



**DRAFT**  
**2003 ANNUAL LONG-TERM**  
**MONITORING REPORT**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

*Prepared For:*

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**Hallowell, Maine 04347**

**Job No. 16606-017**

**January 16, 2004**

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**DISCLAIMER**

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## **1.0 INTRODUCTION**

This 2003 Annual Monitoring Report, prepared on behalf of Vermont American Corporation, summarizes Long-Term Monitoring Plan (LTMP) activities conducted at the Parker Landfill (Figure 1) in 2003. The monitoring activities were performed in accordance with the LTMP developed pursuant to an Administrative Order for Remedial Design and Remedial Action. This report summarizes field activities performed during 2003; presents validated analytical data and field measured water quality indicator data collected during 2003; and presents an analysis of the data. Water level and field indicator parameter measurements as well as historical analytical data are reported in summary tables included with this report.

In addition to the introduction, this report is presented in the following three sections:

- Section 2.0 - Field Activities and Methods
- Section 3.0 - Data Analysis
- Section 4.0 - Conclusions

## 2.0 FIELD ACTIVITIES AND METHODS

The following LTMP activities were conducted at the Parker Landfill using protocols described in the LTMP:

- Water level measurements were collected from designated monitoring wells (as accessible) located in the vicinity of the Parker Landfill and from a staff gage in the Passumpsic River during discrete events in January, April, July and October 2003. The water level data collected during the monitoring events were incorporated into the existing water level database and were used to develop groundwater elevation contour maps discussed in Section 3.1. Water level elevation data for the monitoring wells are presented in Table 1.
- Groundwater samples were collected from 45 monitoring wells during semiannual monitoring events performed in April and October 2003 (Figure 2). During each event samples were collected in accordance with the LTMP. The following field parameters were monitored and recorded during purging using a flow-through cell: pH, temperature, specific conductance, turbidity, redox potential and dissolved oxygen. These same parameters were measured in grab samples collected from monitoring wells sampled by a Waterra inertial sampling pump (i.e., B-113A and B-120D) and by a disposable bailer (i.e., B-102A, B-103A and B-144A). Sample data sheets for the October 2003 monitoring event are included in Appendix A. Sample data sheets for the April 2003 monitoring event were previously submitted to EPA. Final measurements of indicator parameters collected immediately prior to sample collection for both of the 2003 monitoring events are summarized in Table 2.

Following indicator parameter stabilization, samples were collected directly from the discharge line of the pump into clean laboratory sample containers for analysis of volatile organic compounds (VOCs) using SW-846 Method 8260B and Target Analyte List (TAL) metals. Samples collected from select monitoring wells were also analyzed for semivolatile organic compounds (SVOCs) using SW-846 Methods 8270C, 8270C SIMSCAN, and 8151A; and ethane, ethene, methane and propane using R.S. Kerr laboratory method RSK-175. Table 3 summarizes analyses performed for each monitoring well location during the 2003 monitoring events. Analytical results for organic compounds and metals for the groundwater samples collected during 2003 are provided in Appendix B as part of the historical LTMP monitoring data. Results for groundwater samples that exhibited exceedances of the Interim Groundwater Cleanup Levels (IGCLs) for the above analyses in April and October 2003 are provided in Table 4.

- Surface water and sediment samples were collected during the April and October 2003 monitoring events from three locations (Figure 2). At each location, surface water samples and sediment samples were collected in accordance with the LTMP. Surface water field indicator parameters measured in situ are summarized in Table 2. Samples were analyzed for VOCs using SW-846 Method 8260B and for TAL metals. Analytical

results for organic compounds and metals detected in surface water and sediment samples collected during 2003 are provided in Appendix B as part of the historical LTMP monitoring data. Results for surface water and/or sediment samples that exhibited exceedances of the respective standards for VOCs and metals are provided in Tables 5 and 6, respectively.

- Three additional surface water and sediment samples were collected during the October 2003 monitoring event from the Passumpsic River (Figure 2). At each location, surface water samples and sediment samples were collected in accordance with the LTMP. Surface water field indicator parameters measured in situ are summarized in Table 2. Samples were analyzed for VOCs using SW-846 Method 8260B and for TAL metals. Analytical results for organic compounds and metals detected in surface water and sediment samples collected during 2003 are provided in Appendix B as part of the historical LTMP monitoring data. Results for surface water and/or sediment samples that exhibited exceedances of the respective standards for VOCs and metals are provided in Tables 5 and 6, respectively.
- An EPA modified Region 1 Tier I-type technical data review was performed on the analytical data in accordance with the letter to EPA dated March 26, 2003. The technical review was performed to verify that the data are valid and useable for fulfilling the objectives of the Long-Term Monitoring program. Results of the EPA modified Region 1 Tier I-type technical data review and technical review actions were applied to the data for samples collected during the April and October 2003 monitoring events. Analytical data presented in this report are validated data.
- Purge water generated during the April and October 2003 monitoring events from monitoring wells historically exhibiting concentrations of VOCs exceeding Interim Groundwater Cleanup Levels (IGCLs) was containerized and treated on-site using a liquid-phase granular-activated carbon (GAC) treatment canister. Containerized purge water was pumped through the GAC canister and then recontainerized in 55-gallon Department of Transportation (DOT) drums pending testing of the final treatment system effluent for breakthrough. The effluent sample was analyzed for VOCs using SW-846 Method 8260B. Volatile organic compounds were not detected in the effluent sample (PKR-TST-CARBON4) collected following the April 2003 or the effluent sample (PRK-TST-CARBON8) collected following the October 2003 monitoring events. The treated groundwater was subsequently discharged. Purge water generated during the October 2002 monitoring event that did not meet the discharge criteria was subsequently retreated during the April 2003 sampling event, verified to meet discharge criteria by means of the April 2003 effluent sample analysis, and subsequently discharged. Validated laboratory data for the effluent samples have been provided as part of the historical LTMP monitoring data in Appendix B.

### **3.0 SUMMARY OF FINDINGS**

This section provides an assessment of the data collected during 2003 for groundwater flow conditions (Section 3.1), groundwater quality (Section 3.2), surface water quality (Section 3.3) and sediment quality (Section 3.4).

#### **3.1 GROUNDWATER FLOW DIRECTION**

Depth to water measurements collected from the monitoring wells during January, April, July and October 2003 were used in conjunction with the May 2000 and August 2003 field survey data to determine groundwater elevations across the study area. These data were incorporated into the historical water level database are presented in Table 1. Based upon a review of these data, measured water levels appear to be consistent with historical data. However, based upon a review of data collected since 1999, water level elevations in all monitoring wells exhibit long-term decreasing trends.

Groundwater elevation equipotential contour maps are provided for the shallow overburden (Figures 3 and 4), deep overburden top-of-rock (Figures 5 and 6), and bedrock (Figure 7 and 8) groundwater flow systems corresponding to the April and October monitoring events. The groundwater equipotential contour maps were developed to assess groundwater flow patterns existing at the time of sampling, and for comparison with historical groundwater flow directions.

Groundwater flow patterns depicted on Figures 3 through 8 are consistent with historical flow patterns. In summary:

- Shallow overburden groundwater flows in a southwesterly direction across the SWDA from upland areas east of IWS-3 and the unnamed stream. Shallow overburden groundwater south of the SWDA flows in a south-southwesterly direction. Shallow overburden groundwater flow is interpreted to discharge to the Passumpsic River, where the surface water elevation is lower than, or comparable to, the water table in adjacent monitoring wells to the east and west (i.e., B-120A, B-126S, and B-140).
- Deep overburden groundwater is interpreted to flow from the area east of the landfill across IWS-3 and the eastern portion of the SWDA in a westerly direction. At the west side of the SWDA, deep overburden groundwater flows in a southwesterly direction

towards the Passumpsic River. As detailed in previous monitoring reports, deep overburden groundwater from the top-of-rock zone is interpreted to discharge to the Passumpsic River.

- Bedrock groundwater flows in a westerly-southwesterly direction from the vicinity of the SWDA towards the Passumpsic River. Based upon upward vertical hydraulic gradients observed at monitoring well location B126, which is located near the Passumpsic River, bedrock groundwater is interpreted to discharge to the Passumpsic River.

## **3.2 GROUNDWATER QUALITY**

### **3.2.1 Field Indicator Parameters**

As discussed in Section 2.0, field indicator parameters for groundwater (i.e., temperature, pH, specific conductance, redox potential, dissolved oxygen, and turbidity) were measured during LTMP monitoring events performed during 2003. These data were used to identify when a sufficient volume of water had been purged from each monitoring well to allow for the collection of representative groundwater samples, as well as to provide data to assess geochemical conditions in groundwater across the study area. In accordance with the LTMP, surface water samples were measured for pH, temperature, and specific conductance.

Stabilized field indicator parameter measurements collected from sampling locations during the monitoring events performed during 2003 are summarized in Table 2 along with stabilized field indicator parameter measurements collected from monitoring wells sampled during previous LTMP events. The April and October 2003 data are summarized in the following paragraphs and also depicted on Figures 9-12 for top-of-rock and bedrock groundwater.

#### **Temperature**

Groundwater temperatures for samples collected from monitoring wells during 2003 ranged from 5.0 to 15.0 degrees Celsius (°C). Average groundwater temperatures in bedrock were 9.2 °C, in top-of-rock were 9.9 °C, and in shallow overburden were 10.1 °C. In general, water temperatures

collected during the April and October 2003 monitoring events were consistent with the range of groundwater temperatures measured during prior events.

The temperature of the surface water samples ranged from 5.5 °C to 14.5 °C.

## **pH**

The pH of groundwater ranged from 6.23 to 12.17. For the majority of monitoring wells, the pH of groundwater was within 0.2 pH units of the expected range of 6.0 to 8.5 for natural groundwater systems (Hem, 1985)<sup>1</sup>, however some monitoring wells located in top-of-rock and bedrock exhibited groundwater with elevated pH conditions. The calcareous phyllite/limestone bedrock formation is likely responsible for the elevated pH measurements in some bedrock and top-of-rock monitoring wells.

The pH of surface water ranged from 7.24 to 8.10, similar to the range observed during previous sampling events.

## **Specific Conductance**

Specific conductance in groundwater ranged from 51 micromhos per centimeter (umhos/cm) to 1,643 umhos/cm. In general, specific conductance measurements were similar (i.e., within the same order of magnitude) to measurements obtained during other recent sampling events.

The specific conductance of surface water from the unnamed stream ranged from 144 to 355 umhos/cm during 2003 and was consistent with the historical data range.

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<sup>1</sup> Hem, J.D., 1985. "Study and Interpretation of the Chemical Characteristics of Natural Water". Third Edition. United States Geological Survey Water Supply Paper 2254.

## **Redox Potential**

The redox potential of groundwater measured during monitoring events performed during 2003 ranged from +319.2 millivolts (mV) to -447.5 mV.

The majority of the shallow overburden monitoring wells sampled during the 2003 monitoring events exhibited positive redox potentials (i.e., oxidizing conditions) as shown on Table 2. The two exceptions, monitoring wells B-119B and B-131B, are screened deeper in the aquifer and may not be indicative of conditions at the water table. The majority of the top-of-rock monitoring wells and bedrock monitoring wells exhibited negative redox values (i.e., reduced conditions) during both monitoring events performed during 2003. Positive redox potentials were observed during both monitoring events in top-of-rock monitoring wells B-132 and B-144B. Positive redox potentials were noted in four monitoring wells (B-119D, B-126B, B-143 and B-144C) during the April 2003 sampling event, however reducing conditions were noted in all bedrock monitoring wells during the October 2003 sampling event.

Redox potentials recorded at the surface water monitoring locations in the unnamed stream ranged from -7.5 mV to 211.0 mV during the 2003 monitoring events.

## **Dissolved Oxygen**

Dissolved oxygen concentrations measured in groundwater during 2003 ranged from 0.12 milligrams per liter (mg/l) to 14.42 mg/l. Higher dissolved oxygen concentrations were reported at monitoring wells that were sampled using a bailer (B-102A, B-103A and B-144A). Consequently, dissolved oxygen results for these monitoring wells, as well as data for B-113A and B-120D which were sampled using a Waterra inertial pump are potentially over-reported and may not be representative of dissolved oxygen concentrations at these locations.

Consistent with historical data, shallow overburden groundwater generally exhibited the highest concentrations of dissolved oxygen. Dissolved oxygen results for both the top-of-rock and

bedrock monitoring wells were significantly lower and generally indicative of anaerobic or near-anaerobic aquifer conditions.

The elevated dissolved oxygen concentrations associated with the non-bailed shallow overburden groundwater wells (e.g., B-118A, B-120A, B-121OW, B-126S, B-136A, B-138A, B-139A, B-201OW, MW-4A) are consistent with previous sampling results and are probably attributable to oxygen-loading from precipitation recharge.

### **Turbidity**

Turbidity was measured during monitoring well purging to provide a quantitative assessment of the amount of suspended solids and colloids in groundwater that could affect laboratory analytical data. Turbidity measurements greater than 5 nephelometric turbidity units (NTU) are often cited by regulatory agencies as a target goal, below which impacts on metal concentrations are negligible. Sixteen of the 45 wells sampled during 2003 exhibited turbidity measurements less than or equal to 5 NTU during both the April and October monitoring events. Metals results for samples collected from the other 29 wells could be affected by turbidity, with metal concentrations potentially biased high due to entrained solids and colloids from the soil or rock matrix possibly adding a non-dissolved fraction to the observed inorganic metal concentrations. Review of historical data for both total and dissolved metals results has indicated a strong correlation between turbidity and metal concentrations.

### **3.2.2 Laboratory Analytical Results**

This section presents groundwater laboratory analytical results for samples collected during the April and October 2003 monitoring events.

#### **3.2.2.1 Study Area Groundwater**

As discussed in Section 2.0, groundwater samples were collected from 45 monitoring wells during the 2003 monitoring events. Samples collected from each monitoring well were analyzed

for VOCs and TAL metals. In addition, selected well locations were analyzed for ethene, ethane, methane, and propane, and SVOCs. Table 3 provides a summary of parameters analyzed at each monitoring well. The analytical data collected from the April and October 2003 monitoring events are compiled in Appendix B as part of the historical LTMP data set.

Consistent with previous long-term monitoring reports, monitoring wells have been differentiated by their location relative to the landfill to facilitate a discussion of the analytical data. Locations include:

- Background wells situated hydraulically upgradient or cross-gradient of the landfill which are not anticipated to be affected by landfill activities; and,
- Downgradient wells located hydraulically downgradient of the landfill, which are anticipated to be potentially affected by landfill activities. Downgradient water quality data is presented separately for each groundwater flow system (i.e., shallow overburden, top-of-rock, and bedrock).

Groundwater data collected from each of these locations are discussed in the following paragraphs.

### **Background Groundwater**

Based upon groundwater equipotential contours presented on Figures 3 through 8, and consistent with previous LTMP reporting, the following monitoring locations sampled during the 2003 are considered to be representative of background conditions:

- Shallow overburden monitoring wells B-144A and B-121OW;
- Top-of-rock monitoring wells B101B, B-144B, and B-122; and,
- Bedrock monitoring wells B-143 and B-144C.

With the exception of a low concentration of carbon disulfide (0.000082 mg/l) detected in the sample collected from monitoring well B144C during October 2003, VOCs were not detected in groundwater samples collected from background monitoring wells. Carbon disulfide is a common laboratory artifact detected in environmental samples. Carbon disulfide does not have

an IGCL. Antimony, arsenic, copper, selenium and silver were not detected in samples collected for total metals analysis from the background monitoring well locations during 2003. Aluminum, barium, calcium, chromium, cobalt, iron, magnesium, manganese, nickel, potassium, sodium, vanadium and zinc were consistently detected in samples collected during the 2003 monitoring events from each background monitoring well location. The remaining TAL metals (i.e., antimony, arsenic, beryllium, cadmium, copper, lead, mercury, selenium, silver, thallium) were detected at one or more background sample location. As indicated in Table 4, the following analytes exceeded IGCLs in the background monitoring wells:

- Manganese in the October 2003 sample collected from top-of-rock monitoring well B-144B; and,
- Vanadium in samples collected from shallow overburden monitoring wells B-121OW (April 2003) and B-144A (April and October 2003), in top-of-rock monitoring well B-144B (April and October 2003) and bedrock monitoring well B-143 (October 2003).

Exceedances of IGCLs for COCs in shallow overburden, top-of-rock, and bedrock groundwater are shown on Figures 13 through 18.

It should also be noted that for some samples the achievable laboratory detection limit for thallium and vanadium exceeded the corresponding IGCL in April and October 2003.

### **Downgradient Shallow Overburden Groundwater**

Fourteen shallow overburden monitoring wells located hydraulically downgradient of the SWDA and/or IWS-areas were sampled during the 2003 monitoring events including monitoring wells B-102A, B-103A, B-113A, B-118A, B119B, B-120A, B-126S, B-131B, B-133, B-136A, B-138A, B-139A, B-201OW and MW-4A.

Consistent with previous LTMP monitoring events, VOCs were not detected in the following wells: B-102A, B-113A, B-131B, and B201OW. Concentrations of total VOCs in the ten remaining shallow overburden monitoring wells ranged from 0.00039 mg/l at B-138A (April

2003) located west of SWDA to 8.948 mg/l at B-133 (April 2003) located downgradient of IWS-3. The following compounds were detected in samples collected from one or more shallow overburden groundwater locations: trichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, 4-methyl-2-pentanone (MIBK), acetone and methylene chloride.

Six shallow overburden monitoring wells (i.e., monitoring wells B-103A, B-133, B-136A, B-138A, B-139A, and MW-4A) were sampled for ethane, ethene, methane and propane during 2003. Ethane was detected at a concentration of 0.00030 mg/l in B-133 in April 2003. Methane was detected in samples collected from monitoring well B-138A at a concentration of 0.0014 and 0.012 mg/l in April and October 2003, respectively. Methane was also detected in B-133 at a concentration of 0.0077 mg/l (April 2003), B-139A at a concentration of 0.00024 mg/l (April 2003) and in a duplicate sample collected from B-139A (B139AQ) at a concentration of 0.00022 mg/l (April 2003).

Consistent with previous LTMP monitoring events, VOCs were reported at concentrations exceeding the respective IGCL for samples collected from select shallow overburden monitoring wells, as shown in Figures 13 and 14 and tabulated in Table 4. These VOCs and associated samples for both April and October 2003 include:

- trichloroethene in samples collected from B-103A, B-133, B-136A, B-139A, and B-139AQ;
- cis-1,2-dichloroethene in samples collected from B-133, B-139A and B-139AQ;
- methylene chloride in samples collected from B-133 (April 2003 only); and,
- tetrachloroethene in samples collected from B-103A, B-133, B-136A, B-139A and B-139AQ.

