

ATLANTIC RCAP-MS TOTAL (WATER) 2005-2006-2007-2008-2009																						
Maxim ID	Unit	HAL	S11556	L87861	S00031	Y40703	A953294	G16567	L87864	S00032	Y40732	A953294	G16568	L87865	S00034	Y40733	A953294	G16569	L87866	S00033	Y40734	A953294
Sampling Date			5/18/2005	5/3/2006	4/26/2007 13:30	4/26/2008 8:56	4/15/2009	5/19/2006	5/3/2006	4/25/2007 10:38	4/26/2008 8:56	4/15/2009	5/18/2005	5/3/2006	4/26/2007 11:46	4/26/2008 12:28	4/15/2009	5/18/2005	5/3/2006	4/26/2007 11:38	4/26/2008 12:32	4/15/2009
CoC Number			B2365	B 28095	B 46855	B 63093		B2365	B 28095	B 46855	B 63093		B2365	B 28095	B 46855	B 63093		B2365	B 28095	B 46855	B 63093	
Site			Class 1				Class 1				Class 1				Class 1							
Sample Site Code			DE1 05	DE1 06	DE1 07	DE1 08	DE1 09	DE2 05	DE2 06	DE2 07	DE2 08	DE2 09	MD1 05	MD1 06	MD1 07	MD1 08	MD1 09	MD2 05	MD2 06	MD2 07	MD2 08	MD2 09
Source			Raw Well				Raw Well				Raw Well				Raw Well							
<b>INORGANICS</b>																						
Total Alkalinity (Total as CaCO3)	mg/L	na	48	62	65	71	68	48	57	61	66	59	170	150	170	170	170	130	150	130	130	140
Dissolved Chloride (Cl)	mg/L	250	230	240	190	190	200	250	190	160	150	110	57	49	51	65	75	45	47	49	55	62
Calcium	mg/L	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hardness (CaCO3)	mg/L	1-400	300	330	280	270	310	360	290	250	230	190	160	150	170	160	190	130	160	130	160	180
Nitrate + Nitrite	mg/L		0.17	0.2	0.15	0.17	0.17	0.18	0.17	0.12	0.14	ND	0.63	0.8	0.81	0.87	ND	0.66	0.78	0.7	1.4	1.30
Nitrate (N)	mg/L		ND	ND	ND	ND	ND	ND	ND	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrate (N)	mg/L	45	0.17	0.2	ND	0.17	0.17	0.18	0.17	ND	ND	ND	0.63	0.8	0.8	0.87	0.86	0.66	0.78	0.7	1.4	1.30
Nitrogen (Ammonia Nitrogen)	mg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Organic Carbon (C)	mg/L		ND	ND	0.6	1	ND	ND	0.7	0.6	1.0	ND	1.1	0.9	0.9	1.5	ND	0.7	0.9	0.8	1.2	1.4
Orthophosphate (P)	mg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	ND	ND	ND	ND	ND	0.01	ND	ND	ND
pH	pH	6.5-8.5	7.39	7.59	7.84	7.93	7.87	7.47	7.41	7.88	7.98	8.04	7.85	7.82	8.01	7.93	7.88	7.9	8.13	8.08	7.94	7.82
Reactive Silica (SiO2)	mg/L		10	9.9	11	10	11	10	9.8	11	11	12	11	10	11	11	12	10	10	11	11	12
Dissolved Sulphate (SO4)	mg/L	500	13	14	13	12	12	13	12	12	12	12	13	11	12	12	14	12	11	12	10	12
Turbidity	NTU	1	0.1	0.3	0.8	ND	0.3	0.2	0.3	0.1	ND	ND	0.1	<0.1	ND	ND	0.1	0.2	0.4	ND	ND	ND
Conductivity	uS/cm		850	920	790	790	820	930	750	670	650	340	510	490	500	600	410	440	460	460	500	
<b>RCAP CALCULATIONS</b>																						
Anion Sum	meq/L		7.67	8.27	6.93	7.07	7.31	8.29	6.87	5.93	5.91	4.64	5.3	4.71	5.08	5.52	5.87	4.2	4.6	4.36	4.5	4.89
Seab. Alkalinity (calc. as CaCO3)	mg/L		47.7	61	64	70	68	47.5	56	61	65	58	168	151	165	167	169	130	147	132	131	140
Calculated TDS	mg/L	500	422	455	392	394	424	457	374	338	329	269	293	273	290	310	326	238	257	258	252	275
Seab. Alkalinity (calc. as CaCO3)	mg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	2.0	1.0	1.0	ND	2.0	1.0	1.0	ND
Cation Sum	meq/L		7.32	8.02	7.07	7.02	8.04	8.15	8.49	6.16	5.77	4.91	5.13	5.11	5.34	5.54	5.88	4.22	4.61	4.81	4.39	4.82
Ion Balance (% Difference)	%		2.31	1.57	1.00	0.35	4.78	0.87	2.83	1.90	1.20	2.83	1.84	4.03	2.5	0.18	0.09	0.178	0.109	4.91	1.24	0.47
