Table S1. Average concentrations of potential toxic elements in sediment samples collected from Gamasa estuary and littoral shelf (1st year)

S.ID		Chemical components (ppm) (1st year)																
		Al	Fe	Ti	Mn	Mg	P	V	Cr	Co	Ni	Cu	Zn	Sr	Ba	Pb	Zr	Ce
Estuary Sediments	E1	37300	25200	5900	5002	14050	1305	118	155	23.0	31.0	29.0	126	191	460	29.0	149	17.0
	E2	36850	23600	5100	3126	13900	1310	122	159	24.0	28.0	33.0	124	196	501	30.0	159	20.0
	E3	38200	23950	6010	3500	14150	1320	124	152	22.0	26.0	31.0	129	201	366	25.0	210	22.0
	E4	39210	24600	4800	5100	14200	1290	133	162	25.0	33.0	32.0	132	195	490	28.0	163	18.0
	E5	38600	23400	5300	4800	14100	1300	115	149	22.0	26.0	27.0	121	206	485	21.0	160	19.0
	E6	67200	41900	7100	3100	15500	1400	130	130	13.0	26.0	19.0	101	249	375	7.00	258	41.0
	E7	50500	23400	4700	2400	10100	1600	135	122	14.0	22.0	23.0	97.0	210	266	5.00	184	34.0
	E8	77100	51200	8600	2600	19700	1600	163	121	27.0	38.0	31.0	108	262	425	6.00	196	42.0
	E9	60200	46150	6934	3400	17200	1500	135	118	22.0	33.0	27.0	99.2	259	350	5.00	188	38.0
	E10	50100	40700	5422	4000	15000	1200	120	115	15.0	29.5	22.0	97.5	263	275	7.00	179	35.0
Littoral shelf sediments	L1	44200	31400	7400	1800	18700	600	201	217	18.0	35.0	14.0	59.0	242	291	5.00	346	67.0
	L2	42400	44900	7400	2500	18100	730	219	278	24.0	39.0	12.0	54.0	273	227	5.00	375	72.0
	L3	42000	43200	7900	2600	21000	790	250	228	19.0	31.0	16.0	42.0	261	202	2.00	383	58.0
	L4	42600	44000	7900	2100	20100	660	172	290	23.0	32.0	11.0	36.0	287	280	6.00	240	23.0
	L5	45800	42100	7600	1900	19500	660	162	142	24.0	34.0	13.0	40.0	294	260	5.00	241	26.0
	L6	49000	41700	7700	2800	19100	790	210	248	21.0	28.0	11.0	47.0	256	224	5.00	338	66.0
	L7	44700	33150	7100	1950	19900	630	212	250	22.0	34.0	13.0	51.2	260	301	6.00	340	65.0
	L8	47200	42500	7450	2400	19300	710	193	205	23.0	31.0	12.0	43.5	275	240	5.00	292	44.0

Table S2. Average concentrations of potential toxic elements in sediment samples collected from Gamasa estuary and littoral shelf (2nd year)

S.ID		Chemical components (ppm) (2nd year)																
		Al	Fe	Ti	Mn	Mg	P	V	Cr	Co	Ni	Cu	Zn	Sr	Ba	Pb	Zr	Ce
Estuary Sediments	E1	36850	26400	5950	4891	14653	1289	124	159	28.0	35.0	32.0	124	184	421	30.0	155	16.0
	E2	37050	24650	5170	3410	14150	1362	119	149	26.0	29.0	31.0	119	190	520	27.0	139	18.0
	E3	37900	24700	6194	4010	14361	1374	134	154	25.0	22.0	34.0	117	208	401	21.0	178	24.0
	E4	38800	23900	4550	5035	14566	1306	121	156	21.0	31.0	33.0	129	198	456	29.0	170	21.0
	E5	39250	24100	5015	4992	14185	1350	122	152	35.0	28.0	30.0	126	215	514	24.0	274	22.0
	E6	65800	39600	7150	2845	14998	1473	145	145	18.0	24.0	22.0	89.0	253	406	10.0	222	38.0
	E7	52300	23900	5107	2801	13250	1540	131	129	11.0	26.0	26.0	91.0	199	217	7.00	215	28.0
	E8	75700	51400	8424	2789	18340	1674	151	123	21.0	35.0	33.0	111	253	446	8.00	210	47.0
	E9	59800	45800	7010	3010	13606	1150	137	113	17.0	31.0	24.0	75.0	261	315	6.00	194	43.0
	E10	52150	40500	5301	3387	15070	954	116	101	11.0	33.0	20.0	85.0	270	255	8.00	167	33.0
Littoral shelf sediments	L1	43800	33400	7450	2150	18900	630	194	199	22.0	33.0	15.0	62.0	250	276	6.00	366	75.0
	L2	43500	44100	7427	2235	18600	691	207	237	26.0	35.0	10.0	48.0	260	247	6.00	355	68.0
	L3	41700	44700	7882	2546	19430	710	234	246	20.0	34.0	14.0	50.0	275	189	3.00	389	49.0
	L4	42100	43100	7909	2269	22869	681	193	273	25.0	34.0	13.0	31.0	276	268	5.00	264	33.0
	L5	46400	42900	7560	2050	20302	650	182	172	21.0	36.0	12.0	33.0	300	244	6.00	221	31.0
	L6	49500	42400	7630	2945	19724	806	219	256	22.0	30.0	9.00	41.0	265	238	5.00	327	56.0
	L7	43600	32600	7180	1840	18621	665	201	222	17.0	32.0	14.0	65.0	241	293	6.00	358	55.0
	L8	47300	39400	7498	2090	19955	776	206	170	19.0	33.0	8.00	39.0	292	258	4.00	284	54.0