

SUPPLEMENTARY MATERIAL

Groundwater samples from six nests of 37 monitoring wells, collected bi-weekly to monthly were transported to USA and were analyzed by an Axiom Single Collector high-resolution inductively-coupled plasma mass spectrometry (HR ICP-MS) at Lamont-Doherty Earth Observatory (LDEO) of Columbia University, NY and by ion chromatography (IC) using a DIONEX-500 IC system at Queens College, NY. Not-filtered, acidified samples were run by HR ICP-MS for total concentrations of As, P, Fe, Mn, S, Ca, Mg, K, Na and 33 other trace elements and Cl were determined by ion chromatography in the not filtered not acidified samples, following EPA method 300, a standard protocol for anion analyses.

Tables

Time series ions concentration for 37 monitoring wells including weekly or bi-weekly water level data are compiled in tables 1 to 43. Tables 1-9, 10-18, 19-24, 25-30, 31-37 and 38-43 represents the data for site A, B, C, E, F and G respectively.

Figures

The temporal data of shallow groundwater As, P, sum of major cations (SMC) as $\text{Na}+\text{K}+2\text{Mg}+2\text{Ca}$, Cl, Fe, Mn and SO_4 were plotted as the ratio (C/C_{avg}) of the concentration at the time of the sampling (C) vs. the average concentration of the entire time series (C_{avg}) for sites A, B, C, E, F and G in Figures 1, 2, 3, 4, 5, and 6, respectively. The temporal trends of As and other ions in deeper aquifer is described in Figure 7.

Table-1. Time series data for As and other ions in shallow well at site A (depth - 7 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
2/6/01	1.21	30	1166	728	1604	1342	6.91	457	70	458	1.37
2/19/01	1.19	27	1106	750	1583	1279	6.75	447	67	544	-
3/2/01	1.23	26	1079	707	1567	1258	6.58	419	64	575	-
3/17/01	1.22	27	1327	643	1481	1138	6.37	403	58	578	-
3/31/01	1.19	25	1522	608	1419	1039	6.23	376	54	605	-
4/14/01	1.11	21	644	313	1402	1075	4.82	365	55	550	-
4/28/01	1.09	20	1190	652	1471	1174	6.31	352	58	511	-
5/12/01	1.06	15	1071	740	1548	1258	6.62	355	65	482	-
5/26/01	1.10	17	1068	679	1519	1188	6.32	318	61	448	-
6/9/01	1.10	18	961	705	1517	1187	6.26	353	61	433	-
7/14/01	1.05	23	968	588	1372	1012	5.54	327	52	411	1.33
7/28/01	0.73	19	917	528	1229	936	5.07	434	46	260	1.32
8/11/01	1.05	23	976	725	1504	1193	6.32	421	63	396	1.39
8/25/01	1.08	25	984	656	1440	1123	5.98	391	59	407	1.36
9/8/01	1.06	24	971	638	1395	1096	5.83	376	56	390	1.34
9/22/01	1.05	25	989	646	1426	1103	5.91	373	43	384	-
9/28/01	1.04	26	1026	627	1372	1064	5.78	365	55	380	1.33
10/27/01	1.04	26	966	495	1235	856	4.90	299	45	380	1.29
10/27/01	1.02	23	1138	382	1424	849	5.02	363	34	255	-
11/24/01	1.19	22	1055	681	1350	1181	6.13	380	56	457	-
1/5/02	1.21	21	1049	863	1282	1282	6.62	425	66	434	1.24
3/30/02	1.21	18	1265	1084	1308	1366	7.47	538	52	221	1.17
4/27/02	1.14	20	891	1279	1038	1639	7.77	560	48	217	1.25
5/27/02	0.97	15	860	571	942	934	4.81	350	30	254	1.13
6/30/02	1.00	17	871	408	1003	769	4.23	364	27	312	0.95
7/27/02	1.02	19	1009	499	1035	834	4.71	390	31	349	1.13
8/31/02	0.98	18	832	679	855	1009	5.06	390	32	308	1.10
10/10/02	0.96	18	946	254	977	636	3.70	271	24	205	0.99
11/16/02	1.10	18	1041	453	1067	791	4.60	370	30	343	1.17
12/16/02	1.26	19	1062	745	1038	1167	5.92	497	43	317	1.09
2/22/03	1.11	20	908	554	1043	1009	5.08	528	41	249	-
3/23/03	0.96	10	1025	709	1187	1216	6.06	428	50	218	-
4/19/03	1.03	15	967	659	1153	1183	5.80	581	46	220	-
5/20/03	0.98	13	859	466	970	825	4.41	407	40	363	-
6/21/03	0.96	14	824	390	911	719	3.95	335	34	342	-
7/23/03	0.94	14	831	396	908	713	3.96	357	34	344	-
8/21/03	0.98	13	875	414	935	742	4.12	347	35	324	-
9/23/03	0.91	13	835	411	926	750	4.08	341	35	325	-
11/22/03	1.01	22	1037	551	1204	908	5.16	440	36	451	1.29
12/26/03	1.08	24	1334	768	1403	1315	6.90	698	52	406	1.29
1/26/04	1.04	26	1147	618	1254	1068	5.77	547	45	297	1.22
2/26/04	1.03	27	1079	557	1299	1017	5.53	524	41	321	1.13

Table-2. Time series data for As and other ions in shallow well at site A (depth - 10 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
2/6/01	1.74	18	955	1125	116	1497	6.32	211	50	142	0.82
2/19/01	1.66	18	922	855	106	1180	5.10	165	60	273	-
3/2/01	1.79	18	773	720	92	982	4.27	139	53	111	-
3/17/01	1.76	17	693	658	88	909	3.92	134	50	89	-
3/31/01	1.79	17	693	803	102	1091	4.58	162	59	142	-
4/14/01	1.48	16	689	737	92	1020	4.30	149	58	112	-
4/28/01	1.80	18	770	778	94	1075	4.57	183	63	107	-
5/12/01	1.90	17	754	748	92	1073	4.49	167	60	105	-
5/26/01	1.84	17	647	614	84	838	3.64	133	48	56	-
6/9/01	1.84	18	607	612	87	839	3.60	135	50	51	0.68
7/14/01	1.76	17	657	693	105	948	4.05	142	53	87	0.78
7/28/01	1.71	17	728	721	120	986	4.26	168	52	93	0.81
8/11/01	1.79	17	652	695	107	954	4.06	163	54	85	0.80
8/25/01	1.80	17	689	678	111	930	4.02	156	51	87	0.80
9/8/01	1.76	18	716	706	107	977	4.19	153	55	94	0.81
9/22/01	1.73	17	687	680	104	972	4.10	157	55	93	0.82
9/28/01	1.75	17	719	675	106	973	4.12	156	54	101	0.83
10/27/01	1.57	17	888	868	124	1196	5.14	185	60	252	0.73
11/24/01	1.62	16	816	794	128	1126	4.79	160	60	210	0.65
1/5/02	1.62	17	597	592	112	964	3.82	136	52	108	0.75
3/30/02	1.81	17	725	475	102	967	3.71	222	43	106	0.65
4/27/02	1.72	16	683	502	99	999	3.79	148	43	134	0.77
5/27/02	1.71	16	779	513	87	886	3.66	126	40	55	0.52
6/30/02	1.86	16	773	553	85	939	3.84	153	42	103	0.74
7/27/02	2.05	17	698	499	84	955	3.69	210	45	100	0.70
8/31/02	1.74	16	762	532	81	927	3.76	148	43	88	0.68
10/10/02	1.64	18	761	523	78	888	3.66	152	37	85	0.70
11/16/02	1.63	16	816	550	78	901	3.80	138	40	113	0.73
12/16/02	1.74	15	853	633	85	1026	4.26	153	45	225	-
2/22/03	1.82	14	1023	698	91	1133	4.78	181	61	210	-
3/23/03	1.80	14	914	608	80	972	4.16	157	50	152	-
4/19/03	1.85	14	935	647	83	1025	4.37	163	50	196	-
5/20/03	1.81	13	882	655	86	1017	4.31	151	50	198	-
6/21/03	1.92	14	862	571	80	932	3.95	148	52	148	-
7/23/03	1.93	14	908	603	79	991	4.18	159	48	171	-
8/21/03	1.86	14	902	634	82	995	4.24	165	47	177	-
9/23/03	1.82	15	911	633	79	1002	4.26	164	54	176	-
11/22/03	1.56	16	604	705	110	913	3.95	143	43	138	0.69
12/26/03	1.57	16	572	660	111	920	3.87	142	42	130	0.80
1/26/04	1.71	16	620	722	111	971	4.12	152	46	151	0.82
2/26/04	1.70	15	872	1000	124	1347	5.69	217	63	315	0.86

Table-3. Time series data for As and other ions in shallow well at site A (depth - 13 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	6.37	35	866	737	97	1374	5.19	221	91	51	1.35
2/19/01	6.42	41	1031	716	100	1342	5.25	263	97	30	-
3/2/01	7.10	40	869	732	98	1393	5.22	268	93	19	-
3/17/01	7.18	39	848	755	96	1418	5.29	267	100	13	-
3/31/01	7.27	38	852	766	102	1468	5.43	279	96	12	-
4/14/01	6.60	34	808	747	94	1436	5.27	228	95	7	-
4/28/01	6.82	36	847	767	98	1461	5.40	267	97	10	-
5/12/01	8.02	41	884	776	100	1472	5.48	277	101	9	-
5/26/01	7.78	41	846	754	99	1433	5.32	273	102	19	-
6/9/01	7.51	39	819	740	97	1432	5.26	228	93	22	1.24
7/14/01	7.64	39	778	703	97	1362	5.01	264	98	11	1.22
7/28/01	6.98	34	720	655	91	1311	4.75	251	95	10	1.24
8/11/01	7.52	38	771	715	94	1381	5.06	265	95	14	1.22
8/25/01	7.54	38	740	690	96	1386	4.99	258	95	17	1.23
9/8/01	7.81	38	744	704	96	1372	4.99	256	97	23	1.25
9/22/01	7.99	39	743	690	94	1392	5.00	256	96	25	1.17
9/28/01	7.81	38	730	693	94	1390	4.99	257	96	29	1.24
10/27/01	7.34	36	673	690	94	1406	4.96	277	99	62	1.23
11/24/01	8.01	37	729	715	99	1433	5.13	280	99	16	1.25
1/5/02	7.95	37	719	712	101	1450	5.15	294	101	29	1.18
3/30/02	7.89	31	1208	645	95	1454	5.50	231	93	89	1.30
4/27/02	7.46	31	1316	735	89	1411	5.70	196	90	34	1.21
5/27/02	8.08	30	1254	719	93	1426	5.64	228	94	46	1.28
6/30/02	7.23	24	1211	678	88	1424	5.51	199	91	24	1.31
7/27/02	4.82	9	1195	644	86	1423	5.42	217	90	18	1.27
8/31/02	3.59	6	1440	799	87	1424	5.98	221	88	18	1.24
10/10/02	5.62	13	1280	688	84	1403	5.55	203	86	21	1.14
11/16/02	7.52	29	1326	745	88	1464	5.83	180	94	18	1.14
12/16/02	6.91	27	877	758	92	1398	5.28	233	93	19	-
2/22/03	6.98	24	908	791	89	1391	5.36	278	100	20	-
3/23/03	7.18	23	905	780	91	1388	5.33	279	95	21	-
4/19/03	7.03	23	896	762	88	1380	5.27	270	95	19	-
5/20/03	7.14	23	901	800	93	1401	5.40	288	95	29	-
6/21/03	7.16	24	920	778	94	1435	5.44	294	96	22	-
7/23/03	7.08	26	894	783	91	1498	5.55	286	106	20	-
8/21/03	7.13	24	906	794	88	1410	5.40	281	99	18	-
9/23/03	7.28	24	894	772	92	1457	5.45	280	98	18	-
11/22/03	7.72	33	973	967	110	1666	6.35	331	104	28	1.23
12/26/03	7.68	33	967	969	110	1657	6.33	332	102	27	1.64
1/26/04	7.69	31	954	927	111	1661	6.24	332	99	27	1.62
2/26/04	7.57	30	958	947	114	1638	6.24	337	98	28	1.37

Table-4. Time series data for As and other ions in shallow well at site A (depth - 15 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	4.29	25	1972	1124	106	1457	7.24	220	20	8	0.97
2/19/01	4.46	23	1936	1081	102	1451	7.10	221	19	7	-
3/2/01	5.10	33	1993	1122	107	1478	7.30	310	20	8	0.87
3/17/01	5.40	29	2025	1100	100	1430	7.18	310	19	6	0.96
3/31/01	4.94	29	2013	1086	102	1436	7.16	274	17	6	0.94
4/14/01	5.01	27	1992	1076	99	1420	7.08	287	17	6	0.98
4/28/01	5.43	29	1947	1056	101	1406	6.97	320	19	6	-
5/12/01	5.27	30	1997	1051	99	1425	7.05	320	18	5	-
5/26/01	5.53	35	1918	1033	102	1407	6.90	351	18	7	-
6/9/01	5.28	30	1936	1043	101	1413	6.95	323	17	5	0.99
7/14/01	5.46	31	1795	1031	101	1448	6.85	359	17	6	1.00
7/28/01	5.43	28	1785	1021	98	1427	6.77	345	17	6	1.01
8/11/01	5.66	30	1837	1047	103	1491	7.01	368	18	6	1.03
8/25/01	5.41	30	1876	1041	101	1445	6.95	368	17	6	1.04
9/8/01	5.48	31	1844	1084	120	1518	7.17	524	20	7	1.05
9/22/01	5.70	31	1680	989	98	1457	6.67	396	19	7	-
9/28/01	5.48	35	1829	1043	102	1464	6.94	403	17	6	1.06
10/27/01	5.53	31	1857	1044	97	1444	6.93	387	18	6	1.09
11/24/01	4.98	28	1902	1023	100	1411	6.87	331	16	5	-
1/5/02	4.61	26	1967	986	101	1391	6.82	312	16	6	1.13
6/30/02	4.74	23	2108	1119	73	1458	7.33	339	19	6	0.91
7/27/02	5.46	27	2106	1156	65	1318	7.12	385	20	6	-
8/31/02	4.19	19	2165	1127	64	1296	7.07	335	19	6	0.86
10/10/02	4.53	24	1839	1032	67	1298	6.56	391	23	6	0.87
11/16/02	4.95	20	2007	1080	61	1171	6.57	339	21	6	0.92
12/16/02	3.90	18	2253	1057	61	1191	6.81	281	17	5	1.05
2/22/03	4.18	21	2183	1057	64	1225	6.81	324	17	5	-
3/23/03	3.94	18	2206	1058	63	1196	6.77	310	17	5	-
4/19/03	4.13	21	2101	1066	63	1231	6.76	322	17	5	-
5/20/03	4.09	19	2002	1046	60	1227	6.61	314	17	6	-
6/21/03	4.11	21	2025	1045	62	1339	6.85	332	18	8	-
7/23/03	4.12	21	1981	1040	64	1275	6.67	322	17	5	-
8/21/03	4.24	21	1995	1060	64	1251	6.68	344	17	6	-
9/23/03	4.28	21	2044	1060	64	1258	6.74	348	18	5	-
11/22/03	4.02	27	2347	1292	136	1416	7.90	325	16	8	0.92
12/26/03	4.23	28	2247	1228	133	1398	7.63	329	16	9	0.97
1/26/04	4.30	26	2254	1248	128	1386	7.65	326	16	9	1.00
2/26/04	4.07	26	2403	1296	133	1427	7.98	315	16	9	1.04

Table-6. Time series data for As and other ions in deep well at site A (depth - 37 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
1/19/01	0.01	5	2510	239	27	417	3.85	1	2	39	0.81
2/6/01	0.01	4	2496	169	81	450	3.81	4	3	-	-
2/19/01	0.01	4	2624	172	11	446	3.87	9	3	-	-
3/2/01	0.01	4	2283	142	10	411	3.40	16	3	-	-
3/17/01	0.01	4	2488	160	74	399	3.68	20	3	-	-
3/31/01	0.01	4	2499	157	78	398	3.69	16	3	1	-
4/14/01	0.01	4	2367	149	93	383	3.52	15	3	1	-
4/28/01	0.01	4	2348	135	93	400	3.51	6	3	2	-
5/12/01	0.01	4	2551	176	96	392	3.78	4	3	2	-
5/26/01	0.01	3	2377	152	11	394	3.48	15	3	-	-
6/9/01	0.01	4	2281	139	91	387	3.42	19	3	-	-
7/14/01	0.01	4	2315	147	103	391	3.49	16	2	-	0.75
7/28/01	0.01	3	2167	149	98	383	3.33	15	2	-	-
8/11/01	0.01	4	2363	151	95	392	3.54	15	2	-	0.76
8/25/01	0.01	4	2514	158	93	376	3.68	15	2	-	0.77
9/8/01	0.01	4	2307	144	12	371	3.35	13	2	2	0.77
9/28/01	0.01	4	2388	149	101	377	3.54	13	2	3	0.76
10/27/01	0.01	4	2263	139	11	381	3.31	12	2	1	0.76
11/24/01	0.01	4	2404	153	10	363	3.44	12	2	-	0.76
1/5/02	0.01	4	2340	124	19	342	3.29	13	2	-	0.78
3/30/02	0.01	4	2766	157	18	384	3.87	8	1	5	-
4/27/02	0.01	4	2836	157	15	376	3.92	8	1	4	-
5/27/02	0.01	4	2176	154	8	371	3.23	7	1	4	-
6/30/02	0.01	4	2855	157	9	377	3.93	13	2	4	-
7/27/02	0.01	4	2898	159	8	368	3.96	13	2	3	-
8/31/02	0.01	4	2821	150	9	379	3.89	11	1	3	-
10/10/02	0.01	4	2741	155	13	380	3.82	14	2	2	-
11/16/02	0.01	4	2771	189	23	376	3.93	14	2	3	-
12/16/02	0.01	4	2883	161	14	367	3.96	13	2	3	-
2/22/03	0.01	4	2745	160	13	364	3.81	6	1	24	-
3/23/03	0.01	4	2837	157	12	366	3.89	5	1	25	-
4/19/03	0.01	4	2744	154	12	372	3.81	5	1	25	-
5/20/03	0.01	4	2787	155	12	365	3.84	5	1	25	-
6/21/03	0.01	4	2786	154	12	363	3.83	4	1	25	-
7/23/03	0.01	4	2808	155	12	369	3.87	4	1	24	-
8/21/03	0.01	4	2785	157	12	360	3.83	5	1	24	-
9/23/03	0.01	4	2863	146	13	359	3.89	5	1	26	-
11/22/03	0.01	4	2577	222	35	412	3.88	5	1	33	-
12/26/03	0.01	4	2697	221	35	407	3.99	5	1	37	-
1/26/04	0.01	4	2532	225	35	400	3.82	4	1	38	-
2/26/04	0.01	4	2698	223	36	402	3.98	5	1	35	-