Also depicted on Figures 13 and 14 is the total halogenated VOC (HVOC) concentration, which represents select halogenated compounds, specifically those associated with chlorinated aliphatic compounds in addition to methylene chloride. As expected, shallow overburden monitoring

wells exhibiting the greatest impacts are located adjacent to the landfill and immediately downgradient of former industrial waste disposal area IWS-3.

TAL metals most frequently detected in the downgradient shallow overburden groundwater include aluminum, barium, calcium, chromium (total), iron, magnesium, manganese, nickel, potassium, and sodium. Concentrations of certain metals detected in shallow overburden groundwater samples downgradient of the landfill during 2003 were above IGCLs, as shown on Figures 13 and 14 and compiled in Table 4. These include:

- nickel in monitoring well B-102A (April 2003), B-138A (April 2003), B201OW (October 2003);
- lead in monitoring well B-102A (April 2003);
- thallium in monitoring well B-102A (April 2003);
- chromium in monitoring well B-102A (April 2003), B-133 (October 2003), B-138A (April 2003) and B-201OW (October 2003);
- manganese at monitoring well B-102A (April and October 2003), B-113A (October 2003) and B-201OW (October 2003); and
- vanadium at monitoring wells B-102A (April and October 2003), B-103A (April and October 2003), B-113A (October 2003), B-133 (October 2003); B-139AQ (April 2003), B-201OW (October 2003).

As noted previously, concentrations of vanadium exceeding the IGCL were detected in certain groundwater samples collected from shallow overburden background monitoring wells during 2003. Concentrations of manganese and thallium have also been historically detected at concentrations exceeding IGCLs in background monitoring wells. These data suggest that concentrations of these analytes may be due, in part, to background conditions and not representative of landfill-related impacts. Additionally, as discussed previously with EPA, the IGCL for vanadium (0.0002 mg/l) has been found not to be achievable for groundwater samples collected from the study area. Therefore, the analytical detection limit of vanadium exceeds the IGCL by approximately an order of magnitude (typically 0.0019 mg/l).

## **Downgradient Top-of-Rock Groundwater**

Fifteen downgradient top-of-rock monitoring wells were sampled during the 2003 monitoring events, including monitoring wells B-102B, B-103C, B-113BB, B-118B, B-119C, B-120C, B-125A, B-126A, B-131C, B-132, B-136B, B-137B, B-138B, B-139B, and B-145B.

Of these monitoring wells, VOCs were not detected in B-102B and B-103C. Concentrations of total VOCs in the thirteen remaining top-of-rock monitoring wells ranged from an estimated concentration of 0.0030 mg/l at B-119C (April and October 2003) west of the SWDA to 7.866 mg/l at B-136B (April 2003) located downgradient of IWS2. Volatile organic compounds commonly reported in these groundwater samples (i.e., detected in more than half the samples) include acetone, benzene, 1,2-dichloropropane, cis-1,2-dichloroethene, trichloroethene, 1,1-dichloroethane, 2-butanone, ethylbenzene, vinyl chloride, m/p-xylenes, toluene, and 4-methyl-2-pentanone. Other VOCs detected less frequently included 1,1,1-trichloroethane, tetrachloroethene, 1,2-dichloroethane, o-xylene, 2-hexanone, chloroethane, and trans-1,2-dichloroethene. Appendix B contains a complete set of data collected historically for the LTMP monitoring events.

Certain VOCs were reported present at concentrations above IGCLs in top-of-rock monitoring wells B-113BB, B-120C, B-125A, B-126A, B-131C, B-132, B-136B, B-137B, B-138B and B-145B as shown on Figures 15 and 16 and presented in Table 4. Also depicted on these figures are the total HVOC concentrations and associated areas of impact for the April and October 2003 monitoring events. Volatile organic compounds detected at concentrations above IGCLs include:

- trichloroethene in samples collected from B-113BB, B-120C, B-125A, B-126A, B-132, B-136B, and B-138B, and B-138BQ (duplicate of B-138B) during both the April and October 2003 sampling events;
- cis-1,2-dichloroethene in samples collected from B-113BB, B-120C, B-126A, B-132, B-136B, B-138B and B-138BQ during both the April and October 2003 monitoring events;
- vinyl chloride in samples collected from B-113BB (April and October 2003), B-126A (April 2003), B-136B (April and October 2003), B-138B (April and October 2003) and B-138BQ (April and October 2003);

- tetrachloroethene in samples collected from B-132 and B-136B during both the April and October 2003 sampling events);
- 1,2-dichloropropane in samples collected from B-113BB (October 2003), B-131C (April and October 2003), B-138B (April and October 2003), B-138BQ (April and October 2003) and B-145B (April and October 2003);
- benzene in a sample collected from B-136B (October 2003);
- 2-butanone in the samples collected from B-113BB (April and October 2003), B-131C (October 2003), B-137B (April 2003), and B-138B (April and October 2003) and B-138BQ (April and October 2003); and,
- 1,2-dichloroethane in samples collected from B-113BB (October 2003), B-131C (October 2003), B-137B (April and October 2003), B-138B (April and October 2003) and B-138BQ (April and October 2003).

Top-of-rock monitoring wells B-113BB, B-120C, B-125A, B-126A, B-131C, B-132, B-136B, B-137B, and B-138B were sampled for ethene, ethane, methane, and propane during the 2003 monitoring events. With the exception of B-132, methane was detected in samples collected from each of the above monitoring wells at concentrations ranging from 0.019 mg/l at monitoring well B-125A (April 2003) to 44 mg/l in a sample collected from monitoring well B-131C (October 2003). Ethene was detected in one or more samples collected from locations B-113BB, B-120C, B-131C, B-126A, B-136B, B-137B and B-138B at concentrations ranging from a concentration of 0.0018 mg/l in the sample collected from monitoring well location B-120C during April 2003 to 0.390 mg/l in the sample collected from monitoring well B-138B during October 2003. Ethane was detected in one or more samples collected from B-113BB, B-120C, B-126A, B-131C and B-136B ranging in concentration from 0.00062 mg/l at monitoring well B-120C (April 2003) to 0.032 mg/l at monitoring well B-113BB (October 2003). Propane was not detected in samples collected from top-of rock monitoring wells sampled during 2003. Results for ethene, ethane, propane, and methane in the top-of-rock monitoring wells are provided in Appendix B.

In accordance with the LTMP (as revised in the project record), samples were collected from three downgradient top-of-rock monitoring wells during the 2003 monitoring events for SVOC analyses, including B-113BB, B-131C, and B-138B. Di-n-butylphthalate, diethylthalate, 3/4-

methylphenol, 2-methylphenol, 2,4-dimethylphenol, and phenol were detected in samples collected from one or more of these three monitoring wells. 3-Methylphenol/4-methylphenol was the only SVOC detected at concentrations exceeding the IGCL of 0.2 mg/l. The SVOC results for these three monitoring wells during the 2003 monitoring events are presented in Appendix B along with the historical LTMP monitoring data.

Metals that were not detected in top-of-rock monitoring wells include antimony, beryllium, selenium and silver. The TAL metals most frequently detected include aluminum, barium, calcium, chromium, iron, magnesium, manganese, nickel, potassium, sodium and zinc. Concentrations of certain metals were detected at concentrations exceeding IGCLs in groundwater samples collected during the April and October 2003 monitoring events from downgradient top-of-rock monitoring wells as shown on Figures 15 (April 2003) and 16 (October 2003) and Table 4 (April and October 2003). Metals detected at concentrations above IGCLs include:

- nickel in the sample collected from monitoring wells B-102B (October 2003) and B-139B (April 2003);
- chromium in samples collected from monitoring well B-102B (October 2003) and B-139B (April 2003);
- lead in the sample collected from monitoring well B-139B during April 2003;
- vanadium in samples collected from monitoring wells B-102B (April and October 2003), B-113BB (April 2003), B-132 (April and October 2003), B-138B (April 2003), B-138BQ (April 2003), and B-139B (April and October 2003);
- manganese in samples collected from monitoring wells B-102B (April and October 2003), B-113BB (April and October 2003), B-119C (October 2003), B-125A (April and October 2003), B-132 (April and October 2003), B-136B (April and October 2003), B-137B (April and October 2003), B-138B (April and October 2003), B-138BQ (April and October 2003) and B-139B (April and October 2003); and
- thallium in the samples collected from monitoring well B-119C and B-139B during April 2003.

Analytical results for metals in groundwater samples are tabulated in Appendix B.

As with shallow overburden groundwater, the laboratory was unable to achieve detection limits at or below IGCLs for certain analytes during one or both sampling events performed during 2003. Analytes for which detection limits were higher than IGCLs include thallium and vanadium. Additionally, as discussed with EPA, the IGCL for vanadium (0.0002 mg/l) has been found not to be achievable for groundwater samples collected from the study area, and therefore the analytical detection limit of vanadium exceeds the IGCL by approximately an order of magnitude (typically 0.0019 mg/l).

### **Downgradient Bedrock Groundwater**

Nine downgradient monitoring wells were sampled during the 2003 monitoring events including monitoring wells B-118C, B-119D, B-120D, B-125B, B-126B, B-132B, B-136C, B-139C, and B-145C.

Volatile organic compounds were detected in all nine bedrock monitoring wells during 2003. Concentrations of total VOCs detected in the bedrock monitoring wells ranged from 0.00383 mg/l (April 2003) at monitoring well B-139C located south of the landfill to 1.485 mg/l (April 2003) at monitoring well B-136C located downgradient of IWS-3 and the former IWS-2 location. Volatile organic compounds most commonly reported in these groundwater samples included 1,1-dichloroethane, acetone, cis-1,2-dichloroethene, trichloroethene and vinyl chloride. Other VOCs detected in bedrock monitoring wells include the following: 1,1,1-trichloroethane, benzene, carbon disulfide, 1,2-dichloroethane, methylene chloride, 1,2-dichloropropane, trans-1,2-dichloroethene, 2-butanone, 2-hexanone, tetrachloroethene, 4-methyl-2-pentanone, chloroethane, ethylbenzene, toluene, and xylenes.

Figures 17 (April 2003) and 18 (October 2003) depicts the distribution of VOCs reported at concentrations above IGCLs in the bedrock monitoring wells, total HVOC concentrations, and the associated area of impact. Specific VOCs detected at concentrations above IGCLs are provided in Table 4 and include the following:

- trichloroethene in samples collected from monitoring wells B-120D (April and October 2003), B-125B (April and October 2003), B-126B (April and October 2003), a duplicate

of B-126B (B-126BQ) (April and October 2003), B-132B (October 2003), and B-136C (April and October 2003);

- cis-1,2-dichloroethene in samples collected from monitoring wells B-120D (April and October 2003), B-125B (October 2003), B-126B (April 2003), B-126BQ (April 2003), B-132B (April and October 2003), and B-136C (April and October 2003);
- vinyl chloride in samples collected from monitoring wells B-120D (April and October 2003), B-125B (April and October 2003), B-126B (April 2003), B-126BQ (April 2003), and B-136C during the April and October 2003 monitoring events;
- 1,2-dichloroethane in the sample collected from monitoring well B-136C during October 2003;
- 1,2-dichloropropane in samples collected from monitoring wells B-136C and B-145C during the April and October 2003 monitoring events; and,
- tetrachloroethene in the samples collected from monitoring well B-132B during the April and October 2003 monitoring events.

Five bedrock wells were sampled for ethene, ethane, methane, and propane, including B-120D, B-125B, B-126B, B-132B, and B-136C. Similar to previous monitoring events, methane was detected in each of these bedrock monitoring wells except B-132B. Ethene was detected in four of the five monitoring wells during the 2003 sampling events with the exception of monitoring well B-126B. Concentrations of ethene ranged from 0.0019 mg/l at monitoring well B-125B to 0.120 mg/l at monitoring well B-136C. Detectable levels of ethane were reported in samples collected from monitoring wells B-120D, B-132B, and B-136C ranging from 0.0036 mg/l at B-132B to 0.340 mg/l at B-136C. Analytical results for VOCs and ethane, ethylene, and methane detected in groundwater samples collected from bedrock monitoring wells during 2003 are provided as part of Appendix B.

Antimony, copper and thallium were not detected in bedrock groundwater samples collected during the 2003 monitoring events. Metals most commonly detected include aluminum, barium, calcium, chromium, iron, magnesium, manganese, nickel, potassium and sodium and vanadium.

Concentrations of certain metals detected in bedrock groundwater samples collected during the 2003 monitoring events were above IGCLs, as shown on Figures 17 (April 2003) and 18

(October 2003) and tabulated in Table 4 (April and October 2003). Metals detected at concentrations above IGCLs in bedrock groundwater during one or both of the 2003 LTMP monitoring events include:

- manganese in samples collected from monitoring wells B-125B and B-136C during both the April and October 2003 sampling events; and,
- vanadium in samples collected from monitoring wells B-119D (April and October 2003), B-126B (April 2003), B-126BQ (April 2003) and B-136C (April 2003).

Historical vanadium results are generally lower as compared to results collected from upgradient bedrock monitoring well B-143. Based upon these data, concentrations of vanadium exceeding the IGCL in bedrock groundwater downgradient of the landfill, in all likelihood, reflect background study area conditions and not impacts related to the landfill.

### **3.2.3 Geochemical Trend Analyses**

Trend plots were developed for monitoring wells, which exhibited concentrations of VOCs above IGCLs during 2003, to assess concentration trends for constituents of interest in study area groundwater. Copies of the trend plots are included in Appendix C. A review of the trend plots indicates the following:

- Concentrations of constituents of interest which exceed IGCLs in monitoring wells located east/southeast of the SWDA (i.e., monitoring wells B-103A, B-132, B-132B, B-133, and B-139A) are decreasing. These data indicate that the remedial actions completed at IWS-2, IWS-3 and the SWDA are limiting additional mass flux of constituents of interest into groundwater and that concentrations of VOCs in groundwater downgradient of the IWS-3 source area are decreasing through natural attenuation processes including dispersion, sorption, and biodegradation.
- Several patterns were noted at monitoring wells located west and southwest of the SWDA, which indicate continued attenuation of chlorinated VOCs. Specifically, concentrations of parent compounds including tetrachloroethene and trichloroethene as well as the associated breakdown product cis-1,2-dichloroethene, exhibit decreasing concentration trends with increasing concentrations of the daughter product vinyl chloride formed during biodegradation of cis-1,2-dichloroethene. For example, concentrations of cis-1,2-dichloroethene are decreasing at monitoring wells B-113BB and B-138B whereas concentrations of vinyl chloride formed during biodegradation of cis-1,2-dichloroethene are increasing at these same locations. Non-chlorinated VOCs

exceeding IGCLs, (specifically 2-butanone) were detected during 2003 at monitoring wells B-113BB, B-131C, B-137B, and B-138B. Concentrations of 2-butanone appear to be increasing at monitoring wells B-113BB and B-138B located adjacent to the SWDA and are decreasing at monitoring wells B-131C and B-137B located downgradient of the SWDA.

- Concentrations of VOCs exceeding IGCLs are generally stable or increasing within the previously delineated extent of impacts south of the landfill.
- Concentrations of compounds exceeding IGCLs at monitoring well B-136B located downgradient of former IWS-2 have been decreasing since October 2002, approximately two years after impacted soil was excavated from IWS-2 for disposal. These data indicate that the remedial action at IWS-2 mobilized VOCs into groundwater, and that those mobilized VOCs are diminishing with time through attenuation processes including dispersion and sorption and, to a limited extent, biodegradation based upon the presence of ethene and ethane in impacted monitoring wells downgradient of the landfill.

### **3.3 SURFACE WATER QUALITY**

Surface water samples were collected from stations SW01, SW02 and SW03 within the unnamed stream during the 2003 monitoring events and were analyzed for VOCs and TAL metals. As previously outlined in a letter to the EPA dated September 25, 2003, three additional one-time surface water and sediment samples were collected from the Passumpsic River in order to further characterize the river condition relative to the unnamed stream. Surface water samples were collected approximately 100 feet upstream of the confluence of the unnamed stream and Passumpsic River (SW04), at the confluence (SW05), and approximately 100 feet downgradient of the confluence (SW06). These locations are depicted on Figure 2. Data from these three additional surface water stations are discussed below in comparison with the data collected from those stations located along the unnamed stream. Analytical results for the samples are presented as part of Appendix B.

Volatile organic compounds were not detected in surface water samples collected from the three new stations (SW04, SW05 and SW06) located within the Passumpsic River. Carbon disulfide was the only VOC detected in samples collected from sampling station SW01, located upgradient of the SWDA area, during the April and October 2003 monitoring events. Volatile organic compounds were, however, detected in the samples collected from surface water

sampling stations SW02 and SW03. Concentrations of total VOCs reported present in samples collected from these surface water monitoring stations ranged from 0.00063 mg/l in a sample collected from station SW03 during October 2003 to 0.6333 mg/l in a sample collected from station SW02 during October 2003. Specific VOCs detected in one or more samples included the following: carbon disulfide, acetone, 1,1,1-trichloroethane, methylene chloride, tetrachloroethene, trichloroethene, vinyl chloride, cis-1,2-dichloroethene, and trans-1,2-dichloroethene. These compounds were all detected at concentrations that are orders of magnitude below the Surface Water Criteria established for the project in the Risk Assessment<sup>2</sup>.

Of the 20 TAL metals analyzed for in surface water, aluminum, barium, calcium, chromium, iron, magnesium, manganese, nickel, potassium, and sodium were detected most frequently. The EPA has published acute and chronic AWQC for metals that are considered to be protective of freshwater ecological receptors. The AWQC for certain metals (i.e., cadmium, chromium, copper, lead, nickel, silver and zinc) is dependent upon the hardness of the water sample, and for these compounds the AWQC was adjusted based on sample hardness<sup>3</sup>. Both the acute and chronic AWQC for each of these metals was calculated and the more conservative value reported in the data tables. With the exception of lead, cobalt and zinc in samples collected from the unnamed stream upstream from the landfill (i.e., SW01) during the April sampling event, metals detected in the samples collected from the surface water stations within the unnamed stream and the Passumpsic River did not exceed AWQC. Surface water sample results that exceed the AWQC have been provided in Table 5.

