

Table G-3
June 2002 Chemical Ratios of Chloride in RA Groundwater

Well	Easting Coordinates	Northing Coordinates	Na:Cl	K:Cl	Mg:Cl	Ca:Cl
Sea Water	NA	NA	0.55	0.02	0.07	0.02
B-202	623834.1	407377.9	0.91	0.29	0.13	0.68
B-203B	623665.3	407475.9	0.90	0.13	0.79	1.32
B-205	623772.4	407390.6	0.81	0.12	0.18	0.22
B-206A	623823.8	407426.8	1.00	0.11	0.07	0.21
BK-1	623734.6	407697.2	0.29	0.08	0.08	0.39
CS-1	623809.0	407582.0	1.18	0.18	0.03	0.10
B-201	623860.0	407330.0	0.48	0.03	0.07	0.16
MW-306	624167.7	407349.9	0.44	0.10	0.21	0.71
MW-307	623984.0	407323.5	0.72	0.19	0.08	0.69
MW-308	623985.9	407784.9	0.45	0.14	0.35	1.23
MW-312	623899.2	407628.3	1.24	0.29	0.08	0.50
MW-401A	623639.4	407656.9	0.38	0.06	0.15	0.31
MW-401B	623639.4	407652.2	4.11	2.05	0.04	9.95
MW-402	623727.7	407418.4	1.41	0.12	0.12	0.27
MW-403	623917.1	407326.7	0.89	0.21	0.37	1.03
PAB Test Pit	623802.0	407657.0	5.79	3.26	0.01	4.15
PAB03fil ¹	623802.0	407657.0	2.12	0.73	0.04	0.37
PAB03unfil ²	623802.0	407657.0	2.12	0.73	0.04	0.38
Knoll Well ³	624440.0	408570.0	6.10	NA	NA	0.56

Notes:

"NA"= no test taken

- 1) PAB03fil is a sample taken from the PAB test pit on Feb 2003 and field-filtered to remove particulates
- 2) PAB03unfil is a sample taken from the PAB test pit on Feb 2003 without filtering
- 3) The Knoll well was the drinking water well that supplied the plant. Test results taken from the Maine Public Health Laboratory reports from the period 1988 to 1995.