Table-5. Time series data for As and other ions in deep well at site A (depth - 30 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	0.01	4	2275	233	55	393	3.58	1	2	12	-
2/19/01	0.01	4	2433	254	59	401	3.80	4	3	5	-
3/2/01	0.01	4	2470	247	52	298	3.61	9	3	0.3	-
3/17/01	0.01	4	2397	244	53	258	3.46	16	3	0.5	-
3/31/01	0.01	4	2476	244	50	246	3.51	20	3	5	-
4/14/01	0.01	4	2472	249	62	270	3.57	16	3	1	-
4/28/01	0.01	4	2473	253	57	247	3.53	15	3	0.3	-
5/12/01	0.01	4	2478	241	52	240	3.49	6	3	0.3	-
5/26/01	0.01	3	2437	243	51	246	3.47	4	3	1	-
6/9/01	0.01	4	2449	250	52	259	3.52	15	3	0.1	-
7/14/01	0.01	4	2480	250	53	240	3.51	19	3	0.3	0.70
7/28/01	0.01	3	2418	245	56	256	3.48	16	2	16	0.73
8/11/01	0.01	4	2546	251	55	255	3.61	15	2	16.4	0.75
8/25/01	0.01	4	2624	265	53	235	3.68	15	2	0.3	0.78
9/8/01	0.01	4	2436	242	51	226	3.42	15	2	12	0.77
9/28/01	0.01	4	2504	242	52	231	3.50	13	2	0.3	0.77
10/27/01	0.01	4	2474	245	50	228	3.47	13	2	0.3	0.76
11/24/01	0.01	4	2502	248	51	226	3.50	12	2	0.3	0.79
1/5/02	0.01	4	2474	240	50	227	3.46	12	2	5	-
3/30/02	0.01	4	2733	191	11	244	3.62	13	2	11	0.76
4/27/02	0.01	4	2579	198	13	244	3.48	8	1	-	0.77
5/27/02	0.01	4	2911	214	8	243	3.83	8	1	-	0.78
6/30/02	0.01	4	2742	221	57	272	3.78	7	1	-	0.78
7/27/02	0.01	4	2730	227	26	266	3.74	13	2	12	0.74
8/31/02	0.01	4	2763	216	12	257	3.72	13	2	15	0.83
10/10/02	0.01	4	2896	224	18	251	3.86	11	1	12	0.84
11/16/02	0.01	4	2566	214	20	265	3.54	14	2	13	0.85
12/16/02	0.01	4	2477	215	13	249	3.42	14	2	25	-
2/22/03	0.01	4	2392	204	16	245	3.31	13	2	23	-
3/23/03	0.01	4	2386	201	15	244	3.29	6	1	27	-
4/19/03	0.01	4	2433	204	10	232	3.32	5	1	26	-
5/20/03	0.01	4	2445	199	11	238	3.33	5	1	27	-
6/21/03	0.01	4	2441	205	11	234	3.33	5	1	25	-
7/23/03	0.01	4	2447	202	12	234	3.33	4	1	26	-
8/21/03	0.01	4	2386	192	11	232	3.24	4	1	30	-
9/23/03	0.01	4	2413	193	11	230	3.27	5	1	31	-
11/22/03	0.01	4	2567	289	32	262	3.70	5	1	32	0.79
12/26/03	0.01	4	2576	280	33	264	3.70	5	1	32	0.78
1/26/04	0.01	4	2558	280	34	271	3.69	5	1	35	0.78
2/26/04	0.01	4	2544	280	34	264	3.66	4	1	26	0.79

Table-7. Time series data for As and other ions in deep well at site A (depth - 43 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
1/19/01	0.01	6	2225	222	29	428	3.55	1	2	39	0.86
2/6/01	0.01	7	1781	169	18	607	3.35	9	2	69	-
2/19/01	0.01	8	1782	182	18	626	3.42	36	6	50	-
3/2/01	0.01	8	1827	187	20	639	3.50	86	9	5	-
3/17/01	0.01	8	1533	164	16	393	2.66	93	9	5	-
3/31/01	0.01	8	1601	163	19	513	2.97	94	9	5	-
4/14/01	0.01	7	1844	189	20	482	3.21	39	9	5	-
5/12/01	0.01	8	1810	175	19	484	3.15	0	12	1	-
5/26/01	0.01	8	1684	163	14	464	2.95	103	8	5	-
6/9/01	0.01	7	1652	154	18	476	2.93	101	8	1	0.84
7/14/01	0.01	8	1677	160	13	445	2.90	98	8	5	0.81
7/28/01	0.01	8	1723	156	18	431	2.92	73	8	5	0.84
8/11/01	0.01	7	1751	154	17	426	2.93	0	0	16	0.86
8/25/01	0.01	7	1835	176	21	439	3.08	72	7	5	0.89
9/8/01	0.01	7	1690	160	16	422	2.87	73	7	5	0.91
10/27/01	0.01	7	1755	160	16	402	2.90	67	7	12	0.93
11/24/01	0.01	7	1871	180	19	405	3.06	63	7	5	0.95
1/5/02	0.01	7	1786	170	19	413	2.97	65	7	5	0.99
1/5/02	0.01	8	1777	145	18	408	2.90	73	7	5	-
3/30/02	0.01	7	1895	150	15	392	3.00	65	7	8	-
7/27/02	0.01	8	1474	140	19	448	2.67	60	7	11	-
8/31/02	0.01	6	1579	147	17	409	2.71	61	6	12	-
10/10/02	0.01	6	1781	148	20	410	2.92	61	6	15	-
11/16/02	0.01	6	1771	143	14	379	2.83	56	6	12	-
12/16/02	0.01	6	1730	149	15	395	2.83	49	6	13	-
2/22/03	0.01	8	1693	147	13	379	2.76	32	5	25	-
3/23/03	0.01	8	1755	151	14	387	2.85	33	5	23	-
4/19/03	0.01	8	1775	215	22	467	3.16	90	5	27	-
5/20/03	0.01	8	1861	217	24	482	3.28	29	4	26	-
6/21/03	0.01	8	1797	224	25	476	3.22	28	4	27	-
7/23/03	0.01	8	1926	228	24	476	3.36	31	4	25	-
8/21/03	0.01	8	1792	210	21	453	3.14	28	4	26	-
9/23/03	0.01	7	1723	216	25	453	3.09	58	6	12	-
11/22/03	0.01	8	1764	212	37	450	3.12	26	3	34	-
12/26/03	0.01	7	1708	213	36	442	3.05	25	3	37	-
1/26/04	0.01	8	1723	212	36	444	3.07	27	3	36	-
2/26/04	0.01	8	1682	206	36	450	3.03	24	3	37	-

Table-8. Time series data for As and other ions in shallow well at site A (depth - 91 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
1/5/02	0.02	10	2029	496	47	615	4.30	-	-	-	1.44
3/30/02	0.02	10	1954	399	39	637	4.07	-	-	-	1.44
4/27/02	0.02	9	2216	200	30	439	3.53	-	2	-	1.34
5/27/02	0.02	9	2139	207	32	434	3.45	-	1	-	1.33
6/30/02	0.02	10	2200	419	35	586	4.25	277	2	-	1.47
7/27/02	0.02	9	2167	417	36	587	4.21	211	2	-	1.47
8/31/02	0.02	11	1968	417	36	591	4.02	324	2	-	1.47
10/10/02	0.02	11	1997	423	33	552	3.98	330	2	-	1.47
11/16/02	0.02	9	2312	429	36	594	4.39	275	2	-	1.49
12/16/02	0.02	11	1718	423	40	641	3.89	301	3	-	1.50
2/22/03	0.02	11	1669	407	34	626	3.77	182	3	18	-
3/23/03	0.02	10	1466	377	34	603	3.46	130	3	24	-
4/19/03	0.02	11	1643	414	39	587	3.68	163	4	29	-
5/20/03	0.02	9	1702	417	30	612	3.79	-	3	27	-
6/21/03	0.02	11	1637	409	31	592	3.67	137	3	32	-
7/23/03	0.02	10	1681	433	31	586	3.75	194	3	28	-
8/21/03	0.02	10	1565	390	34	602	3.58	202	3	26	-
9/23/03	0.02	11	1852	452	42	632	4.06	341	3	8	-
11/22/03	0.02	8	1583	408	44	563	3.57	71	2	39	1.43
12/26/03	0.02	9	1549	390	43	568	3.51	-	2	36	1.43
1/26/04	0.02	10	1535	392	43	579	3.52	-	2	39	1.44
2/26/04	0.02	9	1533	395	44	575	3.52	-	2	37	1.44

Table-9a. Time series water level data (m) for shallow and deep wells at site A (1/2001-1/2002)

Date of Measurement	Wells at different depths							
	7 m	10 m	13 m	15 m	30 m	37 m	43 m	91 m
1/27/2001	3.3	3.2	3.3	3.2	2.6	2.6	2.6	x
2/6/2001	3.0	3.1	3.1	3.0	2.2	2.2	2.2	x
2/11/2001	3.0	3.1	3.0	2.9	2.1	2.1	2.1	x
2/19/2001	2.4	2.4	2.4	2.4	1.4	1.4	1.4	x
2/24/2001	2.4	2.4	2.4	2.4	1.5	1.5	1.4	x
3/2/2001	2.4	2.4	2.3	2.3	1.2	1.2	1.2	x
3/10/2001	2.3	2.3	2.3	2.3	1.2	1.2	1.2	x
3/17/2001	2.3	2.3	2.3	2.3	0.9	0.9	0.9	x
3/24/2001	2.3	2.3	2.2	2.2	1.0	1.0	0.9	x
3/31/2001	2.3	2.3	2.3	2.3	1.0	1.0	1.0	x
4/7/2001	2.6	2.6	2.6	2.6	0.9	0.9	0.8	x
4/14/2001	2.6	2.6	2.6	2.6	0.7	0.7	0.7	x
4/21/2001	2.7	2.7	2.7	2.7	0.9	0.9	0.9	x
4/28/2001	2.8	2.8	2.8	2.8	0.9	0.9	0.9	x
5/5/2001	2.9	2.9	2.9	2.9	1.1	1.1	1.1	x
5/12/2001	3.6	3.6	3.6	3.6	1.6	1.6	1.6	x
5/19/2001	3.7	3.7	3.7	3.7	1.9	1.9	1.9	x
5/26/2001	3.8	3.7	3.7	3.7	2.2	2.2	2.2	x
6/2/2001	3.8	3.8	3.8	3.8	2.4	2.4	2.4	x
6/9/2001	4.6	4.6	4.6	4.6	2.8	2.8	2.8	x
6/30/2001	5.2	5.2	5.2	5.2	3.8	3.8	3.8	x
7/7/2001	5.2	5.2	5.2	5.2	3.9	3.9	3.9	x
7/14/2001	5.3	5.3	5.3	5.3	4.0	4.0	4.0	x
7/21/2001	5.4	5.4	5.4	5.4	4.1	4.1	4.1	x
7/28/2001	5.6	5.6	5.6	5.6	4.3	4.3	4.3	x
8/4/2001	5.9	5.9	5.9	5.8	4.6	4.6	4.5	x
8/11/2001	6.3	6.3	6.3	6.3	5.0	5.0	5.0	x
8/18/2001	6.2	6.2	6.2	6.2	4.9	4.9	4.9	x
8/25/2001	6.0	6.0	6.0	6.0	4.8	4.8	4.8	x
9/1/2001	6.0	6.1	6.0	6.0	5.0	5.0	5.0	x
9/8/2001	6.2	6.2	6.2	6.2	5.1	5.1	5.1	x
9/15/2001	6.1	6.1	6.1	6.1	5.0	5.0	5.0	x
9/22/2001	6.2	6.2	6.2	6.2	5.1	5.1	5.1	x
9/28/2001	5.9	5.9	5.9	5.9	5.0	5.0	4.9	x
10/6/2001	5.7	5.7	5.7	5.7	4.9	4.9	4.9	x
10/13/2001	5.6	5.6	5.6	5.6	4.8	4.8	4.8	x
10/20/2001	5.8	5.8	5.8	5.8	4.9	4.9	4.9	x
10/27/2001	5.4	5.4	5.4	5.4	4.6	4.6	4.6	x
11/3/2001	5.2	5.2	5.1	5.2	4.5	4.5	4.5	x
11/10/2001	4.9	4.9	4.9	4.9	4.4	4.4	4.4	x
11/17/2001	4.5	4.5	4.5	4.5	4.2	4.2	4.2	x
11/24/2001	4.0	4.0	4.0	4.0	4.0	4.0	4.0	x
12/1/2001	3.8	3.7	3.7	3.7	3.9	3.9	3.9	x
12/8/2001	3.5	3.5	3.5	3.5	3.7	3.7	3.7	x
12/29/2001	3.1	3.1	3.1	3.1	3.5	3.5	3.4	x
1/5/2002	3.1	3.1	3.1	3.1	3.3	3.3	3.3	x
1/12/2002	3.0	3.0	3.0	3.0	3.1	3.1	3.1	x

x Well was not accessible due to public use

Table-9b. Time series water level data (m) for shallow and deep wells at site A (2/2002-2/2004)

Date of Measurement	Wells at different depths							
	7 m	10 m	13 m	15 m	30 m	37 m	43 m	91 m
2/18/2002	2.4	2.4	2.4	2.4	1.4	1.4	1.4	x
3/16/2002	2.6	2.6	2.6	2.7	1.0	1.0	1.0	1.1
3/30/2002	3.0	3.0	3.0	3.0	1.4	1.4	1.4	1.5
4/13/2002	3.2	3.2	3.2	3.2	1.7	1.7	1.7	1.5
4/27/2002	3.2	3.2	3.2	3.2	1.3	1.3	1.3	1.5
5/12/2002	4.0	4.0	4.0	4.0	2.2	2.2	2.2	2.3
5/27/2002	4.3	4.3	4.3	4.3	2.6	2.6	2.6	2.8
6/8/2002	4.6	4.6	4.6	4.6	3.1	3.1	3.1	3.2
6/15/2002	5.0	5.0	5.0	5.0	3.3	3.3	3.3	3.4
6/30/2002	5.8	5.8	5.8	5.8	4.1	4.1	4.1	4.2
7/14/2002	6.2	6.2	6.2	6.2	4.7	4.7	4.7	4.2
7/27/2002	6.3	6.3	6.3	6.3	4.9	4.9	4.9	5.0
8/7/2002	6.8	6.8	6.8	6.8	5.4	5.4	5.3	5.5
8/31/2002	6.4	6.4	6.4	6.4	5.2	5.2	5.2	5.5
9/15/2002	5.5	5.5	5.5	5.5	4.6	4.6	4.6	4.8
10/11/2002	5.4	5.4	5.4	5.4	4.4	4.4	4.4	4.4
11/16/2002	4.6	4.6	4.6	4.6	3.8	3.8	3.8	3.9
12/3/2002	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.7
12/16/2002	3.3	3.3	3.3	3.3	3.5	3.5	3.5	3.6
1/14/2003	2.9	2.9	2.9	2.9	2.5	2.5	2.8	2.7
2/1/2003	2.6	2.6	2.6	2.6	1.6	1.6	1.6	1.8
2/15/2003	2.6	2.6	2.6	2.6	1.6	1.6	1.6	1.7
3/2/2003	2.7	2.7	2.7	2.7	1.0	1.0	1.0	1.2
3/15/2003	2.6	2.6	2.6	2.6	1.0	1.0	1.0	1.1
3/31/2003	3.0	3.0	3.0	3.0	1.3	1.3	1.3	1.5
4/12/2003	3.2	3.2	3.2	3.2	1.3	1.3	1.3	1.5
4/26/2003	3.3	3.3	3.3	3.3	1.4	1.4	1.4	1.5
5/11/2003	3.7	3.7	3.7	3.7	2.0	2.0	2.0	2.1
5/24/2003	3.8	3.8	3.8	3.8	2.1	2.1	2.1	2.3
6/7/2003	4.1	4.1	4.1	4.1	2.4	2.4	2.4	2.5
6/24/2003	5.5	5.4	5.4	5.4	3.3	3.3	3.3	3.5
7/8/2003	6.0	6.0	6.0	6.0	4.2	4.2	4.2	4.3
7/22/2003	6.9	6.8	6.8	6.8	5.0	5.0	5.0	5.1
8/5/2003	6.5	6.5	6.5	6.5	4.8	4.8	4.8	5.0
8/21/2003	6.1	6.1	6.1	6.1	4.7	4.7	4.7	4.9
9/3/2003	6.3	6.3	6.3	6.3	4.9	4.9	4.9	5.0
9/18/2003	6.2	6.2	6.2	6.2	4.9	4.9	4.9	5.0
10/1/2003	6.3	6.3	6.3	6.3	4.9	4.9	4.9	5.1
10/23/2003	5.6	5.6	5.6	5.6	4.5	4.5	4.4	4.6
11/9/2003	4.9	4.9	4.9	4.9	4.1	4.1	4.1	4.3
11/23/2003	4.0	4.0	4.0	4.0	3.7	3.7	3.7	3.9
12/10/2003	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.6
12/25/2003	3.4	3.4	3.4	3.4	3.2	3.2	3.2	3.3
1/1/2004	3.0	3.0	3.0	3.0	2.8	2.8	2.8	3.0
1/25/2004	2.9	2.9	2.9	2.9	2.0	2.0	2.0	2.1
2/16/2004	2.7	2.7	2.7	2.7	1.1	1.1	1.1	1.2
2/27/2004	2.7	2.7	2.7	2.7	1.1	1.1	1.1	1.2

