.59	153	1398

Colour Key	
	Range where adverse effects rarely occur
	Range where adverse effects occasionally occur
	Range where adverse effects frequently occur

Notes:	
(1)	Analysis was done by a laboratory accredited by the <i>United Kingdom Accrediation Servic</i> e. No sample deviations which could compromise the integrity of the results were reported.
(2)	Table 2. Interim marine sediment quality guidelines (ISQGs: dry weight), probable effect levels (PEL's; dry weight), and incidence (%) of adverse biological effects in concentration ranges defined by these values of the Canadian Sediment Quality Guidelines for the Protection of Aquatic Life. The guidance uses Threshold Effect Levels (TEL) and Probable Effect Levels (PEL). The levels are used to used to identify the three ranges of chemical concentrations, with regard to biological effects. The first very adverse effects rarely occur, the second where adverse effects may occasionally occur and the third where adverse effects frequently occur.
(3)	Threshold Effect Level. The minimal effect range within which adverse effects rarely occur.
(4)	Probable Effect Level - The probable effect range within which adverse effects frequently occur.