STERLING
Sterling Environmental Engineering, P.C.

May 19, 2004

Mr. Saiban Mahamooth
Environmental Engineer I
Division of Environmental Remediation
NYS Department of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, New York 12561-1696

Subject: Town of Ramapo Landfill
2004 Annual Monitoring Results
STERLING File #20010

Dear Mr. Mahamooth:

This letter report provides groundwater, drinking water and air monitoring results for the 2004 annual post-closure monitoring event at the Town of Ramapo Landfill Remediation Project. On October 27, 2003, the New York State Department of Environmental Conservation (NYSDEC) approved a variance request that lowered the monitoring frequency to annual for groundwater, drinking water and air monitoring.

Groundwater and private water supply samples were collected on March 17 and 18, 2004, from post-closure monitoring well locations 2-OS, 3-OS/I, 4-OS, 5-OS, 7-OS, 8-OS, 8-I, 8-R, 9-OS, 9-I, 9-R, and water supply wells PW-1, PW-2, and SVWC-93 through SVWC-96. Static water level readings were obtained for all well locations. Sampling locations are shown on the attached Figure 1, "Ramapo Landfill Sample Locations." A representative from United Water New York was present during sampling of the SVWC water supply wells, and a representative from the Rockland County Department of Health (RCDOH) was present during sampling of groundwater monitoring well cluster 9 and the water supply wells.

Additionally, the 2004 field activities included the annual air monitoring event.

GROUNDWATER MONITORING

Field parameters measured at the time of sampling are presented on Table 1, "Field Parameters and Water Levels", attached. All samples were analyzed for approved post-closure "Baseline" and "Site Related Parameters" by Severn Trent Laboratories located in Newburgh, New York, according to United States Environmental Protection Agency (USEPA) methodologies and protocols.

Analytical results are summarized on the attached Table 2, "Post-Closure Groundwater Quality Monitoring Analytical Results", which also includes historical analytical data for the previous three (3) sampling events. Historic analytical data for the four (4) target compounds (Benzene, Chromium, Iron and Manganese) are presented on Tables 3A through 3D. A copy of the laboratory report for the March 2004 sampling event, prepared according to NYSDEC ASP Category A reporting requirements, is enclosed.

During the March 2004 sampling event, a blind field duplicate sample was collected from groundwater well 4-OS. Where results differ, the higher of the two results are reported in this report and on Table 2, which has been noted appropriately.

As presented on the attached Tables 2 and 3A through 3D, the latest monitoring results are generally consistent with past results. A brief discussion of the latest monitoring results with respect to applicable groundwater standards and guidance values (termed "ARARs" in past reports) for each well follows:

Well 1-OS:

Well 1-OS could not be sampled during the March 2004 monitoring event as the well casing has been damaged preventing the introduction of sampling equipment. The Town is currently reviewing the situation and will have repairs completed as soon as practicable.

Well 2-OS:

Consistent with past results, Chromium, Iron and Manganese exceed the applicable ARARs. No Volatile Organic Compounds (VOCs) were detected in the sample from Well 2-OS during this monitoring event, or in the recent past.

Well 3-OS/I:

Consistent with historic results, Chromium, Iron, Manganese, Nickel and Thallium exceed the applicable ARARs. No VOCs were detected in the sample from Well 3-OS/I during this monitoring event, or in the recent past.

Well 4-OS:

Consistent with historic and recent past results, Iron, Manganese and Sodium exceed applicable ARARs. Additionally, Thallium was detected above the ARARs during this event. No VOCs were detected in the sample from Well 4-OS during this monitoring event, or in the recent past.

Well 5-OS:

During this event, Arsenic, Beryllium, Chromium, Iron Lead, Manganese and Nickel exceeded the applicable ARARs. Due to past low volumes of water, this well has not been sampled since March 2001, however, Chromium, Iron and Manganese have showed comparable elevated levels in the past. No VOCs were detected in the sample from Well 5-OS during this monitoring event, or in the historic past.

Well 7-OS:

The latest monitoring results indicate that Iron exceeds applicable ARARs. Chromium and Manganese exceeded the ARARs during this sampling event, but have not been detected above the ARARs in the recent past. No VOCs were detected in the sample from Well 7-OS during this monitoring event, or in the recent past.

Well 8-OS:

Consistent with historic analytical results, Iron and Manganese exceed applicable ARARs. No VOCs were detected in the sample from Well 8-OS during this monitoring event, or in the recent past.

Well 8-I:

Consistent with recent historic analytical results, Iron, Manganese and Sodium exceed applicable ARARs. No VOCs were detected at this monitoring location during this monitoring event.

Well 8-R:

Consistent with historic analytical results, Iron and Manganese exceed applicable ARARs. No VOCs were detected at this monitoring location during this monitoring event.

Well 9-OS:

Consistent with past results, Iron exceeds the applicable ARARs. No VOCs were detected at this monitoring location during this monitoring event.

Well 9-I:

Consistent with historic analytical results, Iron exceeds the ARAR. No VOCs were detected at this monitoring location during this monitoring event.

Well 9-R:

Consistent with recent and historic results, Iron and Manganese exceed applicable ARARs. No VOCs were detected at this monitoring location during this monitoring event.

Well PW-1:

There were no exceedances of applicable ARARs during this monitoring event. No VOCs were detected in the sample from Well PW-1 during this monitoring event, or in the recent past.

Well PW-2:

There were no exceedances of applicable ARARs during this monitoring event. No VOCs were detected in the sample from Well PW-2 during this monitoring event, or in the recent past.

Well SVWC-93:

The latest analytical results for all parameters are consistent with recent past results, with a slight exceedance of Sodium. No VOCs were detected in the sample from Well SVWC-93 during this monitoring event, or in the recent past.

Well SVWC-94:

The latest analytical results for all parameters are consistent with recent past results with Sodium slightly exceeding the applicable ARAR. No VOCs were detected in the sample from Well SVWC-94 during this monitoring event, or in the recent past.

Well SVWC-95:

The latest analytical results for all parameters are consistent with recent past results with Sodium slightly exceeding the applicable ARAR. No VOCs were detected in the sample from Well SVWC-95 during this monitoring event, or in the recent past.

Well SVWC-96:

There were no exceedances of applicable ARARs during this or recent past monitoring events, with the exception of Sodium, detected during this monitoring event. Sodium was detected at a concentration of 30,100 ug/L, slightly above the ARAR. Overall, the latest monitoring results are comparable to recent past results. No VOCs were detected in the sample from Well SVWC-96 during this monitoring event, or in the recent past.

AIR QUALITY MONITORING

Air monitoring consisted of explosive gas (Lower Explosive Limit, or LEL), Hydrogen Sulfide (H_2S) and photoionization detector (PID) measurements of the headspace of each monitoring well, the baler building, leachate manhole A-5, lift stations A-10 and W-20, and the landfill perimeter. LEL and H_2S measurements were obtained with a QRAE Multi gas monitor, and PID measurements were obtained with a Photovac 2020 photoionization device.

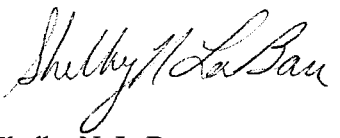
Results of the 2004 air monitoring event are presented on Table 4. No elevated readings were obtained during this event. Based on the March 2004 air monitoring results, the Landfill is in compliance with the requirements of 6 NYCRR 360-2.15(k)(4). On-site and off-site LEL readings are within acceptable limits.

Monitoring location "Manhole A-5" as depicted on Figure 4-2, "Air Monitoring Locations", could not be found. Location "W-1", which is located where "Manhole A-5" is depicted on Figure 4-2, was used as the air monitoring location.

The next sampling event is scheduled to occur in June 2005. Please call me at 518/456-4900 should you have any questions or comments.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.



Shelby N. LaBare
Environmental Engineer
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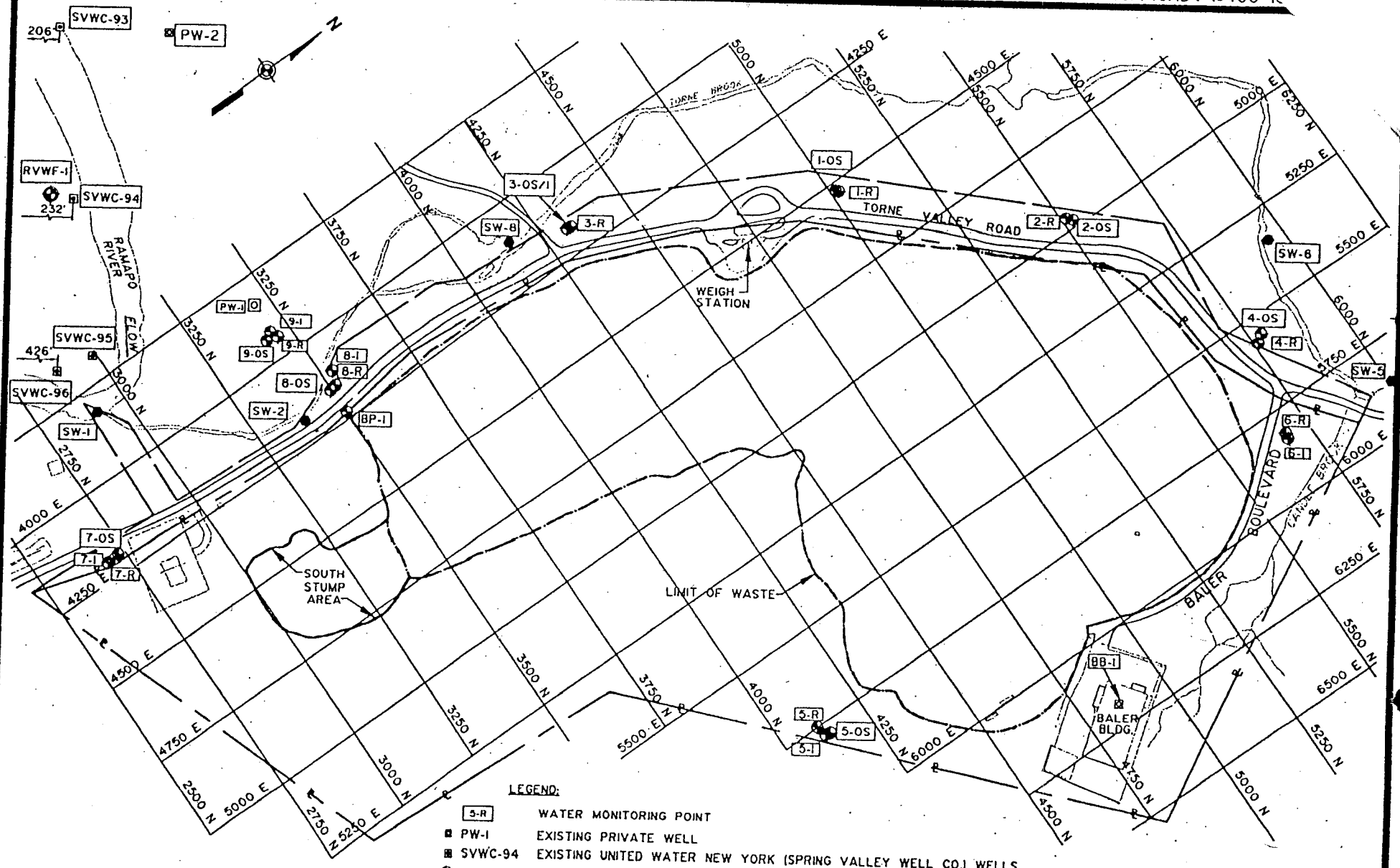
SNL/bh
Facsimile/First Class Mail
Attachments (Figures 1 and 4-2, Tables 1, 2, 3A through 3D, and 4, Laboratory Report)

cc: George Jacob, USEPA
John Olm, NYDOH*
Ed Moran, Town of Ramapo*
Judy Hunderfund, Rockland County DOH*
Kathy Quinn, Rockland County DOH*
Chris Berke, United Water New York *
Tanyo Parashkevov, United Water New York*
John France, Torne Brook Farm **
Frank Digianni, 20 Torne Brook Road **
Ms. Arlene Lapidos, Ramapo Land Co., Inc. *

* letter, figures and tables only.
** letter, figures, tables and partial lab report enclosure.



URS CONSULTANTS, INC.

