



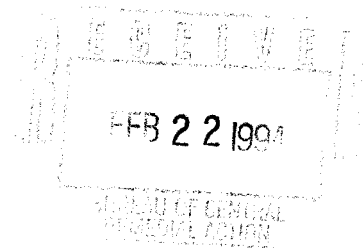
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS, INC.
282 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1805
(716) 856-5636
FAX: (716) 856-2545

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
NEW YORK
PARAMUS, NJ
NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

February 18, 1994

Ms. Kathleen McCue
Project Manager
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010



**RE: RAMAPO LANDFILL REMEDIAL DESIGN
RESULTS OF FOURTH QUARTER MONITORING**

Dear Ms. McCue:

Attached are the results of the fourth quarter monitoring event which was conducted as part of the Remedial Design phase of the Ramapo Landfill Remediation Project. This document provides the validated analytical data for the last of four quarterly sampling events, which are included in the design phase of the project. It further includes historical analytical data tables for the four target compounds agreed to by the agencies, i.e., benzene, chromium, iron and manganese. Locations sampled during the fourth quarter are shown in Figure 1. The fourth quarter monitoring event was conducted the week of December 13, 1993.

The fourth round samples were analyzed for routine parameters, site parameters and pesticides (alpha, gamma and delta-BHC). Only 40S, 4I, 4R, 5I, 5R, 7OS, 7R, 9OS, 9I, and 9R were analyzed for pesticides following NYSDEC direction in your August 27, 1993 letter to the Town of Ramapo.

At the time that the fourth quarter samples were collected, the well pumps in the Spring Valley Well Field were being overhauled. As a result, samples could be collected from only two of the four wells, SVWC-93 and SVWC-96. The water level in monitoring well 5OS was very low making it impossible to sample, therefore, well 5I was sampled in place of well 5OS. Also included as Attachment 1 are the indicator results for the first three quarters of sampling.

As you know, the first quarter monitoring event for 1994 should be conducted no later than the week of March 21. I hope that the information in this report allows us to proceed with finalizing the sampling plan for this event (and the subsequent three 1994 sampling events).

Ms. Kathleen McCue
February 18, 1994
Page -2-

Please feel free to call if you have any questions or if you wish to discuss.

Sincerely,

URS CONSULTANTS, INC.



James Lanzo
Project Manager

Enc.

cc: Supervisor Reisman - Town of Ramapo
Mr. Gene Ostertag - Town of Ramapo
Mr. Alan Simon - Town of Ramapo
Mr. Thomas Micelli - Rockland County Department of Health
Ms. Judy Hunderfund - Rockland County Department of Health
Mr. John Olm - NYSDOH
Ms. Arlene Lapidus - Ramapo Land Company, Inc.
Mr. George Demas - Torne Brook Farm
Mr. Raymond Cywinski - Hackensack Water Company
Mr. Tanyo Parashkevov - Hackensack Water Company
Mr. Michael Barnes, Director of Operations - Spring Valley Water Company
Mr. Craig Flanagan
File: 35314 (VI-C and XII-C)



RAMAPO LANDFILL SAMPLE LOCATIONS

TABLE 1
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

ANALYTE	CONCENTRATION (µg/L)									
	1-OS	1-R	2-OS	2-R	3-OS/I	3-R	4-I	4-OS	4-R	5-I
1,1,1-Dichloroethane	-	1	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	-	-	-	-	-	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate	-	R	-	-	R	R	-	-	-	-
Dibenzofuran	-	-	-	-	-	-	-	-	-	-
Di-n-octylphthalate	-	-	-	-	-	-	-	-	-	-
gamma BHC	-	-	-	-	-	-	-	-	-	-
delta-BHC	-	-	-	-	-	-	-	-	-	-
alpha-BHC	-	-	-	-	-	-	-	-	-	-
Antimony	-	2.2 □	-	-	-	-	-	-	2.6	-
Arsenic	5.8 □	-	-	-	1.9	-	-	2.0	-	-
Cadmium	10.2	-	-	-	2.7 □	3.0 □	-	-	-	-
Calcium	10,600	87,100	95,200	53,300	8,210	77,100	-	40,000	48,800	7960
Chromium	257	46.8	95.9	6.1 □	1,100	14.7	-	11.2	5.9 □	80.0
Copper	230	11.0 □	15.1 □	10.2 □	35.2	5.9 □	-	14.6 □	13.7 □	5.5 □
Iron	162,000	12.0	9,800	1,450	37,900	4,800	-	10,600	5,290	2030
Lead	28.0	-	7.0	-	9.0	-	-	1.5 □	-	-
Magnesium	53,000	17,100	20,100	11,000	25,600	26,100	-	16,800	17,900	5130
Manganese	5,590 E	62 E	1,580 E	116 E	8,780 E	12,000 E	-	995 E	1,230 E	52.8 E
Mercury	-	-	-	-	-	-	-	-	-	-
Nickel	184.0	43.9	58.3	8.2 □	309	13.2 □	-	17.2 □	9.9 □	43.0
Potassium	17,600	2,020	2,560 □	1,360 □	8,730	1,750 □	-	2,070 □	13.9 □	917 □
Sodium	51,600	16,200	9,270	6,550	74,400	52,800	-	38,100	12,000	4280 □
Zinc	258	11.5 □	34.7	13.1 □	48.9	10.3 □	-	18.4 □	9.7 □	12.5 □

Only detected results reported.

R - Compound rejected due to contamination in the associated blank

□ - The reported value is less than CRDL but greater than the IDL.

E - The reported value is estimated because of the presence of interference.