### **3.4 SEDIMENT QUALITY**

Sediment samples were collected from three sediment locations (i.e., SD01 through SD03) during the 2003 monitoring event co-located with surface water sampling stations SW01 through SW03. In addition, as previously outlined in Section 3.3, three additional one-time sediment samples were collected from the Passumpsic River in order to further characterize the sediments

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<sup>2</sup> TRC Environmental Corporation (1993). Final Risk Assessment, Parker Landfill, Lyndon, Vermont. (May 27, 1993)

<sup>3</sup> EPA (1999). National Recommended Water Quality Criteria – Correction. Office of Water. EPA 822-Z-99-001.

within the riverbed relative to the unnamed stream. Sediment sample locations were co-located with the surface water stations (SD04, SD05 and SD06). These locations are depicted on Figure 2. Data from these three additional sediment locations are discussed below in comparison with the data collected from those locations located along the unnamed stream. Samples collected from each location were analyzed for VOCs and TAL metals. Analytical results for the samples are presented as part of Appendix B.

Twelve VOCs were detected in one or more of the sediment samples collected during the April and/or October 2003 monitoring events. These VOCs include 1,1,1-trichloroethane, 2-butanone, acetone, ethylbenzene, carbon disulfide, trichloroethene, o-xylene, m/p-xylenes, styrene, tetrachloroethene, toluene, and cis-1,2-dichloroethene. Total concentrations of VOCs detected in the sediment samples ranged from 0.0056 milligrams per kilogram (mg/kg) in the sediment sample collected from downgradient location SD03 during the April 2003 monitoring event to 0.3343 mg/kg in the sediment sample collected from the upgradient location SD01 during April 2003. During the October 2003 sampling event, sediment samples collected from the upstream river location, SD04, had the highest concentration (0.3159 mg/kg) of VOCs detected of the six sediment samples. Concentrations of these VOCs were evaluated using sediment criteria previously established for contaminants of concern at the Parker Landfill. Based upon these AWQC-based sediment quality criteria, acetone, detected in samples collected from upgradient sample SD01 (April and October 2003) and upstream sample SD04 (October 2003) at concentrations ranging from 0.190 to 0.39 mg/kg was the sole organic compound to exceed the established chronic criteria (i.e., 0.17 mg/kg). Acetone is not a VOC identified in the downgradient study area groundwater. The detected concentrations of acetone were within the range of concentrations reported during the Remedial Investigation. Other VOCs detected in the sediment samples did not exceed sediment quality criteria. Sediment data that exceeded the sediment criteria are provided in Table 6.

Seventeen TAL metals were consistently detected in samples collected from each sediment sampling location during both the 2003 monitoring events. These metals included aluminum, arsenic, barium, calcium, copper, cobalt, chromium, iron, lead, magnesium, manganese, mercury, nickel, potassium, sodium, vanadium and zinc. Metals that were detected in sediment

samples collected from at least one sediment location included cadmium, thallium and selenium. Antimony, beryllium and silver were not detected in the samples collected from the sediment locations. Sediment data that exceeded the sediment criteria are tabulated in Table 6.

Concentrations of certain metals detected in these sediment samples were above the Sediment Quality Guidelines established in the Risk Assessment. Metals that were reported present at concentrations above the guidance include:

- barium in sediment samples SD01, SD02, SD02Q (duplicate of SD02Q) and SD03 during both the April and October 2003 sampling events, in addition to SD04, SD05 and SD06 during October 2003;
- iron in the samples collected from location SD01 (October 2003) and SD04 (October 2003);
- manganese in samples collected from locations SD01, SD02, SD02Q (duplicate of SD02Q) and SD03 during both the April and October 2003 sampling events, in addition to SD04 and SD05 during October 2003; and,
- nickel in the sample collected from location SD04 (October 2003).

These compounds are not identified at elevated concentrations in downgradient study area groundwater.

Concentrations of these inorganic compounds were generally detected at concentrations similar to the sediment samples collected and tabulated in the RI Report. Sediment sample locations SD01 and SD04 exhibited elevated concentrations in comparison with RI sediment data. As previously stated, both of these samples are in upgradient locations relative to the landfill and confluence, respectively. The variability evident in the data is most likely due to both spatial and seasonal variation. Sediment sample locations SD01, SD02 and SD03 will continue to be monitored during subsequent LTMP monitoring events to further assess the data.

## **4.0 CONCLUSIONS**

Two sampling events were performed during 2003 in accordance with the LTMP:

1. April 2003 sampling of 45 monitoring wells, three surface water locations, and three sediment locations;
2. October 2003 sampling of 45 monitoring wells, six surface water locations, and six sediment locations; and,
3. Quarterly water level monitoring of study area monitoring wells and Passumpsic River staff gage (January, April, July, October).

Samples collected during these events were analyzed for VOCs and total TAL metals. A subset of monitoring wells was also analyzed for ethene, ethane, propane, and methane; and SVOCs. Data generated from the 2003 monitoring events were validated following a modified EPA Region I's Tier I data validation process. Validated analytical results were incorporated into the project database and are presented in, and submitted with, this report.

The following general conclusions have been developed based upon data obtained during study area monitoring.

### **Groundwater Flow**

- Water level data collected from monitoring wells during 2003 monitoring events indicate that shallow overburden, deep overburden, and bedrock groundwater at the Parker Landfill generally flows to the west and southwest towards the Passumpsic River. This flow direction is consistent with groundwater flow patterns identified during the RI and from previous LTMP data analyses.
- Groundwater downgradient from the Parker Landfill is discharging to the Passumpsic River as evidenced by 1) the lower river surface elevation compared to the adjacent potentiometric and phreatic aquifer levels (i.e., B-120, B-126, B-140); 2) the presence of significantly higher terrain and bedrock outcrops immediately west of the Passumpsic River; and 3) perched surface water immediately west of the Passumpsic River indicative of an elevated water table elevation in this area.

## **Groundwater Quality**

- Organic compounds (VOCs and SVOCs) were reported at concentrations exceeding the respective IGCL for samples collected during 2003. These VOCs are similar to those identified in 2002 and include: trichloroethene, cis-1,2-dichloroethene, tetrachloroethene, vinyl chloride, methylene chloride, benzene, 1,2-dichloropropane, 2-butanone, 1,1-dichloroethane, 1,2-dichloroethane and 3/4-Methylphenol.
- Concentrations of manganese, thallium, and vanadium exceeding the IGCL were detected in certain groundwater samples collected from background monitoring wells during 2003. These data suggest that concentrations of these analytes may be due, in part, to background conditions and not representative of landfill-related impacts.
- Inorganic compounds were reported at concentrations exceeding the respective IGCL for samples collected during 2003. These metals are similar to those detected in 2002 and include: nickel, chromium, lead, manganese, thallium, and vanadium.
- Chlorinated VOCs are detected in shallow overburden groundwater in areas proximal to the landfill, downgradient of the IWS-3 and former IWS-2 disposal areas. The proposed remedial action for this particular area involves the installation of a permeable reactive barrier (PRB). Although decreasing trends in chlorinated compounds have been discerned in the LTMP data set, the construction of a PRB would limit the further mass flux from the source area and expedite restoration of study area groundwater.

## **Geochemical Trend Analyses**

- Concentrations of chlorinated VOCs are generally either decreasing or stable in monitoring wells located east/southeast of the SWDA.
- Several wells located downgradient of the SWDA and IWS-1 exhibit decreasing or stable concentrations of parent compounds with increasing concentrations of daughter products formed during biodegradation of the parent compound.
- Concentrations of some chlorinated VOCs at select monitoring locations located south of the landfill and former IWS-2 area exhibit increasing concentration trends. This area is the focus of a pilot-study remedial action involving enhanced natural attenuation to remediate groundwater south of the landfill.

## **Surface Water Quality**

- Volatile organic compounds were detected in the samples collected from surface water sampling stations SW01, SW02 and SW03. Specific VOCs detected included the following: carbon disulfide, 1,1,1-trichloroethane, acetone, tetrachloroethene, trichloroethene, vinyl chloride, cis-1,2-dichloroethene, methylene chloride and trans-1,2-dichloroethene. These compounds were all detected at concentrations below surface water criteria.
- Volatile organic compounds were not detected in samples collected from the three new surface water stations located within the Passumpsic River (i.e., SW04, SW05 and SW06).
- With the exception of lead, cobalt and zinc detected in the sample collected from the unnamed stream upstream from the landfill during April 2003 (SW01), metals detected in the samples collected from the surface water stations, including the three new stations within the Passumpsic River, did not exceed AWQCs.

## **Sediment Quality**

- Twelve VOCs were detected in sediment samples, with concentrations of acetone detected in upgradient sample SD01 and upstream sample SD04, exceeding the chronic criteria for sediment established for this compound. The detected concentrations of acetone were within the range of concentrations reported during the Remedial Investigation.
- Concentrations of barium, iron, nickel and manganese detected in some sediment samples collected from both upgradient and downgradient locations exceeded sediment quality guidelines. Nickel and iron were both detected at concentrations within the range reported during the RI. Slightly elevated concentrations of barium and manganese were observed, however, this variation in the data is most likely due to both spatial and seasonal variation.

## **TABLES**

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO NUMBER	REFERENCE ELEVATION (feet)	CONSTR MAT'L TYPE	SCREENED INTERVAL (feet)		SCREENED FORMATION	SOURCE	28-Aug-98		25-Sep-98		16-Oct-98	
							DTW (feet)	WSE (feet)	DTW (feet)	WSE (feet)	DTW (feet)	WSE (feet)
<b>Area East of Landfill</b>												
101A	818.39	2-IN PVC	50	65	BRIDGE	BORING LOG	64.36	754.03	DRY	--	DRY	--
101B	818.21	2-IN PVC	85	95	TOR	BORING LOG	67.12	751.09	68.25	749.96	68.62	749.59
102A	790.08	2-IN PVC	44.7	59.7	BRIDGE	BORING LOG	45.42	744.66	45.99	744.09	46.32	743.76
102B	790.37	2-IN PVC	105.8	115.7	TOR	BORING LOG	50.75	739.62	51.59	738.78	51.90	738.47
103A	794.61	2-IN PVC	47	62	BRIDGE	BORING LOG	51.38	743.23	51.58	743.03	51.86	742.75
103B	794.20	2-IN PVC	86.5	96.5	INTERMED	BORING LOG	70.35	723.85	70.75	723.45	71.02	723.18
103C	794.55	2-IN PVC	124.1	134.1	TOR	BORING LOG	70.59	723.96	71.01	723.54	71.28	723.27
132	732.20	2-IN PVC	52.7	62.7	TOR	BORING LOG	7.75	724.45	7.82	724.38	7.92	724.28
132B	732.75	6-IN OC	60.76	67.76	BEDROCK	BORING LOG	8.22	724.53	8.41	724.34	8.48	724.27
133	746.79	2-IN PVC	23.7	33.7	TOP DISTAL	BORING LOG	8.76	738.03	9.18	737.61	9.13	737.66
143	763.78	6-IN OC	80.62	122.42	BEDROCK	BORING LOG	31.86	731.92	32.32	731.46	32.46	731.32
139A	757.20	2-IN PVC	34	44	BRIDGE	BORING LOG	25.65	731.55	25.16	732.04	25.28	731.92
139B	757.03	2-IN PVC	87.7	98.2	TOR	BORING LOG	39.67	717.36	30.02	727.01	30.21	726.82
139C	757.25	2-IN PVC	99.7	124.7	BEDROCK	BORING LOG	39.88	717.37	30.20	727.05	30.45	726.80
139I	757.19	2-IN PVC	62.05	72.05	OVERBURDEN	BORING LOG	27.30	729.89	27.80	729.39	27.95	729.24
151B	746.71	2-IN PVC	36	41	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
151C	746.88	2-IN PVC	50	55	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
152A	745.22	2-IN PVC	10	20	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
153A	743.02	2-IN PVC	5	10	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
153B	743.09	2-IN PVC	10	20	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
154A	745.61	2-IN PVC	7.5	17.5	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
155A	746.34	2-IN PVC	8	14	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
155B	746.45	2-IN PVC	22	26	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
156A	767.98	2-IN PVC	45	55	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
157A	772.88	2-IN PVC	40	50	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
158A	781.67	2-IN PVC	50	60	OVERBURDEN	BORING LOG	NI	--	NI	--	NI	--
MW-10	746.03	2-IN PVC	17.2	27.2	ALLUVIUM	RI: TBL 2-10	7.37	738.66	7.74	738.29	7.71	738.32
<b>Area North of Landfill</b>												
111R	830.26	2-IN PVC	145.6	155.6	TOR	BORING LOG	>102	--	131.08	699.18	131.30	698.96
112A (east)	831.91	2-IN PVC	34.8	49.8	BRIDGE	BORING LOG	NM	--	49.97	781.94	50.77	781.14
112A (west)	832.27	2-IN PVC	--	26.9	BRIDGE	BORING LOG	NM	--	DRY	--	DRY	--
112B	832.99	2-IN PVC	140.84	151.05	TOR	BORING LOG	>102	--	127.24	705.75	127.46	705.53
112B	833.00	2-IN PVC	140.84	151.05	TOR	BORING LOG						
MW-8A	790.05	2-IN PVC	7.2	17.2	ALLUVIUM	RI: TBL 2-10	NM	--	5.32	784.73	5.21	784.84
<b>Area South of Landfill</b>												
120A	716.69	2-IN PVC	20.1	35.1	BRIDGE	BORING LOG	24.10	692.59	25.00	691.69	24.70	691.99
120B	716.49	2-IN PVC	57.5	67.5	INTERMED	BORING LOG	24.99	691.50	24.85	691.64	24.54	691.95
120C	716.17	4-IN PVC	98	108	TOR	BORING LOG	24.83	691.34	24.72	691.45	24.38	691.79
120D	716.98	1.5-IN PVC	113.45	133.45	BEDROCK	BORING LOG	25.65	691.33	25.50	691.48	25.14	691.84
120I	717.23	CASING	102.7	267.7	BEDROCK	RI: TBL 2-10	23.88	--	24.22	--	NM	--
121A	704.60	2-IN PVC	91.65	101.65	INTERMED	BORING LOG	13.18	691.42	13.01	691.59	12.58	692.02
121B	704.09	2-IN PVC	131.65	141.65	TOR	BORING LOG	12.66	691.43	12.49	691.60	12.05	692.04
121-OW	706.39	2-IN PVC	15.8	30.8	BRIDGE	BORING LOG	14.87	691.52	14.75	691.64	14.44	691.95
122	715.62	2-IN PVC	63.9	73.9	TOR	BORING LOG	22.17	693.45	22.48	693.14	22.48	693.14
125A	711.55	2-IN PVC	61.2	71.2	TOR	BORING LOG	16.73	694.82	16.85	694.70	16.95	694.60
125B	712.50	6-IN OC	75.42	123.92	BEDROCK	BORING LOG	17.95	694.55	18.06	694.44	18.04	694.46
MW-4A	712.10	4-IN STEEL	16.9	31.9	PROXIMAL	RI: TBL 2-10	NM	--	NM	--	NM	--
126A	699.38	2-IN PVC	92.5	102.5	TOR	BORING LOG	8.02	691.36	7.85	691.53	7.09	692.29
126B	697.85	5-IN IC	107.14	282.14	BEDROCK	BORING LOG	7.48	690.37	6.35	691.50	5.65	692.20
126B	698.65	2-IN PVC	107.14	282.14	BEDROCK	BORING LOG						
126S	699.20	2-IN PVC	6	16	SHALLOW	BORING LOG	NI	--	NI	--	NI	--
136A	714.57	2-IN PVC	15.3	30.3	BRIDGE	BORING LOG	20.70	693.87	20.80	693.77	20.88	693.69
136B	714.35	2-IN PVC	117.55	127.55	TOR	BORING LOG	20.49	693.86	20.56	693.79	20.67	693.68
136C	714.22	5-IN OC	138.65	194.65	BEDROCK	BORING LOG	20.65	693.57	20.70	693.52	20.77	693.45
201-OW	704.36	2-IN PVC	9.3	24.3	BRIDGE	BORING LOG	10.87	693.49	10.96	693.40	10.60	693.76
202-OW	711.18	2-IN PVC	17.7	32.7	BRIDGE	BORING LOG	18.20	692.98	18.31	692.87	18.19	692.99
144A	760.38	2-IN PVC	26	36	SHALLOW	BORING LOG	NI	--	NI	--	NI	--
144B	760.14	2-IN PVC	55.4	65.4	TOR	BORING LOG	NI	--	NI	--	NI	--
144C	760.35	2-IN PVC	89	99	BEDROCK	BORING LOG	NI	--	NI	--	NI	--
146B	712.57	2-IN PVC	145.5	155.5	TOR	BORING LOG	NI	--	NI	--	NI	--
147B	720.40	2-IN PVC	122	132	TOR	BORING LOG	NI	--	NI	--	NI	--
148B	734.46	2-IN PVC	139.5	149.5	TOR	BORING LOG	NI	--	NI	--	NI	--
149B	760.18	2-IN PVC	155	165	TOR	BORING LOG	NI	--	NI	--	NI	--
150B	780.04	2-IN PVC	176.2	186.2	TOR	BORING LOG	NI	--	NI	--	NI	--
PR-1	692.69											