RAMAPO LANDFILL SAMPLE LOCATIONS

FIGURE 1

TABLE 1

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING
FIELD PARAMETERS AND WATER LEVELS
March 2004

Well I.D.	Date	Static Water Level [1] (feet)	pH [2] (pH units)	Specific Conductance (mmhos)	Temperature (degrees C)	Eh (mV)
1-OS	3/17/2004	[3]	---	---	---	---
1-R	3/17/2004	16.14	---	---	---	---
2-I	3/17/2004	15.23	---	---	---	---
2-OS	3/17/2004	12.86	7.15	47	6.25	144
2-R	3/17/2004	16.41	---	---	---	---
3-OS/I	3/17/2004	12.5	6.5	59	2.8	133
3-R	3/17/2004	---	---	---	---	---
4-I	3/17/2004	8.5	---	---	---	---
4-OS	3/17/2004	9.52	**5.78**	58	6.13	190
4-R	3/17/2004	11.42	---	---	---	---
5-OS	3/17/2004	7.57	**6.33**	5	6.45	165
5-I	3/17/2004	10.9	---	---	---	---
5-R	3/17/2004	24.97	---	---	---	---
6-I	3/17/2004	18.58	---	---	---	---
6-R	3/17/2004	29.51	---	---	---	---
7-OS	3/17/2004	14.16	**6.32**	31	5.8	181
7-I	3/17/2004	15	---	---	---	---
7-R	3/17/2004	[3]	---	---	---	---
8-OS	3/17/2004	13.92	**6.29**	35	5.2	66
8-I	3/17/2004	14.98	6.72	164	4.53	-76
8-R	3/17/2004	14.2	6.71	126	8	-27
9-OS	3/17/2004	9.2	6.77	6	4.31	63
9-I	3/17/2004	12.1	**5.98**	6	6.1	201
9-R	3/17/2004	13.1	6.87	26	2.41	-64
PW-1	3/17/2004	---	**6.01**	7	8.75	183
PW-2	3/17/2004	---	6.87	21	10.64	137
SVWC-93	3/17/2004	---	**6.45**	36	8.76	74
SVWC-94	3/17/2004	---	**6.37**	46	8	137
SVWC-95	3/17/2004	---	6.52	32	5.2	147
SVWC-96	3/17/2004	---	6.5	31	5.8	148

NOTES: [1] Depth to water surface from top of PVC well riser, prior to purging and sampling.

[2] pH values in **BOLD** indicate an exceedance of the NYSDEC Water Quality Standard for pH: minimum 6.5 pH units, maximum 8.5 pH units (from T.O.G.S. 1.1.1, June 1998).

[3] Well protective casing is damaged and prevented access to the well.

--- Not Measured

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL PW-1				WELL PW-2			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4] [DUP]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	16.3	20.2	20	13.5	75.5	72.4	64	69.6
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11.9
Total Hardness	---	mg/L	49.7	36.7	31.9	32.6	96	103	97.2	99.6
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	15.8 U	NA	NA	18.2 U	15.8 U	NA	NA	18.2 U
Antimony	3	ug/L	5 U	5.5 U	**9.5 B**	5.8 U	**9.3 B**	**10.1 B**	**19.4 B**	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	5.6 B	2.7 B	2.4 U	2.4 U	1.9 U
Barium	1000	ug/L	9 B	NA	NA	7.1 B	2 B	NA	NA	3.1 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.38 B	0.25 B	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.3 U	0.88 B	0.3 U	0.3 U	0.3 U	0.4 U
Calcium	---	ug/L	13400	NA	NA	8650 E	31800	NA	NA	32900 E
Chromium	50	ug/L	0.8 U	1.6 B	0.73 B	1.3 B	0.8 U	2.2 B	1.9 B	1.5 B
Cobalt	---	ug/L	2 U	NA	NA	2.5 U	2 U	NA	NA	2.5 U
Copper	200	ug/L	58.7	106	131	59.5	13.9 B	13.8 B	23.5 B	17.4 B
Iron	300 [2]	ug/L	9.3 B	47 U	47 U	20 B	25.1 B	47 U	47 U	27.5 B
Lead	25	ug/L	5.2	3.6	**81.9**	4.9	2.3 B	2.6 B	12.5	1.1 U
Magnesium	35000 GV	ug/L	3960 B	NA	NA	2680 B	4000 B	NA	NA	4230 B
Manganese	300 [2]	ug/L	0.8 U	1.2 B	0.69 B	0.9 U	3.9 B	2.7 B	1.6 B	0.9 U
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	1.9 U	NA	NA	1.7 U	1.9 U	NA	NA	1.7 U
Potassium	---	ug/L	1250 BE	NA	NA	1030 B	1220 BE	NA	NA	1310 B
Selenium	10	ug/L	1.4 U	NA	NA	2.5 B	1.4 U	NA	NA	2 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	8690	NA	NA	5410 E	9000	NA	NA	7730 E
Thallium	0.5 GV	ug/L	**4.1 B**	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	1.7 U	NA	NA	2.3 U	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	35	48.7	25.8	2.8 U	3.7 B	13.4 B	32.3
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

[4] Sample analyzed for "Routine" and "Site-Related Parameters".

[5] Well protective casing is damaged and prevented access to the well.

[DUP] Duplicate sample obtained at this location. The highest value given for the sample or the duplicate is reported.

NA Denotes Not Analyzed.

U Denotes that the compound was analyzed for, but not detected at the detection limit listed.

* Indicates that the duplicate analysis was not within laboratory control limits.

J Indicates an estimated value for tentatively identified compounds.

B The reported value is less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detection Limit.

E Indicates an estimated value because of the possible presence of interference.

W Indicates an estimated value because of the possible presence of interference.

N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	SVWC-93				SVWC-94			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	30.6	38.3	44	33	44.9	40.5	46	44
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Hardness	---	mg/L	67.6	63.8	64.3	78.3	78.2	59.7	69.6	88.7
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	15.8 U	NA	NA	18.2 U	15.8 U	NA	NA	18.2 U
Antimony	3	ug/L	5 U	5.5 U	**8.6 B**	5.8 U	5 U	5.5 U	**7.1 B**	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	1.9 U	2.4 U	2.4 U	2.4 U	2.9 B
Barium	1000	ug/L	7.6 B	NA	NA	10.3 B	11.7 B	NA	NA	17.6 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.3 U	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.36 B	0.4 U	0.3 U	0.3 U	0.3 U	0.52 B
Calcium	---	ug/L	18800	NA	NA	21600 E	21600	NA	NA	24400 E
Chromium	50	ug/L	0.8 U	1.4 B	1.3 B	1.4 B	0.8 U	1.5 B	0.75 B	1.9 B
Cobalt	---	ug/L	2 U	NA	NA	2.5 U	2 U	NA	NA	2.5 U
Copper	200	ug/L	6.4 B	5.4 B	6.2 B	10.6 B	4.4 B	9 B	6.6 B	9.8 B
Iron	300 [2]	ug/L	23.9 B	247	47 U	203	19.6 B	47 U	47 U	30.3 B
Lead	25	ug/L	2.2 U	2.2 U	7.1	1.1 U	2.2 U	2.2 U	5.7	1.1 U
Magnesium	35000 GV	ug/L	5060	NA	NA	5900	5890	NA	NA	6760
Manganese	300 [2]	ug/L	0.8 U	0.94 B	0.65 B	0.9 U	6.1 B	1.7 B	4.3 B	3.3 B
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	1.9 U	NA	NA	42.7	1.9 U	NA	NA	1.7 U
Potassium	---	ug/L	1810 BE	NA	NA	2090 B	1790 BE	NA	NA	1990 B
Selenium	10	ug/L	1.4 U	NA	NA	3.1 BW	1.4 U	NA	NA	2.3 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	**39800**	NA	NA	**33800** E	**43000**	NA	NA	**35600** E
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	1.7 U	NA	NA	2.3 U	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	2.9 U	4.9 B	15.5 B	2.8 U	9.9 B	4.5 B	9 B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

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N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	SVWC-95				SVWC-96			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	44.9	51.1	50	40	49	46.9	46	36.5
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10	10 U	11.9	10 U
Total Hardness	---	mg/L	66.8	71.7	62.8	72.5	67.7	80.8	67.7	63.2
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	15.8 U	NA	NA	18.2 U	15.8 U	NA	NA	18.2 U
Antimony	3	ug/L	5 U	5.5 U	**13.6 B**	5.8 U	5 U	**7.1 B**	**11.1 B**	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	1.9 U	2.4 U	2.4 U	2.4 U	1.9 U
Barium	1000	ug/L	8.7 B	NA	NA	12.5 B	8.2 B	NA	NA	9.6 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.3 U	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U
Calcium	---	ug/L	18000	NA	NA	19500 E	18100	NA	NA	16900 E
Chromium	50	ug/L	0.8 U	1.5 B	1.3 B	1.5 B	0.8 U	1 B	0.7 U	1.2 B
Cobalt	---	ug/L	2 U	NA	NA	2.5 U	2 U	NA	NA	2.5 U
Copper	200	ug/L	4 B	5.2 B	3.8 B	5.6 B	3.6 B	7.7 B	5.5 B	5.4 B
Iron	300 [2]	ug/L	56.1 B	47 U	47 U	157	7 B	47 U	47 U	16.8 U
Lead	25	ug/L	2.2 U	2.2 U	6.2	1.1 U	2.2 U	2.2 U	6.1	1.1 U
Magnesium	35000 GV	ug/L	5300	NA	NA	5790	5480	NA	NA	5230
Manganese	300 [2]	ug/L	80	86.5	84.6	88	0.8 U	0.6 U	0.6 U	0.9 U
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	2.9 B	NA	NA	1.9 B	1.9 U	NA	NA	1.7 U
Potassium	---	ug/L	1740 BE	NA	NA	1760 B	1680 BE	NA	NA	1530 B
Selenium	10	ug/L	1.4 U	NA	NA	2.4 B	1.4 U	NA	NA	2.2 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	**34700**	NA	NA	**27700** E	4040	NA	NA	**30100** E
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	1.7 U	NA	NA	2.3 U	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	12 B	3.8 B	6.5 B	2.8 U	8.8 B	5.8 B	6.9 B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

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[5] Well protective casing is damaged and prevented access to the well.

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Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 5-OS				WELL 5-I			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	NA	NA	NA	14.6	40.8	NA	38	NA
Chemical Oxygen Demand	---	mg/L	NA	NA	NA	53.5	10 U	NA	67.3	NA
Total Hardness	---	mg/L	NA	NA	NA	198	43	NA	67.4	NA
Total Kjeldhal Nitrogen	---	mg/L	NA	NA	NA	1 U	1 U	NA	1.41	NA
TAL Metals:										
Aluminum	---	ug/L	NA	NA	NA	98800	1350	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	7.1 U	5 U	NA	**9.4 B**	NA
Arsenic	25	ug/L	NA	NA	NA	**30.4**	2.4 U	NA	4 B	NA
Barium	1000	ug/L	NA	NA	NA	512	11.2 B	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	**4.9 B**	0.2 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	0.4 U	0.3 U	NA	2.2 B	NA
Calcium	---	ug/L	NA	NA	NA	26400	8060	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	**237**	5.6 B	NA	29.8	NA
Cobalt	---	ug/L	NA	NA	NA	76.7	4 B	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	183	4.2 B	NA	26.8	NA
Iron	300 [2]	ug/L	NA	NA	NA	**150000**	**1910**	NA	**21800**	NA
Lead	25	ug/L	NA	NA	NA	**34 N**	2.2 U	NA	9.2	NA
Magnesium	35000 GV	ug/L	NA	NA	NA	32100	5570	NA	NA	NA
Manganese	300 [2]	ug/L	NA	NA	NA	**2040**	63.6	NA	**577**	NA
Mercury	0.7	ug/L	NA	NA	NA	0.2 U	0.2 U	NA	0.2 U	NA
Nickel	100	ug/L	NA	NA	NA	**132**	2.7 B	NA	NA	NA
Potassium	---	ug/L	NA	NA	NA	19900	1080 BE	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	1.7 BW	1.4 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	1.9 UN	2.6 U	NA	NA	NA
Sodium	20000	ug/L	NA	NA	NA	8870	4540 B	NA	NA	NA
Thallium	0.5 GV	ug/L	NA	NA	NA	2.8 U	**4.1 B**	NA	NA	NA
Vanadium	---	ug/L	NA	NA	NA	231	3.7 B	NA	NA	NA
Zinc	2000 GV	ug/L	NA	NA	NA	222	2.8 U	NA	76.9	NA
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	5	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA
VOCs by EPA Method 602:										
Benzene	1	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA
Chlorobenzene	5	ug/L	NA	NA	NA	1 U	NA	NA	1 U	NA

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).
[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.
[3] Sample analyzed for "Baseline Parameters".
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TABLE 2