TABLE 1 (Cont'd)
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

ANALYTE	CONCENTRATION (µg/L)											
	5-R	6-I	6-R	7-I	7-OS	7-R	8-OS	8-R	9-I	9-OS	9-R	
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	
Chlorobenzene	--	--	--	--	--	--	--	5	--	--	--	
Benzene	--	--	--	--	--	--	--	--	--	--	--	
Vinyl Chloride	--	--	--	--	--	--	--	2	--	--	--	
Hexachlorobenzene	--	--	--	--	--	--	--	--	--	--	--	
Bis(2-Ethylhexyl)phthalate	R	--	--	--	R	R	R	R	--	R	R	
Dibenzofuran	--	--	--	--	--	--	--	--	--	--	--	
Di-n-octylphthalate	--	--	--	--	--	--	--	--	--	--	--	
gamma BHC	--	--	--	--	--	--	--	--	--	--	--	
delta-BHC	--	--	--	--	--	--	--	--	--	--	--	
alpha-BHC	--	--	--	--	--	--	--	--	--	--	--	
Antimony	--	--	--	--	--	--	--	--	--	--	--	
Arsenic	--	--	--	--	--	--	6.6 □	4.3	--	--	--	
Cadmium	--	--	--	--	--	--	--	--	--	--	3.3 □	
Calcium	13,000	21,900	23,500	--	95,700	75,300	26,400	209,000	--	9,030	35,500	
Chromium	8.6 □	17.0	67.4	--	218	--	7.6 □	18.2	--	--	11.6	
Copper	--	--	6.9	--	10.3 □	4.5 □	6.9	14.2	--	4.3 □	7.0 □	
Iron	243	2860	17.0	--	2,200	600	12,000	4,710	--	393 N*	10,800 N*	
Lead	--	--	--	--	--	--	--	1.8 □	--	1.2 □	1.2 □	
Magnesium	4,740 □	6,010	5,910	--	27,800	18,200	8,210	54,900	--	2,540 □	12,800	
Manganese	8.2 □E	84.7 E	195 E	--	122 □	81.6 E	1,910 E	2,650 E	--	8.7	1,890	
Mercury	--	--	--	--	--	--	--	--	--	--	--	
Nickel	--	8.9 □	18.9 □	--	13.8 □	4.0 □	13.4 □	36.8 □	--	5.2 □	14.4 □	
Potassium	783 □	1,210 □	1,450 □	--	23,500	1,870 □	10,800	16,900	--	934 □	17,600	
Sodium	4,130 □	5,560	6,560	--	67,900	15,700	17,500	6,890	--	2,200 □	83,700	
Zinc	11.5 □	7.3 □	25.0	--	12.0 □	11.2 □	14.5 □	16.4 □	--	23.3 □	20.6	

Only detected results reported.

R - Compound rejected due to contamination in the associated blank

□ - The reported value is less than CRDL but greater than the IDL.

N - Spike sample recovery not within control limits.

* - Duplicate analysis not within control limits.

TABLE 1 (Cont'd)
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

ANALYTE	CONCENTRATION (µg/L)						
	ALBB-1	PW-1	PW-2	RVWF-1	SVWC-93	SVWC-96	ARARs @
1,1-Dichloroethane	-	-	-	-	-	-	5
Chlorobenzene	-	-	-	-	-	-	5 §
Benzene	-	-	-	-	-	-	0.7 @
Vinyl Chloride	-	-	-	-	-	-	2
Hexachlorobenzene	-	-	-	-	-	-	0.35
Bis(2-Ethylhexyl)phthalate	R	R	R	R	R	R	50
Dibenzofuran	-	-	-	-	-	-	50 □
Di-n-octylphthalate	-	-	-	-	-	-	50
gamma BHC	-	-	-	-	-	-	ND
delta-BHC	-	-	-	-	-	-	ND
alpha-BHC	-	-	-	-	-	-	ND
Antimony	-	-	-	-	-	-	3
Arsenic	-	-	-	-	-	-	25
Cadmium	-	-	-	-	-	-	10
Calcium	17,100	9,470	40,100	19,500	27000	2400	-
Chromium	-	-	4.9 □	20.5	-	-	50
Copper	31.1	-	3.9 □	6.9 □	24.5	-	200
Iron	225 N*	916 N*	22.7 BN*	294 N*	553 N*	22.6	300
Lead	1.5	7.8	-	-	8	2.5 □	15 ¥
Magnesium	3,920 □	3,080 □	4,770	5,340	7000	7560	35,000
Manganese	10.3 □	3.6 □	6.6 □	111	72.2	-	300
Mercury	-	-	-	-	-	-	2
Nickel	-	4.3 □	4.8 □	8.8 □	-	-	-
Potassium	709 □	836 □	1,160 □	1,740 □	1960 □	1310 □	-
Sodium	5,420	5,880	9,600	18,900	43700	34500	20,000
Zinc	277	43.7 □	62.4	37.3	56.1	31.2	300

@ Values obtained from Water Quality Regulations for Surface Waters and Groundwaters 6 NYCRR Parts 700-705, September 1, 1991, unless otherwise indicated.

§ - Values obtained from Chapter I - New York State Sanitary Code, Subpart 5-1, Principle Organic Contaminants.

□ - Value obtained from Chapter I - New York State Sanitary Code, Subpart 5-1, Unspecified Organic Contaminants.

¥ - USEPA action level

Only detected results reported.

R - Compound rejected due to contamination in the associated blank

B - Compound detected in the associated method blank

□ - The reported value is less than CRDL but greater than the IDL.

N - Spike sample recovery not within control limits.

* - Duplicate analysis not within control limits.