x Well was not accessible due to public use

Table-10. Time series data for As and other ions in shallow well at site B (depth - 7 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
5/12/01	0.57	106	2725	1563	219	2688	11.45	690	19	633	-
5/26/01	0.50	76	2236	1650	195	2590	10.91	411	31	576	-
6/9/01	0.54	96	2419	1429	137	2584	10.58	363	21	531	-
6/20/01	0.50	91	3070	1799	152	2778	12.38	234	9	463	4.64
7/14/01	0.42	55	2017	2085	186	2368	11.11	388	22	561	3.91
8/11/01	0.41	46	1634	1976	185	2499	10.77	348	19	633	3.99
8/25/01	0.44	50	1611	1946	184	2506	10.70	361	20	654	4.06
9/8/01	0.42	49	1657	2046	187	2456	10.85	370	18	641	4.16
9/28/01	0.46	45	1659	2010	192	2499	10.87	374	18	715	4.24
10/27/01	0.41	44	1766	2289	198	2882	12.31	375	18	957	5.11
11/24/01	0.41	48	2129	2499	199	3360	14.04	379	20	990	5.28
1/5/02	0.42	53	2003	2272	191	2995	12.73	386	21	1073	4.61
3/30/02	0.36	37	2227	1871	150	2809	11.74	386	14	1164	4.66
7/27/02	0.33	42	2471	1993	153	3098	12.81	564	18	910	4.27
8/31/02	0.31	39	2485	2108	143	2818	12.48	561	18	828	4.41
10/10/02	0.38	43	2472	2328	150	3293	13.86	597	20	802	4.69
11/16/02	0.33	39	2299	2222	150	3319	13.53	587	20	827	4.60
12/16/02	0.33	45	2234	2439	198	2793	12.90	464	16	673	4.60
2/22/03	0.28	46	2160	2255	184	2585	12.03	407	15	591	4.47
3/23/03	0.29	39	2169	2281	194	2674	12.27	401	14	722	4.26
4/19/03	0.32	56	3171	2112	200	2720	13.03	417	15	607	4.13
5/20/03	0.45	82	3040	2121	196	3047	13.57	532	15	659	-
6/21/03	0.39	76	2937	2049	176	2781	12.77	470	17	570	-
7/23/03	0.42	75	2829	2005	181	2746	12.51	478	18	566	-
8/21/03	0.45	64	2462	1794	169	2462	11.14	409	17	470	-
9/23/03	0.44	73	2810	1913	182	2551	11.92	450	13	510	-
11/22/03	0.32	48	1284	1863	180	2125	9.44	370	13	542	3.73
12/26/03	0.29	56	1155	1861	181	2199	9.46	375	13	424	3.58
1/26/04	0.35	53	1153	1862	188	2172	9.41	371	13	481	3.63
2/26/04	0.29	49	1279	2017	193	2193	9.89	374	14	528	4.16

Table-11. Time series data for As and other ions in shallow well at site B (depth - 11 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
5/12/01	2.88	38	1856	1218	167	1983	8.42	233	31	257	-
5/26/01	3.33	41	1741	1751	179	2995	11.41	211	48	299	-
6/9/01	3.34	44	1520	1739	173	3059	11.29	229	48	245	-
6/20/01	4.87	42	1520	1739	173	3059	11.29	153	39	239	3.00
7/14/01	4.42	52	1671	1644	150	2942	10.99	252	45	281	3.27
7/28/01	4.37	54	1619	1565	151	2973	10.84	244	47	281	3.23
8/11/01	4.43	57	1765	1630	147	2945	11.06	267	48	299	3.31
8/25/01	4.92	57	1819	1660	148	3021	11.33	253	50	333	3.39
9/8/01	4.78	58	1821	1638	146	2983	11.21	268	49	321	3.34
9/28/01	4.67	49	1818	1634	145	2936	11.10	278	47	281	3.27
10/27/01	4.67	57	1683	1601	141	2922	10.87	264	47	262	3.25
11/24/01	4.53	56	1584	1584	137	2846	10.58	265	46	231	2.99
1/5/02	4.70	52	1375	1528	130	2723	10.01	256	42	188	2.92
3/30/02	4.57	69	2844	1726	186	3430	13.34	724	36	427	3.26
7/27/02	4.60	75	2714	1798	183	3414	13.32	758	37	420	4.01
8/31/02	4.00	47	2816	1681	178	3216	12.79	675	36	369	4.06
10/10/02	3.88	54	2637	1738	162	2903	12.08	689	34	341	4.00
11/16/02	3.79	59	2611	1659	163	2997	12.08	566	35	259	3.84
12/16/02	3.08	51	2460	1599	166	2868	11.56	546	32	201	3.46
3/23/03	3.23	54	2362	1703	164	3051	12.03	562	35	412	3.65
4/19/03	3.86	60	2825	1774	170	3217	12.98	503	39	568	3.82
5/20/03	4.17	58	2795	1825	171	3256	13.13	517	38	542	4.03
6/21/03	3.71	59	2715	1811	172	3301	13.11	551	38	579	-
7/23/03	3.73	60	2718	1785	177	3370	13.21	543	38	566	-
8/21/03	3.23	65	2710	1787	176	3349	13.16	618	37	513	-
9/23/03	3.49	61	2835	1789	171	3273	13.13	519	37	497	-
11/22/03	3.49	65	2831	1795	168	3197	12.98	563	37	391	4.05
12/26/03	3.87	62	2638	1724	168	3434	13.12	450	36	325	3.72
1/26/04	3.49	62	2554	1553	162	2864	11.55	451	33	216	3.35
2/26/04	2.89	64	2729	1726	162	3034	12.41	526	31	353	3.52

Table-12. Time series data for As and other ions in shallow well at site B (depth - 14 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	6.16	42	1335	1263	129	2854	9.70	340	30	199	-
2/19/01	6.35	42	1342	1267	126	2830	9.66	328	30	156	-
3/17/01	9.59	50	1495	1463	123	3552	11.65	470	34	343	-
3/31/01	9.93	56	1612	1554	123	3707	12.26	496	34	415	-
4/14/01	6.61	34	1311	1407	119	3192	10.63	336	26	263	-
4/28/01	7.03	40	1600	1551	125	3336	11.50	353	26	297	-
5/12/01	8.68	54	1747	1533	122	3262	11.46	463	25	340	-
5/26/01	7.24	50	1578	1451	125	3243	11.09	432	24	326	-
6/9/01	6.97	52	1629	1411	126	3149	10.87	412	23	273	-
6/20/01	7.40	47	2033	1666	151	2959	11.44	257	23	207	3.66
7/14/01	6.12	51	1610	1217	122	2827	9.82	344	21	168	3.67
7/28/01	6.55	46	1620	1405	130	3183	10.93	386	24	281	4.24
8/11/01	6.60	45	1726	1435	123	2939	10.60	362	23	264	4.31
8/25/01	6.78	46	1612	1310	126	2827	10.01	346	22	246	4.21
9/8/01	6.59	45	1609	1287	127	2752	9.82	336	20	226	4.22
9/28/01	6.66	43	1565	1178	123	2572	9.19	323	20	185	4.16
10/27/01	6.63	42	1505	1204	126	2537	9.11	312	20	133	4.15
11/24/01	6.44	39	1524	1184	127	2501	9.02	303	21	116	4.35
1/5/02	6.57	39	2430	1516	83	2400	10.34	359	24	194	5.45
6/30/02	8.58	71	1914	1039	122	2413	8.94	494	16	88	3.56
7/27/02	7.78	65	1862	1012	115	2690	8.58	473	16	78	3.64
8/31/02	7.82	64	1876	988	119	2714	8.80	451	16	73	3.70
10/10/02	7.76	59	1887	1022	120	2676	8.80	432	17	74	3.89
11/16/02	7.01	52	1986	1100	131	2861	9.44	432	19	143	4.36
12/16/02	7.14	50	2035	1109	129	2828	9.44	457	20	139	4.67
2/22/03	7.69	62	2106	1113	145	2717	9.91	409	16	136	4.11
3/23/03	7.50	61	1900	1010	143	2718	9.50	355	15	84	3.70
4/19/03	7.10	66	1657	963	130	2477	8.67	336	13	42	-
5/20/03	7.16	66	1726	944	134	2488	8.72	349	13	47	-
6/21/03	7.23	66	1653	924	136	2447	8.53	355	13	50	-
7/23/03	6.57	65	1608	938	132	2456	8.53	347	13	40	-
8/21/03	6.90	64	1573	942	135	2494	8.58	352	13	37	-
9/23/03	6.82	64	1495	911	128	2455	8.35	345	13	35	-
11/22/03	6.52	61	1732	987	141	2536	8.92	371	15	60	3.60
12/26/03	6.61	58	1951	1049	149	2548	9.29	380	16	93	3.58
1/26/04	6.61	57	2123	1078	147	2563	9.55	384	16	112	3.38
2/26/04	6.04	66	1487	936	132	2535	8.56	335	13	18	3.35

Table-13. Time series data for As and other ions in shallow well at site B (depth - 19 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
5/12/01	5.06	47	1904	1170	129	2284	8.94	221	26	28	-
5/26/01	4.71	47	1747	1147	112	2334	8.82	222	28	7	-
6/9/01	4.99	52	1574	1152	103	2398	8.78	231	31	4	-
6/20/01	5.15	48	1762	1426	121	2546	9.83	210	26	3	2.08
7/14/01	5.44	58	1372	1116	95	2382	8.46	337	27	2	1.94
7/28/01	5.57	62	1393	1129	93	2404	8.55	312	28	3	2.02
8/11/01	5.68	64	1365	1120	92	2429	8.56	303	28	3	1.93
8/25/01	5.89	64	1367	1136	95	2418	8.57	315	29	3	1.93
9/8/01	5.92	64	1375	1118	91	2395	8.49	337	28	2	1.88
9/28/01	6.03	65	1370	1131	91	2412	8.55	349	28	2	1.85
10/27/01	5.98	64	1286	1114	90	2334	8.27	351	28	2	1.72
11/24/01	6.38	66	1402	1135	93	2422	8.61	377	28	2	1.79
1/5/02	6.16	65	1414	1088	89	2352	8.38	381	26	2	2.16
6/30/02	5.43	48	1115	1037	92	2259	7.80	477	22	20	1.80
7/27/02	6.02	54	1048	994	92	2348	7.82	499	22	13	1.74
8/31/02	5.89	56	1081	1027	86	2171	7.56	529	22	20	1.81
10/10/02	5.68	60	1053	1009	90	2153	7.47	523	22	13	1.71
11/16/02	5.44	55	1053	1000	93	2135	7.42	497	21	13	1.72
12/16/02	5.40	54	1093	1003	89	2239	7.66	487	20	12	1.73
2/22/03	5.21	58	1085	1098	118	2424	8.25	493	21	14	2.14
3/23/03	5.34	53	1033	1069	114	2397	8.08	492	22	13	2.00
4/19/03	5.13	56	1065	1069	114	2395	8.11	484	22	13	-
5/20/03	5.00	55	925	1049	118	2440	8.02	498	22	13	-
6/21/03	4.89	54	962	1068	118	2454	8.12	491	22	12	-
7/23/03	4.74	52	936	1030	112	2415	7.94	497	22	10	-
8/21/03	4.98	53	963	1075	111	2345	7.91	515	21	10	-
9/23/03	5.11	55	947	1029	116	2453	8.03	500	22	12	-
11/22/03	4.42	45	992	1038	123	2329	7.85	447	21	7	1.77
12/26/03	5.11	55	1041	1049	122	2340	7.94	497	21	7	1.74
1/26/04	5.14	55	1041	1059	118	2296	7.87	516	22	7	1.74
2/26/04	4.83	51	987	1056	123	2388	8.00	489	21	6	1.65

Table-14. Time series data for As and other ions in shallow well at site B (depth - 29 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	3.23	54	1064	1084	121	2446	8.25	329	8	5	-
2/19/01	3.26	56	1030	1039	122	2419	8.07	348	7	4	-
3/17/01	3.32	62	1094	1024	138	2398	8.08	414	7	1.7	-
3/31/01	3.45	61	1167	1071	143	2513	8.48	403	6	1.6	-
4/14/01	3.25	58	1144	990	136	2383	8.03	368	6	2	-
4/28/01	3.27	58	1165	974	134	2347	7.94	366	6	1	-
5/12/01	3.43	62	1192	970	131	2356	7.98	399	7	0.9	-
5/26/01	3.47	53	1149	969	129	2389	7.99	368	7	0.2	-
6/9/01	3.46	52	1084	968	125	2387	7.92	354	7	2	-
7/14/01	3.46	50	1092	977	131	2418	8.01	347	7	2.5	2.64
7/28/01	3.38	50	1142	1034	131	2382	8.10	345	7	3.5	2.64
8/11/01	3.46	51	1097	979	124	2350	7.88	368	7	0	2.64
10/27/01	2.98	38	1136	986	127	2350	7.93	300	7	0.9	2.24
2/22/03	2.91	48	1436	1073	167	2299	8.35	333	5	6.7	-
3/23/03	2.86	56	1455	1088	159	2242	8.27	369	5	3	-
4/19/03	2.69	41	1475	1078	157	2212	8.21	304	5	5.2	-
5/20/03	2.92	56	1431	1117	152	2300	8.42	412	5	2.5	-
6/21/03	3.08	62	1369	1078	158	2372	8.43	417	5	1.3	-
7/23/03	2.96	60	1379	1137	155	2346	8.50	410	5	3	-
8/21/03	2.75	57	1420	1119	157	2340	8.49	397	5	3	-
9/23/03	2.93	58	1367	1101	156	2324	8.37	413	6	3	-
11/22/03	2.95	53	1383	1189	159	2112	8.14	387	5	10	-
12/26/03	2.99	35	1408	1092	162	2335	8.42	269	5	7	-
1/26/04	3.14	62	1420	1064	165	2255	8.22	444	5	5	-
2/26/04	2.33	29	1410	1072	163	2274	8.26	213	6	10	-

Table-15. Time series data for As and other ions in deep well at site B (depth - 41 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	0.24	43	785	1490	127	946	5.78	135	1.0	4	-
2/19/01	0.24	37	720	1402	113	909	5.45	135	1.2	8	-
3/17/01	0.27	39	709	1320	107	890	5.24	156	1.8	8	-
4/14/01	0.26	40	708	1374	115	958	5.49	153	1.8	8	-
4/28/01	0.25	39	682	1344	113	933	5.35	149	1.7	8	-
5/12/01	0.27	43	712	1426	108	879	5.43	171	1.7	8	-
5/26/01	0.26	44	711	1393	112	933	5.47	173	1.6	8	-
6/9/01	0.25	44	720	1398	114	928	5.49	169	1.6	8	-
6/20/01	0.30	43	1009	1565	146	1035	6.35	111	1.7	2	0.31
7/14/01	0.24	44	697	1443	112	938	5.57	155	1.5	8	0.30
7/28/01	0.24	44	706	1418	115	952	5.56	158	1.4	8	0.30
8/11/01	0.25	43	712	1407	112	947	5.53	158	1.3	8	0.30
8/25/01	0.25	45	691	1413	117	963	5.56	160	1.3	8	0.30
9/8/01	0.24	43	712	1451	115	943	5.62	155	1.3	8	0.31
9/28/01	0.26	42	681	1424	112	961	5.56	158	1.3	8	0.34
10/27/01	0.25	41	723	1498	111	963	5.76	168	1.3	8	0.33
11/24/01	0.27	41	725	1475	115	983	5.76	162	1.4	9	0.34
1/5/02	0.29	45	754	1521	114	1010	5.93	215	1.5	3	-
3/30/02	0.26	46	766	1547	110	970	5.91	204	1.0	3	-
4/27/02	0.26	42	800	1607	120	1021	6.18	191	1.1	3	-
5/27/02	0.30	56	831	1662	119	1069	6.41	244	1.1	3	-
6/30/02	0.32	54	811	1660	120	1064	6.38	239	1.2	3	-
7/27/02	0.32	53	790	1609	115	1038	6.20	253	1.1	2	-
8/31/02	0.32	52	787	1591	116	1022	6.13	247	1.1	3	-
10/10/02	0.33	51	782	1636	114	1011	6.19	244	1.2	3	-
11/16/02	0.31	48	764	1627	116	1002	6.14	240	1.1	3	-
12/16/02	0.30	43	768	1590	111	995	6.05	214	1.4	3	-
2/22/03	0.27	48	729	1679	148	1079	6.39	213	1.0	2	-
3/23/03	0.30	48	723	1690	147	1074	6.40	207	1.0	3	-
4/19/03	0.28	48	729	1675	148	1069	6.36	207	0.9	3	-
5/20/03	0.31	49	729	1803	152	1119	6.72	212	1.0	3	-
6/21/03	0.26	48	738	1763	152	1115	6.64	208	0.9	3	-
7/23/03	0.29	48	735	1820	154	1159	6.85	227	0.8	3	-
8/21/03	0.26	48	722	1823	153	1141	6.80	223	0.8	3	-
9/23/03	0.26	49	719	1831	159	1157	6.86	216	0.9	3	-
11/22/03	0.28	47	727	1749	149	1123	6.62	224	0.9	6	-
12/26/03	0.28	45	694	1734	148	1129	6.57	228	0.9	5	-
1/26/04	0.28	47	721	1744	162	1137	6.64	230	0.9	6	-
2/26/04	0.28	45	716	1768	154	1117	6.64	218	0.9	6	-

