

Table 1 Regional distributions of physical and chemical parameters in six stations of Shatt AL-Arab Estuary during Aug.2008-Jul.2009 (All parameters determine in mg/L, while Turbidity in FTU, and EC in dS/m

Season	Station	Month	PH	EC	TDS	TSS	Turb.	Ca	Mg	Cl	HCO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	PO <sub>4</sub>	SO <sub>4</sub>
Summer	1	Aug.08	7.60	2.15	1930	60	63	80	59	355	58	1.03	10.32	2.74	340
Autumn	1	Sep.08	7.10	2.3	2510	96	40	128	44	2057	183	0.58	8.85	1.58	467
Autumn	1	Oct.08	7.20	2.38	1568	48	17	80	413	390	268	0.12	17.74	2.49	369
Autumn	1	Nov.08	7.70	2.12	2588	62	26	248	194	660	366	0.98	3.2	2.40	459
Winter	1	Des.08	8.18	2.78	1334	46	18	160	112	638	305	5.39	36.81	2.84	591
Winter	1	Jan.09	8.28	2.7	1596	20	2	360	753	851	976	2.57	37.75	1.82	947
Winter	1	Feb.09	8.18	2.75	1992	48	22.6	160	49	532	305	1.37	18.57	2.21	4227
Spring	1	Mar.09	8.58	2.84	1948	42	12.7	176	78	496	183	2.55	41.78	2.38	378
Spring	1	Apr.09	8.34	1.56	1432	72	1.36	160	24	241	183	0.47	78.6	3.88	137
Spring	1	May-09	8.32	1.3	490	52	31.9	48	49	269	183	0.97	40.34	0.12	240
Summer	1	Jun.09	7.87	1.47	1282	187	52	200	24	461	98	1.86	24.52	2.68	80
Summer	1	Jul.09	8.05	1.14	1084	62	67	32	68	291	305	0.9	38.17	3.65	206
Summer	2	Aug.08	7.30	4.07	2700	52	42	120	48	638	83	1.24	12.38	13.63	505
Autumn	2	Sep.08	7.00	2.46	1726	80	50	120	58	1702	244	1.18	8.32	3.93	404
Autumn	2	Oct.08	7.10	2.47	1594	52	48	80	97	888	220	0.07	14.7	3.22	561
Autumn	2	Nov.08	7.50	2.78	2852	62	17	176	126	589	286	1.68	3.66	9.75	492
Winter	2	Des.08	8.03	2.79	966	34	17	104	268	674	268	6.6	31.69	4.00	653
Winter	2	Jan.09	7.89	2.88	1826	18	3	240	899	496	915	1.93	23.38	6.37	534
Winter	2	Feb.09	8.02	2.88	2056	50	21.2	120	170	355	610	1.35	19.26	2.86	4462
Spring	2	Mar.09	8.38	2.95	2142	48	9.29	184	92	1028	183	3.52	43.78	7.85	314
Spring	2	Apr.09	8.12	1.68	2748	152	0.8	80	49	262	183	0.47	78.54	7.53	186
Spring	2	May-09	8.05	1.39	1044	50	27.1	64	24	284	220	1.31	39.71	0.18	193
Summer	2	Jun.09	7.97	1.63	1150	52	32.8	200	49	425	85	1.57	24.98	7.81	80
Summer	2	Jul.09	7.19	2.48	1370	75	50	64	40	815	390	0.48	22.83	18.92	245
Summer	3	Aug.08	7.60	2.24	1557	4	37	96	64	383	87	9.11	81.61	6.46	602
Autumn	3	Sep.08	7.30	2.37	1564	68	36	120	34	603	317	1.16	7.41	2.61	435
Autumn	3	Oct.08	7.10	2.41	1536	104	163	160	316	568	195	0.49	21.31	2.65	480
Autumn	3	Nov.08	7.60	2.49	1200	48	18	144	180	547	244	1.83	6.78	2.60	509
Winter	3	Des.08	7.98	2.83	1826	22	11	152	268	674	268	7.26	42.34	5.33	620
Winter	3	Jan.09	8.33	2.75	1748	18	2	160	899	461	732	1.77	22.72	2.60	377
Winter	3	Feb.09	8.09	2.58	1984	68	16	160	146	355	610	1.32	10.33	1.43	523
Spring	3	Mar.09	8.39	2.88	2200	68	27.2	184	83	567	146	2.25	39.68	3.97	383
Spring	3	Apr.09	8.14	1.66	3092	36	0.84	80	49	262	183	0.54	78.58	7.13	178
Spring	3	May-09	7.96	1.31	636	34	20.8	56	39	284	195	1.33	48.24	0.61	253
Summer	3	Jun.09	8.12	1.5	910	136	24.7	120	73	390	61	0.81	43.57	4.88	110
Summer	3	Jul.09	8.27	1.44	780	45	56	48	54	241	268	1.22	19.51	3.98	174
Summer	4	Aug.08	7.60	2.31	1510	48	29	80	42	425	58	11.02	110.12	5.78	1256
Autumn	4	Sep.08	7.30	2.34	766	62	46	104	53	815	183	1.19	8.58	3.10	435
Autumn	4	Oct.08	7.10	2.42	1598	148	97	40	170	568	195	0.06	17.62	2.65	772
Autumn	4	Nov.08	7.70	2.54	2668	68	24	160	272	490	244	0.88	3.54	2.85	409
Winter	4	Des.08	8.05	2.85	1406	32	15	144	117	709	256	7.26	37.98	4.18	724
Winter	4	Jan.09	8.65	2.75	1786	20	2	240	680	603	915	1.93	22.74	2.40	449
Winter	4	Feb.09	8.27	2.81	1900	40	11.6	160	73	355	488	2.1	10.97	0.52	464