TABLE 1 (Cont'd)

RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

ANALYTE	CONCENTRATION (µg/L)						ARAR	æ
	SW-1	SW-5	SW-6	SW-8	SW-8	ARAR		
1,1-Dichloroethane	-	-	-	-	-	-	0.07	
Chlorobenzene	-	-	-	-	-	-	20	
Benzene	-	-	-	-	-	-	0.7	
Vinyl Chloride	-	-	-	-	-	-	0.3	
Hexachlorobenzene	-	-	-	-	-	-	0.02	
Bis(2-Ethylhexyl)phthalate	R	R	R	R	R	R	0.6	
Dibenzofuran	-	-	-	-	-	-	50	
Di-n-octylphthalate	-	-	-	-	-	-	50	
gamma BHC	-	-	-	-	-	-	0.01	
delta-BHC	-	-	-	-	-	-	0.01	
alpha-BHC	-	-	-	-	-	-	0.01	
Antimony	-	-	-	-	-	-	3	
Arsenic	-	-	-	-	-	-	50	
Cadmium	-	-	-	-	-	-	10	ç
Calcium	9,890	3,730	4,120	4,010	4,010	4,010	-	
Chromium	-	-	5.1	-	-	-	50	ç
Copper	2.1	-	5.7	-	-	-	200	ç
Iron	119	71.7	522	26.7	26.7	26.7	300	
Lead	0.8	-	-	-	-	-	50	ç
Magnesium	2,820	975	1,090	1,100	1,100	1,100	35,000	
Manganese	29.6	20.5	16.9	9.9	9.9	9.9	300	
Mercury	-	-	-	-	-	-	0.012	£
Nickel	-	6.4	5.9	5.4	5.4	5.4	1.30E-07	£
Potassium	945	341	347	347	347	347	-	
Sodium	11,300	2,400	2,570	2,480	2,480	2,480	-	
Zinc	12.1	15.7	15.3	13.5	13.5	13.5	30	

Only detected results reported.

æ - Values obtained from Water Quality Regulations for Surface Waters and Groundwaters 6 NYCRR Parts 700-705, September 1, 1991, unless otherwise indicated.

£ - Clean Water Act

ç - ARAR value must be calculated; see next page.

R - Compound rejected due to contamination in the associated blank
 [] - The reported value is less than CRDL but greater than the IDL.
 N - Spiked sample recovery not within control limits.
 * - Duplicate analysis not within control limits.

TABLE 2
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*										
	1-OS	1-R	2-OS	2-R	3-OS/I	3-R	4-OS	4-R	5-OS	5-I **	5-R
Biochemical Oxygen Demand	--	--	--	--	--	--	--	--	NA	--	--
Chloride	36	35	11	24	137	50	67	21	NA	3	3
COD	<15	<15	35	<15	50	50	15	<15	NA	<15	20
Color (units)	--	--	--	--	--	--	--	--	NA	--	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	NA	--	--
Total Hardness	482	288	320	178	310	300	169	195	NA	40.9	51.9
Ammonia	0.02	<0.02	0.02	<0.02	0.12	0.03	<0.02	0.07	NA	<0.02	0.03
Nitrate	0.1	0.7	0.5	0.1	1.5	0.1	0.6	<0.1	NA	0.5	0.4
Total Phenols (ug/l)	8	6.5	5.2	6	<1	<1	<1	<1	NA	4.5	7.5
Sulfate	35	28.6	16.2	18.5	14.3	16.6	53.6	17.6	NA	7.8	11.3
Total Alkalinity	330	244	294	170	253	341	101	197	NA	36.7	44.6
Total Dissolved Solids	438	367	325	227	494	467	290	272	NA	93	93
Total Kjeldahl Nitrogen	--	--	--	--	--	--	--	--	NA	--	--
Total Organic Carbon	3.8	3	2.3	1.8	6.1	11.7	2.5	2.1	NA	1.6	4.3
Turbidity (units)	87	9.2	80	22	24	13	55	27	NA	19	5

* - All concentrations given in mg/l unless otherwise noted.

NA - Not analyzed

** - 5I was substituted for 5-OS for this round of sampling.

-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*										
	6-I	6-R	7-OS	7-R	8-OS	8-R	9-OS	9-R	BB-1	PW-1	PW-2
Biochemical Oxygen Demand	--	--	--	--	--	--	--	--	--	--	--
Chloride	21	13	82	26	36	250	3	94	<2	7	27
COD	105	<15	45	20	50	100	15	80	<15	35	<15
Color (units)	--	--	--	--	--	--	--	--	--	--	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	79.4	83	353	263	100	748	33	141	58.9	36.3	120
Ammonia	<0.02	<0.02	0.03	<0.02	6.2	11.6	<0.02	16.2	<0.02	<0.02	<0.02
Nitrate	0.1	<0.1	45	0.9	1.1	0.7	3.1	2	0.2	0.6	1.1
Total Phenols (ug/l)	7	<1	<1	<1	1.5	<1	<1	<1	2.5	3.5	30.8
Sulfate	12.2	16.1	62.4	24.4	28.8	14.5	9.3	11	15.3	8.8	17.9
Total Alkalinity	75	58.7	214	229	123	627	18.1	269	53.4	28.4	70.8
Total Dissolved Solids	143	139	730	333	184	1130	72	423	110	77	205
Total Kjeldahl Nitrogen	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	3.6	2.7	9.4	3.9	4.9	18.2	1.4	12.3	<1	<1	1.4
Turbidity (units)	15	6.7	3	2.5	6.5	8	10	34	2	1.8	<1