Table G-1
June 2002 Geochemistry of RA Industrial Area Groundwater

Well:	B-202	B-203B	B-205	B-206A	BK-1	CS-1	B-201	MW-306	MW-307	MW-308	MW-312	MW-401A	MW-401B	MW-402	MW-403	PAB Test Pit	PAB03fil ¹	PAB03unfil ²	Knoll Well ³	
Easting Coordinates	623834.1	623665.3	623772.4	623823.8	623734.6	623809.0	623860.0	624167.7	623984.0	623985.9	623899.2	623639.4	623639.4	623727.7	623917.1	623802.0	623802.0	623802.0	624440.0	
Northing Coordinates	407377.9	407475.9	407390.6	407426.8	407697.2	407582.0	407330.0	407349.9	407323.5	407784.9	407628.3	407656.9	407652.2	407418.4	407326.7	407657.0	407657.0	407657.0	408570.0	
Sodium	55.9	27.5	75.9	63.8	43.3	119	305	35.8	50.7	15.4	41.4	25.5	23.5	90.9	87.3	254	55	55	61	
Potassium	17.9	3.92	10.8	6.93	12.6	17.8	17.2	8.12	13.5	5.01	9.88	4.26	11.7	7.75	20.4	143	19	19	NA	
Calcium	41.8	40.2	20.3	13.3	58.8	9.69	100	57.2	48.8	42.6	16.6	20.5	56.9	17.2	101	182	9.7	9.9	5.6	
Magnesium	8.2	23.9	16.7	4.59	11.9	3.34	44.5	16.8	5.57	12.1	2.63	9.72	0.256	7.7	36.6	0.365	1.1	1.1	NA	
Chloride	61.1	30.4	93.3	64	151	101	639	80.9	70.8	34.6	33.5	66.8	5.72	64.3	97.7	43.9	26	26	10	
Bicarbonate as CaCO ₃	87.4	67.2	80.1	48.5	48.2	34	63.9	73.7	112	88.1	55	38.2	10	98.1	50.1	4	69	70	NA	
Carbonate as CaCO ₃	2	2	2	2	2	67.8	2	2	3.4	2	21	2	96	2	2	212	51	55	14	
Sulfate	96.8	124	91.2	60.9	40.7	81.8	153	106	72.5	58.9	30.7	21.3	18.6	89.1	134	62.8	59	61	25	
Hydroxide as CaCO ₃	2	2	2	2	2	2	2	2	2	2	2	2	107	2	2	792	0.5	0.5	NA	
Alkalinity as CaCO ₃	87.4	67.2	80.1	49.1	48.2	102	63.9	73.7	115	88.1	76	38.2	203	98.1	50.1	1000	69	70	116	
Bromide	0.1	0.1	0.1	0.1	0.1	0.1	1.84	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	NA	
Iodine	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.1	0.1	NA	
Nitrate as N	1.7	3.02	0.867	0.686	1.02	0.1	0.1	1.21	0.101	0.215	0.459	0.1	0.1	1.44	2.82	0.402	1	1	0.23	
Phosphate as P	0.1	0.1	0.1	0.1	0.1	0.137	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.08	0.08	NA	
Sulfide	1	1	1	1	1	1	1	1	1	1	1	1	1.45	1	1	1	0.1	0.1	NA	
Aluminum	0.22	0.887	0.112	0.446	0.025	0.0714	0.0869	0.0699	0.331	0.025	0.83	0.025	3.04	0.206	0.0643	0.999	0.1	0.099	NA	
Antimony	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.007	0.007	NA
Arsenic	0.005	0.005	0.005	0.005	0.005	0.0171	0.005	0.005	0.005	0.005	0.0086	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01	0.01
Barium	0.048	0.0384	0.0191	0.0242	0.0737	0.0055	0.184	0.0369	0.0604	0.0367	0.0359	0.0383	0.0068	0.0497	0.0654	0.0746	0.009	0.009	0.025	
Beryllium	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.002	0.0018	NA	
Boron	0.047	0.0288	0.0937	0.0325	0.093	0.189	0.156	0.0705	0.0359	0.025	0.0688	0.117	0.025	0.161	0.0574	0.0903	0.19	0.18	NA	
Cadmium	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.00024	0.0002	0.0002	0.0002	0.0002	0.0002	0.00032	0.0002	0.0005	0.00032	0.002	0.002	0.00025	
Chromium	0.002	0.0047	0.002	0.002	0.002	0.0222	0.002	0.002	0.002	0.0114	0.0028	0.002	0.002	0.002	0.002	0.0738	0.002	0.0049	0.001	
Cobalt	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.0092	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.006	NA	
Copper	0.0074	0.005	0.005	0.005	0.005	0.0061	0.005	0.005	0.005	0.005	0.005	0.005	0.0208	0.005	0.005	0.0374	0.004	0.0041	0.045	
Iron	0.418	1.4	0.16	0.338	0.05	0.05	0.288	0.139	0.0633	0.148	0.149	1.24	0.716	0.324	0.0603	0.291	0.012	0.025	0.16	
Lead	0.00095	0.00085	0.0003	0.00079	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.00045	0.0003	0.00086	0.0012	0.0003	0.0053	0.005	0.005	0.0015	
Manganese	0.0126	0.045	0.0488	0.0097	0.001	0.0028	2.74	0.0806	0.88	0.783	0.0166	0.629	0.013	0.842	0.328	0.0096	0.004	0.004	0.03	
Mercury	0.0002	0.0002	0.0002	0.0002	0.0002	0.00059	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0109	0.000007	0.000007	0.00025	
Molybdenum	0.01	0.01	0.01	0.0167	0.01	0.0521	0.01	0.01	0.0127	0.054	0.01	0.01	0.0503	0.01	0.01	0.119	0.015	0.015	NA	
Nickel	0.0071	0.005	0.005	0.005	0.005	0.005	0.0109	0.0053	0.0062	0.005	0.005	0.005	0.12	0.005	0.0422	0.005	0.011	0.011	NA	
Selenium	0.001	0.001	0.001	0.001	0.001	0.0013	0.0046	0.001	0.001	0.001	0.001	0.001	0.0017	0.001	0.0032	0.001	0.01	0.01	0.0025	
Silver	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.004	0.004	0.001
Thallium	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.013	0.013	NA
Vanadium	0.005	0.005	0.005	0.005	0.005	0.0208	0.005	0.005	0.005	0.0069	0.005	0.0187	0.005	0.005	0.013	0.006	0.006	0.006	NA	
Zinc	0.0146	0.0414	0.131	0.0058	0.005	0.016	0.021	0.0347	0.006	0.005	0.005	0.005	0.0057	0.0174	0.0284	0.0132	0.025	0.025	0.05	
pH	7.10	6.14	6.91	8.65	6.83	9.50	6.40	6.01	9.40	7.37	10.02	6.21	11.56	7.03	6.48	9.76	9.80	9.80	8.40	
Ion balance, %	2.8	6.3	-0.5	-0.1	0.2	-7.8	0.1	1	-0.5	1.6	-1.8	-0.5	-38.4	2	30.5	-40.3	-16.5	-18.3	39.6	
conductivity, S/cm	667	553	650	503	724	NA	2800	667	653	423	334	391	879	507	1498	473	NA	NA	NA	
ORP, mV	154.7	265.6	182.6	182.3	193.9	NA	198.1	267.7	-103.3	-40.2	62.9	170.3	-57.2	178.7	165.2	NA	NA	NA	NA	
DO, %	24.8	2.5	71	64.4	130.8	NA	11.3	63.5	9.7	7.9	4.6	153.1	134.9	127.3	73	NA	NA	NA	NA	

Notes:

All results in mg/L, unless otherwise noted.

"NA"= no test taken

1) PAB03fil is a sample taken from the PAB test pit on Feb 2003 and field-filtered to remove particulates

2) PAB03unfil is a sample taken from the PAB test pit on Feb 2003 without filtering

3) The Knoll well was the drinking water well that supplied the plant. Test results taken from the Mairie

Public Health Laboratory reports from the period 1988 to 1995.