Table-16. Time series data for As and other ions in deep well at site B (depth - 53 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
2/6/01	0.24	16	1705	501	51	764	4.29	100	3	10	-
2/19/01	0.24	16	1714	498	52	755	4.27	101	3	8	-
3/17/01	0.25	17	1796	509	50	759	4.38	109	4	8	-
3/31/01	0.23	17	1741	490	51	744	4.26	104	4	8	-
4/14/01	0.23	17	1720	475	49	773	4.26	105	4	8	-
4/28/01	0.24	18	1803	490	48	743	4.32	111	4	8	-
5/12/01	0.25	19	1757	480	48	745	4.26	122	4	9	-
5/26/01	0.25	18	1819	471	48	737	4.28	117	4	9	-
6/9/01	0.24	18	1803	479	45	731	4.27	119	4	8	-
6/20/01	0.19	16	2038	706	57	727	5.26	61	3	<0.003	0.33
7/14/01	0.25	18	1730	468	43	746	4.20	121	3	8	0.31
7/28/01	0.24	18	1757	480	44	740	4.24	117	3	8	0.30
8/11/01	0.24	18	1780	468	43	726	4.21	115	4	8	0.32
8/25/01	0.24	18	1783	471	45	746	4.26	119	3	8	0.30
9/8/01	0.25	18	1747	448	45	748	4.18	122	4	8	0.32
9/28/01	0.24	18	1772	473	44	732	4.23	117	3	8	0.32
10/27/01	0.24	18	1791	474	44	735	4.25	118	3	8	0.34
11/24/01	0.25	18	1793	481	45	759	4.32	124	4	8	0.33
1/5/02	0.21	18	2003	516	49	679	4.44	130	3	<0.003	-
3/30/02	0.21	18	1939	537	49	696	4.45	123	3	<0.003	-
4/27/02	0.20	16	1946	530	50	723	4.50	118	3	<0.003	-
5/27/02	0.23	17	2070	538	46	673	4.54	127	3	<0.003	-
6/30/02	0.22	17	2075	547	44	632	4.48	119	3	<0.003	-
7/27/02	0.22	17	1947	511	46	679	4.37	128	3	<0.003	-
8/31/02	0.24	18	2067	526	47	671	4.51	132	3	<0.003	-
10/10/02	0.22	18	1978	515	49	697	4.45	132	3	<0.003	-
11/16/02	0.21	17	2028	522	49	682	4.49	124	3	<0.003	-
12/16/02	0.24	16	1968	505	47	662	4.35	130	3	<0.003	-
2/22/03	0.21	17	1802	590	61	788	4.62	134	3	<0.003	-
3/23/03	0.24	17	1779	589	60	778	4.57	128	3	<0.003	-
4/19/03	0.24	17	1721	578	59	763	4.46	120	3	<0.003	-
5/20/03	0.25	17	1787	586	62	780	4.58	126	3	<0.003	-
6/21/03	0.23	18	1738	571	59	768	4.48	135	3	<0.003	-
7/23/03	0.23	17	1771	566	59	770	4.50	130	3	<0.003	-
8/21/03	0.22	17	1759	557	58	749	4.43	133	3	<0.003	-
9/23/03	0.22	17	1697	560	60	775	4.43	132	3	<0.003	-
11/22/03	0.19	18	1778	536	77	762	4.45	131	3	7	-
12/26/03	0.22	19	1789	552	75	749	4.47	125	3	7	-
1/26/04	0.23	16	1795	542	66	773	4.49	128	3	7	-
2/26/04	0.20	16	1826	521	63	740	4.41	125	3	7	-

Table-17. Time series data for As and other ions in deep well at site B (depth - 91 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
1/5/02	0.004	4	2079	304	40	380	3.49	22	1	<0.003	-
3/30/02	0.004	3	1955	344	43	406	3.50	23	2	<0.003	0.07
4/27/02	0.004	4	1875	378	42	415	3.50	25	2	<0.003	0.07
5/27/02	0.004	4	1846	369	47	478	3.59	23	1	<0.003	0.07
6/30/02	0.004	4	1959	372	45	364	3.48	23	2	<0.003	0.07
7/27/02	0.004	3	1852	350	44	532	3.66	29	2	<0.003	0.07
8/31/02	0.004	4	1639	459	49	502	3.61	22	2	<0.003	0.07
10/10/02	0.004	4	1959	361	47	397	3.52	24	2	<0.003	-
11/16/02	0.004	4	1931	363	40	419	3.54	26	2	<0.003	0.08
12/16/02	0.004	4	1777	374	46	456	3.48	25	2	<0.003	0.08
2/22/03	0.004	4	1845	357	44	395	3.39	24	2	<0.003	-
3/23/03	0.004	4	1807	341	42	425	3.38	21	2	<0.003	-
4/19/03	0.004	4	1815	335	44	442	3.41	27	2	<0.003	-
5/20/03	0.004	4	1718	371	44	458	3.42	26	2	<0.003	-
6/21/03	0.004	4	1741	365	44	460	3.44	29	2	<0.003	-
7/23/03	0.004	4	1508	427	45	557	3.52	27	2	<0.003	-
8/21/03	0.004	4	1852	370	44	405	3.45	27	2	<0.003	-
9/23/03	0.004	4	1815	352	43	442	3.45	25	2	<0.003	-
11/22/03	0.004	4	1751	368	43	450	3.43	25	2	<0.003	0.08
12/26/03	0.004	4	1877	333	48	411	3.41	25	2	<0.003	0.08
1/26/04	0.004	4	1860	330	48	399	3.37	27	2	<0.003	0.08
2/26/04	0.004	4	1714	349	47	453	3.37	30	2	<0.003	0.08

Table-18a. Time series water level data (m) for shallow and deep wells at site B (5/2001-5/2002)

Date of Measurement	Wells at different depths							
	7 m	11 m	14 m	19 m	29m	41 m	53 m	91 m
05/12/01	3.9	3.7	3.7	3.7	3.7	3.7	3.0	-
05/19/01	3.7	3.7	3.7	3.7	3.7	3.7	3.2	-
05/26/01	3.8	3.8	3.8	3.8	3.8	3.8	3.3	-
06/02/01	4.3	4.3	4.3	4.3	4.3	4.3	3.6	-
06/09/01	5.0	5.0	5.0	5.0	5.0	5.0	4.0	-
06/30/01	5.2	5.2	5.2	5.2	5.2	5.2	4.8	-
07/07/01	5.1	5.2	5.2	5.2	5.2	5.3	4.8	-
07/14/01	5.3	5.3	5.3	5.3	5.3	5.3	4.9	-
07/21/01	5.3	5.3	5.2	5.0	5.3	5.5	5.4	-
07/28/01	5.7	5.6	5.6	5.2	5.6	5.7	5.8	-
08/04/01	5.8	5.8	5.8	5.8	5.8	5.8	5.5	-
08/11/01	6.2	6.2	6.2	6.2	6.2	6.2	5.9	-
08/18/01	6.0	6.0	6.1	6.0	6.1	6.1	5.8	-
08/25/01	5.9	5.9	5.9	5.9	5.9	5.9	5.6	-
09/01/01	6.0	6.0	6.0	6.0	6.0	6.0	5.7	-
09/08/01	6.1	6.1	6.1	6.1	6.1	6.1	5.9	-
09/15/01	6.0	6.0	6.0	6.0	6.0	6.0	5.8	-
9/22/2001	6.0	6.1	6.1	6.1	6.1	6.1	5.9	-
09/28/01	5.8	5.8	5.8	5.8	5.8	5.8	5.6	-
10/06/01	5.7	5.7	5.7	5.7	5.7	5.7	5.5	-
10/13/01	5.6	5.6	5.6	5.6	5.6	5.6	5.4	-
10/20/01	5.8	5.8	5.8	5.8	5.8	5.7	5.5	-
10/27/01	5.4	5.4	5.4	5.4	5.4	5.4	5.3	-
11/03/01	5.4	5.4	5.4	5.4	5.4	5.5	5.2	-
11/10/01	5.3	5.3	5.3	5.3	5.3	5.3	5.1	-
11/17/01	5.2	5.2	5.2	5.2	5.2	5.2	4.9	-
11/24/01	5.0	5.1	5.1	5.1	5.1	5.0	4.8	-
12/01/01	4.9	4.9	4.9	4.9	4.9	4.9	4.6	-
12/08/01	4.8	4.8	4.8	4.8	4.8	4.8	4.5	-
12/29/01	4.5	4.6	4.5	4.5	4.5	4.5	4.2	-
01/05/02	4.4	4.4	4.4	4.4	4.4	4.4	4.1	-
01/12/02	4.1	4.0	4.0	3.9	4.0	4.2	4.2	-
02/18/02	2.8	2.8	2.8	2.8	2.8	2.9	2.8	-
03/16/02	2.4	2.5	2.5	2.5	2.5	2.5	2.4	-
03/23/02	2.3	2.3	2.3	2.3	2.3	2.4	2.3	-
03/30/02	3.3	3.3	3.3	3.3	3.3	3.3	2.9	-
04/13/02	3.0	3.0	3.0	3.0	3.0	3.0	2.9	-
04/20/02	2.7	2.7	2.7	2.7	2.7	2.7	2.6	-
04/27/02	3.1	3.1	3.1	3.1	3.1	3.1	2.7	-
05/12/02	4.6	4.6	4.6	4.6	4.6	4.5	3.8	-

- Well was not installed

Table-18b. Time series water level data (m) for shallow and deep wells at site B (5/2002-2/2004)

Date of Measurement	Wells at different depths							
	7 m	11 m	14 m	19 m	29m	41 m	53 m	91 m
05/27/02	4.9	4.9	4.8	4.9	4.9	4.9	4.1	-
06/08/02	5.4	5.4	5.4	5.4	5.2	5.4	4.6	-
06/15/02	5.4	5.4	5.4	5.4	5.4	5.3	5.4	4.2
06/30/02	5.7	5.6	5.7	5.7	5.7	5.8	5.7	x
07/14/02	6.1	6.1	6.2	6.2	6.1	6.1	5.8	x
07/27/02	6.3	6.3	6.3	6.3	6.3	6.3	6.0	5.5
08/07/02	6.7	6.7	6.7	6.7	6.7	6.7	6.4	x
08/31/02	6.3	6.3	6.3	6.3	6.3	6.3	6.1	x
09/15/02	5.5	5.5	5.5	5.5	5.5	5.5	5.4	4.8
10/11/02	5.4	5.4	5.4	5.4	5.4	5.4	5.2	x
11/16/02	5.3	5.3	5.3	5.3	5.3	5.3	4.8	4.5
12/03/02	4.7	4.8	4.7	4.7	4.7	4.7	4.4	x
12/16/02	4.6	4.6	4.6	4.6	4.6	4.6	4.3	x
01/14/03	3.8	3.8	3.8	3.8	3.8	3.9	3.7	3.4
02/01/03	3.0	3.0	3.0	3.0	3.0	3.1	3.0	2.8
02/15/03	3.1	3.1	3.1	3.1	3.1	3.2	2.9	2.5
03/02/03	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.2
03/15/03	3.2	3.2	3.2	3.2	3.2	3.3	2.6	2.2
03/31/03	3.6	3.6	3.6	3.6	3.6	3.6	2.8	2.4
04/12/03	2.8	2.8	2.8	2.8	2.8	2.9	2.6	2.4
04/26/03	3.3	3.3	3.3	3.3	3.3	3.4	2.9	2.5
05/11/03	4.3	4.3	4.3	4.3	4.3	4.3	3.6	x
05/24/03	4.2	4.2	4.2	4.2	4.2	3.1	4.2	3.2
06/07/03	4.7	4.7	4.7	4.7	4.7	3.3	4.6	3.4
06/24/03	5.5	5.5	5.5	5.5	5.5	4.2	5.4	4.3
07/08/03	6.1	6.1	6.1	6.1	6.1	5.1	6.0	5.2
07/22/03	6.8	6.8	6.8	6.8	6.8	6.7	6.3	5.9
08/05/03	6.0	6.3	6.4	6.4	6.4	5.7	6.3	6.5
08/21/03	6.0	6.0	6.0	6.0	6.0	6.0	5.7	5.5
09/03/03	6.2	6.2	6.2	6.2	5.6	6.0	5.9	5.7
09/18/03	6.1	6.1	6.1	6.1	6.1	6.1	5.8	5.6
10/01/03	6.2	6.2	6.2	6.2	6.2	6.2	5.9	x
11/09/03	4.8	5.3	5.3	5.3	5.3	5.3	5.0	5.4
11/23/03	5.0	5.0	5.0	5.0	5.0	5.0	4.7	x
12/10/03	4.7	4.7	4.7	4.7	4.7	4.7	4.4	4.2
12/25/03	4.6	4.7	4.7	4.7	4.7	4.6	4.2	x
01/11/04	4.4	4.4	4.4	4.4	4.4	4.4	4.0	3.7
01/25/04	3.7	3.7	3.7	3.7	3.7	3.7	3.5	x
02/16/04	3.2	3.2	3.2	3.2	3.2	3.2	2.7	x
02/27/04	2.9	2.9	2.9	2.9	2.9	2.9	2.6	x

x Well was not accessible due to public use

Table-19. Time series data for As and other ions in shallow well at site C (depth - 5 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.17	32	226	188	60	293	1.25	466	22	5	0.11
4/13/02	0.19	33	234	190	59	308	1.29	487	22	4	0.11
5/12/02	0.17	34	237	156	50	276	1.15	598	24	8	0.11
6/15/02	0.18	31	396	190	57	350	1.54	796	28	33	0.16
7/13/02	0.16	32	434	217	61	374	1.68	795	28	45	0.17
9/15/02	0.19	31	347	194	50	341	1.47	676	23	23	0.14
11/26/02	0.16	32	278	182	64	270	1.25	614	19	16	0.10
1/12/03	0.15	31	276	206	74	330	1.42	688	22	21	0.28
2/8/03	0.16	31	346	202	55	348	1.50	795	26	24	-
3/8/03	0.17	27	327	209	69	382	1.58	883	30	75	-
4/5/03	0.16	35	325	197	74	319	1.43	804	25	31	-
5/2/03	0.17	29	357	211	80	395	1.65	913	32	26	-
6/2/03	0.18	29	658	329	85	573	2.55	1378	44	45	-
7/6/03	0.15	33	645	228	61	382	1.93	929	26	29	-
11/3/03	0.12	45	5479	235	120	341	6.75	898	19	23	1.78
12/9/03	0.14	42	5738	369	121	511	7.62	1578	27	30	1.62
1/7/04	0.12	44	5584	207	93	255	6.60	819	13	16	1.50
2/10/04	0.16	51	5646	159	84	223	6.49	600	12	3	1.60

Table-20. Time series data for As and other ions in shallow well at site C (depth - 8 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.46	24	436	135	146	251	1.25	1316	44	27	0.21
4/13/02	0.52	19	353	157	144	284	1.38	1300	47	21	0.18
5/12/02	0.48	23	433	121	128	235	1.17	1250	43	27	0.20
6/15/02	0.49	20	514	143	145	264	1.47	1267	47	39	0.25
7/13/02	0.51	24	515	146	140	280	1.51	1367	48	39	0.25
9/15/02	0.48	21	456	136	100	264	1.36	1099	50	21	0.19
11/26/02	0.50	24	491	125	105	246	1.24	1113	48	7	0.18
1/12/03	0.45	24	543	113	129	228	1.12	1159	43	17	0.16
3/8/03	0.52	23	526	139	153	268	1.29	1391	44	22	-
4/5/03	0.51	23	362	154	167	282	1.40	1377	44	25	-
5/2/03	0.51	21	382	149	168	295	1.44	1310	44	29	-
6/2/03	0.55	20	831	326	266	711	3.17	2823	103	24	-
7/6/03	0.51	20	600	250	171	529	2.33	1851	75	72	-
11/3/03	0.52	24	452	333	168	599	2.48	2681	114	41	1.29
12/9/03	0.57	31	4510	397	191	749	6.99	3352	132	16	2.10
1/7/04	0.54	33	7399	229	155	403	8.82	1557	67	21	1.88
2/10/04	0.54	30	4504	289	175	509	6.27	2580	84	4	1.61

Table-21. Time series data for As and other ions in shallow well at site C (depth - 11 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.54	21	416	180	158	308	1.55	684	28	17	0.35
4/13/02	0.54	22	463	163	150	288	1.52	783	28	17	0.36
5/12/02	0.58	22	469	140	145	258	1.41	1069	32	16	0.35
6/15/02	0.59	23	450	153	149	266	1.44	798	31	16	0.38
7/13/02	0.58	23	485	160	147	269	1.49	838	30	16	0.38
9/15/02	0.56	19	469	150	143	269	1.45	987	30	16	0.38
11/26/02	0.50	21	345	123	123	213	1.14	1196	26	2	0.40
1/12/03	0.47	25	287	116	133	213	1.08	988	25	2	0.39
2/8/03	0.56	22	320	133	132	223	1.17	969	24	16	-
3/8/03	0.56	22	340	143	138	239	1.24	893	25	16	-
4/5/03	0.59	23	344	148	137	251	1.28	1044	28	16	-
5/2/03	0.58	21	352	156	139	264	1.33	1179	31	16	-
6/2/03	0.58	20	372	151	136	276	1.36	1358	33	15	-
11/3/03	0.57	24	406	312	197	554	2.94	1543	34	2	0.39
12/9/03	0.59	24	620	170	162	278	1.47	2284	46	2	0.77
1/7/04	0.62	23	1263	238	177	387	2.05	3227	80	2	2.13
2/10/04	0.58	25	2335	389	234	699	3.67	2446	50	2	1.39