* - All concentrations given in mg/l unless otherwise noted.
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	RVWF-1	SVWC-93	SVWC-94	SVWC-95	SVWC-96	ARARs @ (ug/l)
Biochemical Oxygen Demand	--	--	NA	NA	--	--
Chloride	36	75	NA	NA	73	250,000
COD	<15	20	NA	NA	<15	--
Color (units)	--	--	NA	NA	--	--
Hexavalent Chromium	--	--	NA	NA	--	--
Total Hardness	70.7	96.3	NA	NA	92	--
Ammonia	<0.02	<0.02	NA	NA	<0.02	2,000
Nitrate	2.1	1.9	NA	NA	2.2	10,000
Total Phenols (ug/l)	<1	<1	NA	NA	3.8	--
Sulfate	14.1	25.7	NA	NA	18.8	250,000
Total Alkalinity	43.7	57.5	NA	NA	96.7	--
Total Dissolved Solids	162	250	NA	NA	241	500,000
Total Kjeldahl Nitrogen	--	--	NA	NA	--	--
Total Organic Carbon	1.8	1.5	NA	NA	<1	--
Turbidity (units)	3.7	2	NA	NA	<1	--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.
NA - Not analyzed (Not sampled because pumps were not operable)
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - DECEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	SW-1	SW-5	SW-6	SW-8	ARARs @ (ug/l)	
Biochemical Oxygen Demand	--	--	--	--	--	--
Chloride	15	3	3	3	250,000	--
COD	<15	30	<15	<15	--	--
Color (units)	--	--	--	--	--	--
Hexavalent Chromium	--	--	--	--	--	--
Total Hardness	36.3	13.3	14.8	14.5	--	--
Ammonia	0.14	<0.02	<0.02	<0.02	2,000	--
Nitrate	0.5	0.1	<0.1	0.1	10,000	--
Total Phenols (ug/l)	44.5	<1	<1	5	--	--
Sulfate	12.5	8.4	9.4	9.2	250,000	--
Total Alkalinity	20.9	4.9	5.3	6	--	--
Total Dissolved Solids	102	54	51	49	500,000	--
Total Kjeldahl Nitrogen	--	--	--	--	--	--
Total Organic Carbon	2.8	1.8	1.7	2	--	--
Turbidity (units)	<1	<1	<1	<1	--	--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.
-- Not Analyzed (Only analyzed in baseline event)

TABLE 3

RAMAPO LANDFILL

GROUNDWATER AND SURFACE WATER

MONITORING DATA

COMPOUND: Benzene

Sample ID	Date of Sampling Event					
	1/90	9/90	1/93	4/93	9/93	12/93
1 O/S	ND	ND	ND	ND	ND	ND
1 R	ND	ND	ND	ND	ND	ND
2 O/S	ND	ND	NA	ND	ND	ND
2R	ND	ND	NA	ND	ND	ND
3 O/S/I	ND	ND	ND	ND	ND	ND
3 R	ND	ND	ND	ND	ND	ND
4 O/S	ND	0.3	ND	ND	ND	ND
4 R	1.0	1.0	ND	0.7	ND	ND
5I	NA	NA	NA	NA	NA	ND
5 O/S	2.0	ND	ND	ND	NA	NA
5 R	ND	ND	ND	ND	ND	ND
6 I	NA	0.2	ND	ND	ND	ND
6 R	NA	ND	ND	ND	ND	ND
7 O/S	ND	ND	ND	ND	ND	ND
7 R	ND	ND	ND	ND	ND	ND
8 O/S	2.0	0.3	ND	ND	ND	ND
8 R	3.0	0.4	ND	0.9	ND	ND
9 O/S	NA	ND	ND	ND	ND	NA
9 R	NA	0.9	ND	ND	ND	NA
PW-1	NA	ND	ND	ND	ND	NA
PW-2	NA	NA *	ND	ND	ND	NA
BP-1	NA	NA	ND	NA	NA	NA
BB-1	NA	NA	ND	ND	ND	NA
RVWF-1	NA	NA	ND	ND	ND	NA
SVWC-93	NA	NA	ND	ND	NA	NA
SVWC-94	NA	NA	ND	ND	NA	NA
SVWC-95	NA	NA	ND	ND	ND	NA
SVWC-96	NA	NA	ND	ND	NA	NA
Surface Water						
Date of Sampling Event						
Sample ID	10/89	7/90	1/93	4/93	9/93	12/93
SW-1	ND	NA	ND	ND	ND	ND
SW-5	ND	ND	ND	ND	ND	ND
SW-6	NA	ND	ND	ND	ND	ND
SW-8	NA	ND	ND	ND	ND	ND

Notes: Concentration reported in $\mu\text{g/L}$ (ppb).

ND - Not detected

NA - Not applicable (e.g. well not installed by this date or if installed, not sampled)

* NYSDOH results from 3/92 sampling.

 - Exceeded ARAR value of 0.7 ppb for groundwater.

35341.WK1/CS

TABLE 4

**RAMAPO LANDFILL
GROUNDWATER AND SURFACE WATER
MONITORING DATA
COMPOUND: Chromium**

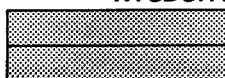
Sample ID	Date of Sampling Event					
	1/90	9/90	1/93	4/93	9/93	12/93
1 O/S	153	57.3	8	ND	60.0	257.0
1 R	39.7	17.5	ND	ND	84.9	46.8
2 O/S	180	141	NA	ND	50.2	95.9
2R	16.1	5.5	NA	ND	14.8	6.1
3 O/S/I	587	1290	607	40.4	1350	1100
3 R	28	11.4	ND	ND	ND	14.7
4 O/S	139	40.1	5.8	ND	10.8	11.2
4 R	35.5	13.1	ND	8.8	ND	5.9
5I	NA	NA	NA	NA	NA	80
5 O/S	90	35.6	48.8	ND	NA	NA
5 R	27.4	29.3	6.8	ND	ND	8.6
6 I	NA	28.7	ND	ND	13.4	17.0
6 R	NA	31.1	24	34.8	27.7	67.4
7 O/S	33.5	40.1	24.2	13.0	1890	218
7 R	16.2	16.8	ND	ND	ND	ND
8 O/S	34.8	16.7	ND	ND	ND	7.6
8 R	20	23.1	9.9	ND	17.7	18.2
9 O/S	NA	6.8	ND	ND	ND	ND
9 R	NA	8.8	3.9	16.4	16.7	11.6
PW-1	NA	ND	ND	ND	ND	ND
PW-2	NA	ND *	ND	ND	ND	4.9
BP-1	NA	NA	ND	NA	NA	NA
BB-1	NA	NA	ND	ND	ND	ND
RVWF-1	NA	NA	25.2	14.7	13.2	20.5
SVWC-93	NA	NA	ND	ND	NA	ND
SVWC-94	NA	NA	ND	ND	NA	NA
SVWC-95	NA	NA	ND	ND	ND	NA
SVWC-96	NA	NA	ND	ND	NA	ND
Surface Water						
Date of Sampling Event						
Sample ID	10/89	7/90	1/93	4/93	9/93	12/93
SW-1	ND	NA	ND	ND	ND	ND
SW-5	ND	ND	ND	ND	ND	ND
SW-6	NA	ND	ND	ND	ND	5.1
SW-8	NA	ND	ND	ND	ND	ND

Notes: Concentration reported in $\mu\text{g/L}$ (ppb).