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING
ANALYTICAL RESULTS

Parameter	ARARs [1]	UNITS	WELL 1-OS Apr-03 [5]	WELL 1-OS Jul-03 [4]	WELL 1-OS Oct-03 [5]	WELL 1-OS Mar-04 [3]	WELL 1-R Apr-03 [3]	WELL 1-R Jul-03 [4]	WELL 1-R Oct-03 [4]	WELL 1-R Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	NA	NA	NA	NA	277	NA	245	NA
Chemical Oxygen Demand	---	mg/L	NA	NA	NA	NA	10	NA	20.2	NA
Total Hardness	---	mg/L	NA	NA	NA	NA	293	NA	298	NA
Total Kjeldhal Nitrogen	---	mg/L	NA	NA	NA	NA	1 U	NA	1 U	NA
TAL Metals:										
Aluminum	---	ug/L	NA	NA	NA	NA	48.5 B	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	5 U	NA	**25.1 B**	NA
Arsenic	25	ug/L	NA	NA	NA	NA	2.4 U	NA	2.4 U	NA
Barium	1000	ug/L	NA	NA	NA	NA	13.1 B	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	0.3 U	NA	0.3 U	NA
Calcium	---	ug/L	NA	NA	NA	NA	85200	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	0.8 U	NA	5.3 B	NA
Cobalt	---	ug/L	NA	NA	NA	NA	3.7 B	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	3.6 B	NA	2.5 B	NA
Iron	300 [2]	ug/L	NA	NA	NA	NA	**374**	NA	**1260**	NA
Lead	25	ug/L	NA	NA	NA	NA	2.2 U	NA	15.9	NA
Magnesium	35000 GV	ug/L	NA	NA	NA	NA	19600	NA	NA	NA
Manganese	300 [2]	ug/L	NA	NA	NA	NA	177	NA	232	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	0.2 U	NA	0.2 U	NA
Nickel	100	ug/L	NA	NA	NA	NA	2.2 B	NA	NA	NA
Potassium	---	ug/L	NA	NA	NA	NA	2950 BU	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	1.4 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	2.6 U	NA	NA	NA
Sodium	20000	ug/L	NA	NA	NA	NA	**24200**	NA	NA	NA
Thallium	0.5 GV	ug/L	NA	NA	NA	NA	3.5 U	NA	NA	NA
Vanadium	---	ug/L	NA	NA	NA	NA	1.7 U	NA	NA	NA
Zinc	2000 GV	ug/L	NA	NA	NA	NA	15.2 B	NA	2.8 B	NA
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	0.83 J	NA	0.72 J	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	NA	NA	NA	NA	1 U	NA	1 U	NA
VOCs by EPA Method 602:										
Benzene	1	ug/L	NA	NA	NA	NA	1 U	NA	1 U	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1 U	NA	1 U	NA

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

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Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 2-OS				WELL 2-R			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	265	NA	252	274	188	NA	180	NA
Chemical Oxygen Demand	---	mg/L	10	NA	28.5	23	15	NA	11.9	NA
Total Hardness	---	mg/L	346	NA	281	326	201	NA	188	NA
Total Kjeldhal Nitrogen	---	mg/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
TAL Metals:										
Aluminum	---	ug/L	20300	NA	NA	8880	1960	NA	NA	NA
Antimony	3	ug/L	5 U	NA	**24.6 B**	7.1 U	5 U	NA	**28.7 B**	NA
Arsenic	25	ug/L	10.3	NA	4.2 B	7.4 B	2.4 U	NA	2.4 U	NA
Barium	1000	ug/L	179 B	NA	NA	91.4 B	32.4 B	NA	NA	NA
Beryllium	3	ug/L	1 B	NA	NA	0.5 B	0.2 U	NA	NA	NA
Cadmium	5	ug/L	1.7 B	NA	0.3 U	0.4 U	0.3 U	NA	0.3 U	NA
Calcium	---	ug/L	97300	NA	NA	95900	59100	NA	NA	NA
Chromium	50	ug/L	**89.8**	NA	**52.9**	**87.1**	4.8 B	NA	7 B	NA
Cobalt	---	ug/L	71.3	NA	NA	21.7 B	2 B	NA	NA	NA
Copper	200	ug/L	55.3	NA	19.3 B	25.4	11.3 B	NA	5.9 B	NA
Iron	300 [2]	ug/L	**40700**	NA	**14700**	**14700**	**2550**	NA	**2370**	NA
Lead	25	ug/L	**41.1**	NA	**29.2**	18.3 N	2.2 U	NA	14.6	NA
Magnesium	35000 GV	ug/L	25100	NA	NA	21000	12900	NA	NA	NA
Manganese	300 [2]	ug/L	**3100**	NA	**1310**	**2300**	157	NA	174	NA
Mercury	0.7	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Nickel	100	ug/L	**108**	NA	NA	56.8	3.9 B	NA	NA	NA
Potassium	---	ug/L	7290 E	NA	NA	4390 B	2390 BE	NA	NA	NA
Selenium	10	ug/L	1.4 UW	NA	NA	2.6 B	1.4 U	NA	NA	NA
Silver	50	ug/L	7.1 B	NA	NA	1.9 UN	2.6 U	NA	NA	NA
Sodium	20000	ug/L	7130	NA	NA	11000	7670	NA	NA	NA
Thallium	0.5 GV	ug/L	**4.8 B**	NA	NA	2.8 U	3.5 U	NA	NA	NA
Vanadium	---	ug/L	40.4 B	NA	NA	15.9 B	2.7 B	NA	NA	NA
Zinc	2000 GV	ug/L	110	NA	57	50.2	2.8 U	NA	9.3 B	NA
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
Chlorobenzene	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

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TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 3-OS/I				WELL 3-R			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	326	NA	275	287	167	NA	155	NA
Chemical Oxygen Demand	---	mg/L	20	NA	53.5	28.5	15	NA	36.9	NA
Total Hardness	---	mg/L	315	NA	277	261	209	NA	191	NA
Total Kjeldhal Nitrogen	---	mg/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
TAL Metals:										
Aluminum	---	ug/L	2740	NA	NA	3570	1150	NA	NA	NA
Antimony	3	ug/L	**77.6**	NA	**155**	5.8 U	5 U	NA	**26.4 B**	NA
Arsenic	25	ug/L	5.4 B	NA	5.9 B	1.9 U	2.4 U	NA	4.5 B	NA
Barium	1000	ug/L	139 B	NA	NA	86 B	38.6 B	NA	NA	NA
Beryllium	3	ug/L	0.2 U	NA	NA	0.3 U	0.2 U	NA	NA	NA
Cadmium	5	ug/L	1.2 B	NA	1 B	0.58 B	0.3 U	NA	0.3 U	NA
Calcium	---	ug/L	101000	NA	NA	82700 E	54000	NA	NA	NA
Chromium	50	ug/L	**4250**	NA	**2810**	**816**	**86.8**	NA	**113**	NA
Cobalt	---	ug/L	24.5 B	NA	NA	14.9 B	5 B	NA	NA	NA
Copper	200	ug/L	59.9	NA	33.3	13.7 B	5.3 B	NA	5.1 B	NA
Iron	300 [2]	ug/L	**31800**	NA	**39000**	**12900**	**4830**	NA	**6560**	NA
Lead	25	ug/L	6.7	NA	17.1	2.2 B	2.2 U	NA	14.5	NA
Magnesium	35000 GV	ug/L	15400	NA	NA	13200	18000	NA	NA	NA
Manganese	300 [2]	ug/L	**24800**	NA	**14200**	**7200**	**12100**	NA	**10500**	NA
Mercury	0.7	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Nickel	100	ug/L	**932**	NA	NA	**434**	5.1 B	NA	NA	NA
Potassium	---	ug/L	5310 E	NA	NA	5000 B	2410 BE	NA	NA	NA
Selenium	10	ug/L	1.4 UW	NA	NA	1.3 US	1.4 UW	NA	NA	NA
Silver	50	ug/L	39.5	NA	NA	4.3 BN	2.6 U	NA	NA	NA
Sodium	20000	ug/L	**31500**	NA	NA	**22600** E	**38000**	NA	NA	NA
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	NA
Vanadium	---	ug/L	5.9 B	NA	NA	8.7 B	1.9 B	NA	NA	NA
Zinc	2000 GV	ug/L	35.2	NA	45.8	13.8 B	2.8 U	NA	19.1 B	NA
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
Chlorobenzene	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA

NOTES:

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TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 4-OS				WELL 4-R			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4][DUP]	Mar-04 [3][DUP]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4] [DUP]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	36.7	NA	82	35.6	147	NA	140	NA
Chemical Oxygen Demand	---	mg/L	10 U	NA	11.9	10 U	10 U	NA	11.9	NA
Total Hardness	---	mg/L	81.8	NA	94.9	176	183	NA	218	NA
Total Kjeldhal Nitrogen	---	mg/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
TAL Metals:						0				
Aluminum	---	ug/L	6950	NA	NA	1370	255	NA	NA	NA
Antimony	3	ug/L	5 U	NA	**23.4 B**	7.1 U	5 U	NA	**23.7 B**	NA
Arsenic	25	ug/L	4 B	NA	2.4 U	2.7 U	4.4 B	NA	8.3 B	NA
Barium	1000	ug/L	72.5 B	NA	NA	47.8 B	11.4 B	NA	NA	NA
Beryllium	3	ug/L	0.38 B	NA	NA	0.4 U	0.2 U	NA	NA	NA
Cadmium	5	ug/L	0.33 B	NA	0.3 U	0.4 U	0.3 U	NA	0.3 U	NA
Calcium	---	ug/L	17800	NA	NA	40300	46100	NA	NA	NA
Chromium	50	ug/L	17.9	NA	5 B	9.4 B	0.8 U	NA	2.9 B	NA
Cobalt	---	ug/L	12.3 B	NA	NA	3.2 U	6.1 B	NA	NA	NA
Copper	200	ug/L	17.6 B	NA	7.5 B	7.4 B	3.1 B	NA	1.7 U	NA
Iron	300 [2]	ug/L	**14100**	NA	**2470**	**3050**	**6250**	NA	**18600**	NA
Lead	25	ug/L	2.6 B	NA	11.3	7.7 N	2.3 B	NA	14.2	NA
Magnesium	35000 GV	ug/L	9080	NA	NA	18500	16400	NA	NA	NA
Manganese	300 [2]	ug/L	**620**	NA	**690**	**338**	**1180**	NA	**1270**	NA
Mercury	0.7	ug/L	0.2 U	NA	0.2 U	0.2 U	0.2 U	NA	0.2 U	NA
Nickel	100	ug/L	14.8 B	NA	NA	7.3 B	1.9 U	NA	NA	NA
Potassium	---	ug/L	3610 BE	NA	NA	2540 B	1730 BE	NA	NA	NA
Selenium	10	ug/L	1.4 U	NA	NA	1.9 B	1.4 U	NA	NA	NA
Silver	50	ug/L	2.6 U	NA	NA	1.9 UN	2.6 U	NA	NA	NA
Sodium	20000	ug/L	**26200**	NA	NA	**54600**	12900	NA	NA	NA
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	**5.4 B**	3.5 U	NA	NA	NA
Vanadium	---	ug/L	15.3 B	NA	NA	3.9 B	1.7 U	NA	NA	NA
Zinc	2000 GV	ug/L	51.9	NA	8.2 B	11.8 B	2.8 U	NA	19 B	NA
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA
Chlorobenzene	5	ug/L	1 U	NA	1 U	1 U	1 U	NA	1 U	NA

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

[4] Sample analyzed for "Routine" and "Site-Related Parameters".

[5] Well protective casing is damaged and prevented access to the well.

[DUP] Duplicate sample obtained at this location. The highest value given for the sample or the duplicate is reported.

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J Indicates an estimated value for tentatively identified compounds.

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E Indicates an estimated value because of the possible presence of interference.

W Indicates an estimated value because of the possible presence of interference.