Table-22. Time series data for As and other ions in shallow well at site C (depth - 14 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.96	34	361	504	105	671	2.82	828	36	36	0.32
4/13/02	0.86	28	375	501	100	699	2.88	741	35	40	0.34
5/12/02	0.94	34	360	500	99	683	2.82	827	35	36	0.35
6/15/02	1.04	36	349	485	93	677	2.77	820	35	34	0.33
7/13/02	0.80	24	538	532	96	774	3.25	705	32	3	0.35
9/15/02	0.52	19	518	509	100	875	3.39	637	31	3	0.36
11/26/02	0.82	31	357	413	115	594	2.49	790	31	41	0.32
1/12/03	0.97	33	313	372	115	605	2.38	622	27	38	0.25
2/8/03	0.97	34	393	407	115	591	2.50	756	30	39	-
3/8/03	1.00	34	386	430	99	623	2.59	676	29	41	-
4/5/03	0.98	33	359	464	106	666	2.73	773	33	28	-
5/2/03	0.98	32	361	507	107	709	2.90	877	36	25	-
6/2/03	1.02	32	361	521	98	740	2.98	770	35	22	-
7/6/03	0.99	35	335	495	96	670	2.76	852	33	21	-
11/3/03	0.97	31	323	421	127	683	2.66	787	33	3	0.34
12/9/03	0.99	33	334	418	129	639	2.58	820	32	3	0.31
1/7/04	1.00	30	363	459	131	708	2.83	887	36	3	0.40
2/10/04	0.98	31	341	391	124	588	2.42	747	30	3	0.28

Table-23. Time series data for As and other ions in deep well at site C (depth - 53 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.015	4	1254	352	31	560	3.11	47	12	3	0.59
4/13/02	0.012	2	1325	372	23	542	3.18	27	6	3	0.61
5/12/02	0.015	3	1266	351	30	515	3.03	53	14	5	0.62
6/15/02	0.014	2	1267	342	28	507	2.99	37	15	8	0.63
7/13/02	0.038	4	1310	348	25	476	2.98	67	16	18	0.64
9/15/02	0.026	5	1328	418	39	455	3.11	195	16	22	0.65
11/26/02	0.030	3	1206	334	40	439	2.79	72	15	11	0.64
1/12/03	0.012	4	1024	320	46	422	2.55	158	14	17	0.53
2/8/03	0.012	4	1246	375	29	442	2.91	196	14	15	-
3/8/03	0.015	5	1293	390	32	451	3.01	240	14	17	-
4/5/03	0.013	5	1283	391	33	440	2.98	274	14	18	-
5/2/03	0.017	5	1285	400	36	456	3.03	288	14	17	-
6/2/03	0.013	4	1258	381	32	435	2.92	203	13	15	-
7/6/03	0.044	4	1338	366	27	475	3.05	60	14	8	-
11/3/03	0.012	3	1110	340	34	391	2.61	28	12	0	0.54
12/9/03	0.014	3	1082	340	35	413	2.62	32	12	0	0.55
1/7/04	0.013	3	1095	344	36	411	2.64	34	12	0	0.55
2/10/04	0.012	4	1093	357	41	410	2.67	102	12	0	0.56

Table-24. Time series water level data (m) for shallow and deep wells at site C

Date of Measurement	Wells at different depths				
	5 m	8 m	11 m	14 m	53 m
3/16/2002	2.9	2.9	2.9	2.9	1.0
3/30/2002	3.0	3.0	3.0	3.0	1.5
4/13/2002	3.1	3.1	3.1	3.1	1.8
4/27/2002	3.3	3.3	3.3	3.3	2.0
5/12/2002	3.6	3.6	3.6	3.6	2.3
6/15/2002	4.7	4.7	4.7	4.7	3.4
6/20/2002	6.1	6.1	6.1	6.1	4.9
9/15/2002	5.9	5.9	5.9	5.9	4.9
9/21/2002	5.6	5.6	5.6	5.6	4.7
10/21/2002	5.4	5.4	5.4	5.4	4.3
11/26/2002	4.9	4.9	4.9	4.9	3.8
1/13/2003	3.9	3.9	3.9	3.9	2.7
2/1/2003	3.6	3.6	3.6	3.6	1.7
2/15/2003	3.3	3.3	3.3	3.3	1.7
3/2/2003	3.1	3.1	3.1	3.1	1.1
3/15/2003	3.0	3.0	3.0	3.0	1.1
3/31/2003	3.2	3.2	3.2	3.2	2.4
4/12/2003	3.1	3.1	3.0	3.0	1.4
4/26/2003	3.1	3.1	3.1	3.2	1.5
5/11/2003	3.5	3.5	3.5	3.5	2.1
5/24/2003	3.6	3.6	3.6	3.6	2.2
6/7/2003	3.8	3.8	3.8	3.8	2.5
6/24/2003	5.6	5.6	5.6	5.6	3.4
7/8/2003	5.8	5.8	5.8	5.8	4.2
7/22/2003	+	+	+	+	+
8/5/2003	+	+	+	+	+
8/21/2003	+	+	+	+	+
9/3/2003	+	+	+	+	+
9/18/2003	+	+	+	+	+
10/1/2003	+	+	+	+	+
10/23/2003	+	+	+	+	+
11/9/2003	5.4	5.4	5.4	5.4	4.3
11/23/2003	4.9	4.9	4.9	4.9	3.8
12/10/2003	4.4	4.4	4.4	4.4	3.5
12/25/2003	4.2	4.2	4.2	4.2	3.2
1/11/2004	4.0	4.0	4.0	4.0	3.0
1/25/2004	3.7	3.7	3.7	3.7	2.1
2/16/2004	3.2	3.2	3.2	3.2	1.1
2/27/2004	3.2	3.1	3.1	3.1	1.1

+ Wells were not accessible due to monsoonal flood

Table-25. Time series data for As and other ions in shallow well at site E (depth - 5 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.55	7	413	1033	81	1184	4.93	67	19	206	0.18
4/13/02	0.56	7	418	1040	76	1162	4.90	31	17	209	0.19
5/12/02	0.60	7	408	1044	76	1190	4.95	35	19	266	0.15
6/15/02	0.63	8	451	1052	80	1216	5.07	46	20	236	0.16
11/26/02	0.61	4	364	751	65	825	3.58	72	13	149	0.15
1/12/03	0.58	8	379	837	72	1093	4.31	49	18	183	0.17
1/26/03	0.57	8	502	1357	82	1472	6.24	45	21	443	-
2/8/03	0.55	7	485	1242	79	1321	5.69	46	19	312	-
3/8/03	0.57	8	490	1220	78	1319	5.65	45	18	313	-
4/15/03	0.53	8	464	1110	75	1204	5.17	40	17	238	-
5/2/03	0.56	9	456	1120	76	1196	5.17	57	18	237	-
6/2/03	0.60	9	419	1037	74	1132	4.83	59	18	199	-
7/6/03	0.59	9	413	943	71	1055	4.48	46	18	164	-
11/3/03	0.57	8	421	988	74	1059	4.59	50	16	177	0.14
12/9/03	0.55	7	422	980	72	1080	4.61	31	15	180	0.14
1/7/04	0.54	7	425	990	74	1123	4.72	46	14	198	0.15

Table-26. Time series data for As and other ions in shallow well at site E (depth - 8 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	0.98	24	386	775	75	811	3.63	333	35	108	0.13
4/13/02	1.09	27	421	876	77	870	3.99	453	39	132	0.13
5/12/02	1.11	26	398	806	76	826	3.74	375	35	86	0.13
6/15/02	1.11	29	362	646	71	698	3.12	378	29	15	0.11
11/26/02	1.13	28	335	571	58	568	2.67	460	26	44	0.10
1/12/03	1.21	27	323	581	69	695	2.95	347	29	22	0.12
1/26/03	1.09	28	417	850	74	851	3.89	426	35	75	-
2/8/03	1.07	25	431	932	75	902	4.17	443	37	115	-
3/8/03	1.05	25	435	963	76	949	4.34	454	40	138	-
4/15/03	1.07	23	447	987	78	1003	4.50	466	41	140	-
5/2/03	1.12	28	429	882	76	860	3.99	460	36	85	-
6/2/03	1.14	30	400	715	73	786	3.48	409	32	38	-
7/6/03	1.13	29	429	866	79	947	4.13	506	39	89	-
11/3/03	1.00	31	417	717	75	820	3.57	410	32	37	0.12
12/9/03	1.15	27	419	745	73	800	3.58	405	33	43	0.10
1/7/04	1.02	24	441	941	75	961	4.32	464	40	116	0.10

Table-27. Time series data for As and other ions in shallow well at site E (depth - 11 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/16/02	2.25	29	701	809	110	1136	4.70	89	31	3	0.08
4/13/02	1.85	27	554	786	107	1154	4.54	196	36	4	0.08
5/12/02	1.98	30	521	788	109	1140	4.49	249	39	<0.03	0.08
6/15/02	2.10	35	507	762	109	1133	4.41	329	37	<0.03	0.07
11/26/02	2.02	30	372	603	86	900	3.46	312	26	2	0.07
1/12/03	2.21	30	690	702	103	1083	4.36	545	27	1	0.07
1/26/03	2.29	28	493	729	107	1065	4.19	458	34	1	-
2/8/03	2.24	26	467	698	107	1056	4.08	430	33	2	-
3/8/03	2.22	28	467	704	106	1048	4.08	455	33	1	-
4/15/03	2.23	27	466	725	106	1032	4.08	439	32	1	-
5/2/03	2.34	28	476	717	107	1032	4.08	463	32	1	-
6/2/03	2.37	28	460	719	107	1068	4.14	478	33	2	-
7/6/03	2.32	29	471	713	108	1067	4.14	452	32	1	-
11/3/03	2.34	28	462	696	109	1048	4.06	474	33	1	0.07
12/9/03	2.41	26	480	716	108	1073	4.17	463	32	1	0.07
1/7/04	2.29	28	461	708	108	1067	4.12	447	31	<0.03	0.07

Table-28. Time series data for As and other ions in shallow well at site E (depth - 14 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
3/16/02	2.20	22	1244	821	90	1247	5.47	206	21	3	0.82
4/13/02	2.12	25	1245	814	91	1309	5.58	357	26	3	0.79
5/12/02	2.55	28	1226	805	87	1331	5.58	367	26	1	0.77
6/15/02	2.59	30	1268	820	87	1307	5.61	470	23	1	0.76
11/26/02	1.99	22	1665	711	101	1226	5.64	552	14	1	0.83
1/12/03	2.10	25	1172	739	67	1205	5.13	474	15	1	0.81
1/26/03	2.17	26	1102	693	72	1170	4.90	528	15	1	-
2/8/03	2.00	22	1117	1063	126	1245	5.86		22	2	-
3/8/03	2.34	27	1152	990	115	1255	5.76	855	20	2	-
4/15/03	2.27	26	1071	700	79	1152	4.85	591	14	1	-
5/2/03	2.10	24	1010	677	68	1158	4.75	455	14	1	-
6/2/03	2.13	25	1033	703	74	1153	4.82	578	14	1	-
7/6/03	2.05	24	1037	677	70	1156	4.77	591	13	1	-
11/3/03	1.94	23	1039	667	67	1125	4.69	459	13	1	0.75
12/9/03	2.18	23	1005	656	66	1132	4.65	538	13	1	0.76
1/7/04	1.92	22	1023	671	65	1122	4.67	441	13	1	0.75

Table-29. Time series data for As and other ions in deep well at site E (depth - 38 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
3/16/02	0.005	3	2748	843	80	821	6.16	60	7	<0.03	1.21
4/13/02	0.005	3	2849	842	80	831	6.27	40	9	<0.03	1.22
5/12/02	0.005	3	3056	801	73	772	6.28	60	8	<0.03	1.21
6/15/02	0.005	3	3114	770	70	745	6.21	86	8	<0.03	1.20
11/26/02	0.004	3	2370	588	59	1062	5.73	66	6	<0.03	1.16
1/12/03	0.005	2	2572	609	49	974	5.79	53	6	<0.03	1.24
1/26/03	0.004	2	2478	609	49	998	5.74	38	4	<0.03	-
2/8/03	0.005	3	2449	619	50	1043	5.82	29	4	<0.03	-
3/8/03	0.004	3	2412	620	48	1002	5.70	42	4	<0.03	-
4/15/03	0.004	3	2320	604	49	988	5.55	43	4	<0.03	-
5/2/03	0.004	3	2276	598	49	985	5.49	46	4	<0.03	-
6/2/03	0.005	3	2273	606	47	965	5.46	33	4	<0.03	-
7/6/03	0.004	3	2216	587	46	951	5.34	94	4	<0.03	-
11/3/03	0.004	3	2144	586	55	968	5.31	76	4	<0.03	1.19
12/9/03	0.005	3	2231	607	45	997	5.48	67	4	<0.03	1.25
1/7/04	0.004		2235	620	109	989	5.56	71	4	<0.03	1.26

Table-30. Time series water level data (m) for shallow and deep wells at site E

Date of Measurement	Wells at different depths				
	5 m	8 m	11 m	14 m	38 m
3/16/2002	2.9	2.9	2.9	2.9	2.7
3/30/2002	3.0	3.0	3.0	3.0	2.9
4/13/2002	3.0	3.0	3.0	3.0	2.9
4/27/2002	3.3	3.3	3.3	3.3	3.2
5/12/2002	3.6	3.6	3.6	3.5	3.5
6/15/2002	5.1	5.1	5.1	5.1	5.0
10/21/2002	5.3	5.3	5.3	5.2	5.2
11/26/2002	4.7	4.7	4.7	4.7	4.7
1/12/2003	3.8	3.8	3.8	3.8	3.7
2/1/2003	3.3	3.3	3.3	3.3	3.2
2/15/2003	3.2	3.2	3.2	3.2	3.1
3/2/2003	3.0	3.0	3.0	3.0	2.9
3/15/2003	2.9	2.9	2.9	2.9	2.8
3/31/2003	2.9	2.9	2.9	2.9	2.8
4/12/2003	3.0	3.0	3.0	3.0	2.8
4/26/2003	3.0	3.0	3.0	3.0	2.9
5/11/2003	3.4	3.4	3.4	3.4	3.3
5/24/2003	3.4	3.4	3.5	3.4	3.4
6/7/2003	3.7	3.7	3.7	3.6	3.6
6/24/2003	5.6	5.6	5.6	5.6	5.4
7/8/2003	5.7	5.7	5.7	5.7	5.6
7/22/2003	+	+	+	+	+
8/5/2003	6.3	6.3	6.3	6.2	6.2
8/21/2003	6.0	6.0	6.0	6.0	5.9
9/3/2003	6.0	6.0	6.0	6.0	6.0
9/18/2003	6.0	6.0	6.0	6.0	5.9
11/9/2003	5.3	5.3	5.3	5.2	5.2
11/23/2003	4.6	4.6	4.6	4.6	4.6
12/10/2003	4.2	4.2	4.2	4.2	4.2
12/25/2003	4.0	4.1	4.1	4.0	4.0
1/11/2004	3.9	3.9	3.9	3.8	3.8
1/25/2004	3.6	3.6	3.6	3.6	3.5
2/16/2004	3.1	3.1	3.1	3.1	2.9
2/27/2004	3.1	3.1	3.1	3.0	2.9

+ Well was not accessible due to monsoonal flood

Table-31. Time series data for As and other ions in shallow well at site F (depth - 6 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
3/9/02	0.00	0	218	315	51	334	1.57	1	<0.002	111	0.22
4/7/02	0.00	0	237	235	42	222	1.19	2	<0.002	38	0.16
5/5/02	0.00	0	180	302	52	338	1.51	1	<0.002	64	0.18
6/8/02	0.00	0	179	284	49	326	1.45	2	4	38	0.19
7/6/02	0.00	0	142	323	43	348	1.53	4	6	27	0.19
8/3/02	0.00	0	154	321	46	362	1.57	4	5	24	0.17
9/7/02	0.00	0	159	290	43	271	1.32	5	4	21	0.17
10/14/02	0.00	0	172	293	47	334	1.47	1	3	29	0.24
11/10/02	0.00	0	261	400	52	371	1.86	5	2	63	0.31
12/1/02	0.00	0	161	351	51	320	1.55	4	2	41	0.29
1/7/03	0.00	0	324	438	62	511	2.28		<0.002	60	0.34
3/1/03	0.00	0	278	330	52	404	1.80	3	<0.002	65	0.42
3/30/03	0.00	0	210	314	49	368	1.62		<0.002	60	0.30
4/29/03	0.00	0	127	295	49	341	1.45	1	<0.002	16	0.22
5/28/03	0.00	0	118	293	46	332	1.41	0	3	14	0.23
6/30/03	0.00	0	117	294	45	317	1.39	1	5	16	0.24
7/31/03	0.00	0	133	347	48	395	1.66	0	6	5	0.24
8/31/03	0.00	0	141	400	51	451	1.89	7	5	13	0.23
12/8/03	0.00	0	215	367	65	407	1.83	6	3	33	0.26
1/8/04	0.00	0	191	367	62	411	1.81	2	2	17	0.25
2/10/04	0.00	0	318	381	65	428	2.00	3	<0.002	30	0.28

Table-32. Time series data for As and other ions in shallow well at site F (depth - 11 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
3/9/02	0.41	2	109	209	51	222	1.02	25	15	6	0.06
4/7/02	0.47	2	126	328	61	334	1.51	39	27	46	0.17
5/5/02	0.50	2	148	417	69	459	1.97	76	38	36	0.22
6/8/02	0.58	2	150	394	71	436	1.88	63	39	45	0.23
7/6/02	0.56	4	150	385	68	437	1.86	85	30	26	0.22
8/3/02	0.47	3	150	352	66	388	1.70	120	28	33	0.24
9/7/02	0.43	3	126	334	57	375	1.60	91	24	14	0.22
10/14/02	0.45	3	132	350	59	394	1.68	96	26	15	0.23
11/10/02	0.52	2	116	306	52	298	1.38	50	23	26	0.16
12/1/02	0.50	2	114	287	50	285	1.31	42	21	24	0.16
2/1/03	0.41	2	133	311	56	314	1.44	49	22	13	0.20
3/1/03	0.43	2	119	317	59	350	1.51	51	23	14	0.20
3/30/03	0.42	2	125	333	62	386	1.62	43	26	21	0.12
4/29/03	0.45	2	137	373	63	594	2.13	58	40	34	0.19
5/28/03	0.45	1	171	467	70	493	2.16	55	41	39	0.19
6/30/03	0.44	1	174	494	74	452	2.14	61	48	60	0.22
7/31/03	0.46	2	171	520	70	424	2.13	65	41	10	0.24
8/31/03	0.48	2	149	485	60	469	2.12	78	38	7	0.24
12/8/03	0.48	2	157	502	61	312	1.84	62	33	17	0.17
1/8/04	0.48	2	155	383	72	478	1.95	63	35	10	0.18
2/10/04	0.46	2	162	406	74	362	1.77	51	30	0	0.23