ND - Not detected

NA - Not applicable (e.g. well not installed by this date or if installed, not sampled)

* NYSDOH results from 3/92 sampling.



- Exceeded ARAR value of 50 ppb for groundwater.

- Exceeded ARAR value of 50 ppb for surface water.

The ARAR for SW-1 (Class A water body) is 50 ppb.

TABLE 5

RAMAPO LANDFILL

GROUNDWATER AND SURFACE WATER

MONITORING DATA

COMPOUND: Iron

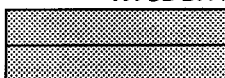
Sample ID	Date of Sampling Event					
	1/90	9/90	1/93	4/93	9/93	12/93
1 O/S	45000	17500	1870	884	32300	162000
1 R	1180	2650	395	197	1940	1210
2 O/S	912	41800	NA	186	11800	9800
2R	409	602	NA	674	1120	1450
3 O/S	6830	9750	5110	333	21300	37900
3 R	1930	1370	11500	2940	3280	4800
4 O/S	15600	12400	529	520	5560	10600
4 R	8230	5290	3520	4920	3100	5290
5I	NA	NA	NA	NA	NA	2030
5 O/S	27000	11200	11100	4700	NA	NA
5 R	658	368	620	2310	751	243
6 I	NA	486	953	17.3	332	2860
6 R	NA	683	1220	715	662	1710
7 O/S	981	24500	1250	521	619000	2200
7 R	ND	1940	31.5	56.6	989	600
8 O/S	229000	43800	3230	2080	6180	12000
8 R	1360	2940	11600	2590	9160	4710
9 O/S	NA	249	50.7	1200	383	393
9 R	NA	20200	2680	8250	11500	10800
PW-1	NA	64	186	130	1260	916
PW-2	NA	11 *	41.8	49.5	ND	22.7
BP-1	NA	NA	274	NA	NA	NA
BB-1	NA	NA	NA	297	247	225
RVWF-1	NA	NA	362	207	202	294
SVWC-93	NA	NA	32.6	10.6	NA	553
SVWC-94	NA	NA	40.3	19.1	NA	NA
SVWC-95	NA	NA	51.7	74.4	ND	NA
SVWC-96	NA	NA	22.3	17.3	NA	22.6
Surface Water	Date of Sampling Event					
Sample ID	10/89	7/90	1/93	4/93	9/93	12/93
SW-1	2630	NA	141	1670	170	119
SW-5	93	163	194	204	168	71.7
SW-6	NA	177	82.5	245	76.7	55.2
SW-8	NA	1290	109	341	ND	26.7

Notes: Concentration reported in µg/L (ppb).

ND - Not detected

NA - Not applicable (e.g. well not installed by this date or if installed, not sampled)

* NYSDOH results from 3/92 sampling.



- Exceeded ARAR value of 300 ppb for groundwater.

- Exceeded ARAR value of 300 ppb for surface water.

TABLE 6

**RAMAPO LANDFILL
GROUNDWATER AND SURFACE WATER
MONITORING DATA
COMPOUND: Manganese**

Sample ID	Date of Sampling Event					
	1/90	9/90	1/93	4/93	9/93	12/93
1 O/S	3,790.0	3,700.0	809.0	1410	4010	5590
1 R	144.0	98.5	61.4	38.7	143	62
2 O/S	298.0	4770.0	NA	27.0	4850	1580
2R	197.0	135.0	NA	118	126	116
3 O/S/I	8,700.0	18,100.0	3,450.0	1690	9590	8780
3 R	7,230.0	12,400.0	10,700.0	12900	11000	12000
4 O/S	4,210.0	5,020.0	547.0	506	2080	995
4 R	1,730.0	1,520.0	1,660.0	1890	1160	1230
5I	NA	NA	NA	NA	NA	52.8
5 O/S	981.0	530.0	192.0	43.2	NA	NA
5 R	22.3	9.3	9.6	21.9	11.4	8.2
6 I	NA	33.1	151.0	1.3	34.4	84.7
6 R	NA	14.3	100.0	57.5	60.7	195
7 O/S	1,240.0	3,260.0	48.3	46.1	45100	122
7 R	51.9	102.0	46.1	51.8	114	81.6
8 O/S	2,830.0	2,750.0	1,680.0	1640	3330	NA
8 R	872.0	181.0	1,660.0	2600	2440	1910
9 O/S	NA	14.6	ND	21.1	9.6	8.7
9 R	NA	3,270.0	2,320.0	2280	2540	1890
PW-1	NA	ND	1.2	1.8	ND	3.6
PW-2	NA	ND *	4.7	7.5	6.3	6.6
BP-1	NA	NA	4,630.0	NA	NA	NA
BB-1	NA	NA	7.9	11.7	11.1	10.3
RVWF-1	NA	NA	839.0	40.2	1710	111
SVWC-93	NA	NA	ND	1.7	NA	72.2
SVWC-94	NA	NA	7.3	ND	NA	NA
SVWC-95	NA	NA	56.4	1.8	ND	NA
SVWC-96	NA	NA	ND	ND	NA	ND
Surface Water						
Date of Sampling Event						
Sample ID	10/89	7/90	1/93	4/93	9/93	12/93
SW-1	1,120.0	NA	16.6	107	50.4	29.6
SW-5	19.5	44.5	19.3	27.9	70.8	20.5
SW-6	NA	31.9	14.5	23.9	14.4	16.9
SW-8	NA	153.0	10.9	28.5	8.6	9.9

Notes: Concentration reported in $\mu\text{g/L}$ (ppb).