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**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	6-Jan-99		13-Jan-99		24-Feb-99		29-Mar-99		29-Apr-99		20-May-99	
		DTW (feet)	WSE (feet)										
<b>Area East of Landfill</b>													
101A	818.39	DRY	--	DRY	--	DRY	--	DRY	--	63.84	754.55	DRY	--
101B	818.21	NM	--	69.40	748.81	68.45	749.76	67.85	750.36	65.93	752.28	66.31	751.90
102A	790.08	NM	--	47.91	742.17	47.09	742.99	47.38	742.70	46.45	743.63	45.31	744.77
102B	790.37	NM	--	52.35	738.02	52.15	738.22	50.73	739.64	49.98	740.39	50.26	740.11
103A	794.61	52.44	742.17	52.70	741.91	52.70	741.91	52.32	742.29	52.46	742.15	52.30	742.31
103B	794.20	NM	--	71.46	722.74	71.42	722.78	70.80	723.40	70.40	723.80	70.27	723.93
103C	794.55	71.38	723.17	71.71	722.84	71.69	722.86	71.01	723.54	70.62	723.93	70.50	724.05
132	732.20	8.20	724.00	9.55	722.65	8.75	723.45	8.50	723.70	8.21	723.99	8.10	724.10
132B	732.75	8.80	723.95	8.85	723.90	8.70	724.05	8.18	724.57	8.16	724.59	8.23	724.52
133	746.79	NM	--	9.55	737.24	8.90	737.89	8.42	738.37	8.99	737.80	8.75	738.04
143	763.78	NM	--	32.42	731.36	32.78	731.00	31.87	731.91	31.45	732.33	31.66	732.12
139A	757.20	26.28	730.92	26.39	730.81	25.89	731.31	24.97	732.23	24.53	732.67	24.49	732.71
139B	757.03	NM	--	30.92	726.11	30.57	726.46	29.74	727.29	29.51	727.52	29.51	727.52
139C	757.25	30.86	726.39	30.08	718.17	30.81	726.44	29.95	727.30	29.75	727.50	29.72	727.53
139I	757.19	NM	--	NM	--	28.41	728.78	27.55	729.64	27.30	729.89	27.30	729.89
151B	746.71	NI	--										
151C	746.88	NI	--										
152A	745.22	NI	--										
153A	743.02	NI	--										
153B	743.09	NI	--										
154A	745.61	NI	--										
155A	746.34	NI	--										
155B	746.45	NI	--										
156A	767.98	NI	--										
157A	772.88	NI	--										
158A	781.67	NI	--										
MW-10	746.03	NM	--	7.88	738.15	7.09	738.94	6.78	739.25	7.52	738.51	7.26	738.77
<b>Area North of Landfill</b>													
111R	830.26	NM	--	131.39	698.87	131.70	698.56	131.25	699.01	131.29	698.97	130.97	699.29
112A (east)	831.91	NM	--	51.00	780.91	50.33	781.58	50.06	781.85	50.34	781.57	50.32	781.59
112A (west)	832.27	--	--	DRY	--	DRY	--	DRY	--	DRY	--	26.87	805.40
112B	832.99	128.45	704.54	127.50	705.49	127.81	705.18	127.31	705.68	127.40	705.59	126.91	706.08
112B	833.00												
MW-8A	790.05	NM	--	NM	--	5.55	784.50	4.97	785.08	5.70	784.35	4.85	785.20
<b>Area South of Landfill</b>													
120A	716.69	NM	--	25.91	690.78	25.92	690.77	25.28	691.41	25.40	691.29	25.41	691.28
120B	716.49	25.62	690.87	25.79	690.70	25.78	690.71	25.13	691.36	25.28	691.21	25.11	691.38
120C	716.17	NM	--	26.52	689.65	26.50	689.67	25.85	690.32	25.08	691.09	24.80	691.37
120D	716.98	NM	--	NM	--	26.33	690.65	25.68	691.30	25.89	691.09	25.59	691.39
120I	717.23	--	--	24.76	--	24.80	--	24.28	--	24.28	--	24.50	--
121A	704.60	NM	--	14.42	690.18	14.50	690.10	13.44	691.16	13.98	690.62	14.15	690.45
121B	704.09	NM	--	13.90	690.19	13.96	690.13	12.91	691.18	13.45	690.64	13.62	690.47
121-OW	706.39	NM	--	16.09	690.30	16.20	690.19	15.26	691.13	15.70	690.69	16.07	690.32
122	715.62	NM	--	23.97	691.65	23.79	691.83	23.83	691.79	23.80	691.82	24.12	691.50
125A	711.55	17.48	694.07	17.64	693.91	17.80	693.75	17.25	694.30	16.12	695.43	17.41	694.14
125B	712.50	18.71	693.79	19.46	693.04	19.48	693.02	19.15	693.35	18.85	693.65	19.16	693.34
MW-4A	712.10	NM	--	NM	--	17.76	694.34	NM	--	NM	--	17.27	694.83
126A	699.38	8.92	690.46	9.07	690.31	9.07	690.31	8.00	691.38	8.61	690.77	8.14	691.24
126B	697.85	8.26	689.59	8.45	689.40	7.52	690.33	7.41	690.44	7.07	690.78	6.60	691.25
126B	698.65												
126S	699.20	NI	--										
136A	714.57	NM	--	21.56	693.01	NM	--	21.40	693.17	20.99	693.58	21.31	693.26
136B	714.35	21.20	693.15	21.41	692.94	21.42	692.93	21.18	693.17	20.79	693.56	21.09	693.26
136C	714.22	21.41	692.81	21.66	692.56	21.65	692.57	21.35	692.87	21.03	693.19	21.30	692.92
201-OW	704.36	NM	--	12.73	691.63	12.80	691.56	12.00	692.36	12.07	692.29	12.22	692.14
202-OW	711.18	NM	--	19.61	691.57	19.91	691.27	19.60	691.58	19.46	691.72	19.81	691.37
144A	760.38	NI	--										
144B	760.14	NI	--										
144C	760.35	NI	--										
146B	712.57	NI	--										
147B	720.40	NI	--										
148B	734.46	NI	--										
149B	760.18	NI	--										
150B	780.04	NI	--										
PR-1	692.69												

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**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO NUMBER	REFERENCE ELEVATION (feet)	19-Jun-99		28-Jul-99		17-Aug-99		14-Sep-99		8-Oct-99		29-Nov-99	
		DTW (feet)	WSE (feet)										
<b>Area East of Landfill</b>													
101A	818.39	DRY	--										
101B	818.21	67.83	750.38	69.91	748.30	70.74	747.47	71.68	746.53	69.60	748.61	69.11	749.10
102A	790.08	47.05	743.03	47.06	743.02	47.74	742.34	48.45	741.63	48.11	741.97	47.91	742.17
102B	790.37	51.50	738.87	52.94	737.43	53.56	736.81	54.30	736.07	53.38	736.99	52.57	737.80
103A	794.61	52.60	742.01	53.18	741.43	53.51	741.10	53.24	741.37	54.18	740.43	54.32	740.29
103B	794.20	70.91	723.29	71.58	722.62	71.99	722.21	72.65	721.55	72.57	721.63	72.35	721.85
103C	794.55	71.15	723.40	71.82	722.73	72.25	722.30	72.90	721.65	72.80	721.75	72.57	721.98
132	732.20	8.48	723.72	8.85	723.35	9.01	723.19	9.30	722.90	9.05	723.15	9.03	723.17
132B	732.75	8.50	724.25	8.78	723.97	8.98	723.77	9.30	723.45	9.08	723.67	9.18	723.57
133	746.79	9.14	737.65	10.07	736.72	10.61	736.18	11.59	735.20	10.95	735.84	10.87	735.92
143	763.78	32.36	731.42	33.30	730.48	33.74	730.04	34.25	729.53	33.49	730.29	33.31	730.47
139A	757.20	25.22	731.98	26.36	730.84	26.86	730.34	27.69	729.51	27.52	729.68	27.68	729.52
139B	757.03	30.15	726.88	30.79	726.24	31.09	725.94	31.62	725.41	31.41	725.62	31.38	725.65
139C	757.25	30.35	726.90	31.01	726.24	31.30	725.95	31.85	725.40	31.61	725.64	31.60	725.65
139I	757.19	27.91	729.28	28.71	728.48	29.10	728.09	29.71	727.48	29.52	727.67	29.55	727.64
151B	746.71	NI	--										
151C	746.88	NI	--										
152A	745.22	NI	--										
153A	743.02	NI	--										
153B	743.09	NI	--										
154A	745.61	NI	--										
155A	746.34	NI	--										
155B	746.45	NI	--										
156A	767.98	NI	--										
157A	772.88	NI	--										
158A	781.67	NI	--										
MW-10	746.03	7.69	738.34	8.60	737.43	9.25	736.78	10.22	735.81	9.44	736.59	9.30	736.73
<b>Area North of Landfill</b>													
111R	830.26	131.58	698.68	131.37	698.89	131.55	698.71	131.81	698.45	NM	--	NM	--
112A (east)	831.91	DRY	--	NM	--	DRY	--	50.35	781.56	DRY	--	50.38	781.53
112A (west)	832.27	DRY	--	NM	--	DRY	--	DRY	--	26.90	805.37	DRY	--
112B	832.99	127.46	705.53	127.41	705.58	127.71	705.28	128.08	704.91	NM	--	NM	--
112B	833.00												
MW-8A	790.05	5.39	784.66	5.70	784.35	5.78	784.27	5.85	784.20	5.75	784.30	5.70	784.35
<b>Area South of Landfill</b>													
120A	716.69	26.00	690.69	25.95	690.74	26.01	690.68	26.55	690.14	26.35	690.34	25.50	691.19
120B	716.49	25.80	690.69	25.75	690.74	25.80	690.69	25.85	690.64	26.20	690.29	25.31	691.18
120C	716.17	25.52	690.65	25.52	690.65	25.58	690.59	25.60	690.57	26.02	690.15	24.99	691.18
120D	716.98	25.38	691.60	26.35	690.63	26.40	690.58	26.42	690.56	26.87	690.11	25.79	691.19
120I	717.23	24.92	--	24.96	--	24.85	--	25.08	--	25.16	--	24.74	--
121A	704.60	NM	--	14.86	689.74	14.91	689.69	15.03	689.57	15.00	689.60	14.53	690.07
121B	704.09	14.26	689.83	14.34	689.75	14.39	689.70	14.51	689.58	14.47	689.62	14.01	690.08
121-OW	706.39	16.53	689.86	16.66	689.73	16.72	689.67	16.83	689.56	16.68	689.71	16.38	690.01
122	715.62	24.45	691.17	24.80	690.82	24.95	690.67	25.23	690.39	25.17	690.45	24.98	690.64
125A	711.55	17.84	693.71	17.99	693.56	18.02	693.53	18.30	693.25	18.13	693.42	18.00	693.55
125B	712.50	19.54	692.96	19.63	692.87	19.65	692.85	19.86	692.64	19.81	692.69	19.61	692.89
MW-4A	712.10	NM	--	17.95	694.15	18.02	694.08	18.35	693.75	18.15	693.95	18.00	694.10
126A	699.38	9.18	690.20	9.20	690.18	9.25	690.13	9.27	690.11	9.55	689.83	8.59	690.79
126B	697.85	8.52	689.33	7.62	690.23	7.65	690.20	8.60	689.25	8.02	689.83	7.02	690.83
126B	698.65												
126S	699.20	NI	--										
136A	714.57	21.64	692.93	21.75	692.82	21.77	692.80	21.96	692.61	21.91	692.66	21.83	692.74
136B	714.35	21.45	692.90	21.51	692.84	21.51	692.84	21.72	692.63	21.67	692.68	21.60	692.75
136C	714.22	21.70	692.52	21.71	692.51	21.68	692.54	21.90	692.32	21.88	692.34	21.75	692.47
201-OW	704.36	13.05	691.31	NM	--	13.35	691.01	13.50	690.86	13.32	691.04	12.93	691.43
202-OW	711.18	20.26	690.92	20.46	690.72	20.56	690.62	20.75	690.43	20.23	690.95	20.17	691.01
144A	760.38	NI	--										
144B	760.14	NI	--										
144C	760.35	NI	--										
146B	712.57	NI	--										
147B	720.40	NI	--										
148B	734.46	NI	--										
149B	760.18	NI	--										
150B	780.04	NI	--										
PR-1	692.69												

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	13-Jan-00		25-Feb-00		20-Mar-00		27-Apr-00		18-May-00		22-Jun-00	
		DTW (feet)	WSE (feet)										
<b>Area East of Landfill</b>													
101A	818.39	DRY	--	DRY	--	64.46	753.93	63.41	754.98	62.58	755.81	63.57	754.82
101B	818.21	NM	--	71.07	747.14	69.01	749.20	65.07	753.14	64.35	753.86	65.51	752.70
102A	790.08	NM	--	48.97	741.11	49.56	740.52	46.35	743.73	45.41	744.67	44.81	745.27
102B	790.37	NM	--	54.12	736.25	52.82	737.55	49.81	740.56	49.10	741.27	49.85	740.52
103A	794.61	NM	--	55.25	739.36	55.28	739.33	54.42	740.19	53.59	741.02	52.87	741.74
103B	794.20	NM	--	72.91	721.29	72.62	721.58	71.22	722.98	70.54	723.66	70.20	724.00
103C	794.55	NM	--	73.16	721.39	72.86	721.69	71.48	723.07	70.74	723.81	70.45	724.10
132	732.20	NM	--	9.64	722.56	9.51	722.69	8.56	723.64	8.18	724.02	8.08	724.12
132B	732.75	NM	--	9.88	722.87	9.51	723.24	10.25	722.50	8.48	724.27	8.16	724.59
133	746.79	NM	--	12.70	734.09	13.41	733.38	11.27	735.52	9.95	736.84	9.31	737.48
143	763.78	NM	--	34.40	729.38	33.82	729.96	32.31	731.47	31.30	732.48	31.38	732.40
139A	757.20	NM	--	28.90	728.30	29.50	727.70	26.96	730.24	25.58	731.62	24.78	732.42
139B	757.03	NM	--	32.18	724.85	32.07	724.96	30.48	726.55	29.72	727.31	29.39	727.64
139C	757.25	NM	--	32.49	724.76	32.86	724.39	30.69	726.56	29.95	727.30	29.60	727.65
139I	757.19	29.95	727.24	30.55	726.64	30.46	726.73	28.80	728.39	27.88	729.31	27.31	729.88
151B	746.71	NI	--										
151C	746.88	NI	--										
152A	745.22	NI	--										
153A	743.02	NI	--										
153B	743.09	NI	--										
154A	745.61	NI	--										
155A	746.34	NI	--										
155B	746.45	NI	--										
156A	767.98	NI	--										
157A	772.88	NI	--										
158A	781.67	NI	--										
MW-10	746.03	NM	--	10.45	735.58	11.65	734.38	9.11	736.92	7.80	738.23	7.39	738.64
<b>Area North of Landfill</b>													
111R	830.26	NM	--	NM	--	NM	--	136.43	--	NM	--	NM	--
112A (east)	831.91	51.07	780.84	49.65	782.26	51.01	780.90	50.35	781.56	50.32	781.59	50.32	781.59
112A (west)	832.27	DRY	--										
112B	832.99	NM	--										
112B	833.00												
MW-8A	790.05	6.05	784.00	6.04	784.01	5.85	784.20	5.20	784.85	NM	--	5.30	784.75
<b>Area South of Landfill</b>													
120A	716.69	NM	--	26.13	690.56	26.69	690.00	24.87	691.82	24.80	691.89	26.06	690.63
120B	716.49	NM	--	25.66	690.83	26.60	689.89	24.76	691.73	24.73	691.76	25.90	690.59
120C	716.17	NM	--	25.68	690.49	26.83	689.34	24.51	691.66	24.52	691.65	25.66	690.51
120D	716.98	NM	--	26.49	690.49	26.62	690.36	25.52	691.46	25.38	691.60	26.53	690.45
120I	717.23			25.05	--	24.84	692.39	24.02	693.21	NM	--	NM	--
121A	704.60	14.10	690.50	15.09	689.51	14.72	689.88	13.43	691.17	13.12	691.48	14.42	690.18
121B	704.09	13.57	690.52	14.56	689.53	14.20	689.89	12.90	691.19	12.62	691.47	13.93	690.16
121-OW	706.39	NM	--	16.88	689.51	16.46	689.93	15.16	691.23	14.76	691.63	16.07	690.32
122	715.62	24.96	690.66	25.23	690.39	25.44	690.18	23.98	691.64	22.94	692.68	22.91	692.71
125A	711.55	NM	--	18.39	693.16	18.44	693.11	17.12	694.43	16.61	694.94	17.32	694.23
125B	712.50	NM	--	20.00	692.50	19.65	692.85	18.68	693.82	18.36	694.14	19.05	693.45
MW-4A	712.10	NM	--	18.56	693.54	17.96	694.14	2.80	709.30	16.39	695.71	17.15	694.95
126A	699.38	NM	--	9.38	690.00	9.30	690.08	8.00	691.38	7.96	691.42	9.22	690.16
126B	697.85	8.02	689.83	8.72	689.13	8.55	689.30	6.47	691.38				
126B	698.65									7.32	691.33	8.48	690.17
126S	699.20	NI	--	9.17	690.03	9.10	690.10	7.78	691.42	7.72	691.48	9.00	690.20
136A	714.57	NM	--	22.04	692.53	21.79	692.78	20.91	693.66	20.64	693.93	21.12	693.45
136B	714.35	NM	--	21.85	692.50	21.54	692.81	20.67	693.68	20.31	694.04	20.94	693.41
136C	714.22	NM	--	22.11	692.11	21.79	692.43	20.80	693.42	20.43	693.79	21.22	693.00
201-OW	704.36	12.80	691.56	13.61	690.75	13.29	691.07	11.82	692.54	11.45	692.91	12.82	691.54
202-OW	711.18	NM	--	20.78	690.40	20.40	690.78	18.79	692.39	18.02	693.16	19.45	691.73
144A	760.38	NI	--	30.42	729.96	29.54	730.84	26.83	733.55	25.32	735.06	26.11	734.27
144B	760.14	NI	--	33.40	726.74	31.65	728.49	29.53	730.61	28.88	731.26	29.92	730.22
144C	760.35	NI	--	35.83	724.52	36.80	723.55	36.03	724.32	33.52	726.83	34.16	726.19
146B	712.57	NI	--										
147B	720.40	NI	--										
148B	734.46	NI	--										
149B	760.18	NI	--										
150B	780.04	NI	--										
PR-1	692.69											2.75	689.94