N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 5-R Apr-03 [3]	WELL 5-R Jul-03 [4]	WELL 5-R Oct-03 [4]	WELL 5-R Mar-04 [3]	WELL 7-OS Apr-03 [3]	WELL 7-OS Jul-03 [4]	WELL 7-OS Oct-03 [4]	WELL 7-OS Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	44.9	NA	44	NA	110	NA	126	123
Chemical Oxygen Demand	---	mg/L	10 U	NA	10 U	NA	10	NA	10 U	34.1
Total Hardness	---	mg/L	48.1	NA	47.1	NA	138	NA	173	112
Total Kjeldhal Nitrogen	---	mg/L	1 U	NA	1 U	NA	1 U	NA	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	1110	NA	NA	NA	1240	NA	NA	25000
Antimony	3	ug/L	5 U	NA	**9.7 B**	NA	5 U	NA	**23.6 B**	5.8 U
Arsenic	25	ug/L	2.4 U	NA	2.4 U	NA	2.4 U	NA	2.4 U	9.8 B
Barium	1000	ug/L	15.4 B	NA	NA	NA	42.1 B	NA	NA	201
Beryllium	3	ug/L	0.2 U	NA	NA	NA	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	NA	0.3 U	NA	0.3 U	NA	0.3 U	2.1 B
Calcium	---	ug/L	11500	NA	NA	NA	41700	NA	NA	25800 E
Chromium	50	ug/L	5.6 B	NA	4.4 B	NA	36	NA	2.4 B	**133**
Cobalt	---	ug/L	3.1 B	NA	NA	NA	3.8 B	NA	NA	143
Copper	200	ug/L	5.6 B	NA	1.7 U	NA	4.4 B	NA	2.8 U	51.6
Iron	300 [2]	ug/L	**1760**	NA	**414**	NA	**1850**	NA	**633**	**38500**
Lead	25	ug/L	2.2 U	NA	3.6	NA	2.2 U	NA	2.2 U	12.8
Magnesium	35000 GV	ug/L	4740 B	NA	NA	NA	8230	NA	NA	11600
Manganese	300 [2]	ug/L	29.5	NA	6.5 B	NA	124	NA	76.4	**2140**
Mercury	0.7	ug/L	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U
Nickel	100	ug/L	2.1 B	NA	NA	NA	3.5 B	NA	NA	41.8
Potassium	---	ug/L	1030 B	NA	NA	NA	7440 E	NA	NA	7570
Selenium	10	ug/L	1.4 UW	NA	NA	NA	1.4 U	NA	NA	1.9 B
Silver	50	ug/L	2.6 U	NA	NA	NA	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	4190 B	NA	NA	NA	13100	NA	NA	5000 E
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	NA	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	5.3 B	NA	NA	NA	2.5 B	NA	NA	50.5
Zinc	2000 GV	ug/L	2.8 U	NA	2.9 B	NA	2.8 U	NA	3.3 B	77.4
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	NA	1 U	NA	1 U	NA	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	NA	1 U	NA	1 U	NA	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	NA	1 U	NA	1 U	NA	1 U	1 U
Chlorobenzene	5	ug/L	1 U	NA	1 U	NA	1 U	NA	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).
[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.
[3] Sample analyzed for "Baseline Parameters".
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N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 7-R				WELL 8-OS			
			Apr-03 [5]	Jul-03 [4]	Oct-03 [5]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	NA	NA	NA	NA	20.4	33	26	71.3
Chemical Oxygen Demand	---	mg/L	NA	NA	NA	NA	10 U*	10 U	10 U	10 U
Total Hardness	---	mg/L	NA	NA	NA	NA	58.9	28.9	38.4	120
Total Kjeldhal Nitrogen	---	mg/L	NA	NA	NA	NA	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	NA	NA	NA	NA	149 B	NA	NA	47.7 B
Antimony	3	ug/L	NA	NA	NA	NA	5 U	5.5 U	**10.5 B**	5.8 U
Arsenic	25	ug/L	NA	NA	NA	NA	2.4 U	2.4 U	2.4 U	1.9 U
Barium	1000	ug/L	NA	NA	NA	NA	15.8 B	NA	NA	19.2 B
Beryllium	3	ug/L	NA	NA	NA	NA	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	NA	NA	NA	NA	0.3 U	0.3 U	0.3 U	0.42 B
Calcium	---	ug/L	NA	NA	NA	NA	16400	NA	NA	33600 E
Chromium	50	ug/L	NA	NA	NA	NA	10.4	20.2	2.2 B	10.3
Cobalt	---	ug/L	NA	NA	NA	NA	4.4 B	NA	NA	2.6 B
Copper	200	ug/L	NA	NA	NA	NA	3 B	10.1 B	2.8 U	1.7 B
Iron	300 [2]	ug/L	NA	NA	NA	NA	**2490**	**2480**	**705**	**1030**
Lead	25	ug/L	NA	NA	NA	NA	2.2 U	2.2 U	2.2 U	1.1 U
Magnesium	35000 GV	ug/L	NA	NA	NA	NA	4390 B	NA	NA	8750
Manganese	300 [2]	ug/L	NA	NA	NA	NA	**894**	**760**	235	**1590**
Mercury	0.7	ug/L	NA	NA	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	NA	NA	NA	NA	6.8 B	NA	NA	7.9 B
Potassium	---	ug/L	NA	NA	NA	NA	1300 BE	NA	NA	2330 B
Selenium	10	ug/L	NA	NA	NA	NA	1.4 U	NA	NA	3.2 BW
Silver	50	ug/L	NA	NA	NA	NA	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	NA	NA	NA	NA	10900	NA	NA	17100 E
Thallium	0.5 GV	ug/L	NA	NA	NA	NA	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	NA	NA	NA	NA	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	NA	NA	NA	NA	2.8 U	5.9 B	2.8 U	5.7 B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	NA	NA	NA	NA	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	NA	NA	NA	NA	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

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Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 8-I				WELL 8-R			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3] [DUP]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	269	222	180	581	526	458	472	533
Chemical Oxygen Demand	---	mg/L	25	26.9	17.5	97.8	30 *	24.1	20.2	39.6
Total Hardness	---	mg/L	224	168	153	382	584	568	528	561
Total Kjeldhal Nitrogen	---	mg/L	21	18.6	18.6	35.8	5.03	3.46	4.91	5.25
TAL Metals:										
Aluminum	---	ug/L	6820	NA	NA	7040	54.2 B	NA	NA	18.2 U
Antimony	3	ug/L	5 U	**7.5 B**	**20.7 B**	5.8 U	5 U	**8 B**	**22.7 B**	5.8 U
Arsenic	25	ug/L	7.5 B	7.8 B	6.6 B	8.9 B	2.4 U	2.4 U	2.4 U	1.9 U
Barium	1000	ug/L	94.7 B	NA	NA	159 B	27.1 B	NA	NA	34.2 B
Beryllium	3	ug/L	0.41 B	NA	NA	0.3 U	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.55 B	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U
Calcium	---	ug/L	58800	NA	NA	96800 E	169000	NA	NA	157000 E
Chromium	50	ug/L	15.5	8.8 B	1.4 B	19.4	0.8 U	15.2	0.8 U	2 B
Cobalt	---	ug/L	11.7 B	NA	NA	13.2 B	14.3 B	NA	NA	14.7 B
Copper	200	ug/L	18.6 B	9.4 B	2.8 U	14.2 B	4.6 B	30	2.9 B	1.8 B
Iron	300 [2]	ug/L	**21400**	**12500**	**8310**	**29700**	**969**	**2440**	**1090**	**1160**
Lead	25	ug/L	3.5 B	3.6	2.2 U	3	3 B	6.1	2.2 U	1.1 U
Magnesium	35000 GV	ug/L	18900	NA	NA	34100	**39500**	NA	NA	41000
Manganese	300 [2]	ug/L	**3140**	**2540**	**2590**	**4650**	**2050**	**2190**	**2040**	**2150**
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	14.3 B	NA	NA	29.4 B	15 B	NA	NA	15 B
Potassium	---	ug/L	27300 E	NA	NA	60400	10100 E	NA	NA	10300
Selenium	10	ug/L	2 BW	NA	NA	1.3 US	1.4 U	NA	NA	2 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	**46500**	NA	NA	**110000** E	**52200**	NA	NA	47300 E
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	13.8 B	NA	NA	16.1 B	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	17.6 B	73.1	2.8 U	33.1	2.8 8	2.9 U	2.8 U	3.9 U
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	0.8 J	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	2	1.7
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	0.66 J	0.6 J	0.81 J	2.3	1 U	1 U	1 U	1 U

NOTES:

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TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 9-OS				WELL 9-I			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	16.3	24.5	11	8.76	12.2	22.4	10	9.85
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10 U	10 U	11.9	10 U
Total Hardness	---	mg/L	25	19.2	18.5	18.3	36.2	29.9	19.6	19.1
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	968	NA	NA	311	2120	NA	NA	965
Antimony	3	ug/L	5 U	5.5 U	**7.5 B**	5.8 U	5 U	5.5 U	5.5 U	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	1.9 U	2.4 U	2.7 B	2.4 U	1.9 U
Barium	1000	ug/L	13.3 B	NA	NA	7.7 B	27.1 B	NA	NA	15.9 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.3 U	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U
Calcium	---	ug/L	6730	NA	NA	4980 BE	9670	NA	NA	5110 E
Chromium	50	ug/L	19.2	2.1 B	5 B	10.4	4.2 B	9.5 B	2 B	2.8 B
Cobalt	---	ug/L	2.5 B	NA	NA	2.5 U	2.6 B	NA	NA	2.5 U
Copper	200	ug/L	2.8 U	3.2 B	1.7 U	1.6 U	5.3 B	10.4 B	1.7 U	2.8 B
Iron	300 [2]	ug/L	**1600**	288	**656**	**506**	**3710**	**7250**	**514**	**1630**
Lead	25	ug/L	2.2 U	2.2 U	2.5 B	1.1 U	2.2 U	2.8 B	2.2 B	1.1 U
Magnesium	35000 GV	ug/L	1990 B	NA	NA	1420 B	2940 B	NA	NA	1530 B
Manganese	300 [2]	ug/L	35.6	7.9 B	15.5	4.4 B	52.3	115	15.1	19
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	1.9 U	NA	NA	1.7 U	2.7 B	NA	NA	1.7 U
Potassium	---	ug/L	1050 BE	NA	NA	896 B	1370 BE	NA	NA	916 B
Selenium	10	ug/L	1.4 U	NA	NA	2 B	1.4 U	NA	NA	1.9 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	4530 B	NA	NA	3220 BE	5830	NA	NA	3690 BE
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	2.1 B	NA	NA	2.3 U	3.7 B	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	79.3	5.2 B	3.9 U	2.8 U	62.4	4.3 B	7.5 B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

[4] Sample analyzed for "Routine" and "Site-Related Parameters".

[5] Well protective casing is damaged and prevented access to the well.

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U Denotes that the compound was analyzed for, but not detected at the detection limit listed.

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B The reported value is less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detection Limit.

E Indicates an estimated value because of the possible presence of interference.

W Indicates an estimated value because of the possible presence of interference.

N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL 9-R							
			Apr-03 [3]		Jul-03 [4]		Oct-03 [4]		Mar-04 [3]	
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	110		85.2		86		91.6	
Chemical Oxygen Demand	---	mg/L	10		10	U	14.7		11.9	
Total Hardness	---	mg/L	87.5		85		73		67	
Total Kjeldhal Nitrogen	---	mg/L	6.46		6.27		5.6		4.87	
TAL Metals:										
Aluminum	---	ug/L	35.8	B	NA		NA		286	
Antimony	3	ug/L	5	U	**9.7**	**B**	**10.2**	**B**	5.8	U
Arsenic	25	ug/L	3.7	B	2.4	B	3.3	B	3.4	B
Barium	1000	ug/L	20.2	B	NA		NA		19.1	B
Beryllium	3	ug/L	0.2	U	NA		NA		0.3	U
Cadmium	5	ug/L	0.3	U	0.3	U	0.3	U	0.9	B
Calcium	---	ug/L	22700		NA		NA		17200	E
Chromium	50	ug/L	0.8	U	1.5	B	1.1	B	2.6	B
Cobalt	---	ug/L	4.1	B	NA		NA		2.6	B
Copper	200	ug/L	2.8	U	9.9	B	9.4	B	2.2	B
Iron	300 [2]	ug/L	**5720**		**5610**		**4660**		**4890**	
Lead	25	ug/L	2.2	U	3.4		7.1		1.1	U
Magnesium	35000 GV	ug/L	7460		NA		NA		5850	
Manganese	300 [2]	ug/L	**2630**		**2550**		**2090**		**1980**	
Mercury	0.7	ug/L	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	100	ug/L	1.9	U	NA		NA		1.7	U
Potassium	---	ug/L	10800	E	NA		NA		9850	
Selenium	10	ug/L	1.4	U	NA		NA		2.7	BW
Silver	50	ug/L	2.6	U	NA		NA		2.2	UN
Sodium	20000	ug/L	**20600**		NA		NA		14600	E
Thallium	0.5 GV	ug/L	3.5	U	NA		NA		3.3	U
Vanadium	---	ug/L	1.7	U	NA		NA		2.3	U
Zinc	2000 GV	ug/L	2.8	U	2.9	U	2.8	U	4.1	B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1	U	NA		NA		NA	
Chloroethane	5	ug/L	1	U	NA		NA		NA	
Chloroform	7	ug/L	1	U	NA		NA		NA	
1,4-Dichlorobenzene	3	ug/L	1	U	NA		NA		NA	
Dichlorodifluoromethane	5	ug/L	1	U	NA		NA		NA	
1,1-Dichloroethane	5	ug/L	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	5	ug/L	1	U	NA		NA		NA	
Vinyl Chloride	5	ug/L	1	U	1	U	1	U	1	U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1	U	1	U	1	U	1	U
Chlorobenzene	5	ug/L	1	U	1	U	1	U	1	U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).
[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.
[3] Sample analyzed for "Baseline Parameters".
[4] Sample analyzed for "Routine" and "Site-Related Parameters".
[5] Well protective casing is damaged and prevented access to the well.
[DUP] Duplicate sample obtained at this location. The highest value given for the sample or the duplicate is reported.

