

Table 1 The averages of carbonates (%), TOM (%) and leachable heavy metals (g/g) in different sediment fractions (Ø_3 , Ø_4 and Ø_5) at the studied stations of the Red Sea ports

Stations		CO ₃ %	TOM%		Fe	Mn	Zn	Cu	Ni	Pb	Co	Cd
H-I	Passenger port	51.62	3.83	Ø_3	1385	30.88	37.87	14.58	15.13	15.35	BDL	1.3
				Ø_4	1620	49.58	35.62	22.58	19.78	19.6	BDL	1.48
				Ø_5	2425	78.37	55.32	40.52	17.2	19.52	BDL	1.92
H-II	Shipyard	56.28	4.6	Ø_3	1946	25.3	191.9	125.68	14.15	77.37	BDL	0.01
				Ø_4	601	9.27	76.22	43.5	13.92	50.58	BDL	0.01
				Ø_5	6556	108.17	330.38	298.4	91.4	101.02	0.1	0.01
H-III	Fishing berth	68.33	8.78	Ø_3	2900	24.73	25.91	15.09	28.96	BDL	1.66	BDL
				Ø_4	4201	40.05	39.64	30.85	55.7	7.35	2.28	0.09
				Ø_5	4511	57.03	89.24	91.9	61.96	19.95	2.43	BDL
H-IV	Marina	76.65	2.48	Ø_3	551	14.98	12.38	10.08	24.4	5.33	1.5	BDL
				Ø_4	797	25.8	20.18	19.75	19.93	13.43	BDL	0.1
				Ø_5	799	28.7	36.03	51.15	20.33	11.03	1.1	0.3
S-I	Grains platform	9.02	1.91	Ø_3	3876	155.75	47.1	23.3	22.35	8.98	2.63	0.43
				Ø_4	6813	168.63	47.85	30.93	27.28	8.3	1.18	0.68
				Ø_5	7483	206.77	66.25	62.58	27.03	15.25	3.5	0.6
S-II	Passenger terminal	8.81	2.63	Ø_3	4246	275.71	35.73	17.72	26.97	8.22	2.98	0.43
				Ø_4	4417	271.43	54.78	32.35	29.1	14.93	0.62	1.08
				Ø_5	5995	306.3	69.32	54.7	31.35	5.45	3.07	1.03
S-III	Aluminum platform	21.86	8.81	Ø_3	4543	291.82	126.6	18.35	31.73	12	0.9	1.48
				Ø_4	3721	240.85	79.83	20.8	33.28	16.4	3.35	1.78
				Ø_5	4788	248.07	109.17	43.1	23.48	7.48	5.5	1.6
S-IV	Coal platform	32.32	10.09	Ø_3	4347	161.57	23.93	17.5	36.13	9.48	3.85	0.93
				Ø_4	3476	134.5	20.65	22.7	17.03	9.55	5.03	0.58
				Ø_5	4479	175.77	20.1	35.23	31.63	15.48	2.38	1.05
S-V	quartz platform	59.52	2.79	Ø_3	2988	130.03	21.98	13.12	24.13	13.9	5.17	0.63
				Ø_4	3194	142.52	9.07	16.33	22.63	11.98	1.7	1.25
				Ø_5	3432	145.77	12.15	35.87	27.62	22.52	4.75	1.2
Q-I	Old platform	48.63	3.73	Ø_3	3189	154.27	21.24	17.33	38.1	22.75	4.19	2.09
				Ø_4	4371	200.36	27.7	19.08	46.88	26.79	4.96	2.41
				Ø_5	4968	233.7	39.78	34.45	43.95	32	4.11	4.19
Q-II	Basin	45.14	2.84	Ø_3	5601	183.53	72.78	17.48	73.3	21.12	5.11	1.55
				Ø_4	5095	171.27	61.38	17.86	61.0	13.22	5.85	1.84
				Ø_5	6207	214.94	80.53	33.76	62.11	25.23	4.71	2.54
LEL (lowest effect level)					20,000	460	120	16	16	31		0.6
SEL (Sever effect level)					40,000	1100	840	110	75	250		10
Red Sea background value, 1943 (Hanna, 1992)					3000	116	24	17.6	16	3	3	0.4
Average shale (Förstner et al., 1982)						850	95	45	68	20	19	0.3

Note: (BDL) Below detection limit