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	26-Jul-00		17-Aug-00		29-Sep-00		25-Oct-00		20-Nov-00	
		DTW (feet)	WSE (feet)								
<b>Area East of Landfill</b>											
101A	818.39	DRY	--								
101B	818.21	68.07	750.14	64.48	753.73	69.67	748.54	69.81	748.40	69.11	749.10
102A	790.08	46.33	743.75	46.47	743.61	47.63	742.45	47.67	742.41	47.72	742.36
102B	790.37	51.97	738.40	52.12	738.25	52.39	737.98	53.10	737.27	52.64	737.73
103A	794.61	53.12	741.49	53.25	741.36	53.96	740.65	54.14	740.47	54.21	740.40
103B	794.20	71.38	722.82	NM	--	72.21	721.99	72.02	722.18	71.90	722.30
103C	794.55	71.61	722.94	71.61	722.94	72.47	722.08	72.28	722.27	72.13	722.42
132	732.20	8.60	723.60	8.67	723.53	NM	--	9.00	723.20	8.77	723.43
132B	732.75	9.38	723.37	8.83	723.92	9.11	723.64	11.51	721.24	9.08	723.67
133	746.79	10.31	736.48	10.57	736.22	11.68	735.11	11.86	734.93	11.75	735.04
143	763.78	33.18	730.60	32.75	731.03	33.34	730.44	35.40	728.38	33.21	730.57
139A	757.20	25.87	731.33	26.30	730.90	27.37	729.83	27.53	729.67	27.45	729.75
139B	757.03	30.30	726.73	30.49	726.54	31.18	725.85	31.14	725.89	30.90	726.13
139C	757.25	30.54	726.71	30.71	726.54	31.43	725.82	31.36	725.89	31.14	726.11
139I	757.19	28.26	728.93	28.49	728.70	29.31	727.88	29.33	727.86	29.19	728.00
151B	746.71	NI	--								
151C	746.88	NI	--								
152A	745.22	NI	--								
153A	743.02	NI	--								
153B	743.09	NI	--								
154A	745.61	NI	--								
155A	746.34	NI	--								
155B	746.45	NI	--								
156A	767.98	NI	--								
157A	772.88	NI	--								
158A	781.67	NI	--								
MW-10	746.03	8.48	737.55	8.69	737.34	9.93	736.10	10.08	735.95	9.01	737.02
<b>Area North of Landfill</b>											
111R	830.26	136.88	693.38	NM	--	NM	--	NM	--	NM	--
112A (east)	831.91	50.34	781.57	50.37	781.54	50.37	781.54	50.38	781.53	50.39	781.52
112A (west)	832.27	DRY	--								
112B	832.99	NM	--								
112B	833.00										
MW-8A	790.05	5.49	784.56	5.65	784.40	5.61	784.44	5.55	784.50	5.72	784.33
<b>Area South of Landfill</b>											
120A	716.69	25.69	691.00	25.44	691.25	25.65	691.04	25.58	691.11	25.31	691.38
120B	716.49	25.52	690.97	25.22	691.27	25.44	691.05	25.40	691.09	25.12	691.37
120C	716.17	25.23	690.94	24.94	691.23	25.19	690.98	25.16	691.01	24.84	691.33
120D	716.98	26.01	690.97	25.79	691.19	26.04	690.94	25.78	691.20	25.58	691.40
120I	717.23	NM	--	24.60	692.63	24.76	692.47	24.55	692.68	24.37	692.86
121A	704.60	14.51	690.09	14.43	690.17	14.62	689.98	14.59	690.01	14.26	690.34
121B	704.09	14.00	690.09	13.89	690.20	14.10	689.99	14.06	690.03	13.75	690.34
121-OW	706.39	16.28	690.11	16.25	690.14	16.41	689.98	16.39	690.00	16.08	690.31
122	715.62	23.73	691.89	24.10	691.52	24.69	690.93	24.85	690.77	24.83	690.79
125A	711.55	17.68	693.87	17.60	693.95	17.83	693.72	17.70	693.85	17.49	694.06
125B	712.50	19.36	693.14	19.26	693.24	19.50	693.00	19.31	693.19	19.15	693.35
MW-4A	712.10	17.62	694.48	17.55	694.55	17.81	694.29	17.70	694.40	17.47	694.63
126A	699.38	8.98	690.40	8.61	690.77	8.91	690.47	8.82	690.56	8.52	690.86
126B	697.85										
126B	698.65	8.18	690.47	7.85	690.80	8.12	690.53	8.05	690.60	7.71	690.94
126S	699.20	8.78	690.42	8.46	690.74	8.71	690.49	8.65	690.55	8.31	690.89
136A	714.57	21.47	693.10	21.35	693.22	21.55	693.02	21.40	693.17	21.29	693.28
136B	714.35	21.24	693.11	21.15	693.20	21.36	692.99	21.17	693.18	21.00	693.35
136C	714.22	21.44	692.78	21.37	692.85	21.56	692.66	21.46	692.76	21.16	693.06
201-OW	704.36	13.03	691.33	12.89	691.47	12.80	691.56	12.96	691.40	12.61	691.75
202-OW	711.18	19.98	691.20	20.06	691.12	20.28	690.90	NM	--	19.96	691.22
144A	760.38	27.88	732.50	28.18	732.20	29.18	731.20	29.15	731.23	28.76	731.62
144B	760.14	31.54	728.60	31.22	728.92	32.03	728.11	31.41	728.73	31.19	728.95
144C	760.35	35.45	724.90	35.05	725.30	35.83	724.52	35.75	724.60	35.36	724.99
146B	712.57	NI	--								
147B	720.40	NI	--								
148B	734.46	NI	--								
149B	760.18	NI	--								
150B	780.04	NI	--								
PR-1	692.69	2.60	690.09	1.85	690.84	2.35	690.34	2.22	690.47	2.11	690.58

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	18-Dec-00		30-Jan-01		20-Feb-01		26-Mar-01		18-Apr-01		21-May-01	
		DTW (feet)	WSE (feet)										
<b>Area East of Landfill</b>													
101A	818.39	DRY	--										
101B	818.21	68.84	749.37	69.83	748.38	NM	--	70.90	747.31	66.91	751.30	66.50	751.71
102A	790.08	47.31	742.77	48.19	741.89	NM	--	NM	--	47.91	742.17	47.00	743.08
102B	790.37	52.12	738.25	53.15	737.22	NM	--	54.06	736.31	51.35	739.02	50.92	739.45
103A	794.61	54.65	739.96	54.41	740.20	NM	--	51.97	742.64	54.46	740.15	54.04	740.57
103B	794.20	71.73	722.47	72.13	722.07	NM	--	NM	--	71.92	722.28	71.54	722.66
103C	794.55	71.97	722.58	72.39	722.16	NM	--	NM	--	72.13	722.42	71.78	722.77
132	732.20	8.61	723.59	9.43	722.77	9.49	722.71	9.60	722.60	8.38	723.82	8.81	723.39
132B	732.75	9.15	723.60	9.57	723.18	9.61	723.14	9.76	722.99	8.96	723.79	9.09	723.66
133	746.79	12.06	734.73	11.53	735.26	NM	--	11.33	735.46	10.69	736.10	10.37	736.42
143	763.78	33.37	730.41	33.71	730.07	33.97	729.81	32.24	731.54	33.02	730.76	32.20	731.58
139A	757.20	27.93	729.27	28.21	728.99	28.30	728.90	28.47	728.73	26.91	730.29	25.96	731.24
139B	757.03	30.94	726.09	31.85	725.18	31.91	725.12	32.19	724.84	30.50	726.53	30.64	726.39
139C	757.25	31.14	726.11	32.01	725.24	32.13	725.12	32.40	724.85	30.72	726.53	30.89	726.36
139I	757.19	29.33	727.86	29.96	727.23	30.11	727.08	NM	--	28.74	728.45	28.55	728.64
151B	746.71	NI	--										
151C	746.88	NI	--										
152A	745.22	NI	--										
153A	743.02	NI	--										
153B	743.09	NI	--										
154A	745.61	NI	--										
155A	746.34	NI	--										
155B	746.45	NI	--										
156A	767.98	NI	--										
157A	772.88	NI	--										
158A	781.67	NI	--										
MW-10	746.03	9.90	736.13	9.41	736.62	NM	--	8.68	737.35	8.29	737.74	8.21	737.82
<b>Area North of Landfill</b>													
111R	830.26	NM	--										
112A (east)	831.91	53.37	778.54	50.39	781.52	50.31	781.60	50.39	781.52	50.39	781.52	50.40	781.51
112A (west)	832.27	DRY	--										
112B	832.99	NM	--										
112B	833.00											132.22	700.78
MW-8A	790.05	NM	--	5.69	784.36	NM	--	5.93	784.12	5.37	784.68	5.51	784.54
<b>Area South of Landfill</b>													
120A	716.69	25.58	691.11	26.93	689.76	27.13	689.56	27.31	689.38	25.57	691.12	26.23	690.46
120B	716.49	24.63	691.86	26.77	689.72	26.93	689.56	27.16	689.33	25.35	691.14	26.11	690.38
120C	716.17	24.11	692.06	26.55	689.62	26.70	689.47	26.81	689.36	25.05	691.12	25.87	690.30
120D	716.98	24.90	692.08	27.27	689.71	27.47	689.51	27.69	689.29	25.83	691.15	26.73	690.25
120I	717.23	24.37	692.86	25.45	691.78	25.70	691.53	26.05	691.18	25.08	692.15	25.16	692.07
121A	704.60	13.31	691.29	15.66	688.94	15.97	688.63	NM	--	13.07	691.53	14.70	689.90
121B	704.09	13.87	690.22	15.11	688.98	NM	--	NM	--	12.56	691.53	14.17	689.92
121-OW	706.39	15.98	690.41	17.34	689.05	17.69	688.70	17.91	688.48	14.62	691.77	16.36	690.03
122	715.62	24.98	690.64	25.44	690.18	25.83	689.79	26.24	689.38	24.28	691.34	24.23	691.39
125A	711.55	17.69	693.86	18.33	693.22	NM	--	NM	--	18.25	693.30	17.89	693.66
125B	712.50	19.33	693.17	20.00	692.50	NM	--	20.80	691.70	19.91	692.59	19.60	692.90
MW-4A	712.10	17.63	694.47	18.41	693.69	NM	--	19.32	692.78	18.37	693.73	17.94	694.16
126A	699.38	7.58	691.80	10.23	689.15	10.45	688.93	10.60	688.78	7.92	691.46	9.44	689.94
126B	697.85												
126B	698.65	6.72	691.93	9.41	689.24	9.61	689.04	9.78	688.87	7.16	691.60	8.62	690.03
126S	699.20	7.38	691.82	10.03	689.17	10.20	689.00	10.37	688.83	7.63	691.57	9.21	689.99
136A	714.57	21.37	693.20	22.08	692.49	NM	--	22.83	691.74	22.32	692.25	21.66	692.91
136B	714.35	21.25	693.10	21.77	692.58	NM	--	22.59	691.76	22.00	692.35	21.47	692.88
136C	714.22	21.51	692.71	22.03	692.19	NM	--	NM	--	22.09	692.13	21.73	692.49
201-OW	704.36	12.61	691.75	NM	--	NM	--	14.61	689.75	11.75	692.61	13.09	691.27
202-OW	711.18	NM	--										
144A	760.38	28.71	731.67	29.20	731.18	29.63	730.75	29.96	730.42	27.63	732.75	26.88	733.50
144B	760.14	30.85	729.29	32.19	727.95	30.41	729.73	32.46	727.68	29.70	730.44	30.50	729.64
144C	760.35	35.08	725.27	36.33	724.02	36.53	723.82	36.76	723.59	34.51	725.84	35.14	725.21
146B	712.57	NI	--										
147B	720.40	NI	--										
148B	734.46	NI	--										
149B	760.18	NI	--										
150B	780.04	NI	--										
PR-1	692.69	NM	--	NM	--	NM	--	~4.5	--	2.76	689.93	DRY	--

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO NUMBER	REFERENCE ELEVATION (feet)	19-Jun-01		10-Jul-01		31-Oct-01		23-Jan-02		1-May-02		7-Jul-02	
		DTW (feet)	WSE (feet)										
<b>Area East of Landfill</b>													
101A	818.39	DRY	--										
101B	818.21	67.35	750.86	68.60	749.61	72.45	745.76	72.83	745.38	67.68	750.53	66.93	751.28
102A	790.08	47.09	742.99	47.43	742.65	50.66	739.42	51.40	738.68	49.21	740.87	47.90	742.18
102B	790.37	51.51	738.86	52.36	738.01	55.43	734.94	NM	--	51.74	738.63	51.16	739.21
103A	794.61	53.93	740.68	54.32	740.29	57.30	737.31	58.55	736.06	57.51	737.10	54.49	740.12
103B	794.20	71.60	722.60	NM	--	74.31	719.89	74.68	719.52	72.60	721.60	71.75	722.45
103C	794.55	71.84	722.71	72.13	722.42	74.56	719.99	74.90	719.65	72.69	721.86	71.91	722.64
132	732.20	9.00	723.20	9.30	722.90	10.43	721.77	10.77	721.43	9.30	722.90	8.85	723.35
132B	732.75	8.93	723.82	9.13	723.62	12.70	720.05	11.00	721.75	10.12	722.63	8.89	723.86
133	746.79	10.65	736.14	11.41	735.38	14.87	731.92	16.27	730.52	12.40	734.39	10.42	736.37
143	763.78	32.53	731.25	33.12	730.66	36.09	727.69	35.70	728.08	33.70	730.08	32.16	731.62
139A	757.20	26.50	730.70	27.35	729.85	30.33	726.87	31.43	725.77	28.03	729.17	26.20	731.00
139B	757.03	30.91	726.12	31.41	725.62	33.45	723.58	33.97	723.06	31.68	725.35	30.65	726.38
139C	757.25	31.15	726.10	31.62	725.63	33.68	723.57	34.18	723.07	31.91	725.34	30.13	727.12
139I	757.19	28.89	728.30	29.42	727.77	31.84	725.35	32.53	724.66	29.95	727.24	28.66	728.53
151B	746.71	NI	--										
151C	746.88	NI	--										
152A	745.22	NI	--										
153A	743.02	NI	--										
153B	743.09	NI	--										
154A	745.61	NI	--										
155A	746.34	NI	--										
155B	746.45	NI	--										
156A	767.98	NI	--										
157A	772.88	NI	--										
158A	781.67	NI	--										
MW-10	746.03	8.52	737.51	9.45	736.58	13.25	732.78	NM	--	10.11	735.92	8.31	735.92
<b>Area North of Landfill</b>													
111R	830.26	NM	--										
112A (east)	831.91	50.50	781.41	50.40	781.51	50.36	781.55	50.37	781.54	50.37	781.90	NM	781.90
112A (west)	832.27	DRY	--										
112B	832.99												
112B	833.00	132.01	700.99	131.72	701.28	133.40	699.60	133.39	699.61	132.66	700.34	132.31	700.69
MW-8A	790.05	5.55	784.50	5.55	784.50	6.16	783.89	NM	--	5.80	784.25	5.80	784.25
<b>Area South of Landfill</b>													
120A	716.69	25.95	690.74	26.41	690.28	26.49	690.20	26.50	690.19	25.27	691.42	26.51	690.18
120B	716.49	25.80	690.69	26.22	690.27	26.33	690.16	26.90	689.59	25.14	691.35	26.35	690.14
120C	716.17	25.53	690.64	25.91	690.26	26.09	690.08	26.01	690.16	24.87	691.30	26.10	690.07
120D	716.98	26.37	690.61	26.78	690.20	26.83	690.15	26.85	690.13	25.19	691.79	27.02	689.96
120I	717.23	24.98	692.25	25.26	691.97	25.61	691.62	25.76	691.47	24.50	692.73	26.45	690.78
121A	704.60	14.81	689.79	15.26	689.34	15.52	689.08	15.58	689.02	13.77	690.83	14.80	689.80
121B	704.09	14.27	689.82	14.73	689.36	14.97	689.12	NM	--	13.23	690.86	14.31	689.78
121-OW	706.39	16.56	689.83	17.02	689.37	17.32	689.07	17.40	688.99	15.44	690.95	16.41	689.98
122	715.62	24.65	690.97	25.11	690.51	26.12	689.50	26.49	689.13	24.03	691.59	23.92	691.70
125A	711.55	17.95	693.60	18.23	693.32	18.89	692.66	19.11	692.44	17.63	693.92	18.06	693.49
125B	712.50	19.61	692.89	19.91	692.59	24.45	688.05	20.63	691.87	19.23	693.27	19.78	692.72
MW-4A	712.10	18.01	694.09	18.37	693.73	19.17	692.93	19.39	692.71	17.85	694.25	18.11	693.99
126A	699.38	9.22	690.16	9.60	689.78	9.78	689.60	9.74	689.64	8.34	691.04	9.62	689.76
126B	697.85												
126B	698.65	8.38	690.27	8.78	689.87	8.95	689.70	8.90	689.75	7.51	691.14	8.83	689.82
126S	699.20	9.01	690.19	9.43	689.77	9.59	689.61	9.56	689.64	8.11	691.09	8.94	690.26
136A	714.57	21.72	692.85	21.97	692.60	22.49	692.08	22.66	691.91	21.41	693.16	21.92	692.65
136B	714.35	21.45	692.90	21.76	692.59	22.25	692.10	22.47	691.88	21.17	693.18	21.71	692.64
136C	714.22	21.64	692.58	21.98	692.24	22.42	691.80	22.69	691.53	21.30	692.92	20.95	693.27
201-OW	704.36	13.21	691.15	13.72	690.64	13.99	690.37	13.97	690.39	12.10	692.26	13.47	690.89
202-OW	711.18	NM	--	19.75	691.43								
144A	760.38	27.43	732.95	28.25	732.13	31.86	728.52	32.47	727.91	28.57	731.81	27.87	732.51
144B	760.14	30.94	729.20	30.73	729.41	34.12	726.02	34.68	725.46	31.01	729.13	30.18	729.96
144C	760.35	35.73	724.62	36.55	723.80	38.65	721.70	39.42	720.93	35.91	724.44	35.72	724.63
146B	712.57	NI	--										
147B	720.40	NI	--										
148B	734.46	NI	--										
149B	760.18	NI	--										
150B	780.04	NI	--										
PR-1	692.69	3.40	689.29	2.53	690.16	3.45	689.24	NM	--	2.25	690.44	1.98	690.71