NA Denotes Not Analyzed.
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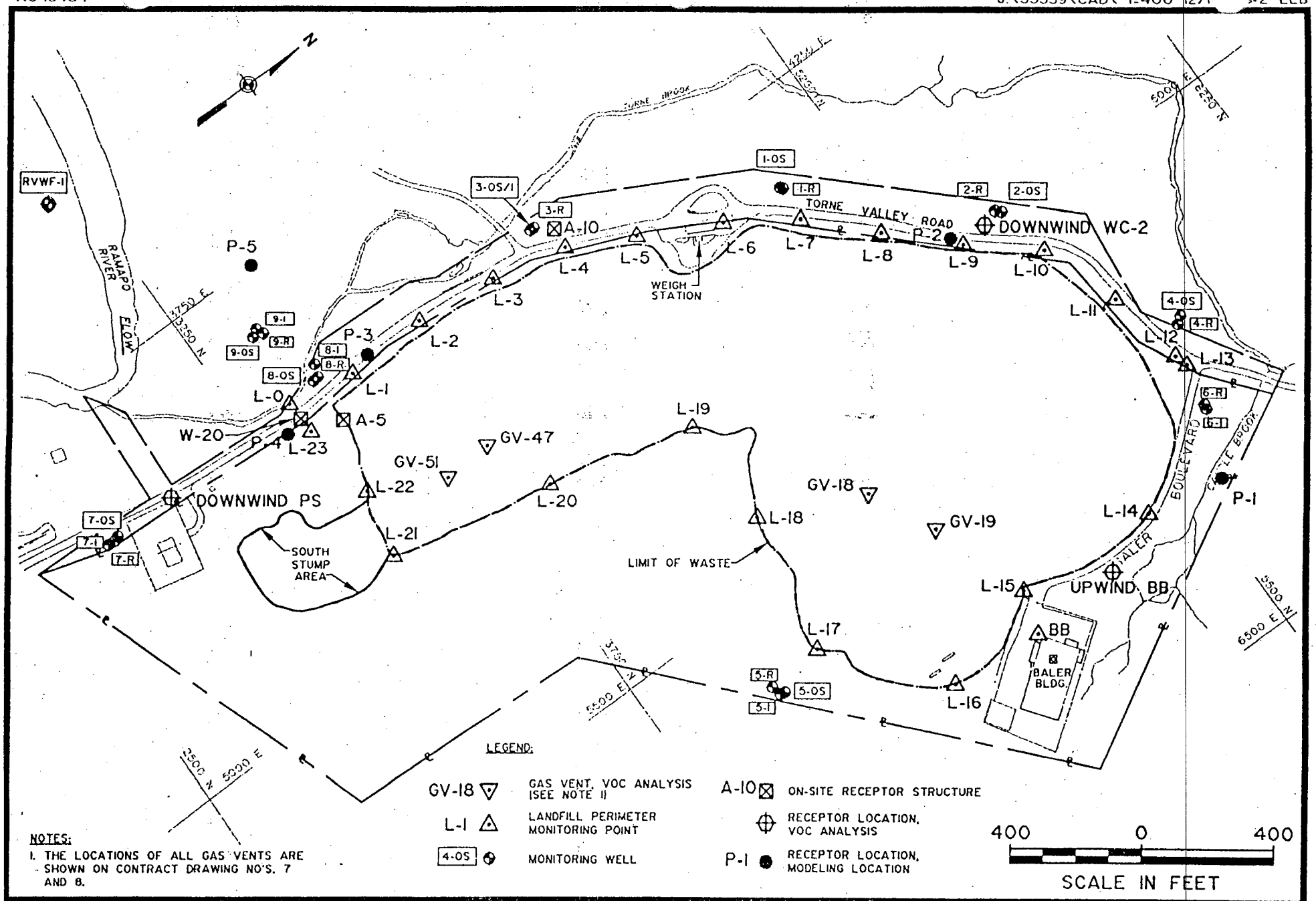
J Indicates an estimated value for tentatively identified compounds.
B The reported value is less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detection Limit.
E Indicates an estimated value because of the possible presence of interference.
W Indicates an estimated value because of the possible presence of interference.
N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.



NOTES:
1. THE LOCATIONS OF ALL GAS VENTS ARE SHOWN ON CONTRACT DRAWING NO'S. 7 AND 8.

URS CONSULTANTS, INC.

RAMAPO LANDFILL
AIR MONITORING LOCATIONS

FIGURE 4-2

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	SVWC-95				SVWC-96			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	44.9	51.1	50	40	49	46.9	46	36.5
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10	10 U	11.9	10 U
Total Hardness	---	mg/L	66.8	71.7	62.8	72.5	67.7	80.8	67.7	63.2
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	15.8 U	NA	NA	18.2 U	15.8 U	NA	NA	18.2 U
Antimony	3	ug/L	5 U	5.5 U	**13.6 B**	5.8 U	5 U	**7.1 B**	**11.1 B**	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	1.9 U	2.4 U	2.4 U	2.4 U	1.9 U
Barium	1000	ug/L	8.7 B	NA	NA	12.5 B	8.2 B	NA	NA	9.6 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.3 U	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U
Calcium	---	ug/L	18000	NA	NA	19500 E	18100	NA	NA	16900 E
Chromium	50	ug/L	0.8 U	1.5 B	1.3 B	1.5 B	0.8 U	1 B	0.7 U	1.2 B
Cobalt	---	ug/L	2 U	NA	NA	2.5 U	2 U	NA	NA	2.5 U
Copper	200	ug/L	4 B	5.2 B	3.8 B	5.6 B	3.6 B	7.7 B	5.5 B	5.4 B
Iron	300 [2]	ug/L	56.1 B	47 U	47 U	157	7 B	47 U	47 U	16.8 U
Lead	25	ug/L	2.2 U	2.2 U	6.2	1.1 U	2.2 U	2.2 U	6.1	1.1 U
Magnesium	35000 GV	ug/L	5300	NA	NA	5790	5480	NA	NA	5230
Manganese	300 [2]	ug/L	80	86.5	84.6	88	0.8 U	0.6 U	0.6 U	0.9 U
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	2.9 B	NA	NA	1.9 B	1.9 U	NA	NA	1.7 U
Potassium	---	ug/L	1740 BE	NA	NA	1760 B	1680 BE	NA	NA	1530 B
Selenium	10	ug/L	1.4 U	NA	NA	2.4 B	1.4 U	NA	NA	2.2 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	**34700**	NA	NA	**27700** E	4040	NA	NA	**30100** E
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	1.7 U	NA	NA	2.3 U	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	12 B	3.8 B	6.5 B	2.8 U	8.8 B	5.8 B	6.9 B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

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N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	SVWC-93				SVWC-94			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	30.6	38.3	44	33	44.9	40.5	46	44
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total Hardness	---	mg/L	67.6	63.8	64.3	78.3	78.2	59.7	69.6	88.7
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	15.8 U	NA	NA	18.2 U	15.8 U	NA	NA	18.2 U
Antimony	3	ug/L	5 U	5.5 U	**8.6 B**	5.8 U	5 U	5.5 U	**7.1 B**	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	1.9 U	2.4 U	2.4 U	2.4 U	2.9 B
Barium	1000	ug/L	7.6 B	NA	NA	10.3 B	11.7 B	NA	NA	17.6 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.3 U	0.2 U	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.36 B	0.4 U	0.3 U	0.3 U	0.3 U	0.52 B
Calcium	---	ug/L	18800	NA	NA	21600 E	21600	NA	NA	24400 E
Chromium	50	ug/L	0.8 U	1.4 B	1.3 B	1.4 B	0.8 U	1.5 B	0.75 B	1.9 B
Cobalt	---	ug/L	2 U	NA	NA	2.5 U	2 U	NA	NA	2.5 U
Copper	200	ug/L	6.4 B	5.4 B	6.2 B	10.6 B	4.4 B	9 B	6.6 B	9.8 B
Iron	300 [2]	ug/L	23.9 B	247	47 U	203	19.6 B	47 U	47 U	30.3 B
Lead	25	ug/L	2.2 U	2.2 U	7.1	1.1 U	2.2 U	2.2 U	5.7	1.1 U
Magnesium	35000 GV	ug/L	5060	NA	NA	5900	5890	NA	NA	6760
Manganese	300 [2]	ug/L	0.8 U	0.94 B	0.65 B	0.9 U	6.1 B	1.7 B	4.3 B	3.3 B
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	1.9 U	NA	NA	42.7	1.9 U	NA	NA	1.7 U
Potassium	---	ug/L	1810 BE	NA	NA	2090 B	1790 BE	NA	NA	1990 B
Selenium	10	ug/L	1.4 U	NA	NA	3.1 BW	1.4 U	NA	NA	2.3 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	**39800**	NA	NA	**33800** E	**43000**	NA	NA	**35600** E
Thallium	0.5 GV	ug/L	3.5 U	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	1.7 U	NA	NA	2.3 U	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	2.9 U	4.9 B	15.5 B	2.8 U	9.9 B	4.5 B	9 B
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

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Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 2 (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER QUALITY MONITORING RESULTS
ANALYTICAL RESULTS

	ARARs [1]	UNITS	WELL PW-1				WELL PW-2			
			Apr-03 [3]	Jul-03 [4]	Oct-03 [4]	Mar-04 [3]	Apr-03 [3]	Jul-03 [4] [DUP]	Oct-03 [4]	Mar-04 [3]
Leachate Indicator Parameters:										
Alkalinity	---	mg/L	16.3	20.2	20	13.5	75.5	72.4	64	69.6
Chemical Oxygen Demand	---	mg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	11.9
Total Hardness	---	mg/L	49.7	36.7	31.9	32.6	96	103	97.2	99.6
Total Kjeldhal Nitrogen	---	mg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TAL Metals:										
Aluminum	---	ug/L	15.8 U	NA	NA	18.2 U	15.8 U	NA	NA	18.2 U
Antimony	3	ug/L	5 U	5.5 U	**9.5 B**	5.8 U	**9.3 B**	**10.1 B**	**19.4 B**	5.8 U
Arsenic	25	ug/L	2.4 U	2.4 U	2.4 U	5.6 B	2.7 B	2.4 U	2.4 U	1.9 U
Barium	1000	ug/L	9 B	NA	NA	7.1 B	2 B	NA	NA	3.1 B
Beryllium	3	ug/L	0.2 U	NA	NA	0.38 B	0.25 B	NA	NA	0.3 U
Cadmium	5	ug/L	0.3 U	0.3 U	0.3 U	0.88 B	0.3 U	0.3 U	0.3 U	0.4 U
Calcium	---	ug/L	13400	NA	NA	8650 E	31800	NA	NA	32900 E
Chromium	50	ug/L	0.8 U	1.6 B	0.73 B	1.3 B	0.8 U	2.2 B	1.9 B	1.5 B
Cobalt	---	ug/L	2 U	NA	NA	2.5 U	2 U	NA	NA	2.5 U
Copper	200	ug/L	58.7	106	131	59.5	13.9 B	13.8 B	23.5 B	17.4 B
Iron	300 [2]	ug/L	9.3 B	47 U	47 U	20 B	25.1 B	47 U	47 U	27.5 B
Lead	25	ug/L	5.2	3.6	**81.9**	4.9	2.3 B	2.6 B	12.5	1.1 U
Magnesium	35000 GV	ug/L	3960 B	NA	NA	2680 B	4000 B	NA	NA	4230 B
Manganese	300 [2]	ug/L	0.8 U	1.2 B	0.69 B	0.9 U	3.9 B	2.7 B	1.6 B	0.9 U
Mercury	0.7	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	ug/L	1.9 U	NA	NA	1.7 U	1.9 U	NA	NA	1.7 U
Potassium	---	ug/L	1250 BE	NA	NA	1030 B	1220 BE	NA	NA	1310 B
Selenium	10	ug/L	1.4 U	NA	NA	2.5 B	1.4 U	NA	NA	2 B
Silver	50	ug/L	2.6 U	NA	NA	2.2 UN	2.6 U	NA	NA	2.2 UN
Sodium	20000	ug/L	8690	NA	NA	5410 E	9000	NA	NA	7730 E
Thallium	0.5 GV	ug/L	**4.1 B**	NA	NA	3.3 U	3.5 U	NA	NA	3.3 U
Vanadium	---	ug/L	1.7 U	NA	NA	2.3 U	1.7 U	NA	NA	2.3 U
Zinc	2000 GV	ug/L	2.8 U	35	48.7	25.8	2.8 U	3.7 B	13.4 B	32.3
VOCs by EPA Method 601:										
Chlorobenzene	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Chloroform	7	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5	ug/L	1 U	NA	NA	NA	1 U	NA	NA	NA
Vinyl Chloride	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VOCs by EPA Method 602:										
Benzene	1	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

NOTES:

[1] NYSDEC Water Quality Standards and Guidance Values, T.O.G.S. 1.1.1 (June 1998).

[2] The groundwater standard for the sum of Iron and Manganese concentrations is 500 mg/L.

[3] Sample analyzed for "Baseline Parameters".

[4] Sample analyzed for "Routine" and "Site-Related Parameters".

[5] Well protective casing is damaged and prevented access to the well.

[DUP] Duplicate sample obtained at this location. The highest value given for the sample or the duplicate is reported.

NA Denotes Not Analyzed.

U Denotes that the compound was analyzed for, but not detected at the detection limit listed.

* Indicates that the duplicate analysis was not within laboratory control limits.

J Indicates an estimated value for tentatively identified compounds.

B The reported value is less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detection Limit.

