

Supplementary Table S1. Mud %, Sand %, Gravel%, LOI %, CaCo3 %, and heavy metals concentration (Fe, Mn, Cr, Zn, Cu, Ni, and Pb) in the core SALAM1 sediments from Al-Salam Lagoon, Jeddah coast- Saudi Arabia.

Sample No	Depth (cm)	Mud	Sand	Gravel	LOI	CaCO ₃	Fe	Mn	Cr	Zn	Cu	Ni	Pb
%						µg g ⁻¹							
1	0.5	78.4	19.9	1.7	4.55	47.06	365	301.3	56.3	302.3	260	179	18
2	3.5	95.2	4.8	0.0	5.06	37.65	645	436.8	58.3	430.4	253	64.7	83
3	6.5	95.2	4.8	0.0	7.27	37.06	433	434.7	57.8	408.7	260	66.9	80
4	9.5	93.2	6.8	0.0	6.39	35.29	577	450	54.5	416.2	274	65.6	84
5	12.5	90.6	9.4	0.0	7.21	37.65	410	393.4	49.7	411.4	204	60.6	86
6	15.5	90.7	9.3	0.0	8.11	37.06	376	358.7	46.7	388.3	185	53.8	78
7	18.5	87.0	11.2	1.8	8.2	37.65	455	368.9	50.4	340	217	55.5	83
8	21.5	63.4	36.6	0.0	7.65	45.88	346	314.1	54.2	359.4	339	266.8	84
9	24.5	47.0	51.3	1.6	7.34	52.94	328	242.9	51.5	336.4	129	46.1	67
10	27.5	56.6	41.2	2.3	7.29	52.35	286	238.7	50.1	329.7	126	45.6	82
11	30.5	84.8	15.2	0.0	10.44	48.82	502	300	72.3	830	435	80.2	332
12	33.5	65.5	34.5	0.0	8.61	44.12	345	222	60	323.5	160	54.2	86
13	37.5	84.3	14.1	1.6	9.12	52.94	281	241	60.9	351.3	131	51	106
14	39.5	65.5	34.5	0.0	10.23	55.29	271	204.5	61.1	419.1	137	54.3	116
15	42.5	62.1	37.9	0.0	26.71	30.59	368	324.2	63.4	236.5	176	59.1	106
16	45.5	86.6	12.1	1.3	19.14	38.82	370	266.1	79.7	524	371	73.7	265
17	48.5	81.4	18.6	0.0	13.3	52.94	219	201.3	74.2	336.5	242	56	185
18	51.5	88.3	11.7	0.0	15.14	48.24	302	256.6	79.6	404.5	366	60.6	241
19	54.5	92.2	7.1	0.7	11.76	50.59	290	313.3	85.5	281.5	202	63.3	168
20	57.5	95.8	4.2	0.0	13.08	49.41	266	282.5	77.9	206.5	180	58.6	32
21	60.5	96.3	3.7	0.0	12.75	51.18	284	297.8	79.8	210.2	74	55.9	23
22	63.5	97.6	2.4	0.0	13.08	49.41	258	268	76.2	270	96	53.6	25
23	65.5	94.6	4.5	0.9	10.37	52.94	226	221.4	66.9	171.9	57	45.1	63
24	69.5	84.3	13.0	2.8	6.24	55.29	187	172.9	62.5	411.8	38	45.6	53
25	72.5	76.8	22.4	0.8	3.79	57.65	129	128.3	52.9	55.5	17	38.3	20
26	75.5	71.4	28.0	0.6	3.33	60	123	131.4	53.1	57.3	17	39	16
27	78.5	88.9	11.1	0.0	3.43	57.65	164	151.7	56.2	171.2	18	40.3	36
28	81.5	83.9	16.1	0.0	3.97	51.76	165	155.3	56.7	57.7	17	39.9	33
29	84.5	93.5	6.5	0.0	2.2	48.24	114	191.4	46.9	198.9	9	31.5	36
30	87.5	87.4	12.6	0.0	2.91	52.94	143	141	55.5	204	15	38.5	24
31	90.5	98.0	2.1	0.0	2.32	52.94	109	99.2	48.9	115.7	11	34.8	25
32	93.5	98.2	1.8	0.0	2.42	56.47	134	114.9	53.3	59.3	13	38.4	23
33	96.5	97.6	2.4	0.0	3.29	60.59	91.1	98.7	55.9	46.8	12	38	41
34	99.5	99.5	0.5	0.0	4.69	61.76	168	124.2	61.7	46.3	15	42.2	41
35	104.5	99.5	0.5	0.0	4.36	58.82	35	45.7	32.6	21.2	3	18.9	28
36	109.5	99.5	0.5	0.0	5.17	61.18	187	236	109.8	385.1	31	79.8	62
37	114.5	36.9	53.7	9.4	3.61	58.82	85	113.6	59.7	66.8	13	38.2	42
38	119.5	45.5	45.8	8.8	3.89	60	75	110.3	57.3	87.7	13	38	43
39	124.5	50.5	42.0	7.4	3.03	52.94	114	111.4	60.1	40.3	14	40.4	20
40	129.5	54.9	37.7	7.4	2.89	56.47	125	97.9	61.1	45.6	12	37.6	37
41	134.5	64.9	28.6	6.5	2.45	60	91	108.3	63.9	90	15	36.9	41
42	139.5	62.5	31.4	6.1	2.44	55.29	121	114.8	63.3	185.2	16	39.3	38