Langlier Index (I <sub>L</sub> )	N/A		-0.402	-0.055	0.154	0.266	0.244	-0.268	-0.337	0.14	0.232	0.198	0.438	0.354	0.63	0.527	0.605	0.333	0.671	0.489	0.46	0.407
Langlier Index (I <sub>L</sub> )	N/A		-0.651	-0.303	-0.065	0.017	-0.025	-0.14	-0.288	-0.108	-0.017	-0.051	0.189	0.104	0.381	0.278	0.356	0.083	0.421	0.24	0.211	0.157
Saturation pH (I <sub>S</sub> )	N/A		7.79	7.65	7.69	7.66	7.63	7.74	7.75	7.74	7.75	7.84	7.41	7.47	7.38	7.4	7.26	7.57	7.48	7.59	7.48	7.41
Saturation pH (I <sub>S</sub> )	N/A		8.04	7.89	7.94	7.91	7.88	7.98	8.00	7.99	8.00	8.09	7.66	7.72	7.63	7.65	7.50	7.82	7.71	7.84	7.73	7.66
<b>Elements (ICP-MS)</b>																						
Total Aluminum (Al)	ug/L	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Antimony (Sb)	ug/L	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	ug/L	10 (0.05)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.7	5.0	4.0	4.0	4.0	18	9.0	18	10	10
Total Barium (Ba)	ug/L	1000	7.3	7.0	6.0	7.0	8.0	8.1	6.0	6.0	6.0	ND	410	390	400	390	470	320	340	270	370	390
Total Beryllium (Be)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Bismuth (Bi)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Boron (B)	ug/L	5000	170	130	130	130	110	120	130	140	150	120	37	34	29	33	14	34	29	41	24	22
Total Cadmium (Cd)	ug/L	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Calcium (Ca)	mg/L	95	110	99	86	99	110	87	81	73	61	60	58	66	62	88	52	60	50	64	71	
Total Chromium (Cr)	ug/L	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Copper (Cu)	ug/L	1000	ND	ND	ND	2.0	2.0	ND	ND	ND	ND	ND	ND	ND	ND	5	ND	3	ND	ND	13.0	
Total Iron (Fe)	ug/L	300	ND	ND	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	ug/L	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1
Total Magnesium (Mg)	mg/L	na	15.0	17.0	13.0	13.0	14.0	19.0	14.0	12.0	11.0	9.3	1.7	1.7	1.9	1.7	3.0	0.8	1.5	0.7	0.8	1.0
Total Manganese (Mn)	ug/L	50	ND	ND	9.0	ND	ND	9.3	8.0	7.0	ND	ND	4.1	7.0	7.0	4.0	8.0	4	ND	ND	ND	ND
Total Molybdenum (Mo)	ug/L	na	2.6	2.0	2.0	2.0	ND	3.3	3.0	4.0	4.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Phosphorus (P)	mg/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Potassium (K)	mg/L	na	0.6	0.8	0.8	0.9	0.9	0.6	0.7	0.7	0.6	0.8	0.8	0.7	0.9	0.7	1.0	0.4	0.7	0.5	0.4	0.5
Total Selenium (Se)	ug/L	10	2.8	ND	ND	ND	ND	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Strontium (Sr)	ug/L	na	500	450	420	390	450	560	390	400	370	310	1600	1300	1500	1600	1800	1800	1500	1600	2200	2500
Total Thallium (Tl)	ug/L	ur	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Tin (Sn)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Titanium (Ti)	ug/L	na	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Uranium (U)	ug/L	20	6.1	7	7.4	7.8	8.2	7.1	8.4	7.7	8.4	7.4	32	27	24	26	15	24	19	28	13	15
Total Vanadium (V)	ug/L	na	2.3	2.0	3.0	3.0	2.1	2.0	2.0	3.0	3.0	2.9	2.0	ND	3.0	3.0	10	7.0	12	2.0	3.0	
Total Zinc (Zn)	ug/L	500	170	60	130	150	150	260	54	130	150	73	5.8	ND	9.0	ND	6.0	ND	7.0	ND	6.0	6.0
<b>Elements (ICP-OES)</b>																						
Total Calcium (Ca)	mg/L	na	95	110	89	86	99	110	87	81	73	61	60	58	66	62	88	52	60	50	64	71
Total Magnesium (Mg)	mg/L	na	15	17	13	13	14	19	14													