E Indicates an estimated value because of the possible presence of interference.

W Indicates an estimated value because of the possible presence of interference.

N Spiked sample recovery not within control limits

Values in **BOLD** indicate an exceedance of applicable water quality standards or guidance values.

TABLE 3A

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Benzene

Sample ID	Sample Date															
	Jan-90	Sep-90	Jan-93	Apr-93	Sep-93	Dec-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Mar-96	Jun-96
1-OS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
1-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
2-OS	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
2-R	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
3-OS/I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
3-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
4-OS	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
4-R	1.0	1.0	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
5-OS	**2.0**	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA
5-I	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	NA	NA
5-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
7-OS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA
7-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA
8-OS	**2.0**	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8-I	**2.0**	**2.9**	NA	ND	ND	ND	ND	ND	ND	**2.0**	ND	ND	ND	**1.2**	1.0	**2.0**
8-R	**3.0**	0.4	ND	0.9	ND	ND	ND	ND	ND	ND	**2.0**	0.9	ND	0.65	ND	ND
9-OS	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
9-I	NA	0.2	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-R	NA	0.9	ND	ND	ND	NA	ND	ND	ND	1.0	ND	ND	ND	ND	ND	ND
PW-1	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-2	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	NA	0.5	ND	ND	ND	ND
SVWC-93	NA	NA	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVWC-94	NA	NA	ND	ND	NA	NA	ND	ND	ND	1.0	ND	ND	ND	ND	ND	ND
SVWC-95	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVWC-96	NA	NA	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Benzene, 1.0 µg/L.

TABLE 3A (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Benzene

Sample ID	Sample Date															
	Sep-96	Dec-96	Mar-97	Jun-97	Sep-97	Dec-97	Mar-98	Jun-98	Sep-98	Mar-99	Jun-99	Sep-99	May-00	Sep-00	Dec-00	Mar-01
1-OS	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
1-R	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
2-OS	NA	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
2-R	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
3-OS/I	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
3-R	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
4-OS	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
4-R	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
5-OS	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	ND
5-I	ND	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	NA	NA	NA
5-R	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
7-OS	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
7-R	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
8-OS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8-I	**2.0**	**3.0**	ND	ND	**2.0**	ND	ND	ND	ND	NA	ND	ND	0.5 J	ND	ND	ND
8-R	ND	ND	ND	ND	ND	**2.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-OS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-2	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVWC-93	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
SVWC-94	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
SVWC-95	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
SVWC-96	ND	NA	NA	ND	ND	ND	ND	NA	ND	NA	ND	NA	ND	ND	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Benzene, 1.0 µg/L.

TABLE 3A (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Benzene

Sample ID	Sample Date								
	Jul-01	Oct-01	Mar-02	Jul-02	Oct-02	Apr-03	Jul-03	Oct-03	Mar-04
1-OS	NA	ND	ND	NA	ND	NA	NA	NA	NA
1-R	NA	ND	ND	NA	ND	ND	NA	ND	NA
2-OS	NA	ND	ND	NA	ND	ND	NA	ND	ND
2-R	NA	ND	ND	NA	ND	ND	NA	ND	NA
3-OS/I	NA	ND	ND	NA	ND	ND	NA	ND	ND
3-R	NA	ND	ND	NA	ND	ND	NA	ND	NA
4-OS	NA	ND	ND	NA	ND	ND	NA	ND	ND
4-R	NA	ND	ND	NA	ND	ND	NA	ND	NA
5-OS	NA	NA	NA	NA	NA	ND	NA	NA	ND
5-I	NA	ND	ND	NA	ND	NA	NA	ND	NA
5-R	NA	ND	ND	NA	ND	ND	NA	ND	NA
7-OS	NA	ND	ND	NA	ND	ND	NA	ND	ND
7-R	NA	ND	ND	NA	NA	NA	NA	NA	NA
8-OS	ND	ND	ND	ND	ND	ND	ND	ND	ND
8-I	ND	ND	ND	ND	ND	ND	ND	ND	0.6 J
8-R	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-OS	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-I	ND	ND	ND	ND	ND	ND	ND	ND	ND
9-R	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-1	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVWC-93	ND	NA	ND	ND	ND	ND	ND	ND	ND
SVWC-94	ND	NA	ND	ND	ND	ND	ND	ND	ND
SVWC-95	ND	NA	ND	ND	ND	ND	ND	ND	ND
SVWC-96	ND	NA	ND	ND	ND	ND	ND	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Benzene, 1.0 µg/L.

TABLE 3B

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Chromium

Sample ID	Sample Date															
	Jan-90	Sep-90	Jan-93	Apr-93	Sep-93	Dec-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Mar-96	Jun-96
1-OS	**153**	**57.3**	8	ND	**60**	**257**	**65.5**	7.2	**284**	**134**	**727**	17	**102**	**70.5**	**127**	NA
1-R	39.7	17.5	ND	ND	**84.9**	46.8	10.3	ND	39.3	**58.3**	**146**	49.5	**136**	42.8	**133**	NA
2-OS	**180**	**141**	NA	ND	**50.2**	**95.9**	11.8	**89.3**	45.9	25.1	39.7	34.1	**137**	**50.3**	**83.6**	NA
2-R	16.1	5.5	NA	ND	14.8	6.1	ND	5.1	8.3	4.9	4.4	ND	5	5.7	ND	NA
3-OS/I	**587**	**1290**	**807**	40.4	**1350**	**1100**	**784**	**304**	**561**	**1020**	**144**	**406**	**589**	**253**	**372**	NA
3-R	28	11.4	ND	ND	ND	14.7	10.5	17.8	4.8	4.9	3.6	2	10.3	7	ND	NA
4-OS	**139**	40.1	5.8	ND	10.8	11.2	15.1	25.4	23.1	**53.1**	21.1	ND	38.8	12.2	11	NA
4-R	35.5	13.1	ND	8.8	ND	5.9	4.4	ND	13.3	2	2.5	ND	9	5.8	ND	NA
5-OS	**90**	35.6	48.8	ND	NA	NA	NA	NA	NA	NA	NA	39	NA	NA	**216**	NA
5-I	NA	NA	NA	NA	NA	**80**	30.2	7.2	40	**63.1**	**109**	NA	17.4	22.4	NA	NA
5-R	27.4	29.3	6.8	ND	ND	8.6	13.8	6.3	**52.3**	**105**	19.9	7.9	22.9	27.9	10.1	NA
7-OS	33.5	40.1	24.2	13	**1890**	**218**	31	**210**	**571**	**258**	**324**	NA	NA	37	**125**	NA
7-R	16.2	16.8	ND	ND	ND	ND	ND	5.3	8.6	3.4	2.8	12.4	13.4	9.2	ND	NA
8-OS	34.8	16.7	ND	ND	ND	7.6	**86.6**	28.7	13.2	4.2	**129**	40.4	13.9	7.2	**62.2**	35.8
8-I	**215**	32.5	NA	ND	ND	ND	29	17	12.8	8.4	8	3.4	24.1	29.2	12.3	26.2
8-R	20	23.1	9.9	ND	17.7	18.2	7.5	17	10.4	6.8	6.3	10.1	13.4	8.5	6.7	23.8
9-OS	NA	6.8	ND	ND	ND	ND	22.9	27.1	14.8	2.9	6.6	7.6	NA	NA	9.8	11.2
9-I	NA	8.1	NA	NA	NA	NA	28	ND	2.4	5.8	3.9	8	34.6	25.3	8.1	11.4
9-R	NA	8.8	3.9	16.4	16.7	11.6	35.4	48.2	29.9	10.5	16.9	26.5	**66.7**	45.4	43.8	12.8
PW-1	NA	ND	ND	ND	ND	ND	ND	ND	0.6	ND	0.8	ND	ND	ND	ND	ND
PW-2	NA	ND	ND	ND	ND	4.9	NA	ND	ND	ND	NA	ND	ND	ND	ND	0.94
SVWC-93	NA	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
SVWC-94	NA	NA	ND	ND	NA	NA	ND	ND	ND	0.97	ND	ND	NA	ND	ND	ND
SVWC-95	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
SVWC-96	NA	NA	ND	ND	NA	ND	ND	ND	ND	0.87	ND	1.7	NA	ND	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Chromium, 50 µg/L.

TABLE 3B (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Chromium

Sample ID	Sample Date															
	Sep-96	Dec-96	Mar-97	Jun-97	Sep-97	Dec-97	Mar-98	Jun-98	Sep-98	Mar-99	Jun-99	Sep-99	May-00	Sep-00	Dec-00	Mar-01
1-OS	**102**	NA	**88**	NA	**220**	NA	**1180**	NA	**52.1**	**496**	NA	**1850**	**2100**	NA	**405**	**253**
1-R	**176**	NA	**200**	NA	ND	NA	37.1	NA	41.7	39.8	NA	**73.4**	**58.6**	NA	9.8	**119**
2-OS	NA	NA	ND	NA	ND	NA	**241**	NA	**121**	13.6	NA	**285**	**415**	NA	**120**	**128**
2-R	20.7	NA	**160**	NA	**50**	NA	**53.5**	NA	**59.6**	**75.6**	NA	ND	4	NA	4.7	ND
3-OS/I	29.7	NA	25	NA	**190**	NA	**433**	NA	**804**	**270**	NA	**321**	**687**	NA	453	**522**
3-R	24.2	NA	27	NA	ND	NA	20.7	NA	12.8	**73**	NA	**75.7**	**51.2**	NA	**213**	**124**
4-OS	6.2	NA	ND	NA	ND	NA	34.7	NA	8.6	2.2	NA	**87.7**	36.8	NA	17.9	13.2
4-R	1.8	NA	ND	NA	ND	NA	2.7	NA	7.7	0.78	NA	ND	ND	NA	ND	ND
5-OS	NA	NA	19	NA	NA	NA	NA	NA	NA	15.3	NA	NA	**69.3**	NA	**165**	38.6
5-I	8	NA	NA	NA	ND	NA	2.3	NA	9.6	NA	NA	10.6	NA	NA	NA	NA
5-R	7.2	NA	10	NA	ND	NA	ND	NA	2.5	4.4	NA	2.7	14.7	NA	7.2	3.9
7-OS	4.4	NA	41	NA	**60**	NA	**188**	NA	**96.2**	48.1	NA	**59.2**	**200**	NA	34.7	**51.9**
7-R	3.4	NA	ND	NA	ND	NA	ND	NA	3.4	1.6	NA	ND	ND	NA	ND	ND
8-OS	15.9	20	ND	ND	ND	ND	4	9.6	4.5	**79.4**	20.2	31	30.1	16.9	8.8	25.8
8-I	17.4	**110**	17	10	ND	20	4.6	4.8	**55.6**	NA	**56.8**	ND	10	17.3	22.9	49.9
8-R	20.4	ND	ND	20	20	ND	ND	5.2	6.3	3.4	2	ND	1.1	2.2	3.6	7.7
9-OS	5.2	ND	ND	10	ND	ND	ND	2.3	0.64	9.8	1.1	ND	34.5	7.4	20.1	17
9-I	4.8	ND	ND	ND	ND	ND	1.7	8	2.8	1.7	6.8	ND	10.8	5.0	4.1	28.8
9-R	23.8	**90**	ND	20	ND	ND	15.2	1.9	23.4	8.5	15	47.3	3	1.6	2.4	4.1
PW-1	0.43	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.75	ND	ND	ND
PW-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.69	ND	ND	ND	ND	ND	ND
SVWC-93	0.89	ND	ND	ND	ND	ND	ND	ND	0.78	NA	ND	NA	ND	ND	1.4	ND
SVWC-94	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA	0.53	ND	ND	ND
SVWC-95	ND	ND	ND	ND	ND	NA	ND	ND	0.96	NA	ND	NA	ND	ND	ND	ND
SVWC-96	1.3	NA	NA	ND	ND	ND	ND	NA	ND	NA	ND	NA	ND	ND	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Chromium, 50 µg/L.