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	29-Oct-02		30-Jan-03		30-Apr-03		21-Jul-03		8-Oct-03	
		DTW (feet)	WSE (feet)								
<b>Area East of Landfill</b>											
101A	818.39	DRY	--								
101B	818.21	69.90	748.31	71.61	746.60	67.58	750.63	69.46	748.75	70.50	747.71
102A	790.08	49.17	740.91	50.75	739.33	49.76	740.32	48.48	741.60	49.96	740.12
102B	790.37	53.42	736.95	54.95	735.42	51.96	738.41	53.15	737.22	54.04	736.33
103A	794.61	55.91	738.70	57.60	737.01	56.88	737.73	55.40	739.21	56.53	738.08
103B	794.20	72.98	721.22	74.30	719.90	72.75	721.45	72.61	721.59	73.55	720.65
103C	794.55	73.20	721.35	74.55	720.00	72.95	721.60	72.91	721.64	73.79	720.76
132	732.20	9.44	722.76	10.78	721.42	9.31	722.89	9.72	722.48	10.11	722.09
132B	732.75	10.38	722.37	10.90	721.85	10.12	722.63	9.95	722.80	10.84	721.91
133	746.79	12.12	734.67	13.86	732.93	12.68	734.11	11.88	734.91	13.17	733.62
143	763.78	34.57	729.21	44.90	718.88	33.80	729.98	33.71	730.07	34.98	728.80
139A	757.20	28.37	728.83	30.02	727.18	28.28	728.92	28.15	729.05	29.47	727.73
139B	757.03	31.97	725.06	33.46	723.57	31.61	725.42	32.03	725.00	32.83	724.20
139C	757.25	32.17	725.08	33.66	723.59	31.85	725.40	32.22	725.03	33.05	724.20
139I	757.19	30.15	727.04	31.70	725.49	29.97	727.22	30.05	727.14	31.10	726.09
151B	746.71	NI	--	NI	--	NI	--	NI	--	14.65	732.06
151C	746.88	NI	--	NI	--	NI	--	NI	--	23.22	723.66
152A	745.22	NI	--	NI	--	NI	--	NI	--	10.27	734.95
153A	743.02	NI	--	NI	--	NI	--	NI	--	6.63	736.39
153B	743.09	NI	--	NI	--	NI	--	NI	--	8.83	734.26
154A	745.61	NI	--	NI	--	NI	--	NI	--	10.06	735.55
155A	746.34	NI	--	NI	--	NI	--	NI	--	11.10	735.24
155B	746.45	NI	--	NI	--	NI	--	NI	--	11.95	734.50
156A	767.98	NI	--	NI	--	NI	--	NI	--	32.65	735.33
157A	772.88	NI	--	NI	--	NI	--	NI	--	35.12	737.76
158A	781.67	NI	--	NI	--	NI	--	NI	--	43.86	737.81
MW-10	746.03	10.04	735.92	12.40	735.92	10.96	735.07	10.37	735.66	11.55	734.48
<b>Area North of Landfill</b>											
111R	830.26	NM	--								
112A (east)	831.91	50.30	781.90	DRY	--	50.40	781.51	50.70	781.21	NM	--
112A (west)	832.27	DRY	--	DRY	--	DRY	--	DRY	--	NM	--
112B	832.99										
112B	833.00	NM	--	NM	--	NM	--	132.41	700.59	133.11	699.89
MW-8A	790.05	5.75	784.30	NM	--	5.74	784.31	6.74	783.31	5.97	784.08
<b>Area South of Landfill</b>											
120A	716.69	26.31	690.38	27.08	689.61	25.84	690.85	26.19	690.50	26.27	690.42
120B	716.49	25.93	690.56	26.90	689.59	25.75	690.74	26.00	690.49	26.10	690.39
120C	716.17	25.62	690.55	25.88	690.29	25.50	690.67	25.42	690.75	25.82	690.35
120D	716.98	26.06	690.92	27.41	689.57	26.19	690.79	26.54	690.44	26.57	690.41
120I	717.23	25.32	691.91	26.21	691.02	24.98	692.25	25.30	691.93	25.42	691.81
121A	704.60	15.01	689.59	15.95	688.65	14.52	690.08	15.02	689.58	15.15	689.45
121B	704.09	14.48	689.61	15.40	688.69	13.99	690.10	14.85	689.24	14.61	689.48
121-OW	706.39	16.81	689.58	17.70	688.69	16.26	690.13	16.81	689.58	16.93	689.46
122	715.62	25.17	690.45	25.80	689.82	24.43	691.19	24.86	690.76	25.42	690.20
125A	711.55	18.50	693.05	19.28	692.27	18.08	693.47	18.40	693.15	18.53	693.02
125B	712.50	20.11	692.39	21.23	691.27	19.71	692.79	20.05	692.45	20.10	692.40
MW-4A	712.10	18.65	693.45	19.60	692.50	18.26	693.84	18.60	693.50	18.73	693.37
126A	699.38	9.27	690.11	10.31	689.07	9.04	690.34	9.31	690.07	9.44	689.94
126B	697.85										697.85
126B	698.65	8.41	690.24	9.43	689.22	8.26	690.39	8.51	690.14	8.61	690.04
126S	699.20	9.07	690.13	10.10	689.10	8.85	690.35	9.09	690.11	9.25	689.95
136A	714.57	22.23	692.34	23.04	691.53	21.86	692.71	22.25	692.32	22.22	692.35
136B	714.35	22.02	692.33	22.78	691.57	21.60	692.75	21.89	692.46	21.95	692.40
136C	714.22	22.20	692.02	22.98	691.24	21.72	692.50	22.05	692.17	22.09	692.13
201-OW	704.36	13.47	690.89	14.30	690.06	12.88	691.48	13.55	690.81	13.57	690.79
202-OW	711.18	NM	--	21.50	689.68	20.03	691.15	20.65	690.53	20.84	690.34
144A	760.38	28.88	731.50	30.29	730.09	27.72	732.66	28.73	731.65	29.79	730.59
144B	760.14	31.39	728.75	33.20	726.94	30.45	729.69	32.25	727.89	32.28	727.86
144C	760.35	37.07	723.28	38.68	721.67	36.15	724.20	38.38	721.97	38.12	722.23
146B	712.57	NI	--	NI	--	NI	--	21.60	690.97	21.67	690.90
147B	720.40	NI	--	NI	--	NI	--	29.60	690.80	29.59	690.81
148B	734.46	NI	--	NI	--	NI	--	43.38	691.08	43.47	690.99
149B	760.18	NI	--	NI	--	NI	--	69.29	690.89	69.20	690.98
150B	780.04	NI	--	NI	--	NI	--	NI	--	89.05	690.99
PR-1	692.69	3.05	689.64	NM	--	3.10	689.59	2.07	690.62	3.0	689.69

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**TABLE 1**  
**GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	CONSTR MAT'L TYPE	SCREENED INTERVAL (feet)		SCREENED FORMATION	SOURCE	28-Aug-98		25-Sep-98		16-Oct-98	
							DTW (feet)	WSE (feet)	DTW (feet)	WSE (feet)	DTW (feet)	WSE (feet)
<b>Area West of Landfill</b>												
113A	773.84	2-IN PVC	76.5	91.5	BRIDGE	BORING LOG	79.74	694.10	79.85	693.99	79.99	693.85
113BB	773.09	2-IN PVC	158	168.7	TOR	BORING LOG	NI	--	NI	--	NI	--
113C	774.41	6-IN OC	170.18	224.18	BEDROCK	BORING LOG	80.44	693.97	80.46	693.95	80.45	693.96
118A	796.76	2-IN PVC	96.7	111.7	BRIDGE	BORING LOG	100.78	695.98	101.03	695.73	101.20	695.56
118B	797.58	2-IN STEEL	237.3	247.3	TOR	BORING LOG	102.37	695.21	102.60	694.98	102.78	694.80
118C	795.21	2-IN PVC	286	296	BEDROCK	BORING LOG	NI	--	NI	--	NI	--
119A	777.48	2-IN PVC	21.4	36.4	BRIDGE	BORING LOG	31.73	745.75	28.88	748.60	29.18	748.30
119B	776.16	2-IN PVC	126.6	136.6	INTERMED	BORING LOG	83.57	692.59	83.72	692.44	83.78	692.38
119C	776.55	2-IN PVC	156.7	166.7	TOR	BORING LOG	83.91	692.64	84.04	692.51	84.11	692.44
119D	775.53	2-IN PVC	206.5	216.5	BEDROCK	BORING LOG	NI	--	NI	--	NI	--
131B	821.22	2-IN PVC	167	177	INTERMED	BORING LOG	>102	--	128.51	692.71	128.70	692.52
131C	820.46	4-IN STEEL	218.35	228.35	TOR	BORING LOG	>102	--	127.72	692.74	127.90	692.56
137A	820.29	2-IN PVC	121.3	136.3	BRIDGE	BORING LOG	>102	--	126.32	693.97	126.50	693.79
137B	819.20	2-IN PVC	248.85	258.85	TOR	BORING LOG	>102	--	125.22	693.98	125.38	693.82
138A	797.44	2-IN PVC	97	112	BRIDGE	BORING LOG	>102	--	103.65	693.79	103.82	693.62
138A	787.12	2-IN PVC	97	112	BRIDGE	BORING LOG						
138B	797.58	2-IN PVC	208.15	218.15	TOR	BORING LOG	>102	--	103.89	693.69	104.05	693.53
138B	788.61	2-IN PVC	208.15	218.15	TOR	BORING LOG						
140	700.32	SURF. CASE	7.5	22.5	ALLUVIUM	RI: TBL 2-10	NM	--	NM	--	9.60	--
145B	749.27	2-IN PVC	113.4	123.4	TOR	BORING LOG	NI	--	NI	--	NI	--
145C	749.42	2-IN PVC	125	135	BEDROCK	BORING LOG	NI	--	NI	--	NI	--
MW-6A	733.29	4-IN STEEL	41.4	51.4	PROXIMAL	RI: TBL 2-10	39.20	694.09	39.29	694.00	39.46	693.83

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**TABLE 1**  
**GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	6-Jan-99		13-Jan-99		24-Feb-99		29-Mar-99		29-Apr-99		20-May-99	
		DTW (feet)	WSE (feet)										
<b>Area West of Landfill</b>													
113A	773.84	NM	--	80.31	693.53	80.50	693.34	79.91	693.93	79.78	694.06	80.03	693.81
113BB	773.09	NI	--										
113C	774.41	80.34	694.07	86.11	688.30	85.02	689.39	84.25	690.16	83.73	690.68	83.45	690.96
118A	796.76	NM	--	NM	--	NM	--	NM	--	100.97	695.79	101.01	695.75
118B	797.58	102.46	695.12	102.95	694.63	103.10	694.48	102.67	694.91	102.55	695.03	102.58	695.00
118C	795.21	NI	--										
119A	777.48	NM	--	30.28	747.20	30.59	746.89	30.45	747.03	29.92	747.56	29.94	747.54
119B	776.16	NM	--	84.15	692.01	84.10	692.06	84.70	691.46	83.57	692.59	83.81	692.35
119C	776.55	85.48	691.07	97.85	678.70	84.45	692.10	85.38	691.17	83.92	692.63	84.12	692.43
119D	775.53	NI	--										
131B	821.22	NM	--	130.10	691.12	129.19	692.03	128.91	692.31	128.62	692.60	128.88	692.34
131C	820.46	128.06	692.40	128.72	691.74	128.44	692.02	128.17	692.29	127.84	692.62	128.14	692.32
137A	820.29	NM	--	DRY	--	126.84	693.45	DRY	--	DRY	--	126.28	694.01
137B	819.20	NM	--	NM	--	125.70	693.50	125.27	693.93	125.17	694.03	125.20	694.00
138A	797.44	103.62	693.82	104.52	692.92	104.23	693.21	103.52	693.92	103.53	693.91	103.68	693.76
138A	787.12												
138B	797.58	NM	--	104.27	693.31	104.46	693.12	103.75	693.83	103.73	693.85	103.95	693.63
138B	788.61												
140	700.32	NM	--										
145B	749.27	NI	--										
145C	749.42	NI	--										
MW-6A	733.29	NM	--	39.61	693.68								

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**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	19-Jun-99		28-Jul-99		17-Aug-99		14-Sep-99		8-Oct-99		29-Nov-99	
		DTW (feet)	WSE (feet)										
<b>Area West of Landfill</b>													
113A	773.84	80.64	693.20	80.40	693.44	80.39	693.45	80.68	693.16	80.68	693.16	80.69	693.15
113BB	773.09	NI	--										
113C	774.41	83.08	691.33	82.82	691.59	82.63	691.78	82.40	692.01	82.24	692.17	81.90	692.51
118A	796.76	101.50	695.26	101.39	695.37	101.41	695.35	102.65	694.11	101.72	695.04	101.60	695.16
118B	797.58	103.10	694.48	102.99	694.59	102.95	694.63	103.25	694.33	103.32	694.26	103.18	694.40
118C	795.21	NI	--										
119A	777.48	30.27	747.21	30.66	746.82	30.75	746.73	31.12	746.36	31.32	746.16	31.72	745.76
119B	776.16	84.18	691.98	84.14	692.02	84.12	692.04	84.28	691.88	84.41	691.75	83.94	692.22
119C	776.55	85.86	690.69	84.49	692.06	84.44	692.11	84.60	691.95	84.75	691.80	84.30	692.25
119D	775.53	NI	--										
131B	821.22	129.25	691.97	129.20	692.02	129.20	692.02	129.36	691.86	129.42	691.80	129.25	691.97
131C	820.46	128.50	691.96	128.46	692.00	128.31	692.15	128.60	691.86	128.68	691.78	128.50	691.96
137A	820.29	DRY	--	125.59	694.70	126.67	693.62	126.98	693.31	127.05	693.24	127.05	693.24
137B	819.20	125.77	693.43	126.70	692.50	125.55	693.65	125.82	693.38	125.91	693.29	125.78	693.42
138A	797.44	104.30	693.14	104.12	693.32	104.08	693.36	104.35	693.09	104.44	693.00	104.33	693.11
138A	787.12												
138B	797.58	104.51	693.07	104.36	693.22	104.31	693.27	104.57	693.01	104.62	692.96	104.54	693.04
138B	788.61												
140	700.32	NM	--	9.96	--	10.17	--	9.90	--	10.74	--	9.20	--
145B	749.27	NI	--										
145C	749.42	NI	--										
MW-6A	733.29	40.00	693.29	40.00	693.29	40.01	693.28	40.24	693.05	40.21	693.08	40.08	693.21

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**TABLE 1**  
**GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	13-Jan-00		25-Feb-00		20-Mar-00		27-Apr-00		18-May-00		22-Jun-00	
		DTW (feet)	WSE (feet)										
<b>Area West of Landfill</b>													
113A	773.84	NM	--	80.75	693.09	80.54	693.30	79.75	694.09	79.41	694.43	79.65	694.19
113BB	773.09	NI	--	80.32	692.77	80.13	692.96	79.35	693.74	79.01	694.08	79.32	693.77
113C	774.41	NM	--	81.30	693.11	81.16	693.25	134.04	640.37	124.51	649.90	116.61	657.80
118A	796.76	101.95	694.81	101.67	695.09	101.69	695.07	100.79	695.97	100.44	696.32	100.80	695.96
118B	797.58	103.37	694.21	103.26	694.32	103.26	694.32	102.35	695.23	102.02	695.56	102.47	695.11
118C	795.21	NI	--	NI	--	104.41	690.80	103.76	691.45	102.82	692.39	103.25	691.96
119A	777.48	32.19	745.29	32.18	745.30	31.95	745.53	31.28	746.20	30.70	746.78	29.54	747.94
119B	776.16	84.00	692.16	84.29	691.87	84.13	692.03	83.14	693.02	83.03	693.13	84.11	692.05
119C	776.55	85.69	690.86	84.62	691.93	85.80	690.75	83.42	693.13	83.36	693.19	84.43	692.12
119D	775.53	NI	--	NI	--	85.64	689.89	83.31	692.22	82.18	693.35	83.17	692.36
131B	821.22	129.98	691.24	129.45	691.77	129.27	691.95	128.31	692.91	127.99	693.23	128.95	692.27
131C	820.46	128.68	691.78	128.71	691.75	128.53	691.93	127.58	692.88	127.24	693.22	128.17	692.29
137A	820.29	127.69	692.60	126.95	693.34	127.02	693.27	126.91	693.38	125.74	694.55	126.10	694.19
137B	819.20	125.97	693.23	125.83	693.37	125.86	693.34	124.99	694.21	124.62	694.58	125.02	694.18
138A	797.44	104.57	692.87	104.44	693.00	105.65	691.79	103.51	693.93	103.17	694.27	103.38	694.06
138A	787.12												
138B	797.58	104.72	692.86	104.63	692.95	104.46	693.12	103.71	693.87	103.38	694.20	103.68	693.90
138B	788.61												
140	700.32	9.93	--	NM	--	NM	--	9.25	--	9.60	--	10.18	690.14
145B	749.27	NI	--	58.16	691.11	58.21	691.06	57.11	692.16	57.07	692.20	58.12	691.15
145C	749.42	NI	--	58.28	691.14	58.61	690.81	57.31	692.11	57.55	691.87	58.40	691.02
MW-6A	733.29	NM	--	40.35	692.94	NM	--	NM	--	NM	--	NM	--

REFER TO PAGE 17 FOR NOTES

**TABLE 1**  
**GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	26-Jul-00		17-Aug-00		29-Sep-00		25-Oct-00		20-Nov-00	
		DTW (feet)	WSE (feet)								
<b>Area West of Landfill</b>											
113A	773.84	80.25	693.59	79.98	693.86	80.35	693.49	80.04	693.80	79.91	693.93
113BB	773.09	79.88	693.21	79.63	693.46	79.99	693.10	79.65	693.44	79.51	693.58
113C	774.41	196.43	577.98	190.60	583.81	186.45	587.96	180.02	594.39	175.85	598.56
118A	796.76	101.44	695.32	101.13	695.63	101.48	695.28	101.05	695.71	100.98	695.78
118B	797.58	103.05	694.53	102.74	694.84	103.09	694.49	102.69	694.89	102.60	694.98
118C	795.21	103.83	691.38	103.54	691.67	103.89	691.32	103.47	691.74	103.37	691.84
119A	777.48	29.00	748.48	28.96	748.52	29.43	748.05	29.77	747.71	30.02	747.46
119B	776.16	83.95	692.21	83.72	692.44	83.87	692.29	83.77	692.39	83.51	692.65
119C	776.55	84.30	692.25	84.09	692.46	84.24	692.31	84.09	692.46	83.83	692.72
119D	775.53	83.09	692.44	82.89	692.64	83.01	692.52	82.88	692.65	82.63	692.90
131B	821.22	129.02	692.20	128.89	692.33	129.08	692.14	128.83	692.39	128.60	692.62
131C	820.46	128.26	692.20	128.14	692.32	128.33	692.13	128.09	692.37	127.86	692.60
137A	820.29	126.77	693.52	126.40	693.89	126.88	693.41	126.38	693.91	126.31	693.98
137B	819.20	125.65	693.55	125.26	693.94	125.71	693.49	125.26	693.94	125.18	694.02
138A	797.44	104.08	693.36	103.74	693.70	NM	--				
138A	787.12							93.47	693.65	93.33	693.79
138B	797.58	104.32	693.26	103.99	693.59	NM	--				
138B	788.61							94.81	693.80	94.71	693.90
140	700.32	9.67	690.65	9.10	691.22	9.52	690.80	9.46	690.86	9.22	691.10
145B	749.27	57.77	691.50	57.49	691.78	57.73	691.54	57.60	691.67	57.35	691.92
145C	749.42	58.02	691.40	57.71	691.71	57.97	691.45	57.85	691.57	57.60	691.82
MW-6A	733.29	39.78	693.51	NM	--	39.91	693.38	39.71	693.58	39.51	693.78