Table-33. Time series data for As and other ions in shallow well at site F (depth - 15 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
3/9/02	0.68	4	159	422	47	574	2.20	16	22	37	0.07
4/7/02	0.76	4	151	458	46	628	2.37	21	24	23	0.07
5/5/02	0.58	3	155	445	47	593	2.28	38	22	24	0.06
6/8/02	0.71	3	144	476	41	703	2.54	42	30	13	0.08
7/6/02	0.78	6	142	477	49	640	2.43	68	27	16	0.06
8/3/02	0.65	5	142	479	48	637	2.42	71	27	15	0.07
9/7/02	0.58	4	145	489	49	618	2.41	61	27	12	0.06
10/14/02	0.62	4	148	491	49	627	2.43	51	28	10	0.06
11/10/02	0.63	2	143	471	53	520	2.18	27	23	15	0.06
12/1/02	0.64	1	139	424	49	481	2.00	43	24	18	0.07
1/7/03	0.62	4	130	459	52	626	2.35	10	26	15	0.06
2/1/03	0.57	3	146	461	47	599	2.31	20	28	15	0.06
3/1/03	0.68	4	149	473	49	639	2.42	21	29	22	0.07
3/30/03	0.68	4	154	495	49	625	2.44	24	30	34	0.07
4/29/03	0.68	5	146	475	48	621	2.39	21	28	19	0.07
5/28/03	0.75	4	152	491	48	678	2.54	23	30	0	0.07
6/30/03	0.75	5	150	492	48	694	2.57	22	30	5	0.07
7/31/03	0.72	4	147	471	49	669	2.48	20	30	5	0.07
8/31/03	0.74	4	143	469	49	653	2.44	26	31	6	0.07
12/8/03	0.71	4	161	475	65	660	2.50	26	29	8	0.06
1/8/04	0.72	4	166	468	65	663	2.49	21	30	11	0.06
2/10/04	0.63	4	151	390	62	544	2.08	11	24	14	0.08

Table-34. Time series data for As and other ions in shallow well at site F (depth - 19 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/9/02	3.06	18	353	662	58	1066	3.87	17	42	42	0.04
4/7/02	3.07	18	359	655	57	1035	3.79	23	43	32	0.03
5/5/02	3.16	19	347	623	57	1029	3.71	55	41	38	0.03
6/8/02	2.95	18	380	721	72	1172	4.24	32	39	30	0.04
7/6/02	3.31	20	364	683	58	1116	4.02	54	43	36	0.03
8/3/02	3.26	20	362	685	56	1099	3.99	60	42	34	0.03
9/7/02	3.06	18	361	671	57	1089	3.94	48	41	35	0.03
10/14/02	2.89	17	347	657	55	1053	3.82	51	41	36	0.03
11/10/02	2.96	11	322	595	69	825	3.23	22	41	35	0.03
12/1/02	2.77	9	315	573	66	782	3.09	34	38	31	0.04
1/7/03	2.54	17	330	613	71	973	3.57	16	47	39	0.04
2/1/03	2.41	15	350	647	55	1059	3.82	7	43	42	0.04
3/1/03	2.93	18	355	664	56	1067	3.87	18	45	41	0.04
3/30/03	2.79	17	339	615	53	994	3.61	13	41	39	0.04
4/29/03	2.89	18	338	610	53	999	3.61	18	43	38	0.04
5/28/03	2.99	18	347	635	54	1061	3.79	18	40	36	0.04
6/30/03	2.91	19	346	632	55	1074	3.81	18	40	38	0.03
7/31/03	2.54	15	299	552	45	935	3.32	18	40	31	0.04
8/31/03	2.36	14	279	519	41	928	3.22	16	38	25	0.04
12/8/03	2.75	18	319	546	80	993	3.48	17	45	30	0.04
1/8/04	2.69	17	335	587	81	1049	3.69	16	45	33	0.04
2/10/04	2.69	16	333	573	79	997	3.55	11	44	37	0.04

Table-35. Time series data for As and other ions in shallow well at site F (depth - 26 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
11/10/02	1.78	30	454	647	111	1168	4.19	292	28	0.28	0.21
12/1/02	2.85	28	516	594	97	1304	4.41	330	28	0.29	0.21
1/7/03	2.51	21	432	454	95	1758	4.95	339	35	0.35	0.21
2/1/03	3.33	34	478	718	77	1692	5.37	382	37	0.35	0.19
3/1/03	3.21	34	482	724	78	1741	5.49	376	38	0.32	0.23
3/30/03	3.09	34	478	722	75	1666	5.33	358	37	0.33	0.20
4/29/03	3.05	34	482	725	75	1710	5.43	350	37	0.33	0.21
5/28/03	3.09	33	451	697	76	1754	5.43	354	37	0.34	0.21
6/30/03	3.05	33	472	708	76	1735	5.43	355	37	0.33	0.22
7/31/03	3.02	33	473	709	71	1672	5.31	358	35	0.31	0.22
8/31/03	3.07	35	499	753	74	1698	5.48	359	36	0.31	0.23
12/8/03	2.97	31	447	655	107	1767	5.40	368	36	0.31	0.23
1/8/04	2.90	30	436	646	104	1740	5.31	341	36	0.31	0.24
2/10/04	2.91	31	432	651	103	1746	5.33	346	36	0.31	0.23

Table-36. Time series data for As and other ions in deep well at site F (depth - 58 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/9/02	0.004	6	11672	295	35	278	12.85	7	9	4	8.94
4/7/02	0.004	5	11450	271	36	285	12.60	3	9	4	7.79
5/5/02	0.004	5	12073	302	35	281	13.27	6	9	5	9.17
6/8/02	0.004	5	12253	294	38	293	13.46	4	9	6	9.19
7/6/02	0.004	5	12276	312	35	288	13.51	7	9	7	9.38
8/3/02	0.004	5	11611	286	35	293	12.80	4	9	7	9.04
9/7/02	0.004	5	11982	292	35	294	13.19	5	10	11	9.82
10/14/02	0.003	5	12254	307	36	303	13.51	5	9	12	10.07
11/10/02	0.004	4	9024	255	32	245	10.06	3	8	12	10.21
12/1/02	0.004	4	9017	267	33	253	10.09	4	8	12	10.30
1/7/03	0.004	5	10640	234	32	28	11.20	8	9	13	10.16
2/1/03	0.004	5	11806	297	37	30	13.04	9	9	12	10.02
3/1/03	0.004	5	11770	307	35	294	13.01	7	9	13	9.89
3/30/03	0.004	5	12062	306	34	288	13.28	7	10	12	9.76
4/29/03	0.004	5	11654	285	35	292	12.84	5	9	12	9.85
5/28/03	0.004	5	11562	263	33	273	12.67	5	9	11	9.32
6/30/03	0.004	5	12140	276	35	287	13.30	5	9	11	9.53
7/31/03	0.004	5	10321	237	34	295	11.42	3	9	0.1	9.24
8/31/03	0.004	5	10452	235	34	301	11.56	4	9	1	9.75
12/8/03	0.004	5	11459	305	42	311	12.73	9	9	14	10.66
1/8/04	0.004	5	11371	294	39	302	12.60	9	8	10	11.48
2/10/04	0.004	5	11062	275	38	287	12.22	4	8	9	10.69

Table-37. Time series water level data (m) for shallow and deep wells at site F

Date of Measureme	Wells at different depths					
	6 m	11 m	15 m	19 m	26m	58 m
03/09/02	2.5	2.5	2.5	2.5	-	x
03/23/02	2.3	2.3	2.3	2.3	-	2.3
04/06/02	2.8	2.8	2.8	2.8	-	x
04/20/02	2.8	2.7	2.7	2.7	-	2.7
05/05/02	3.0	3.0	3.0	3.0	-	x
05/18/02	3.8	3.8	3.8	3.8	-	3.8
06/01/02	4.3	4.3	4.2	4.3	-	x
06/24/02	5.3	5.3	5.3	5.2	-	5.2
07/14/02	6.0	6.0	6.0	6.0	-	5.9
09/07/02	5.8	5.8	5.8	5.8	-	x
10/14/02	5.3	5.3	5.3	5.3	-	5.2
11/10/02	4.5	4.5	4.4	4.4	4.5	x
12/16/02	4.3	4.2	4.2	4.2	4.3	x
01/05/03	3.8	3.8	3.8	3.8	3.8	3.8
01/07/03	3.8	3.8	3.8	3.8	3.8	3.7
02/01/03	3.0	3.0	3.0	3.0	3.0	2.9
02/15/03	2.8	2.8	2.8	2.8	2.8	2.8
03/02/03	2.6	2.6	2.6	2.5	2.7	2.4
03/15/03	2.6	2.6	2.6	2.6	2.8	2.4
03/31/03	2.7	2.7	2.7	2.7	2.9	2.5
04/12/03	2.7	2.6	2.6	2.6	2.8	2.5
04/26/03	2.8	2.8	2.8	2.8	3.0	2.6
05/11/03	3.5	3.5	3.5	3.5	3.5	3.5
05/24/03	3.6	3.6	3.6	3.6	3.6	3.6
06/07/03	3.9	3.9	3.9	3.9	3.9	3.9
06/24/03	5.4	5.4	5.4	5.4	5.4	5.2
07/08/03	6.1	6.1	6.0	6.0	6.1	x
07/22/03	6.9	6.7	6.7	6.7	6.7	x
08/05/03	6.4	6.3	6.3	6.3	6.3	x
08/21/03	6.0	5.9	5.9	5.9	5.9	x
09/03/03	6.2	6.2	6.2	6.2	6.2	x
09/18/03	6.1	6.1	6.1	6.1	6.1	x
10/01/03	6.2	6.2	6.1	6.2	6.2	x
11/09/03	5.1	5.0	5.0	5.0	5.0	x
11/23/03	4.6	4.6	4.6	4.6	4.6	4.6
12/10/03	4.3	4.4	4.3	4.3	4.3	x
12/25/03	4.1	4.1	4.1	4.1	4.1	x
01/11/04	3.9	3.9	3.9	3.9	3.9	x
01/25/04	3.7	3.6	3.6	3.6	3.6	x
02/16/04	2.8	2.8	2.8	2.8	2.8	x
02/27/04	2.7	2.7	2.7	2.7	2.7	x

- Well was not installed x Wells were not accessible due to public use

Table-38. Time series data for As and other ions in shallow well at site G (depth - 6 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
4/7/02	1.53	66	405	952	115	1300	5.02	1049	29	24	0.11
5/5/02	1.67	60	358	700	69	1242	4.31	487	25	22	0.11
6/8/02	1.89	62	364	726	69	1247	4.38	523	26	22	0.11
7/6/02	1.69	47	377	728	67	1245	4.39	655	30	21	0.12
8/3/02	1.20	27	363	715	70	1272	4.41	999	34	24	0.13
9/7/02	1.13	17	374	721	67	1304	4.49	1022	31	24	0.12
10/14/02	1.76	55	359	703	74	1335	4.51	750	25	23	0.12
11/10/02	1.84	66	361	682	71	1296	4.39	552	21	22	0.12
12/1/02	1.76	65	361	664	71	1261	4.28	498	22	22	0.12
1/8/03	1.68	59	336	689	91	1365	4.54	515	23	20	-
3/1/03	1.72	62	356	722	69	1271	4.41	478	23	21	-
3/30/03	1.57	53	366	736	66	1210	4.32	450	23	21	0.11
4/29/03	1.70	60	369	765	67	1252	4.47	491	23	21	0.11
5/28/03	1.73	59	359	748	65	1231	4.38	491	22	21	0.11
6/30/03	1.77	55	372	770	67	1269	4.52	532	23	21	-
7/31/03	1.81	64	368	780	73	1351	4.70	520	23	21	0.11
8/31/03	1.87	65	369	801	75	1406	4.86	543	24	21	0.11
12/8/03	1.92	69	369	800	73	1442	4.93	564	22	22	0.14
1/8/04	1.85	72	397	758	76	1414	4.82	513	18	22	0.14
2/10/04	1.88	60	380	861	75	1430	5.04	573	25	21	0.12

Table-39. Time series data for As and other ions in shallow well at site G (depth - 9 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
4/7/02	2.36	150	384	740	96	1683	5.33	483	6	9	0.10
5/5/02	2.31	135	384	744	97	1697	5.36	447	6	14	0.10
6/8/02	2.33	138	364	735	93	1753	5.43	523	7	5	0.09
7/6/02	1.98	86	360	681	87	1394	4.60	460	10	6	0.11
8/3/02	2.21	105	361	692	92	1560	4.96	551	12	14	0.11
9/7/02	1.79	65	404	746	87	1712	5.41	616	15	<0.03	0.12
10/14/02	1.79	69	380	727	91	1770	5.46	649	9	<0.03	0.12
11/10/02	1.90	90	373	727	90	1730	5.38	587	9	9	0.11
12/1/02	2.04	146	365	705	92	1682	5.23	578	10	7	0.10
1/8/03	1.95	84	347	629	90	1473	4.64	400	9	2	-
3/1/03	2.07	104	332	630	102	1692	5.08	449	7	3	-
3/30/03	2.09	109	352	683	90	1615	5.04	424	7	2	0.09
4/29/03	2.18	116	352	703	92	1697	5.24	446	6	3	0.10
5/28/03	2.18	109	364	732	90	1625	5.17	478	8	3	-
6/30/03	2.10	108	350	712	86	1628	5.12	465	8	3	-
7/31/03	2.25	111	348	693	92	1640	5.11	459	8	3	0.11
8/31/03	2.11	110	354	726	95	1649	5.20	481	7	7	0.12
12/8/03	2.03	98	336	680	93	1694	5.18	537	7	4	0.10
1/8/04	2.26	119	367	772	95	1786	5.58	489	7	5	0.11
2/10/04	2.42	117	407	822	97	1856	5.86	492	7	3	0.11

Table-40. Time series data for As and other ions in shallow well at site G (depth - 14 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL ⁻¹)	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL ⁻¹)
4/7/02	1.39	36	424	706	82	1490	4.90	356	39	2.6	0.18
5/5/02	1.30	36	365	586	76	1225	4.06	293	33	1.8	0.16
6/8/02	1.25	33	335	491	70	1033	3.45	229	26	1.0	0.17
7/6/02	1.44	40	342	530	73	1203	3.88	327	30	1.0	0.17
8/3/02	1.44	40	344	564	72	1263	4.07	304	30	1.4	0.19
9/7/02	1.33	38	353	564	72	1243	4.04	438	29	1.0	0.20
10/14/02	1.42	38	345	551	74	1267	4.05	313	29	1.4	0.21
11/10/02	1.38	39	349	552	73	1280	4.09	291	29	1.4	0.22
12/1/02	1.36	37	593	936	72	659	3.86	334	29	1.0	0.20
1/8/03	1.42	36	340	554	72	1259	4.04	357	29	1.0	0.19
3/1/03	1.22	31	287	449	68	1167	3.59	246	29	1.4	0.18
3/30/03	1.30	34	328	506	70	1047	3.50	248	26	1.0	0.18
4/29/03	1.29	36	358	517	81	1087	3.65	248	27	1.0	0.16
5/28/03	1.36	33	270	507	75	1301	3.96	290	32	1.0	0.20
6/30/03	1.36	34	350	568	76	1320	4.20	293	31	1.0	-
7/31/03	1.38	33	337	563	76	1309	4.16	276	30	1.0	0.21
8/31/03	1.39	33	342	552	75	1277	4.08	259	29	1.0	0.22
12/8/03	1.29	33	341	548	71	1197	3.90	248	28	1.0	0.21
1/8/04	1.41	33	338	565	74	1269	4.08	271	31	1.0	0.22
2/10/04	1.36	32	337	539	73	1230	3.95	256	29	1.4	0.17

Table-41. Time series data for As and other ions in shallow well at site G (depth - 21 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
4/7/02	2.30	43	330	490	80	1122	3.63	195	23	7.0	0.45
5/5/02	2.32	45	372	565	98	1197	3.99	369	27	6.4	0.46
6/8/02	1.91	41	332	476	75	1172	3.70	151	25	5.9	0.45
7/6/02	2.21	44	365	525	79	1288	4.07	148	26	1.9	0.51
8/3/02	2.65	51	352	518	78	1314	4.09	189	28	0.9	0.53
9/7/02	2.75	47	354	522	78	1288	4.05	222	28	2.3	0.53
10/14/02	2.68	51	370	526	79	1337	4.18	202	29	1.0	0.55
11/10/02	2.36	44	373	525	81	1324	4.15	179	27	0.9	0.58
12/1/02	2.21	44	433	566	87	1314	4.28	190	28	3.2	0.57
1/8/03	2.31	37	398	545	79	1287	4.14	192	30	1.0	0.57
3/1/03	2.23	43	390	472	97	1313	4.06	200	29	1.0	0.58
3/30/03	2.26	41	346	480	79	1225	3.84	164	25	5.6	0.55
4/29/03	2.16	39	345	475	78	1205	3.78	149	26	4.8	0.56
5/28/03	2.19	39	383	527	78	1313	4.14	156	27	1.6	0.56
6/30/03	2.16	38	439	592	80	1413	4.53	183	31	1.1	-
7/31/03	2.32	39	501	585	84	1447	4.65	195	31	0.8	0.56
8/31/03	2.29	40	521	572	87	1415	4.58	205	30	1.0	0.57
12/8/03	2.28	39	562	588	86	1406	4.63	201	32	0.7	0.57
1/8/04	2.38	45	561	589	82	1422	4.67	213	31	0.8	0.68
2/10/04	2.15	37	620	591	85	1406	4.70	183	29	0.7	0.66