TABLE 3B (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Chromium

Sample ID	Sample Date									
	Jul-01	Oct-01	Mar-02	Jul-02	Oct-02	Apr-03	Jul-03	Oct-03	Mar-04	
1-OS	NA	20.6	**60.1**	NA	**386**	NA	NA	NA	NA	
1-R	NA	47.1	10.2	NA	**82.9**	ND	NA	5.3	NA	
2-OS	NA	**87.1**	35.6	NA	**2040**	**89.8**	NA	**52.9**	**87.1**	
2-R	NA	3.9	9.6	NA	4.6	4.8	NA	7	NA	
3-OS/I	NA	**467**	**257**	NA	**1400**	**4250**	NA	**2810**	**816**	
3-R	NA	12.7	33.5	NA	31.2	**86.8**	NA	**113**	NA	
4-OS	NA	4	8.7	NA	35	17.9	NA	5	9.4	B
4-R	NA	2.2	ND	NA	1.3	ND	NA	2.2	NA	
5-OS	NA	NA	NA	NA	NA	NA	NA	NA	**237**	
5-I	NA	3.3	10.5	NA	1.2	5.6	NA	29.8	NA	
5-R	NA	3.3	24.6	NA	9.9	5.6	NA	4.4	NA	
7-OS	NA	48.4	22.1	NA	**108**	4.4	NA	2.4	**133**	
7-R	NA	2.3	ND	NA	NA	NA	NA	NA	NA	
8-OS	6.55	20.6	16.4	5.7	33.8	10.4	20.2	2.2	10.3	
8-I	19.9	2.3	4.8	9.5	9.5	15.5	8.8	1.4	19.4	
8-R	5.56	3.9	1.2	1.7	6.1	ND	15.2	ND	2	B
9-OS	ND	17.4	12.5	5.2	9.7	19.2	2.1	5	10.4	
9-I	2.35	1.2	2.4	3.8	ND	4.2	9.5	2	2.8	B
9-R	1.12	1.9	ND	ND	ND	ND	1.5	1.1	2.6	B
PW-1	ND	1.2	ND	ND	ND	ND	1.6	0.73	1.3	B
PW-2	ND	1.8	ND	ND	ND	ND	2.2	1.9	1.5	B
SVWC-93	ND	NA	ND	ND	ND	ND	1.4	1.3	1.4	B
SVWC-94	ND	NA	ND	ND	ND	ND	1.5	0.75	1.9	B
SVWC-95	ND	NA	ND	ND	ND	ND	1.5	ND	1.5	B
SVWC-96	ND	NA	ND	ND	ND	ND	1	ND	1.2	B

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Chromium, 50 µg/L.

TABLE 3C

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Iron

Sample ID	Sample Date															
	Jan-90	Sep-90	Jan-93	Apr-93	Sep-93	Dec-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Mar-96	Jun-96
1-OS	**45000**	**17500**	**1870**	**884**	**32300**	**162000**	**12200**	69.6	**4950**	**47700**	**5970**	**2820**	**27900**	**23400**	**21700**	NA
1-R	**1180**	**2650**	**395**	197	**1940**	**1210**	186	**70600**	**830**	**1710**	**1430**	**1080**	**2750**	**1050**	**3240**	NA
2-OS	**912**	**41800**	NA	186	**11800**	**9800**	**946**	**5080**	**14700**	**4120**	**1310**	**1730**	**24300**	**5660**	**1770**	NA
2-R	**409**	**602**	NA	**674**	**1120**	**1450**	187	83.1	248	**363**	259	**369**	**541**	**822**	189	NA
3-OS/I	**6830**	**9750**	**5110**	**333**	**21300**	**37900**	**19400**	**29900**	**14400**	**37500**	**54600**	**16600**	**31400**	**3710**	**7750**	NA
3-R	**1930**	**1370**	**11500**	**2940**	**3280**	**4800**	**1970**	**2090**	**2440**	**1730**	**1260**	**1450**	**3100**	**1330**	**1060**	NA
4-OS	**15600**	**12400**	**529**	**520**	**5560**	**10600**	**5720**	**17600**	**16900**	**15200**	**6110**	**3010**	**28600**	**7460**	**7470**	NA
4-R	**8230**	**5290**	**3520**	**4920**	**3100**	**5290**	**4790**	**4020**	**6850**	**5100**	**5650**	**5590**	**6320**	**4880**	**4910**	NA
5-OS	**27000**	**11200**	**11100**	**4700**	NA	NA	NA	NA	NA	NA	NA	**17100**	NA	NA	**60000**	NA
5-I	NA	NA	NA	NA	NA	**2030**	**2080**	**2380**	**8990**	**30700**	**56200**	NA	**2200**	**1870**	NA	NA
5-R	**658**	**368**	**620**	**2310**	**751**	243	**742**	71.2	**21400**	**64000**	**11300**	**2260**	**1620**	**1120**	**434**	NA
7-OS	**981**	**24500**	**1250**	**521**	**619000**	**2200**	**2340**	**15600**	**14500**	**14400**	**12200**	NA	NA	**1870**	**11400**	NA
7-R	ND	**1940**	31.5	56.6	**989**	**600**	**762**	226	**681**	270	**485**	**886**	**717**	**794**	**363**	NA
8-OS	**229000**	**43800**	**3230**	**2080**	**6180**	**12000**	**20300**	**6240**	**7490**	**6740**	**13500**	**5760**	**46900**	0.116	**4870**	**4370**
8-I	**15700**	**30500**	NA	ND	ND	ND	**22300**	**41200**	**24200**	**18200**	**24300**	**21100**	**32300**	**28500**	**27300**	**38700**
8-R	**1360**	**2940**	**11600**	**2590**	**9160**	**4710**	**2510**	**11100**	**22000**	**10200**	**24900**	**25700**	**26600**	**124000**	**18400**	**14300**
9-OS	NA	249	50.7	**1200**	**383**	**393**	**2210**	**1040**	**1020**	**1490**	**1340**	294	NA	NA	**2330**	**1350**
9-I	NA	145	NA	NA	NA	NA	**2040**	62.3	84	260	**788**	**468**	**4530**	**762**	232	**443**
9-R	NA	**20200**	**2680**	**8250**	**11500**	**10800**	**8850**	**19400**	**9110**	**2700**	**1080**	**2230**	**4080**	**1370**	**2060**	**2270**
PW-1	NA	64	186	130	**1260**	**916**	85.3	11.2	**561**	39.7	283	**400**	238	252	53.9	38.1
PW-2	NA	11	41.8	49.5	ND	22.7	NA	ND	53.5	13.6	NA	253	276	225	ND	ND
SVWC-93	NA	NA	32.6	10.6	NA	**553**	179	ND	17.2	20.7	19	154	NA	**585**	ND	ND
SVWC-94	NA	NA	40.3	19.1	NA	NA	49.4	ND	6.1	13.8	ND	143	NA	124	ND	ND
SVWC-95	NA	NA	51.7	74.4	ND	NA	45.5	ND	274	40.3	279	161	NA	148	ND	ND
SVWC-96	NA	NA	22.3	17.3	NA	22.6	14.9	ND	61.5	66.8	ND	173	NA	136	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Iron, 300 µg/L.

TABLE 3C (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Iron

Sample ID	Sample Date															
	Sep-96	Dec-96	Mar-97	Jun-97	Sep-97	Dec-97	Mar-98	Jun-98	Sep-98	Mar-99	Jun-99	Sep-99	May-00	Sep-00	Dec-00	Mar-01
1-OS	**48000**	NA	**19000**	NA	**49000**	NA	**62100**	NA	**3150**	**74400**	NA	**76200**	**40500**	NA	**43800**	**54100**
1-R	**1910**	NA	**1800**	NA	ND	NA	**1020**	NA	**561**	**897**	NA	**1420**	**867**	NA	**990**	**15700**
2-OS	NA	NA	140	NA	**900**	NA	**15100**	NA	**24900**	**536**	NA	**6910**	**32900**	NA	**32800**	**37700**
2-R	**6920**	NA	**1600**	NA	**800**	NA	**1700**	NA	**718**	**2110**	NA	**2640**	**1790**	NA	**1440**	**337**
3-OS/I	**303**	NA	**1500**	NA	**5400**	NA	**29800**	NA	**23600**	**1620**	NA	**1990**	**3310**	NA	**3620**	**5810**
3-R	**4200**	NA	**1500**	NA	**700**	NA	**1420**	NA	**1260**	**680**	NA	**8770**	**1610**	NA	**3020**	**4400**
4-OS	**1300**	NA	**2700**	NA	**600**	NA	**8490**	NA	**6840**	**1100**	NA	**50200**	**16300**	NA	**11300**	**7690**
4-R	**3970**	NA	**6800**	NA	**3300**	NA	**5310**	NA	**1850**	**5250**	NA	**7500**	**5900**	NA	**7240**	**4220**
5-OS	NA	NA	**8100**	NA	NA	NA	NA	NA	NA	**8180**	NA	NA	**41500**	NA	**101000**	**22800**
5-I	**2170**	NA	NA	NA	**600**	NA	**3150**	NA	**851**	NA	NA	**700**	NA	NA	NA	NA
5-R	197	NA	ND	NA	100	NA	210	NA	94.5	105	NA	40.4	**5000**	NA	**2370**	**826**
7-OS	**305**	NA	**9700**	NA	**9700**	NA	**36300**	NA	**21900**	**1950**	NA	**11300**	**4300**	NA	**12400**	**4170**
7-R	54.2	NA	ND	NA	ND	NA	112	NA	145	93.8	NA	ND	128	NA	**310**	213
8-OS	**997**	**2100**	ND	**1500**	**1800**	**2800**	**795**	**1820**	153	**1000**	**473**	**747**	**1200**	**8900**	**4450**	**6020**
8-I	**26400**	**80000**	**18000**	**26000**	**14000**	**15000**	**15700**	**6000**	**37200**	NA	**19100**	**4270**	**9870**	**22900**	**26400**	**47600**
8-R	**11700**	**2700**	**1400**	**5400**	**9200**	**12000**	**4880**	**4150**	**1940**	**2440**	**1140**	**5260**	**1180**	**2230**	**2580**	**2500**
9-OS	**1030**	**460**	**1400**	**6500**	200	**300**	0.105	**392**	126	**912**	**515**	198	**1880**	**2230**	**2640**	**3660**
9-I	80.5	100	ND	ND	ND	ND	113	**400**	91.3	86.4	**949**	ND	**2820**	**3920**	**2570**	**24000**
9-R	**1640**	**3200**	**13000**	**4700**	**7800**	**4600**	**5040**	**3660**	**3900**	**670**	**4360**	**3110**	**1340**	**9110**	**8280**	**8080**
PW-1	40.2	**30000**	ND	ND	ND	ND	ND	94.4	38.8	42.2	163	ND	18	ND	4.5	15.3
PW-2	ND	ND	ND	ND	ND	ND	27.7	36.9	22.2	35.3	114	ND	59.4	36.8	62	10.8
SVWC-93	ND	ND	ND	ND	ND	ND	26.4	253	50.2	NA	169	NA	8.8	4.2	36.5	62.4
SVWC-94	ND	ND	ND	ND	ND	NA	ND	90.9	ND	NA	83.1	NA	3.9	ND	20.5	22.2
SVWC-95	98.8	ND	ND	ND	ND	NA	ND	61	27	NA	90.1	NA	23.2	ND	14.4	24.9
SVWC-96	147	NA	NA	ND	ND	ND	ND	NA	289	NA	67.8	NA	4.6	ND	52.9	27.8

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Iron, 300 µg/L.

TABLE 3C (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Iron

Sample ID	Sample Date								
	Jul-01	Oct-01	Mar-02	Jul-02	Oct-02	Apr-03	Jul-03	Oct-03	Mar-04
1-OS	NA	1110	35200	NA	127000	NA	NA	NA	NA
1-R	NA	6260	1330	NA	41600	374	NA	1260	NA
2-OS	NA	24500	10500	NA	48200	40700	NA	14700	14700
2-R	NA	299	6830	NA	1760	2550	NA	2370	NA
3-OS/I	NA	4090	1810	NA	30800	31800	NA	39000	12900
3-R	NA	1140	2020	NA	13300	4830	NA	6560	NA
4-OS	NA	1760	4310	NA	32800	14100	NA	2470	3050
4-R	NA	3850	3250	NA	4520	6250	NA	18600	NA
5-OS	NA	NA	NA	NA	NA	NA	NA	NA	150000
5-I	NA	186	5490	NA	60.7	1910	NA	21800	NA
5-R	NA	96.4	10300	NA	1230	1760	NA	414	NA
7-OS	NA	10400	6790	NA	21200	1850	NA	633	38500
7-R	NA	22.2	72.9	NA	NA	NA	NA	NA	NA
8-OS	2460	4600	3060	3540	6600	2490	2480.0	705	1030
8-I	27600	6560	16700	16700	17600	21400	12500.0	8310	29700
8-R	1680	1770	2110	1580	1490	969	2440.0	1090	1160
9-OS	ND	3780	896	789	500	1600	288.0	656	506
9-I	2350	145	2000	3290	39.9	3710	7250.0	514	1630
9-R	8320	8150	5980	7110	6140	5720	5610.0	4660	4890
PW-1	561	15.8	8.2	7.5	23.5	9.3	47.0	ND	20 B
PW-2	25.7	59.1	35.9	17.3	32.7	25.1	47.0	ND	27.5 B
SVWC-93	29.1	NA	ND	18.5	939	23.9	247.0	ND	203
SVWC-94	6.5	NA	11.1	ND	52.9	19.6	47.0	ND	30.3 B
SVWC-95	103	NA	13	8.8	91.4	56.1	47.0	ND	157
SVWC-96	19.3	NA	4.5	ND	11.2	7	47.0	ND	16.8 U

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Iron, 300 µg/L.