REFER TO PAGE 17 FOR NOTES

**TABLE 1**  
**GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

WELL/PIEZO NUMBER	REFERENCE ELEVATION (feet)	18-Dec-00		30-Jan-01		20-Feb-01		26-Mar-01		18-Apr-01		21-May-01	
		DTW (feet)	WSE (feet)										
<b>Area West of Landfill</b>													
113A	773.84	79.96	693.88	80.44	693.40	80.84	693.00	81.35	692.49	80.98	692.86	80.53	693.31
113BB	773.09	79.55	693.54	80.09	693.00	80.49	692.60	80.99	692.10	80.59	692.50	80.13	692.96
113C	774.41	171.72	602.69	168.28	606.13	163.82	610.59	160.05	614.36	157.60	616.81	158.80	615.61
118A	796.76	100.86	695.90	101.40	695.36	101.83	694.93	102.31	694.45	101.88	694.88	101.59	695.17
118B	797.58	102.53	695.05	103.15	694.43	103.48	694.10	103.95	693.63	103.47	694.11	103.21	694.37
118C	795.21	103.28	691.93	103.97	691.24	104.25	690.96	104.73	690.48	104.27	690.94	104.02	691.19
119A	777.48	30.55	746.93	30.57	746.91	30.89	746.59	31.35	746.13	31.33	746.15	30.65	746.83
119B	776.16	83.47	692.69	84.71	691.45	NM	--	NM	--	84.32	691.84	84.31	691.85
119C	776.55	83.80	692.75	85.05	691.50	85.30	691.25	85.43	691.12	84.64	691.91	84.63	691.92
119D	775.53	82.61	692.92	83.77	691.76	84.03	691.50	84.30	691.23	83.41	692.12	83.47	692.06
131B	821.22	129.00	692.22	129.60	691.62	NM	--	130.31	690.91	129.60	691.62	129.39	691.83
131C	820.46	128.25	692.21	128.87	691.59	NM	--	129.59	690.87	128.83	691.63	128.65	691.81
137A	820.29	126.03	694.26	126.86	693.43	127.18	693.11	127.66	692.63	127.19	693.10	126.94	693.35
137B	819.20	125.00	694.20	125.75	693.45	NM	--	NM	--	126.09	693.11	125.82	693.38
138A	797.44												
138A	787.12	94.65	692.47	95.29	691.83	NM	--	NM	--	NM	--	93.97	693.15
138B	797.58												
138B	788.61	93.25	695.36	93.91	694.70	94.32	694.29	94.76	693.85	NM	--	95.41	693.20
140	700.32	NM	--	NM	--	NM	--	NM	--	9.74	690.58	10.73	689.59
145B	749.27	56.64	692.63	58.82	690.45	59.02	690.25	59.23	690.04	58.04	691.23	58.38	690.89
145C	749.42	56.91	692.51	59.15	690.27	59.31	690.11	59.54	689.88	58.24	691.18	58.71	690.71
MW-6A	733.29	39.65	693.64	40.13	693.16	NM	--	NM	--	40.65	692.64	40.05	693.24

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	19-Jun-01		10-Jul-01		31-Oct-01		23-Jan-02		1-May-02		7-Jul-02	
		DTW (feet)	WSE (feet)										
<b>Area West of Landfill</b>													
113A	773.84	80.34	693.50	80.57	693.27	81.34	692.50	81.44	692.40	80.21	693.63	80.65	693.19
113BB	773.09	79.93	693.16	80.13	692.96	80.90	692.19	81.03	692.06	79.80	693.29	80.25	692.84
113C	774.41	155.75	618.66	153.80	620.61	144.01	630.40	137.59	636.82	130.85	643.56	131.60	642.81
118A	796.76	101.45	695.31	101.47	695.29	102.28	694.48	102.23	694.53	101.20	695.56	101.72	695.04
118B	797.58	103.02	694.56	103.13	694.45	103.90	693.68	103.53	694.05	102.81	694.77	103.35	694.23
118C	795.21	103.81	691.40	103.91	691.30	104.68	690.53	104.57	690.64	103.59	691.62	104.10	691.11
119A	777.48	30.60	746.88	30.80	746.68	32.29	745.19	36.63	740.85	33.87	743.61	32.71	744.77
119B	776.16	84.09	692.07	84.49	691.67	84.71	691.45	84.70	691.46	83.66	692.50	84.66	691.50
119C	776.55	84.42	692.13	84.82	691.73	85.07	691.48	85.04	691.51	84.00	692.55	84.65	691.90
119D	775.53	83.25	692.28	83.69	691.84	83.87	691.66	83.89	691.64	82.79	692.74	83.72	691.81
131B	821.22	129.13	692.09	129.47	691.75	129.83	691.39	130.10	691.12	128.85	692.37	129.57	691.65
131C	820.46	128.37	692.09	128.75	691.71	129.15	691.31	129.39	691.07	128.11	692.35	128.81	691.65
137A	820.29	126.77	693.52	126.80	693.49	127.64	692.65	127.55	692.74	126.50	693.79	127.06	693.23
137B	819.20	125.65	693.55	125.75	693.45	126.50	692.70	NM	--	125.41	693.79	125.98	693.22
138A	797.44												
138A	787.12	93.73	693.39	93.88	693.24	94.77	692.35	94.81	692.31	93.51	693.61	83.00	704.12
138B	797.58												
138B	788.61	95.16	693.45	95.31	693.30	96.11	692.50	96.22	692.39	94.95	693.66	95.51	693.10
140	700.32	10.10	690.22	10.01	690.31	10.47	689.85	NM	--	9.41	690.91	9.96	690.91
145B	749.27	58.03	691.24	58.37	690.90	58.56	690.71	58.62	690.65	57.53	691.74	58.70	690.57
145C	749.42	58.29	691.13	58.65	690.77	58.87	690.55	58.86	690.56	57.78	691.64	59.00	690.42
MW-6A	733.29	39.91	693.38	40.17	693.12	48.10	685.19	40.97	692.32	39.79	693.50	NM	--

REFER TO PAGE 17 FOR NOTES

**TABLE 1**  
**GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

WELL/PIEZO. NUMBER	REFERENCE ELEVATION (feet)	29-Oct-02		30-Jan-03		30-Apr-03		21-Jul-03		8-Oct-03	
		DTW (feet)	WSE (feet)								
<b>Area West of Landfill</b>											
113A	773.84	81.00	692.84	81.91	691.93	80.80	693.04	80.79	693.05	81.14	692.70
113BB	773.09	80.59	692.50	81.50	691.59	80.38	692.71	80.42	692.67	80.72	692.37
113C	774.41	120.68	653.73	117.30	657.11	112.76	661.65	109.90	664.51	107.45	666.96
118A	796.76	102.89	693.87	103.02	693.74	101.90	694.86	101.89	694.87	102.11	694.65
118B	797.58	104.43	693.15	104.65	692.93	103.51	694.07	103.48	694.10	103.70	693.88
118C	795.21	105.20	690.01	105.41	689.80	104.24	690.97	104.26	690.95	104.48	690.73
119A	777.48	32.62	744.86	35.59	741.89	33.46	744.02	32.96	744.52	33.41	744.07
119B	776.16	84.51	691.65	85.40	690.76	84.18	691.98	84.55	691.61	84.52	691.64
119C	776.55	84.87	691.68	85.75	690.80	84.54	692.01	84.86	691.69	84.85	691.70
119D	775.53	83.65	691.88	84.49	691.04	83.27	692.26	83.69	691.84	83.70	691.83
131B	821.22	129.16	692.06	130.58	690.64	129.38	691.84	129.48	691.74	129.62	691.60
131C	820.46	128.97	691.49	129.86	690.60	128.95	691.51	129.15	691.31	128.91	691.55
137A	820.29	127.39	692.90	128.35	691.94	127.22	693.07	127.16	693.13	127.50	692.79
137B	819.20	126.30	692.90	127.23	691.97	126.10	693.10	126.10	693.10	126.47	692.73
138A	797.44										
138A	787.12	94.40	692.72	95.41	691.71	94.23	692.89	94.22	692.90	94.47	692.65
138B	797.58										
138B	788.61	95.83	692.78	96.77	691.84	95.65	692.96	95.61	693.00	95.95	692.66
140	700.32	10.05	690.91	NM	--	10.20	690.12	9.71	690.61	10.10	690.22
145B	749.27	58.27	691.00	59.21	690.06	58.08	691.19	58.35	690.92	58.33	690.94
145C	749.42	58.48	690.94	59.48	689.94	58.35	691.07	58.56	690.86	58.60	690.82
MW-6A	733.29	40.55	692.74	NM	--	40.21	693.08	NM	--	40.49	692.80

REFER TO PAGE 17 FOR NOTES

**TABLE 1  
GROUNDWATER ELEVATION DATA AND MONITORING WELL SUMMARY  
PARKER LANDFILL  
LYNDON, VERMONT**

**Notes:**

1. Well construction type, screened interval, and screened formation obtained from boring log (and/or monitoring well log) contained in either Final RI Report, Appendix G - Groundwater Monitoring Well Installation Reports, January 18, 1994 or Dames & Moore Long-Term Monitoring Plan Report for January 2000. Reference elevations for these wells obtained from Table 2-10 of the Final RI Report, January 18, 1994.
2. Screened interval corresponds to depth below top of casing.
3. Where no other data is available, depth to base of screened interval corresponds to field measured total well depth.
4. Reference elevations based on site survey performed in March 2000 by URS.
5. Due to construction activities B111R, B112B, B138A and B138B were not accessible during periods from 1999-2000. Construction activities involved adjusting the height of the well casing above ground surface. These wells, with the exception of B111R, were resurveyed in August 2003 by URS.
6. A correction has been made to the reference elevation for monitoring well B-126B based upon the August 2003 survey data. Historical water elevations for this monitoring well have been modified from previous reports.

**Legend:**

- DTW - depth to water  
WSE - groundwater surface elevation  
TOR - top of rock  
OC - outer casing  
>102 - depth to water exceeded field measuring probe.  
NM - water level not measured due to damage, snow accumulation, or lock icing.  
DAMAGED - well casing damaged, water level measurement not obtained.  
NI - Well not installed at time of monitoring event.  
-- = Not Calculated

**TABLE 2**  
**INDICATOR PARAMETER MEASUREMENTS**  
**LTMP MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

	WELL	pH													
		(std. units)													
		EVENT	Jan-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Oct-02	Apr-03
Shallow Overburden Wells	B-102A	NS	8.02	7.82	NM	8.33	NS	8.31	NS	9.62	NS	7.93	8.28	8.31	9.29
	B-103A	7.70	8.16	8.56	8.50	8.18	NS	8.43	NS	8.77	NS	8.47	8.55	8.91	9.50
	B-113A	NS	7.72	7.72	7.46	7.57	NS	7.62	NS	7.82	NS	7.56	7.60	7.48	7.49
	B-118A	NS	7.55	7.55	7.46	7.46	NS	8.01	NS	7.47	NS	7.48	7.88	7.44	7.93
	B-119B	NS	7.31	8.04	7.37	7.90	NS	8.05	NS	8.40	NS	8.06	7.92	7.65	8.10
	B-120A	NS	7.22	7.00	7.12	7.21	NS	7.06	NS	7.26	NS	7.16	7.71	7.18	7.36
	B-120B	7.40	NS	NS											
	B-121OW	NS	7.43	7.19	7.70	8.17	NS	7.51	NS	7.50	NS	7.44	7.36	7.46	7.26
	B-126S	NS	6.85	6.85	NM	7.47	NS	6.41	NS	6.28	NS	6.89	6.98	6.48	6.37
	B-131B	NS	8.80	8.95	8.67	8.69	NS	8.67	NS	9.36	NS	9.05	8.96	9.00	8.94
	B-133	NS	6.76	6.46	6.76	6.93	NS	6.78	NS	7.22	NS	6.89	6.92	6.83	6.76
	B-136A	NS	7.45	7.21	7.22	7.24	NS	6.67	NS	7.16	NS	6.86	7.56	7.15	7.21
	B-137A	NS	7.93	NS	NS										
	B-138A	7.90	7.94	8.21	NS	8.20	NS	8.20	NS	8.47	NS	8.20	8.24	8.19	8.23
	B-139A	7.70	7.72	7.85	7.36	8.01	NS	7.93	NS	8.06	NS	8.07	7.89	8.00	7.79
	B-144A	NS	7.74	7.80	7.43	7.47	NS	8.47	NS	8.38	NS	8.04	8.43	7.92	9.41
	B-201OW	NS	6.53	6.32	6.33	6.30	NS	6.38	NS	6.42	NS	6.34	7.04	6.35	6.70
MW-4A	NS	5.98	5.83	5.66	6.36	NS	5.95	NS	6.04	NS	6.04	6.56	6.23	6.39	
MW-6A	NS	8.39	NS												
Top-of-Rock Wells	B-101B	NS	7.16	7.39	7.54	7.66	NS	7.54	NS	9.70	NS	7.59	7.62	7.62	8.64
	B-102B	NS	8.09	8.06	8.18	8.05	NS	8.23	NS	9.65	NS	8.15	8.63	8.17	9.98
	B-103C	8.00	7.32	7.70	7.80	7.86	NS	7.75	NS	10.08	NS	7.84	7.79	7.58	8.74
	B-112B	7.80	NS	NS											
	B-113BB	NS	7.45	7.31	7.30	7.25	NS	7.38	NS	7.53	NS	7.40	7.45	7.39	7.46
	B-118B	7.30	7.80	7.82	6.90	7.77	NS	8.49	NS	7.82	NS	7.84	8.23	7.77	8.26
	B-119C	7.80	7.61	7.78	7.29	7.60	NS	7.61	NS	8.08	NS	7.81	7.68	7.61	7.80
	B-120C	NS	8.06	7.95	8.00	8.00	NS	8.01	NS	8.43	NS	8.09	8.42	8.13	8.23
	B-122	NS	7.85	7.66	7.16	7.55	NS	7.89	NS	8.12	NS	7.75	8.39	7.82	8.06
	B-125A	7.70	7.64	7.42	7.11	7.55	NS	7.46	NS	7.64	NS	7.60	7.82	7.62	7.68
	B-126A	6.90	8.00	7.93	7.93	8.69	NS	7.92	NS	8.06	NS	7.88	9.36	7.80	7.87
	B-131C	7.50	7.95	7.66	7.43	7.45	NS	7.45	NS	7.46	NS	7.45	7.37	7.66	7.50
	B-132	7.80	7.31	7.70	6.53	7.64	NS	7.90	NS	7.90	NS	8.09	8.24	8.17	8.43
	B-136B	6.90	6.92	7.24	6.72	7.05	NS	7.34	NS	7.31	NS	7.11	7.43	6.96	6.80
	B-137B	NS	7.50	7.55	7.26	7.15	NS	7.47	NS	7.96	NS	7.56	7.46	7.37	7.64
	B-138B	NS	6.42	6.83	NS	7.27	NS	6.81	NS	6.93	NS	6.89	6.96	NS <sup>d</sup>	7.11
	B-139B	NS	8.41	8.32	8.27	8.60	NS	8.07	NS	9.78	NS	8.45	8.53	8.95	8.49
B-144B	NS	7.54	7.78	7.59	7.90	NS	8.44	NS	8.10	NS	8.00	8.10	7.97	9.36	
B-145B	NS	7.80	7.86	7.71	7.70	NS	8.34	NS	7.99	NS	7.86	7.89	7.83	8.23	
Bedrock Wells	B-113C	12.80	NS	12.56	NM	11.10	NS	11.62	NS	NS	NS	NS	NS	NS	
	B-118C	NS	NS	11.65	10.17	9.63	NS	10.74	NS	9.52	NS	9.38	9.40	8.66	9.19
	B-119D	NS	NS	8.08	10.41	9.63	NS	9.96	NS	10.34	NS	11.77	11.83	11.00	12.17
	B-120D	NS	7.83	8.02	7.97	7.11	NS	7.66	NS	8.00	NS	8.15	7.93	7.50	7.84
	B-125B	9.20	8.29	8.04	7.38	8.27	NS	8.16	NS	8.13	NS	8.40	8.64	8.20	8.28
	B-126B	8.00	NS	NS	12.73	11.90	NS	11.60	NS	10.84	NS	9.69	10.67	8.79	8.87
	B-132B	9.10	9.86	11.18	10.90	9.60	NS	9.91	NS	11.51	NS	10.49	10.97	10.84	10.77
	B-136C	7.30	6.95	7.00	6.72	6.95	NS	6.89	NS	7.02	NS	7.08	7.49	7.07	7.18
	B-139C	8.10	7.97	8.34	8.03	8.20	NS	8.01	NS	9.07	NS	8.12	8.08	8.21	8.08
	B-143	NS	9.12	9.63	9.30	9.63	NS	9.52	NS	9.70	NS	9.72	9.57	9.72	9.78
	B-144C	NS	NS	9.24	9.75	9.20	NS	10.01	NS	10.07	NS	9.70	10.07	9.83	11.88
B-145C	NS	NS	10.33	10.39	9.20	NS	9.85	NS	8.91	NS	8.60	8.40	8.46	9.61	
Surface Water	SW01	NS	NS	7.70	6.74	7.41	NS	7.61	NS	7.58	NS	7.82	6.53	7.38	7.74
	SW02	NS	6.94	7.20	6.67	7.58	NS	7.56	NS	6.97	NS	7.65	6.78	7.36	7.24
	SW03	NS	NS	7.85	7.64	8.03	NS	7.96	NS	8.09	NS	8.04	7.23	7.71	7.85
	SW04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.08
	SW05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.09
	SW06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.10
Residential Wells	Boulangier	NS	7.61	7.88	7.49	7.84	NS	NS							
	Dodge	NS	7.42	8.25	7.45	7.75	7.72	7.62	7.55	8.00	7.49	7.63	NS	NS	NS
	Mosher	NS	7.61	7.58	7.52	7.43	NS	NS							
	Sheltra	NS	6.72	6.62	6.96	6.96	6.85	6.87	6.89	6.90	6.56	6.70	NS	NS	NS
	Vicaire-1	NS	7.89	8.08	8.09	7.98	NS	NS							
Vicaire-2	NS	7.89	NS												

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**TABLE 2  
INDICATOR PARAMETER MEASUREMENTS  
LTMP MONITORING EVENTS  
PARKER LANDFILL  
LYNDON, VERMONT**