Table-42. Time series data for As and other ions in deep well at site G (depth - 52 m)

Date of Sampling	As (μmoleL^{-1})	P (μmoleL^{-1})	Na (μmoleL^{-1})	Mg (μmoleL^{-1})	K (μmoleL^{-1})	Ca (μmoleL^{-1})	SMC (meqL^{-1})	Fe (μmoleL^{-1})	Mn (μmoleL^{-1})	S (μmoleL^{-1})	Cl (mmoleL^{-1})
3/9/02	6.473	8	11279	230	42	282	12.34	17	14	34	6.84
4/7/02	6.270	8	10772	223	61	279	11.84	14	13	32	6.19
5/5/02	6.284	7	10704	214	41	278	11.73	8	13	34	5.98
6/8/02	7.369	8	10130	208	40	275	11.14	9	12	35	6.68
7/6/02	6.152	8	10020	202	40	282	11.03	12	11	32	6.81
8/3/02	6.751	6	9848	201	36	263	10.81	10	12	33	7.04
9/7/02	6.426	7	10093	213	39	273	11.10	9	12	29	6.47
10/14/02	7.294	6	10303	214	40	266	11.30	10	12	32	7.72
11/10/02	5.919	7	9772	200	40	267	10.75	9	11	30	7.85
12/1/02	8.405	7	9619	196	38	248	10.54	18	11	30	6.72
1/8/03	5.980	9	9998	197	45	298	11.03	11	12	30	7.49
3/1/03	7.523	6	9686	205	38	256	10.65	35	12	30	7.65
3/30/03	6.875	6	9083	193	36	247	10.00	36	12	32	7.14
4/29/03	6.454	6	9315	191	36	234	10.20	15	11	31	7.43
5/28/03	6.233	6	9457	202	37	263	10.42	9	11	30	7.48
6/30/03	6.440	6	9695	199	35	243	10.61	8	11	30	-
7/31/03	6.714	7	10071	214	38	259	11.06	8	11	29	7.78
8/31/03	6.482	6	9622	204	36	239	10.54	7	11	28	7.69
12/8/03	7.073	7	9291	201	39	259	10.25	12	11	25	7.87
1/8/04	6.157	7	9364	198	36	259	10.31	8	11	27	7.83
2/10/04	6.464	6	9246	194	36	252	10.17	15	12	28	7.72

Table-43. Time series water level data (m) for shallow and deep wells at site G

Date of Measurement	Wells at different depths				
	6 m	9 m	14 m	21 m	52 m
3/9/2002	3.1	3.0	2.9	2.9	x
3/23/2002	2.9	2.9	2.9	2.8	2.5
4/6/2002	3.4	3.3	3.3	3.2	x
4/20/2002	3.3	3.2	3.2	3.9	2.9
5/5/2002	3.9	3.9	3.9	3.8	x
5/18/2002	4.6	4.5	4.5	4.4	4.1
6/1/2002	5.1	5.0	5.0	4.9	x
6/24/2002	6.0	6.0	5.9	5.7	4.3
7/14/2002	6.7	6.7	6.6	6.6	6.2
9/7/2002	6.6	6.5	6.5	6.4	x
10/14/2002	5.8	5.2	5.9	5.8	5.4
11/10/2002	5.1	5.1	5.0	4.9	x
12/16/2002	4.8	4.8	4.7	4.6	x
1/8/2003	4.4	4.3	4.3	4.2	4.0
1/9/2003	4.4	4.3	4.3	4.2	3.9
2/1/2003	3.5	3.4	3.4	3.3	3.0
2/15/2003	3.5	3.5	3.4	3.4	2.9
3/2/2003	3.3	3.2	3.2	3.1	2.6
3/15/2003	3.4	3.3	3.3	3.2	2.7
3/31/2003	3.6	3.5	3.5	3.4	2.9
4/12/2003	3.3	3.2	3.2	3.1	2.7
4/26/2003	3.7	3.7	3.6	3.5	3.1
5/11/2003	4.4	4.4	4.3	4.2	3.8
5/24/2003	4.4	4.3	4.3	4.2	3.8
6/7/2003	4.7	4.7	4.6	4.5	4.1
6/24/2003	6.0	6.0	5.9	5.8	5.4
7/8/2003	6.7	6.7	6.6	6.6	6.1
7/22/2003	7.5	7.4	7.4	7.3	6.8
8/5/2003	7.1	7.0	7.0	6.9	6.5
8/21/2003	6.7	6.6	6.6	6.5	6.1
9/3/2003	6.9	6.8	6.8	6.7	6.4
9/18/2003	6.8	6.8	6.7	6.7	6.3
10/1/2003	6.9	6.8	6.8	6.7	x
11/9/2003	5.7	5.7	5.6	5.6	5.2
11/23/2003	5.2	5.2	5.1	5.1	x
12/10/2003	4.8	4.8	4.7	4.7	4.4
12/25/2003	4.7	4.6	4.6	4.5	x
1/11/2004	4.5	4.4	4.4	4.3	4.0
1/25/2004	3.1	3.0	3.0	2.9	x
2/16/2004	3.4	3.3	3.3	3.2	x
2/27/2004	3.1	3.1	3.0	2.9	x

x Well was not accessible due to public use

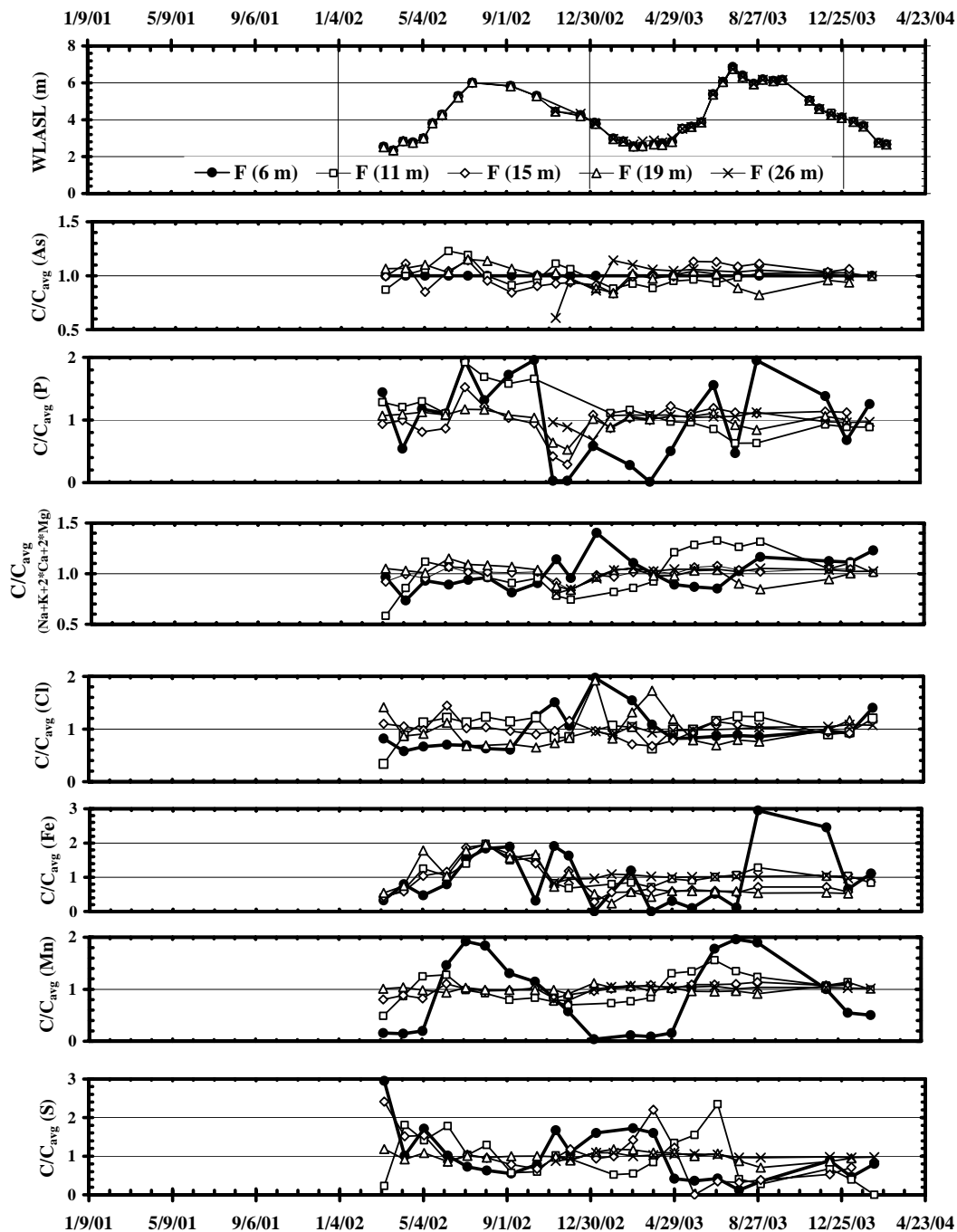


Figure 1 Temporal variation in As and other ions concentrations in shallow aquifers of site A. The average concentration of dissolved ions including As from shallowest to deepest depths are summarized here: As (80, 132, 538, 359 $\mu\text{g/L}$), P (20, 16, 31, 27 $\mu\text{mole/L}$), SMC (5.6, 4.2, 5.4, 7 meq/L), Cl (1.3, 0.8, 1.2, 1.0 meq/L), S (374, 145, 16, 6 $\mu\text{mole/L}$), Fe (413, 158, 265, 332 $\mu\text{mole/L}$), Mn (47, 51, 96, 18 $\mu\text{mole/L}$). The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.

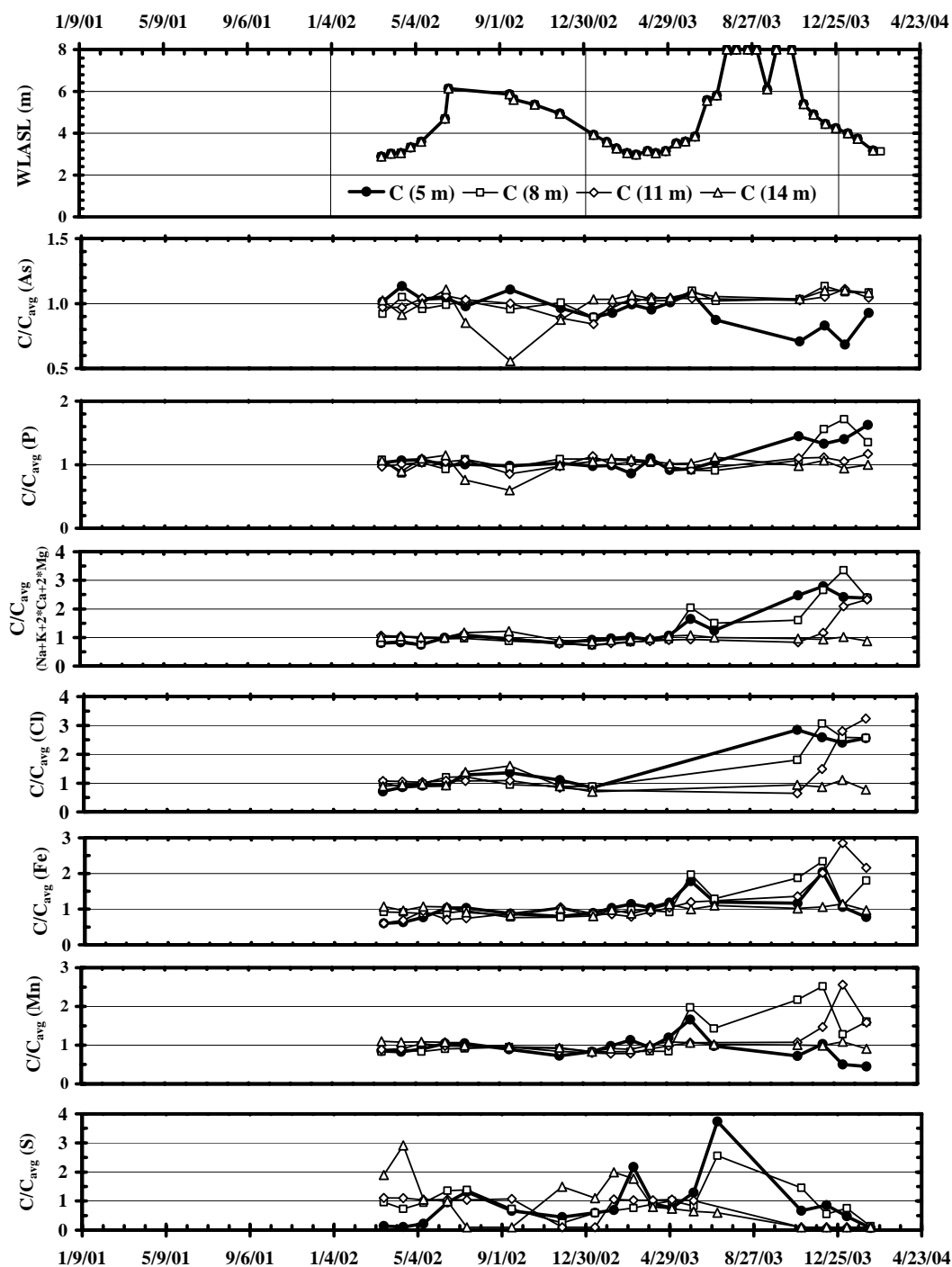


Figure 2 Temporal variation in As and other ions concentrations in shallow aquifers of site B. The average concentration of dissolved ions including As from shallowest to deepest depths are summarized here: As (29, 299, 536, 403, 225 $\mu\text{g/L}$), P (56, 56, 54, 56, 53 $\mu\text{mole/L}$), SMC (13.9, 11.9, 9.5, 8.2, 8.2 meq/L), Cl (4.3, 3.5, 4.1, 2.1, 2.5 meq/L), S (684, 350, 161, 9, 3 $\mu\text{mole/L}$), Fe (445, 431, 380, 417, 363 $\mu\text{mole/L}$), Mn (18, 40, 20, 24, 6 $\mu\text{mole/L}$). The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.

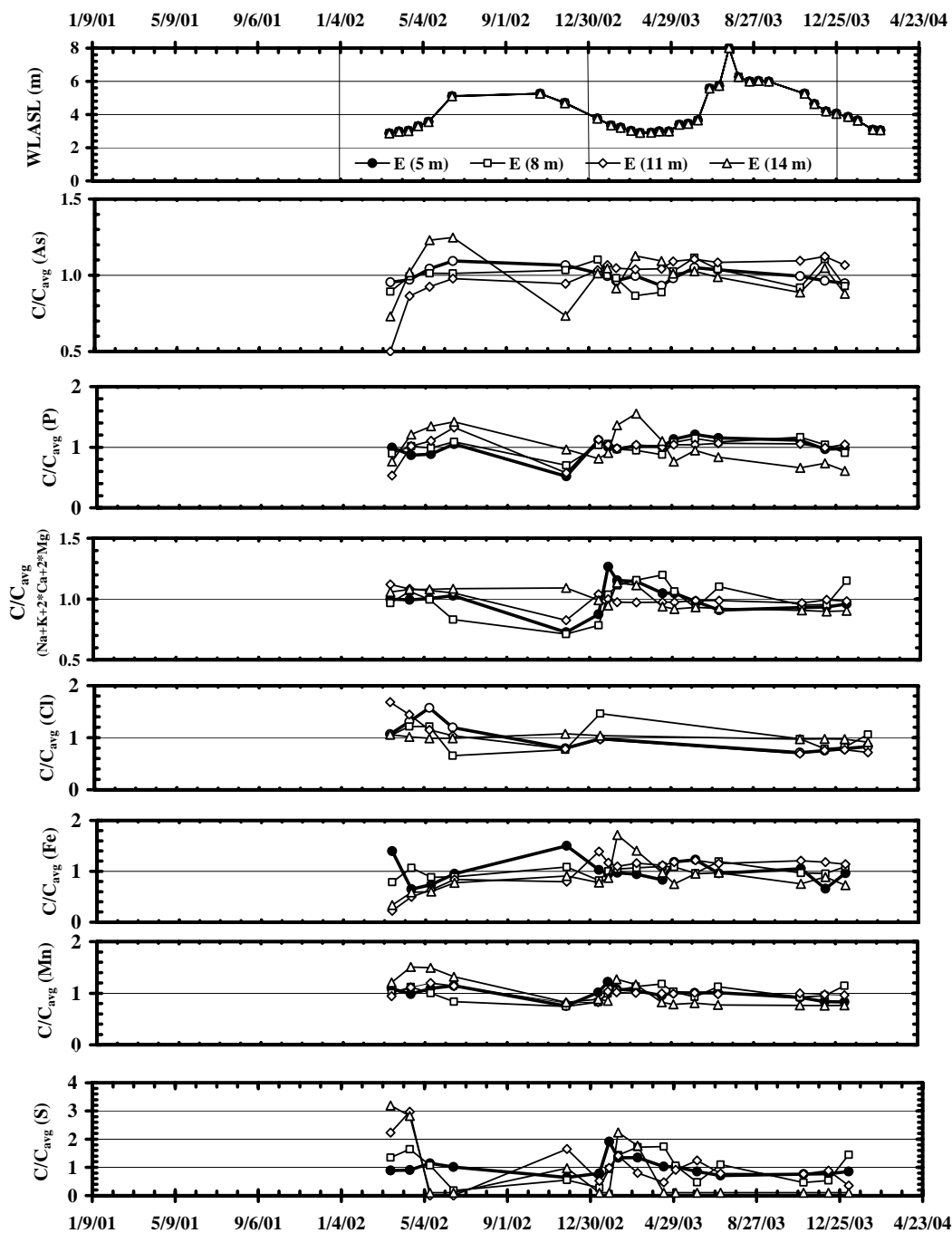


Figure 3 Temporal variation in As and other ions concentrations in shallow aquifers of site C. Wells were installed in March 2002. The average concentration of dissolved ions including As from shallowest to deepest depths are summarized here: As (13, 37, 42, 71 $\mu\text{g/L}$), P (31, 22, 22, 29 $\mu\text{mole/L}$), SMC (2.7, 1.3, 1.3, 2.8 meq/L), Cl (0.6, 0.7, 0.5, 0.3 meq/L), S (35, 28, 15, 2 $\mu\text{mole/L}$), Fe (773, 1433, 1132, 601 $\mu\text{mole/L}$), Mn (26, 52, 31, 33 $\mu\text{mole/L}$). The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.