TABLE 3D

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Manganese

Sample ID	Sample Date															
	Jan-90	Sep-90	Jan-93	Apr-93	Sep-93	Dec-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Mar-96	Jun-96
1-OS	**3790**	**3700**	**809**	**1410**	**4010**	**5590**	**3510**	26.8	**5150**	**4770**	**2950**	**2010**	**4930**	**3130**	**2020**	NA
1-R	144	98.5	61.4	38.7	143	62	29.3	**6020**	67	97.6	96.9	153	219	137	120	NA
2-OS	298	**4770**	NA	27	**4850**	**1580**	92.5	**985**	**2450**	**827**	221	**982**	**5570**	**883**	280	NA
2-R	197	135	NA	118	126	116	99.5	91.1	92.9	88.8	94.8	70.2	143	85.5	93.8	NA
3-OS/I	**8700**	**18100**	**3450**	**1690**	**9590**	**8780**	**5640**	**10300**	**2240**	**5540**	**3590**	**3270**	**3860**	**6090**	**11900**	NA
3-R	**7230**	**12400**	**10700**	**12900**	**11000**	**12000**	**11800**	**112800**	**10600**	**11300**	**11900**	**10900**	**12400**	**9710**	**11100**	NA
4-OS	**4210**	**5020**	**547**	**506**	**2080**	**995**	**598**	**2850**	**3050**	**1130**	**602**	**2860**	**7080**	**682**	**636**	NA
4-R	**1730**	**1520**	**1660**	**1890**	**1160**	**1230**	**1460**	**1350**	**1210**	**1190**	**1430**	**1120**	**1120**	**1140**	**1536**	NA
5-OS	**981**	**530**	192	43.2	NA	NA	NA	NA	NA	NA	**1410**	NA	49.5	NA	**616**	NA
5-I	NA	NA	NA	NA	NA	52.8	40.6	215	221	**474**	NA	248	NA	53.6	NA	NA
5-R	22.3	9.3	9.6	21.9	11.4	8.2	9.6	2.5	232	**624**	116	21.6	28.6	11.9	7.1	NA
7-OS	**1240**	**3260**	48.3	46.1	**45100**	122	67.4	**1580**	**9820**	**992**	**1180**	NA	NA	56.8	**390**	NA
7-R	51.9	102	46.1	51.8	114	81.6	99.8	186	126	80.9	69.1	48.8	62.2	34.8	46.4	NA
8-OS	**2830**	**2750**	**1680**	**1640**	**3330**	**1910**	**4090**	**1790**	**3230**	**1840**	**2050**	**2690**	**1420**	**903**	**2460**	**3120**
8-I	**4230**	**1110**	NA	ND	ND	ND	**877**	**1180**	**692**	**862**	**1480**	**1110**	**2430**	**945**	**1860**	**3200**
8-R	**872**	181	**1660**	**2600**	**2440**	**2650**	**2220**	**1890**	**1740**	**1980**	**3290**	**1300**	**2500**	**2610**	**4040**	**3230**
9-OS	NA	14.6	ND	21.1	9.6	8.7	74.8	34.7	26.2	40.8	32.9	3.9	NA	NA	75.7	70.9
9-I	NA	**377**	NA	NA	NA	NA	40.6	3.2	21.7	9.8	40.5	10.9	129	15.9	5.2	13.1
9-R	NA	**3270**	**2320**	**2280**	**2540**	**1890**	**1660**	**1830**	**1650**	**1460**	**1590**	**1790**	**1810**	**1070**	**738**	**1840**
PW-1	NA	ND	1.2	1.8	ND	3.6	5.4	ND	5.1	15.3	18.1	5.2	83.1	57.7	83.7	25.7
PW-2	NA	ND	4.7	7.5	6.3	6.6	NA	2.4	8.7	6.1	NA	6.1	11.6	7.7	2.6	5
SVWC-93	NA	NA	ND	1.7	NA	72.2	ND	ND	2	0.37	9.6	0.95	NA	11.9	ND	3.4
SVWC-94	NA	NA	7.3	ND	NA	NA	6.3	ND	10.4	11.9	6.7	11.4	NA	ND	3.1	ND
SVWC-95	NA	NA	56.4	1.8	ND	NA	91.6	108	273	85.9	29	49.7	NA	22.1	47.4	67.4
SVWC-96	NA	NA	ND	ND	NA	ND	ND	ND	2.1	11.9	1.3	ND	NA	48	ND	ND

NOTES: Concentrations reported in µg/L (ppb).

ND = Not Detected

NA = Not Analyzed

Values in **BOLD** indicate an exceedance of groundwater quality standard for Manganese, 300 µg/L.

TABLE 3D (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Manganese

Sample ID	Sample Date																
	Sep-96	Dec-96	Mar-97	Jun-97	Sep-97	Dec-97	Mar-98	Jun-98	Sep-98	Mar-99	Jun-99	Sep-99	May-00	Sep-00	Dec-00	Mar-01
1-OS	**4710**	NA	**2200**	NA	**5500**	NA	**4530**	NA	**1600**	**5600**	NA	**9830**	**5740**	NA	**5810**	**4940**
1-R	188	NA	200	NA	200	NA	**405**	NA	289	**332**	NA	**599**	236	NA	158	**2070**
2-OS	NA	NA	18	NA	**650**	NA	**1060**	NA	**3320**	69.6	NA	**936**	**4110**	NA	**3370**	**3450**
2-R	**653**	NA	150	NA	180	NA	248	NA	214	**356**	NA	**744**	**497**	NA	247	142
3-OS/I	**4880**	NA	**3000**	NA	**4500**	NA	**12100**	NA	**8880**	**948**	NA	**577**	**5720**	NA	**5070**	**3750**
3-R	**13900**	NA	**12000**	NA	**11000**	NA	**10400**	NA	**10900**	**12500**	NA	**15100**	**14200**	NA	**13100**	**10400**
4-OS	59.6	NA	140	NA	**940**	NA	**430**	NA	**1600**	220	NA	**1720**	**1340**	NA	**1930**	**440**
4-R	**1300**	NA	**1500**	NA	**810**	NA	**1410**	NA	**319**	**1100**	NA	**1180**	**1320**	NA	**1240**	**1040**
5-OS	NA	NA	NA	NA	20	NA	57.8	NA	18.7	NA	NA	27.2	**533**	NA	**1080**	**323**
5-I	77.7	NA	160	NA	NA	NA	NA	NA	NA	88.6	NA	NA	NA	NA	NA	NA
5-R	7.8	NA	ND	NA	ND	NA	5	NA	2.6	2.6	NA	1.2	69.3	NA	33	13.1 B
7-OS	43.1	NA	**1400**	NA	**550**	NA	**2480**	NA	**2190**	211	NA	**755**	**305**	NA	**1270**	**638**
7-R	66.7	NA	35	NA	110	NA	90.1	NA	168	157	NA	98.5	257	NA	**360**	**379**
8-OS	**679**	**2200**	**570**	**670**	**830**	**570**	124	**466**	**2640**	119	**1400**	**860**	**525**	**3820**	**2410**	**6760**
8-I	**2100**	**3100**	**1200**	**1800**	**910**	**840**	**937**	**692**	**1500**	NA	**1050**	**1570**	**789**	**2810**	**2560**	**3430**
8-R	**4310**	**3400**	**3500**	**3100**	**2000**	**1500**	**2130**	**2340**	**952**	NA	**1900**	**2780**	**2640**	**2390**	**2120**	**2250**
9-OS	43.3	20	49	170	ND	20	28	14.7	3.5	28.6	15.1	11.7	40.1	54.6	58.9	93.2
9-I	5.6	6	ND	ND	ND	ND	4.8	11.8	3.6	2.8	18	5.4	109	66.7	49.2	**561**
9-R	**1930**	**2200**	**2600**	**2400**	**2000**	**1500**	**1650**	**1150**	**1810**	**771**	**1620**	**1320**	**1500**	**3020**	**3100**	**2860**
PW-1	4.4	80	ND	ND	ND	ND	9.4	0.99	7	1.4	1.9	ND	0.81	0.74	1.4	13.6
PW-2	3.8	ND	ND	ND	ND	ND	9.1	5.1	0.61	6.6	6.6	ND	1.8	2.5	3.9	6
SVWC-93	2	ND	ND	ND	ND	ND	12.8	0.79	3.6	NA	2.5	NA	0.49	2.1	ND	2.2
SVWC-94	5.3	6	ND	ND	10	NA	8.1	5.8	7.6	NA	4.3	NA	3.6	7.1	9.6	4.7
SVWC-95	26.4	70	82	80	130	NA	58.6	64.4	21	NA	40.6	NA	40.4	49.7	47.5	49.8
SVWC-96	10.1	NA	NA	ND	ND	ND	ND	NA	22	NA	1.6	NA	ND	<0.70	ND	ND

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Manganese, 300 µg/L.

TABLE 3D (Continued)

TOWN OF RAMAPO LANDFILL
POST-CLOSURE GROUNDWATER MONITORING DATA
COMPOUND: Manganese

Sample ID	Sample Date								
	Jul-01	Oct-01	Mar-02	Jul-02	Oct-02	Apr-03	Jul-03	Oct-03	Mar-04
1-OS	NA	**5310**	**6240**	NA	**8160**	NA	NA	NA	NA
1-R	NA	**909**	104	NA	**1650**	177	NA	232	NA
2-OS	NA	**3830**	**2300**	NA	**6940**	**3100**	NA	**1310**	**2300**
2-R	NA	106	**616**	NA	**404**	157	NA	174	NA
3-OS/I	NA	**2040**	**2800**	NA	**13400**	**24800**	NA	**14200**	**7200**
3-R	NA	**12700**	**9950**	NA	**19400**	**12100**	NA	**10500**	NA
4-OS	NA	**839**	**759**	NA	**3790**	**620**	NA	**690**	**338**
4-R	NA	**1070**	**1110**	NA	**953**	**1180**	NA	**1270**	NA
5-OS	NA	NA	NA	NA	NA	NA	NA	NA	**2040**
5-I	NA	2.7	132	NA	3.7	63.6	NA	**577**	NA
5-R	NA	ND	154	NA	21.7	29.5	NA	6.5	NA
7-OS	NA	**668**	**592**	NA	**1730**	124	NA	76.4	**2140**
7-R	NA	**375**	292	NA	NA	NA	NA	NA	NA
8-OS	**5800**	**6340**	**1620**	**3390**	**6950**	**894**	**760.0**	235	**1590**
8-I	**2990**	**1760**	**3670**	**2390**	**2980**	**3140**	**2540.0**	**2590**	**4650**
8-R	**2640**	**2060**	**1930**	**2160**	**1980**	**2050**	**2190.0**	**2040**	**2150**
9-OS	ND	77.6	24.7	19	10.5	35.6	7.9	15.5	4.4 B
9-I	38	4.9	44.6	75.8	4.1	52.3	115.0	15.1	19
9-R	**2960**	**3080**	**2490**	**2740**	**2880**	**2630**	**2550.0**	**2090**	**1980**
PW-1	4.35	ND	ND	ND	2.1	ND	1.2	0.69	0.9 U
PW-2	1.96	4.7	6	6.9	3.3	3.9	2.7	1.6	0.9 U
SVWC-93	ND	NA	ND	ND	7.4	ND	0.9	0.65	0.9 U
SVWC-94	2.67	NA	6.9	4.6	ND	6.1	1.7	4.3	3.3 B
SVWC-95	143	NA	68.2	77.4	61.7	80	86.5	84.6	88
SVWC-96	ND	NA	ND	ND	3.4	ND	0.6	ND	0.9 U

NOTES: Concentrations reported in µg/L (ppb).
ND = Not Detected
NA = Not Analyzed
Values in **BOLD** indicate an exceedance of groundwater quality standard for Manganese, 300 µg/L.

TABLE 4

TOWN OF RAMAPO LANDFILL
AIR MONITORING RESULTS
MARCH 2004

	LEL (%)	H2S (ppm)	PID (ppm)
Monitoring Wells:			
1-OS	0	0	0
1-R	0	0	0
2-OS	0	0	0
2-I	0	0	0
2-R	0	0	0
3-OS/I	0	0	0
3-R	0	0	0
4-OS	0	0	0
4-I	0	0	0
4-R	0	0	0
5-OS	0	0.0	4.0
5-I	0	0	0
5-R	0	0	0
6-I	0	0	0
6-R	0	0	0
7-OS	0	0.0	0.0
7-I	0	0.0	0.0
7-R	0	0.0	0.0
8-OS	0	0	0
8-I	0	0	0
8-R	0	0	0
9-OS	0	0	0
9-I	0	0	0
9-R	0	0	0
Baler Building (waist high)	0	0.0	0.0
Manhole A-5[1]	0	0.0	0.0
Lift Station A-10	0	0.0	0.0
Lift Station W-20	0	0.0	0
Landfill Perimeter	0	0.0	0.0

NOTES: LEL = Lower Explosive Limit (for Methane)
H2S = Hydrogen Sulfide
PID = Photoionization Detector, measures VOCs
ppm = Parts Per Million
1= Manhole A-5 was not found; gas reading collected from location W-1