Continuing table 1

Season	Station	Month	PH	EC	TDS	TSS	Turb.	Ca	Mg	Cl	HCO <sub>4</sub>	NO <sub>2</sub>	NO <sub>3</sub>	PO <sub>4</sub>	SO <sub>4</sub>
Spring	4	Mar.09	8.59	2.83	2102	52	4.76	168	117	496	146	3.27	40.4	1.76	405
Spring	4	Apr.09	8.33	1.79	3248	36	2.20	80	49	284	159	0.75	73.88	4.70	228
Spring	4	May-09	7.97	1.33	926	30	11.2	48	44	248	195	2.00	48.28	0.43	284
Summer	4	Jun.09	8.26	1.5	898	156	26.1	200	24	319	61	1.23	38.44	3.84	95
Summer	4	Jul.09	8.09	1.46	732	92	27.37	56	44	241	281	2.46	23.73	3.74	178
Summer	5	Aug.08	7.60	2.23	1594	78	35.0	96	67	425	53	7.89	78.86	2.98	1674
Autumn	5	Sep.08	7.30	2.33	1426	128	47.0	96	53	638	244	1.18	7.270	3.10	413
Autumn	5	Oct.08	7.10	2.45	1644	48	35.0	120	73	497	195	0.11	17.89	3.02	470
Autumn	5	Nov.08	7.70	2.43	2706	62	28.0	160	253	518	244	0.81	4.120	2.20	407
Winter	5	Des.08	7.93	2.87	1916	22	6.00	152	117	744	244	10.34	35.47	5.16	691
Winter	5	Jan.09	8.46	2.8	1794	30	4.00	320	437	638	732	1.95	27.24	3.12	642
Winter	5	Feb.09	8.26	2.97	1910	40	13.4	160	146	390	488	1.45	17.34	0.52	523
Spring	5	Mar.09	8.59	2.85	5566	52	5.84	200	97	532	134	3.45	36.86	2.55	326
Spring	5	Apr.09	8.18	1.74	3048	84	0.99	80	73	269	146	0.75	76.96	7.05	205
Spring	5	May-09	7.97	1.3	142	34	16.5	56	15	262	183	1.62	41.41	0.43	230
Summer	5	Jun.09	8.19	1.51	890	10	31.9	160	73	389	85	1.13	42.40	4.21	100
Summer	5	Jul.09	8.07	1.48	704	36	59.0	56	44	262	317	2.02	28.29	3.82	200
Summer	6	Aug.08	7.60	2.25	1540	26	52.0	96	75	425	58	6.99	67.40	2.27	2106
Autumn	6	Sep.08	7.40	2.33	1388	54	41.0	112	49	532	244	1.09	8.400	3.23	301
Autumn	6	Oct.08	7.20	2.44	1668	56	48.0	120	170	604	195	0.37	18.96	4.00	590
Autumn	6	Nov.08	7.70	2.51	2600	62	26.0	200	97	483	232	0.80	3.700	4.15	477
Winter	6	Des.08	7.91	2.86	1796	16	3.00	160	117	738	281	6.93	39.72	5.34	766
Winter	6	Jan.09	8.91	2.81	1820	8	3.00	200	535	603	976	2.20	26.65	3.12	345
Winter	6	Feb.09	8.27	2.86	1604	62	21.7	160	146	355	610	2.10	18.08	0.26	669
Spring	6	Mar.09	8.54	2.82	2048	76	6.62	176	97	674	146	3.55	40.42	2.38	669
Spring	6	Apr.09	8.36	1.78	3168	64	5.06	80	194	268	146	0.66	73.78	6.48	163
Spring	6	May-09	8.01	1.35	2400	54	15.8	40	39	248	183	2.66	47.35	0.49	239
Summer	6	Jun.09	8.16	1.51	890	142	23.42	200	122	425	85	1.69	39.15	3.78	150
Summer	6	Jul.09	8.14	1.46	672	68	66.0	48	49	241	305	4.05	31.83	0.14	167