ND - Not detected

NA - Not applicable (e.g. well not installed by this date or if installed, not sampled)

* NYSDOH results from 3/92 sampling.

- Exceeded ARAR value of 300 ppb for groundwater.

35314.WK1/CS

ATTACHMENT 1

TABLE 2
RAMAPO LANDFILL - JANUARY 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*										
	1-OS	1-R	2-OS	2-R	3-OS/I	3-R	4-OS	4-R	5-OS	5-R	6-I
Biochemical Oxygen Demand	NA	NA	NA	NA	4	6	4	4	NA	NA	<4
Chloride	NA	NA	NA	NA	238	50	66	27	NA	NA	14
COD	NA	NA	NA	NA	30	20	<15	<15	NA	NA	35
Color (units)	NA	NA	NA	NA	50	120	50	40	NA	NA	5
Hexavalent Chromium	NA	NA	NA	NA	<0.02	<0.02	<0.02	<0.02	NA	NA	<0.02
Total Hardness	NA	NA	NA	NA	374	301	137	221	NA	NA	61.8
Ammonia	NA	NA	NA	NA	<0.02	<0.02	<0.02	<0.02	NA	NA	0.07
Nitrate	NA	NA	NA	NA	0.6	<0.1	0.1	<0.1	NA	NA	<0.1
Total Phenols (ug/l)	NA	NA	NA	NA	<1	<1	<1	<1	NA	NA	<1
Sulfate	NA	NA	NA	NA	10.9	13.9	74	20.4	NA	NA	12.7
Total Alkalinity	NA	NA	NA	NA	172	328	74.3	202	NA	NA	38.1
Total Dissolved Solids	NA	NA	NA	NA	731	455	290	305	NA	NA	96
Total Kjeldahl Nitrogen	NA	NA	NA	NA	0.9	1.1	0.5	0.5	NA	NA	0.8
Total Organic Carbon	NA	NA	NA	NA	7.8	12.4	3.7	4	NA	NA	6
Turbidity (units)	NA	NA	NA	NA	21	50	20	14	NA	NA	3

* - All concentrations given in mg/l unless otherwise noted.
NA - Not analyzed (Analysis not required by Work Plan)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - JANUARY 1993 SAMPLING

INDICATOR		CONCENTRATION (mg/L)*										
		6-R	7-OS	7-R	8-OS	8-R	9-OS	9-R	BB-1	BP-1	PW-1	PW-2
Biochemical Oxygen Demand	4	8	<4	16	19	<4	42	<4	<4	<4	<4	
	12	110	34	111	290	2	123	3	200	3	31	
Chloride	<15	<15	<15	15	60	<15	<15	<15	25	<15	<15	
COD	30	40	<5	30	100	<5	<5	<5	5	<5	70	
Color (units)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Hexavalent Chromium	72.7	361	217	167	370	30.9	116	58.2	650	35.3	120	
Total Hardness	<0.02	<0.02	<0.02	12	14.5	<0.02	19.8	<0.02	0.02	<0.02	<0.02	
Ammonia	<0.1	10.6	1.5	1.9	0.2	1.1	2	<0.1	<0.1	1	1.4	
Nitrate	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Total Phenols (ug/l)	16.8	59.2	36.1	22.4	20.3	9.8	7.8	15.6	14.9	10.5	22.9	
Sulfate	65	305	171	182	564	21.1	374	50.5	428	24.8	62.3	
Total Alkalinity	126.0	637	303	441	1200	60	532	96	930	75	203	
Total Dissolved Solids	0.2	4	0.8	16	23.6	0.9	20	0.4	1	0.4	0.3	
Total Kjeldahl Nitrogen	4	15.2	3.7	13.5	23.4	1.4	12.3	1	18.7	1.1	<1	
Total Organic Carbon	7	5	<1	5.5	27	<1	<1	<1	2	2	37	
Turbidity (units)												

* - All concentrations given in mg/l unless otherwise noted.

TABLE 2 (Cont'd)
RAMAPO LANDFILL - JANUARY 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	RVWF-1	SVWC-93	SVWC-94	SVWC-95	SVWC-96	ARARs @ (ug/l)
Biochemical Oxygen Demand	<4	<4	<4	<4	<4	--
Chloride	57	52	55	39	36	250,000
COD	<15	<15	<15	<15	<15	--
Color (units)	<5	<5	<5	<5	<5	--
Hexavalent Chromium	<0.02	<0.02	<0.02	<0.02	<0.02	--
Total Hardness	108	66.3	76.5	37.1	56.2	--
Ammonia	0.1	<0.02	<0.02	<0.02	<0.02	2,000
Nitrate	0.9	1.3	1.3	0.8	1	10,000
Total Phenols (ug/l)	<1	<1	<1	<1	<1	--
Sulfate	17.9	17.5	17	12.7	13.5	250,000
Total Alkalinity	95.3	36.8	47	38.2	33.8	--
Total Dissolved Solids	234	173	189	143	137	500,000
Total Kjeldahl Nitrogen	0.8	0.7	0.3	0.5	0.4	--
Total Organic Carbon	4.1	1	1.2	2.3	1.8	--
Turbidity (units)	1.5	<1	<1	<1	<1	--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.