43	144.5	52.2	37.4	10.5	2.39	56.47	124	184	64.4	287.3	15	39.9	38
44	149.5	50.5	40.4	9.1	2.52	57.65	103	96.4	61.6	157.5	14	37.4	40
45	154.5	56.1	34.2	9.7	2.8	60.59	136	106.4	61.2	297.4	13	37.4	38
46	159.5	59.7	32.4	7.9	3.09	58.82	123	112.6	65.1	93.2	15	40	36
47	164.5	53.8	37.4	8.8	2.66	57.65	90	99.3	60.4	259.1	13	36.9	36
48	169.5	53.2	36.6	10.2	2.67	61.18	87	94.2	59.6	296.6	12	36.1	37
49	174.5	57.9	34.6	7.5	2.78	55.29	107	96.9	63.4	124.8	17	44	37
50	179.5	54.4	36.8	8.9	2.94	60	93	89	61.1	117.4	14	40	36
51	184.5	52.2	36.3	11.5	3.38	56.47	110	101.7	62.9	186.6	13	38.2	36
52	189.5	56.9	33.6	9.5	3.06	56.47	82	72.3	47.8	189.5	8	26.3	32
53	194.5	51.9	37.8	10.3	2.71	56.47	83	90	60.5	96.9	12	38	34
54	199.5	55.7	34.6	9.6	2.49	57.65	84	88.4	59.2	77.7	11	36.5	35
55	204.5	55.5	36.7	7.8	2.89	54.71	103	76.8	57.8	102	10	34.4	32
56	209.5	56.8	34.9	8.3	2.87	54.71	40.2	48.9	41.2	46.6	7	21.7	26
57	214.5	62.4	27.3	10.3	2.72	55.29	73.5	74.9	53.2	82.6	9	33.3	31
58	219.5	51.4	28.8	19.8	3.22	60	79.4	88.8	62.6	147.2	12	39.6	34
Minimum		36.9	0.5	0.0	2.20	30.59	35.0	45.7	32.6	21.2	3.0	18.9	16.0
Maximum		99.5	53.7	19.8	26.71	61.76	645.0	450.0	109.8	830.0	435.0	266.8	332.0
Average		73.6	22.6	3.8	6.11	52.48	208.3	188.0	60.7	227.5	92.6	51.8	64.0