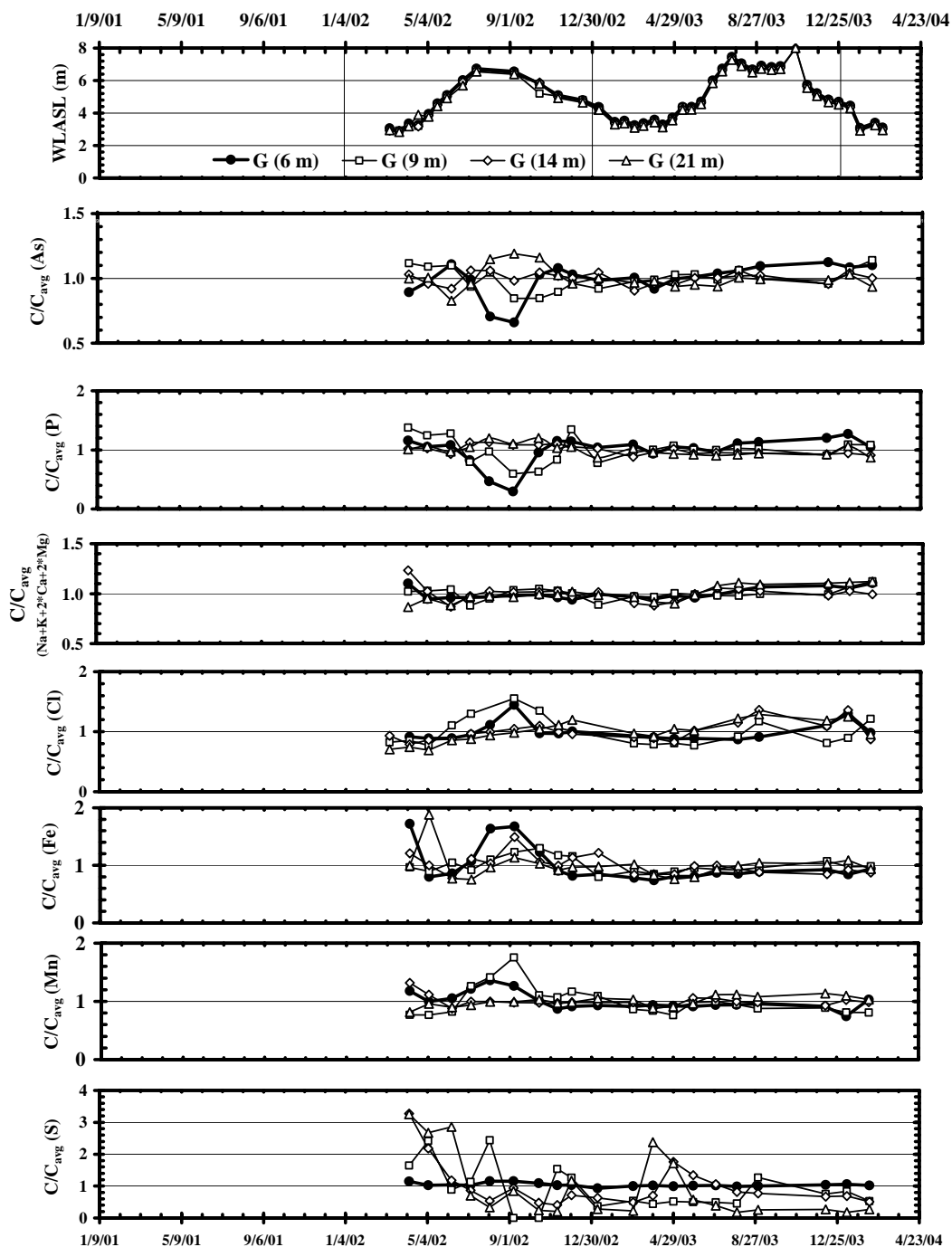


Figure 4 Temporal variation in As and other ions concentrations in shallow aquifers of site E. Wells were installed in March 2002. The average concentration of dissolved ions including As from shallowest to deepest depths are summarized here: As (43, 82, 166, 153 $\mu\text{g/L}$), P (8, 26, 27, 29 $\mu\text{mole/L}$), SMC (4.9, 3.8, 4.2, 5.1 meq/L), Cl (0.2, 0.1, 0.1, 0.8 meq/L), S (232, 80, 15, 2 $\mu\text{mole/L}$), Fe (48, 424, 392, 608 $\mu\text{mole/L}$), Mn (17, 35, 33, 17 $\mu\text{mole/L}$). The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.

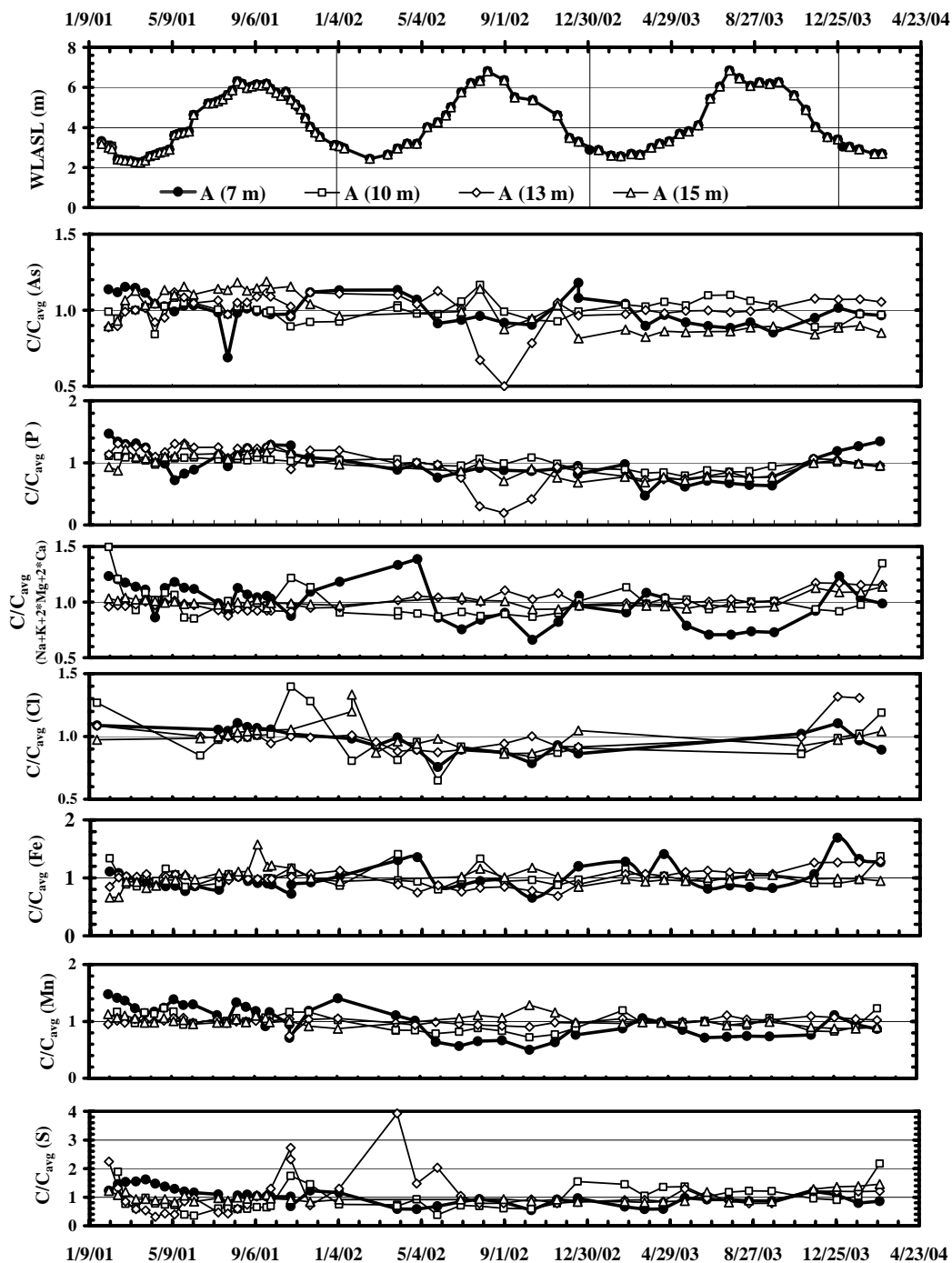


Figure 5 Temporal variation in As and other ions concentrations in shallow aquifers of site F. Wells were installed in March 2002. The average concentration of dissolved ions including As from shallowest to deepest depths are summarized here: As (0.2, 35, 51, 215, 219 $\mu\text{g/L}$), P (0.1, 2, 4, 17, 32 $\mu\text{mole/L}$), SMC (1.6, 1.8, 2.4, 3.7, 5.2 meq/L), Cl (0.3, 0.2, 0.1, 0.05, 0.2 meq/L), S (40, 24, 19, 35, 0.3 $\mu\text{mole/L}$), Fe (2.4, 60, 23, 30, 350 $\mu\text{mole/L}$), Mn (3, 31, 27, 42, 35 $\mu\text{mole/L}$). The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.

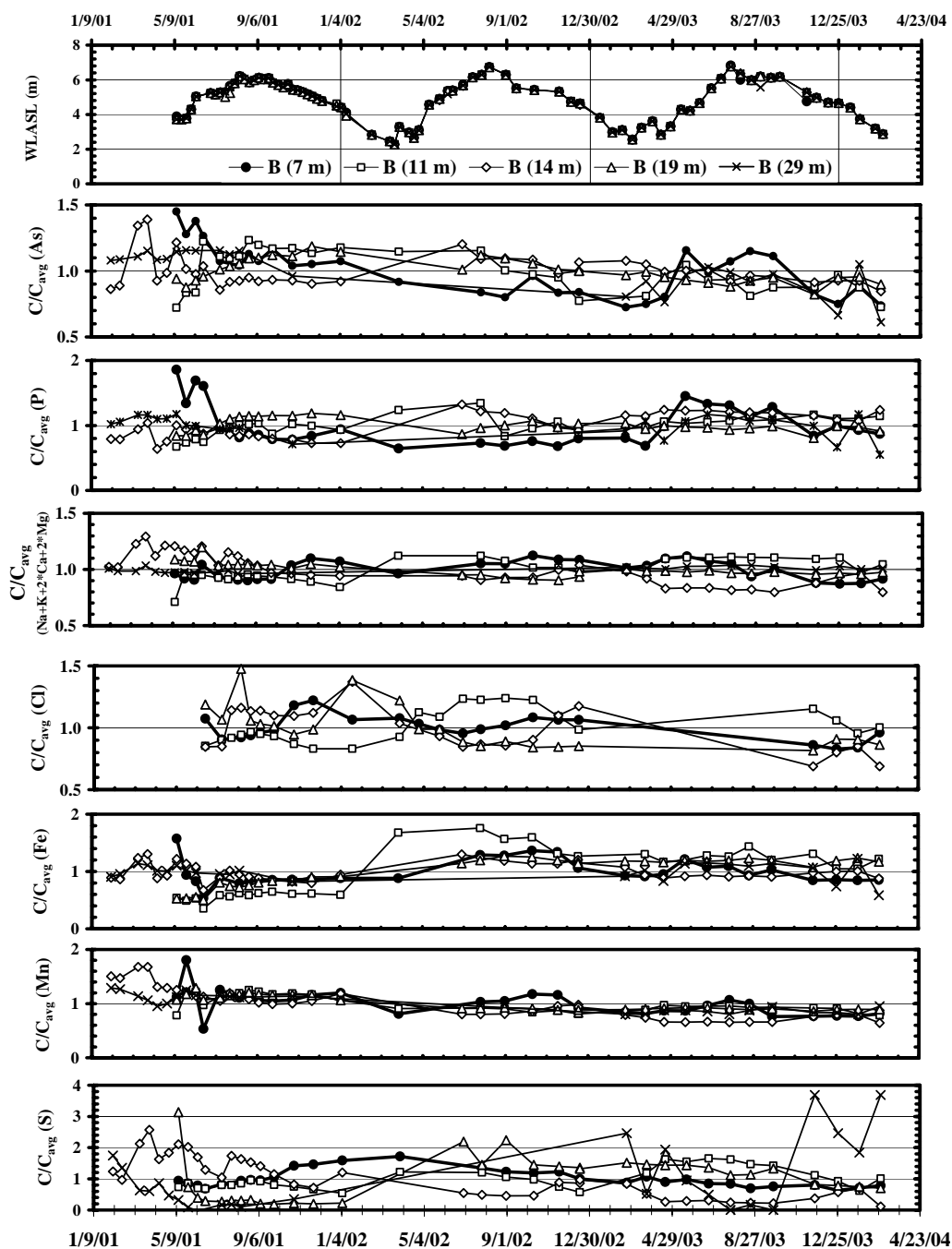


Figure 6 Temporal variation in As and other ions concentrations in shallow aquifers of site G. Wells were installed in March 2002. The average concentration of dissolved ions including As from shallowest to deepest depths are summarized here: As (129, 158, 101, 173 $\mu\text{g/L}$), P (57, 106, 35, 42 $\mu\text{mole/L}$), SMC (4.6, 5.2, 4.0, 4.2 meq/L), Cl (0.1, 0.1, 0.2, 0.6 meq/L), S (21, 5, 1, 2 $\mu\text{mole/L}$), Fe (610, 497, 290, 195 $\mu\text{mole/L}$), Mn (25, 8, 29, 28 $\mu\text{mole/L}$). The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.

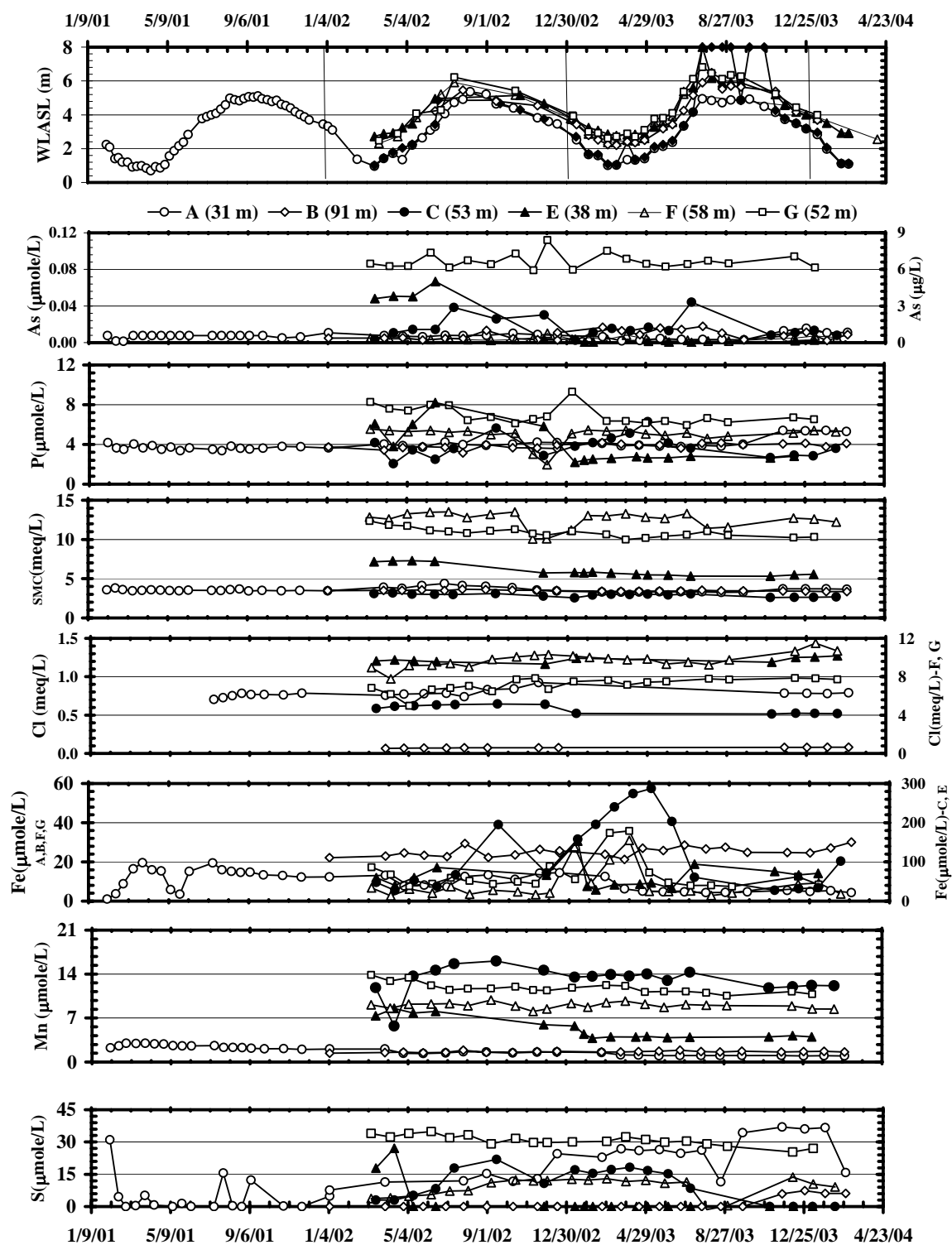


Figure 7 Temporal variation in As and other ions concentrations in deep aquifers of all six sites. Different scale was used in right Y-axes to show higher level of Cl at site F, G and high level of Fe at sites C and E. The uppermost panel shows the water table fluctuation as water level above sea level (WLASL) with time.