TABLE 2 (Cont'd)
RAMAPO LANDFILL - JANUARY 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	SW-1	SW-5	SW-6	SW-8	ARARs @ (ug/l)	
Biochemical Oxygen Demand	<4	<4	<4	<4	--	
Chloride	9	10	9	8	250,000	
COD	<15	<15	<15	<15	--	
Color (units)	<5	<5	<5	<5	--	
Hexavalent Chromium	<0.02	<0.02	<0.02	<0.02	--	
Total Hardness	21.9	15.7	15.4	16.4	--	
Ammonia	0.2	<0.02	<0.02	<0.02	2,000	
Nitrate	0.2	<0.1	<0.1	<0.1	10,000	
Total Phenols (ug/l)	<1	<1	<1	<1	--	
Sulfate	14.1	12.4	12.1	12.2	250,000	
Total Alkalinity	10.2	4	4.2	4.8	--	
Total Dissolved Solids	53	55	40	46	500,000	
Total Kjeldahl Nitrogen	0.2	0.2	<0.2	<0.2	--	
Total Organic Carbon	2.1	1.6	2	1.9	--	
Turbidity (units)	<1	<1	<1	<1	--	

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.

TABLE 2
RAMAPO LANDFILL - APRIL 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*										
	1-OS	1-R	2-OS	2-R	3-OS/l	3-R	4-OS	4-R	5-OS	5-R	6-I
Biochemical Oxygen Demand	--	--	--	--	--	--	--	--	--	--	--
Chloride	20	54	3	35	149	79	82	39	2	2	16
COD	<15	<15	<15	20	32	25	<15	15	70	20	<15
Color (units)	--	--	--	--	--	--	--	--	--	--	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	--	--	--
Total Hardness	219	307	252	197	322	323	149	240	17.9	53.3	55.6
Ammonia	0.02	0.03	<0.02	0.02	0.24	0.04	<0.02	0.05	<0.02	<0.02	<0.02
Nitrate	0.1	0.8	0.5	<0.1	0.8	<0.1	0.2	<0.1	<0.1	0.2	<0.1
Total Phenols (ug/l)	<1	<1	<1	<1	<1	3.5	<1	2.7	<1	<1	2
Sulfate	50.4	30.5	18.5	19.2	14.1	15.6	49.4	22.8	12.5	14	11.3
Total Alkalinity	182	257	233	168	251	340	87.4	199	12.6	45	36.8
Total Dissolved Solids	320	364	282	216	507	446	295	307	55	91	83
Total Kjeldahl Nitrogen	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	3.4	5	1.8	1.6	6.2	6.2	2.1	3.2	1	1.6	<1
Turbidity (units)	9.5	2	<1	4.5	5	8	7.5	32	45	25	<1

* - All concentrations given in mg/l unless otherwise noted.
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - APRIL 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*										
	6-R	7-OS	7-R	8-OS	8-R	9-OS	9-R	BB-1	PW-1	PW-2	
Biochemical Oxygen Demand	--	--	--	--	--	--	--	--	--	--	
Chloride	10	148	41	120	288	<2	126	<2	5	44	
COD	<15	32	<15	17	70	<15	50	<15	<15	<15	
Color (units)	--	--	--	--	--	--	--	--	--	--	
Hexavalent Chromium	--	--	--	--	--	--	--	--	--	--	
Total Hardness	77.4	383	220	141	776	33.2	182	59	39.4	141	
Ammonia	<0.02	11.2	<0.02	12	12	<0.02	24	<0.02	<0.02	<0.02	
Nitrate	<0.1	10.4	1.3	0.7	<0.1	0.8	<0.1	<0.1	1.1	0.3	
Total Phenols (ug/l)	<1	<1	3	<1	2.5	<1	<1	<1	<1	<1	
Sulfate	14.2	37.8	28.3	19.3	13.3	10.5	15	13.2	10.2	19	
Total Alkalinity	59.9	380	177	176	575	21.9	334	52.8	28.2	76.1	
Total Dissolved Solids	126	716	291	357	1300	23	476	65	36	203	
Total Kjeldahl Nitrogen	--	--	--	--	--	--	--	--	--	--	
Total Organic Carbon	1.5	13.4	3.3	7.8	15.8	1.2	13.2	<1	<1	1.5	
Turbidity (units)	1	2	<1	<1	7	3.5	20	2	<1	<1	

* - All concentrations given in mg/l unless otherwise noted.
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - APRIL 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	RVWF-1	SVWC-93	SVWC-94	SVWC-95	SVWC-96	ARARs @ (ug/l)
Biochemical Oxygen Demand	--	--	--	--	--	--
Chloride	22	52	64	60	37	250,000
COD	17	<15	<15	<15	15	--
Color (units)	--	--	--	--	--	--
Hexavalent Chromium	--	--	--	--	--	--
Total Hardness	59.4	66.3	82.5	77	53	--
Ammonia	<0.02	<0.02	0.03	<0.02	<0.02	2,000
Nitrate	1.3	1.2	1	1.1	0.8	10,000
Total Phenols (ug/l)	<1	<1	<1	<1	<1	--
Sulfate	11.5	15.1	14.8	14.5	12.4	250,000
Total Alkalinity	59.7	31.3	43.1	38.8	24.7	--
Total Dissolved Solids	133	134	165	160	112	500,000
Total Kjeldahl Nitrogen	--	--	--	--	--	--
Total Organic Carbon	1.9	1.2	1	1.3	1.2	--
Turbidity (units)	1.5	<1	<1	<1	<1	--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - APRIL 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*						ARARs @ (ug/l)
	SW-1	SW-5	SW-6	SW-8			
Biochemical Oxygen Demand	--	--	--	--			--
Chloride	13	4	2	2			250,000
COD	<15	<15	<15	<15			--
Color (units)	--	--	--	--			--
Hexavalent Chromium	--	--	--	--			--
Total Hardness	41.8	13.5	12.5	14.3			--
Ammonia	0.68	0.02	<0.02	<0.02			2,000
Nitrate	1	<0.1	<0.1	<0.1			10,000
Total Phenols (ug/l)	<1	<1	<1	<1			--
Sulfate	12.9	8.8	7.9	9.2			250,000
Total Alkalinity	45	6.6	6.7	7			--
Total Dissolved Solids	102	43	42	40			500,000
Total Kjeldahl Nitrogen	--	--	--	--			--
Total Organic Carbon	3.5	2.4	2.5	2.5			--
Turbidity (units)	8	1	1	1			--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2
RAMAPO LANDFILL - SEPTEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*										
	1-OS	1-R	2-OS	2-R	3-OS/I	3-R	4-OS	4-R	5-OS	5-R	6-I
Biochemical Oxygen Demand	--	--	--	--	--	--	--	--	NA	--	--
Chloride	43	56	23	36	197	46	22	22	NA	2	25
COD	50	20	55	15	140	40	25	40	NA	<15	<15
Color (units)	--	--	--	--	--	--	--	--	NA	--	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	NA	--	--
Total Hardness	346	329	293	175	328	290	115	189	NA	51.5	76.3
Ammonia	0.07	<0.02	0.16	0.03	0.07	0.08	0.21	0.09	NA	<0.02	<0.02
Nitrate	<0.1	0.5	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	NA	0.2	<0.1
Total Phenols (ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	NA	<1	<1
Sulfate	35.6	37	17	17.6	9.2	15.6	20.4	17.5	NA	11.9	12.7
Total Alkalinity	335	288	297	135	214	344	106	175	NA	43.2	42.3
Total Dissolved Solids	481	467	321	243	802	487	226	286	NA	91	171
Total Kjeldahl Nitrogen	--	--	--	--	--	--	--	--	NA	--	--
Total Organic Carbon	12.7	11.5	10.7	3.8	13.7	10.6	3.8	3.4	NA	1.8	2.3
Turbidity (units)	54	9	64	10	57	10	60	27	NA	5.5	2

* - All concentrations given in mg/l unless otherwise noted.
NA - Not analyzed (Not sampled due to low ground and surface water conditions.)
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - SEPTEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*									
	6-R	7-OS	7-R	8-OS	8-R	9-OS	9-R	BB-1	PW-1	PW-2
Biochemical Oxygen Demand	--	--	--	--	--	--	--	--	--	--
Chloride	19	88	35	98	128	3	104	3	8	57
COD	30	120	25	50	75	<15	115	<15	<15	<15
Color (units)	--	--	--	--	--	--	--	--	--	--
Hexavalent Chromium	--	--	--	--	--	--	--	--	--	--
Total Hardness	85.2	724	239	130	230	25.1	152	58.2	32.6	147
Ammonia	<0.02	0.61	0.02	15	27	0.02	20	<0.02	<0.02	<0.02
Nitrate	<0.1	5.1	1.2	1.2	0.3	0.1	0.1	<0.1	0.3	0.5
Total Phenols (ug/l)	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	17.9	21.2	25.5	31.4	23.6	7.5	8.7	12.7	7.9	17.7
Total Alkalinity	55.3	272	201	200	373	18.3	275	53	26.9	82.1
Total Dissolved Solids	155	524	358	417	598	49	436	102	64	276
Total Kjeldahl Nitrogen	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	3.1	20	6.6	14.7	18.3	2.4	16.7	2.2	1.7	2.6
Turbidity (units)	6	10	10	20	35	3	42	1.5	3	<1

* - All concentrations given in mg/l unless otherwise noted.
NA - Not analyzed (Not sampled due to low ground and surface water conditions.)
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - SEPTEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	RVWF-1	SVWC-93	SVWC-94	SVWC-95	SVWC-96	ARARs @ (ug/l)
Biochemical Oxygen Demand	--	NA	NA	--	NA	--
Chloride	63	NA	NA	13	NA	250,000
COD	45	NA	NA	<15	NA	--
Color (units)	--	NA	NA	--	NA	--
Hexavalent Chromium	--	NA	NA	--	NA	--
Total Hardness	106	NA	NA	0.08	NA	--
Ammonia	0.64	NA	NA	<0.02	NA	2,000
Nitrate	0.7	NA	NA	4.3	NA	10,000
Total Phenols (ug/l)	<1	NA	NA	<1	NA	--
Sulfate	12.6	NA	NA	28.3	NA	250,000
Total Alkalinity	93.1	NA	NA	63.7	NA	--
Total Dissolved Solids	225	NA	NA	316	NA	500,000
Total Kjeldahl Nitrogen	--	NA	NA	--	NA	--
Total Organic Carbon	5	NA	NA	3.6	NA	--
Turbidity (units)	2.5	NA	NA	<1	NA	--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.
NA - Not analyzed (Not sampled due to low ground and surface water conditions.)
-- Not Analyzed (Only analyzed in baseline event)

TABLE 2 (Cont'd)
RAMAPO LANDFILL - SEPTEMBER 1993 SAMPLING

INDICATOR	CONCENTRATION (mg/L)*					
	SW-1	SW-5	SW-6	SW-8	ARARs @ (ug/l)	
Biochemical Oxygen Demand	--	--	--	--	--	--
Chloride	105	5	5	5	250,000	--
COD	25	<15	<15	<15	--	--
Color (units)	--	--	--	--	--	--
Hexavalent Chromium	--	--	--	--	--	--
Total Hardness	111	33	36.6	37.9	--	--
Ammonia	0.02	0.02	<0.02	<0.02	2,000	--
Nitrate	5	0.1	0.1	0.2	10,000	--
Total Phenols (ug/l)	<1	<1	<1	<1	--	--
Sulfate	28.3	9.7	10.8	11	250,000	--
Total Alkalinity	64.4	26.7	28.9	29.5	--	--
Total Dissolved Solids	325	71	74	71	500,000	--
Total Kjeldahl Nitrogen	--	--	--	--	--	--
Total Organic Carbon	5.4	2.3	2.5	2.6	--	--
Turbidity (units)	<1	<1	<1	<1	--	--

@ - NYSDEC Water Quality Standards and
Guidance Values, TOGS 1.1.1,
October 1993, Table 1

* - All concentrations given in mg/l unless otherwise noted.
NA - Not analyzed (Not sampled due to low ground and surface water conditions.)
-- Not Analyzed (Only analyzed in baseline event)