	WELL	Temperature													
		°C													
		EVENT	Jan-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Oct-02	Apr-03
Shallow Overburden Wells	B-102A	NS	6.10	7.50	8.80	7.77	NS	10.35	NS	7.74	NS	7.53	7.24	7.70	7.96
	B-103A	6.50	6.80	8.20	9.50	8.10	NS	8.30	NS	7.81	NS	7.56	7.07	9.23	9.37
	B-113A	NS	8.50	13.20	11.10	10.90	NS	12.16	NS	13.83	NS	12.28	12.92	8.65	9.96
	B-118A	NS	11.00	12.20	12.80	11.99	NS	13.04	NS	14.17	NS	12.01	11.04	13.44	12.64
	B-119B	NS	8.20	8.90	11.00	10.40	NS	10.20	NS	11.60	NS	10.05	10.51	12.48	10.97
	B-120A	NS	9.60	8.90	14.50	9.89	NS	11.11	NS	9.83	NS	10.37	10.24	11.63	10.09
	B-120B	8.80	NS	NS											
	B-121OW	NS	8.30	7.30	9.90	9.44	NS	9.71	NS	11.40	NS	8.53	12.46	12.26	10.59
	B-126S	NS	7.10	4.50	10.00	10.11	NS	3.73	NS	9.97	NS	4.75	11.35	5.01	11.42
	B-131B	NS	11.10	11.50	12.10	11.79	NS	11.87	NS	12.26	NS	11.77	10.78	11.53	11.93
	B-133	NS	8.20	7.30	10.00	8.06	NS	7.45	NS	9.89	NS	8.57	10.83	9.20	10.93
	B-136A	NS	6.90	7.40	7.30	7.34	NS	7.18	NS	7.25	NS	7.08	7.45	7.27	7.82
	B-137A	NS	10.10	NS	NS										
	B-138A	11.90	10.50	11.10	NS	11.06	NS	14.20	NS	12.67	NS	12.34	11.42	10.57	14.29
	B-139A	8.50	8.10	7.40	9.40	9.36	NS	9.64	NS	9.90	NS	10.00	10.90	9.73	10.12
	B-144A	NS	7.80	9.30	10.90	8.38	NS	10.86	NS	8.32	NS	8.27	8.08	8.96	8.65
	B-201OW	NS	6.70	7.10	10.80	9.60	NS	8.83	NS	10.71	NS	8.16	9.80	8.75	13.55
MW-4A	NS	7.90	6.90	10.40	7.27	NS	7.14	NS	7.25	NS	7.03	7.59	7.45	7.65	
MW-6A	NS	7.10	NS												
Top-of-Rock Wells	B-101B	NS	9.60	9.70	11.40	8.90	NS	11.37	NS	11.05	NS	10.17	10.93	12.23	10.75
	B-102B	NS	8.70	9.10	10.70	9.58	NS	10.81	NS	9.87	NS	9.62	9.64	10.66	9.81
	B-103C	8.60	9.60	10.00	11.20	10.49	NS	10.70	NS	10.76	NS	9.90	10.47	11.45	10.60
	B-112B	13.40	NS	NS											
	B-113BB	NS	9.10	10.00	11.70	10.35	NS	10.98	NS	10.90	NS	10.28	9.54	7.12	10.04
	B-118B	7.90	8.70	8.50	9.60	9.32	NS	9.28	NS	9.92	NS	9.47	8.56	8.84	8.85
	B-119C	9.50	9.10	9.30	11.20	10.18	NS	10.23	NS	10.51	NS	9.70	7.74	14.98	10.28
	B-120C	NS	8.70	9.00	10.30	9.36	NS	9.98	NS	9.30	NS	9.48	8.97	9.04	9.28
	B-122	NS	8.60	9.20	10.80	10.60	NS	9.70	NS	10.55	NS	9.07	9.17	10.86	9.54
	B-125A	7.20	7.10	8.00	9.70	8.05	NS	7.84	NS	8.21	NS	8.11	8.23	8.43	8.85
	B-126A	7.70	6.60	7.60	8.40	7.59	NS	8.22	NS	7.72	NS	7.02	8.62	8.90	10.74
	B-131C	8.70	9.70	9.40	10.00	10.53	NS	8.98	NS	9.29	NS	9.02	9.19	9.55	8.91
	B-132	8.00	6.90	8.00	9.50	7.05	NS	8.49	NS	8.59	NS	7.84	8.14	8.63	9.14
	B-136B	7.70	7.40	8.00	10.30	8.28	NS	8.45	NS	8.20	NS	8.03	8.10	8.71	8.38
	B-137B	NS	8.20	9.50	10.10	9.30	NS	10.49	NS	9.24	NS	9.67	9.54	9.48	10.30
	B-138B	NS	7.20	9.60	NS	9.83	NS	9.89	NS	9.78	NS	9.16	8.55	NS <sup>6</sup>	9.18
	B-139B	NS	8.10	8.80	9.10	9.81	NS	9.57	NS	8.99	NS	8.80	7.85	7.78	9.08
B-144B	NS	6.10	8.50	12.20	11.80	NS	14.15	NS	10.13	NS	8.73	10.36	13.85	11.46	
B-145B	NS	8.60	9.40	10.60	9.90	NS	9.52	NS	10.17	NS	9.39	9.71	10.05	9.95	
Bedrock Wells	B-113C	6.80	NS	9.90	14.60	10.10	NS	12.26	NS	NS	NS	NS	NS	NS	NS
	B-118C	NS	NS	9.40	10.40	9.08	NS	8.90	NS	9.88	NS	9.54	8.20	7.12	8.85
	B-119D	NS	NS	7.64	11.50	7.90	NS	10.36	NS	10.28	NS	7.69	7.49	11.06	8.29
	B-120D	NS	6.30	9.10	11.00	10.00	NS	9.87	NS	7.22	NS	9.82	8.21	8.08	9.54
	B-125B	5.00	5.80	8.00	11.30	8.60	NS	8.45	NS	8.56	NS	7.72	7.94	7.78	8.56
	B-126B	8.00	NS	NS	10.00	8.70	NS	14.62	NS	9.28	NS	8.01	9.79	10.03	10.1
	B-132B	4.30	6.40	7.70	10.00	7.13	NS	8.16	NS	7.75	NS	7.20	7.68	7.16	8.67
	B-136C	6.00	7.00	7.80	9.39	8.01	NS	7.60	NS	7.67	NS	7.50	7.66	7.69	7.94
	B-139C	5.30	7.80	7.30	10.70	9.29	NS	9.80	NS	8.96	NS	8.85	9.12	8.89	9.42
	B-143	NS	6.60	6.90	9.20	9.87	NS	9.27	NS	9.15	NS	9.30	8.01	7.93	10.14
	B-144C	NS	NS	10.00	11.00	10.70	NS	12.94	NS	9.25	NS	7.67	7.18	11.78	12.14
B-145C	NS	NS	9.80	10.90	9.70	NS	9.82	NS	9.72	NS	9.11	9.39	10.33	9.99	
Surface Water	SW01	NS	NS	7.00	15.20	5.84	NS	10.64	NS	4.42	NS	9.60	6.85	14.50	7.40
	SW02	NS	4.10	7.00	11.60	7.52	NS	7.21	NS	8.11	NS	8.94	5.25	6.38	6.37
	SW03	NS	NS	6.50	17.20	7.17	NS	4.87	NS	8.99	NS	7.15	4.41	8.03	5.53
	SW04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.81
	SW05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.68
	SW06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.68
Residential Wells	Boulanger	NS	11.40	8.50	9.80	8.58	NS	NS							
	Dodge	NS	16.60	7.74	10.00	10.58	13.09	9.10	11.17	12.34	9.19	8.35	NS	NS	NS
	Mosher	NS	11.00	8.00	11.30	10.31	NS								
	Sheltra	NS	11.70	10.00	13.10	12.61	10.12	11.81	16.90	12.24	11.02	10.83	NS	NS	NS
	Vicaire-1	NS	11.70	8.00	10.70	11.29	NS								
Vicaire-2	NS	11.70	NS												

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**TABLE 2  
INDICATOR PARAMETER MEASUREMENTS  
LTMP MONITORING EVENTS  
PARKER LANDFILL  
LYNDON, VERMONT**

	WELL	Specific Conductance (umhos/cm)													
		EVENT	Jan-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Oct-02	Apr-03
Shallow Overburden Wells	B-102A	NS	78000	170	137	115	NS	142	NS	150	NS	147	149	158	101
	B-103A	62000	64000	126	96	112	NS	87	NS	109	NS	102	116	118	89
	B-113A	NS	310	353	422	294	NS	273	NS	314	NS	346	346	409	314
	B-118A	NS	759	843	781	742	NS	646	NS	744	NS	831	698	816	589
	B-119B	NS	532	601	519	413	NS	400	NS	460	NS	495	450	482	356
	B-120A	NS	370	3000	524	469	NS	417	NS	416	NS	549	465	420	352
	B-120B	593	NS	NS											
	B-121OW	NS	374	345	305	332	NS	254	NS	298	NS	370	352	318	258
	B-126S	NS	300	364	279	188	NS	221	NS	179	NS	259	227	219	161
	B-131B	NS	191	213	170	148	NS	171	NS	166	NS	181	169	189	141
	B-133	NS	1500	1442	1092	681	NS	478	NS	589	NS	880	504	604	339
	B-136A	NS	357	358	222	320	NS	296	NS	369	NS	308	360	317	230
	B-137A	NS	315	NS	NS										
	B-138A	209	194	222	NS	149	NS	141	NS	143	NS	203	174	162	133
	B-139A	229	285	258	275	236	NS	154	NS	247	NS	194	266	197	181
	B-144A	NS	209	234	278	175	NS	1870	NS	196	NS	140	227	223	134
	B-201OW	NS	210	251	236	219	NS	225	NS	266	NS	277	223	201	172
MW-4A	NS	289	275	196	168	NS	182	NS	246	NS	295	262	247	138	
MW-6A	NS	138	NS												
Top-of-Rock Wells	B-101B	NS	360	368	414	285	NS	280	NS	313	NS	339	314	338	248
	B-102B	NS	232	266	282	197	NS	187	NS	211	NS	234	210	229	140
	B-103C	305	305	312	348	276	NS	236	NS	262	NS	274	283	289	210
	B-112B	302	NS	NS											
	B-113BB	NS	1195	1348	1699	1447	NS	1217	NS	1636	NS	1652	1627	1643	1184
	B-118B	312	296	310	252	225	NS	229	NS	270	NS	298	272	296	192
	B-119C	484	480	528	451	401	NS	408	NS	485	NS	485	477	492	326
	B-120C	NS	220	297	305	287	NS	283	NS	249	NS	229	356	239	226
	B-122	NS	170	270	245	240	NS	206	NS	222	NS	284	256	237	167
	B-125A	300	279	280	213	222	NS	221	NS	277	NS	327	287	246	203
	B-126A	50	276	311	338	243	NS	237	NS	268	NS	306	265	299	250
	B-131C	419	530	588	525	571	NS	775	NS	1003	NS	1044	814	404	682
	B-132	692	652	595	681	458	NS	387	NS	318	NS	346	259	229	153
	B-136B	1231	578	423	293	391	NS	317	NS	494	NS	855	892	1095	980
	B-137B	NS	1048	1178	1055	120	NS	894	NS	1047	NS	760	1003	961	657
	B-138B	NS	2110	2243	NS	2135	NS	1643	NS	1770	NS	1590	1571	NS <sup>6</sup>	1221
	B-139B	NS	178	188	242	156	NS	156	NS	159	NS	187	179	152	122
B-144B	NS	270	235	200	178	NS	179	NS	188	NS	197	214	214	154	
B-145B	NS	347	392	448	263	NS	238	NS	284	NS	308	384	405	312	
Bedrock Wells	B-113C	3500	NS	3551	500	867	NS	1121	NS	NS	NS	NS	NS	NS	
	B-118C	NS	NS	530	166	197	NS	166	NS	208	NS	219	218	236	155
	B-119D	NS	NS	324	392	226	NS	245	NS	399	NS	693	823	667	751
	B-120D	NS	280	353	468	470	NS	288	NS	313	NS	322	310	267	225
	B-125B	298	288	288	185	162	NS	182	NS	266	NS	224	235	293	186
	B-126B	278	NS	NS	2331	1464	NS	820	NS	316	NS	258	244	217	158
	B-132B	503	452	409	423	344	NS	293	NS	281	NS	276	251	177	135
	B-136C	868	1361	1305	1089	1110	NS	1054	NS	1264	NS	832	1219	1243	739
	B-139C	269	252	259	311	204	NS	202	NS	228	NS	238	225	196	155
	B-143	NS	49000	114	150	68	NS	64	NS	109	NS	95	89	68	51
B-144C	NS	NS	175	140	136	NS	138	NS	148	NS	153	173	175	151	
B-145C	NS	NS	354	307	203	NS	239	NS	279	NS	342	389	374	323	
Surface Water	SW01	NS	NS	169	386	230	NS	167	NS	285	NS	251	305	304	200
	SW02	NS	220	175	452	331	NS	184	NS	351	NS	400	395	355	223
	SW03	NS	NS	103	385	194	NS	103	NS	189	NS	167	242	186	163
	SW04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	144
	SW05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	144
	SW06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	144
Residential Wells	Boulanger	NS	276	183	275	153	NS	NS							
	Dodge	NS	985	475	754	631	1366	537	465	393	502	486	NS	NS	NS
	Mosher	NS	416	325	523	540	NS	NS							
	Sheltra	NS	322	198	262	256	778	221	201	233	386	308	NS	NS	NS
	Vicaire-1	NS	279	185	278	143	NS	NS							
Vicaire-2	NS	279	NS												

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**TABLE 2  
INDICATOR PARAMETER MEASUREMENTS  
LTMP MONITORING EVENTS  
PARKER LANDFILL  
LYNDON, VERMONT**

	WELL	Dissolved Oxygen (mg/l)													
		EVENT	Jan-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Oct-02	Apr-03
Shallow Overburden Wells	B-102A	NS	8.15 <sup>1</sup>	8.66 <sup>1</sup>	9.15 <sup>1</sup>	8.6 <sup>1</sup>	NS	5.44 <sup>1</sup>	NS	2.29 <sup>1</sup>	NS	8.13 <sup>1</sup>	16.49 <sup>1</sup>	7.04 <sup>1</sup>	9.74 <sup>1</sup>
	B-103A	11.4 <sup>2</sup>	10.53 <sup>1</sup>	11.16 <sup>1</sup>	11.16 <sup>1</sup>	10.63 <sup>1</sup>	NS	11.59 <sup>1</sup>	NS	11.91 <sup>1</sup>	NS	11.18 <sup>1</sup>	22.62 <sup>1</sup>	14.42 <sup>1</sup>	11.77 <sup>1</sup>
	B-113A	NS	9.89	9.13	8.27	8.10	NS	11.58	NS	6.31	NS	4.50	11.44	7.09	8.13
	B-118A	NS	4.35	5.01	5.61	6.29	NS	4.50	NS	4.32	NS	3.74	3.54	6.40	4.37
	B-119B	NS	1.16	0.33	0.22	0.76	NS	0.77	NS	0.48	NS	0.19	0.23	1.73	1.07
	B-120A	NS	10.33	10.05	10.80	9.21	NS	16.30	NS	9.97	NS	10.67	14.25	10.50	10.52
	B-120B	9.40	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	B-121OW	NS	10.38	10.51	10.27	5.64	NS	0.38	NS	8.86	NS	9.71	10.74	6.27	4.61
	B-126S	NS	2.68	6.54	1.97	2.34	NS	2.70	NS	4.58	NS	10.59	3.46	8.13	3.14
	B-131B	NS	0.51	0.42	1.00	0.70	NS	0.72	NS	0.53	NS	0.34	0.86	0.97	0.74
	B-133	NS	1.66	0.21	0.40	0.91	NS	0.38	NS	0.48	NS	0.69	4.56	3.27	2.54
	B-136A	NS	9.70	11.00	11.72	9.81	NS	11.50	NS	10.76	NS	10.65	12.60	10.92	10.69
	B-137A	NS	3.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	B-138A	10.38	10.01	9.30	NS	9.01	NS	9.25	NS	8.53	NS	8.21	10.92	10.73	8.47
	B-139A	7.44	6.53	7.65	7.78	7.34	NS	8.27	NS	6.31	NS	8.82	8.39	7.25	6.79
	B-144A	NS	9.04 <sup>1</sup>	6.44 <sup>1</sup>	8.46 <sup>1</sup>	9.27 <sup>1</sup>	NS	3.13 <sup>1</sup>	NS	8.18 <sup>1</sup>	NS	10.55 <sup>1</sup>	11.02 <sup>1</sup>	11.18 <sup>1</sup>	11.73 <sup>1</sup>
	B-201OW	NS	3.28	3.87	5.27	4.35	NS	2.22	NS	7.09	NS	7.73	8.23	7.04	7.45
MW-4A	NS	3.65	5.15	6.47	6.09	NS	7.09	NS	7.11	NS	8.10	9.42	8.83	9.23	
MW-6A	NS	11.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Top-of-Rock Wells	B-101B	NS	0.92	0.21	0.21	0.66	NS	0.96	NS	0.55	NS	0.22	0.60	1.85	0.29
	B-102B	NS	0.58	0.24	0.17	0.40	NS	0.45	NS	0.22	NS	0.30	0.80	1.61	3.88
	B-103C	3.29	1.09	0.42	0.38	0.26	NS	1.12	NS	0.34	NS	0.24	0.60	1.84	0.31
	B-112B	5.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	B-113BB	NS	0.61	0.25	0.23	4.00	NS	0.26	NS	0.53	NS	0.15	0.20	0.29	0.61
	B-118B	1.53	0.82	0.37	0.39	0.71	NS	0.69	NS	0.61	NS	0.13	0.25	2.28	0.35
	B-119C	1.49	0.53	0.22	0.26	0.31	NS	0.18	NS	0.59	NS	0.17	0.36	2.50	0.29
	B-120C	NS	0.62	0.17	0.23	NA <sup>4</sup>	NS	0.08	NS	0.41	NS	0.50	0.35	0.21	0.19
	B-122	NS	0.78	0.22	0.31	0.43	NS	0.15	NS	0.80	NS	0.19	0.67	1.69	0.21
	B-125A	0.99	0.60	0.20	0.19	0.74	NS	0.35	NS	0.68	NS	0.22	0.51	0.27	0.29
	B-126A	3.32	1.24	0.44	11.77	0.26	NS	0.22	NS	0.33	NS	0.15	0.67	2.12	0.33
	B-131C	2.43	0.47	0.23	0.20	0.73	NS	0.50	NS	0.43	NS	0.13	0.14	0.75	0.41
	B-132	1.29	0.77	0.53	0.75	1.32	NS	3.32	NS	3.81	NS	5.30	8.26	5.65	6.96
	B-136B	1.39	0.90	0.20	0.18	0.26	NS	0.19	NS	0.64	NS	0.10	0.67	2.40	0.89
	B-137B	NS	0.96	0.27	0.25	NA <sup>4</sup>	NS	0.20	NS	0.40	NS	0.15	0.20	2.29	0.15
	B-138B	NS	0.44	0.18	NS	NA <sup>4</sup>	NS	2.21	NS	0.91	NS	0.15	0.35	NS <sup>6</sup>	0.64
	B-139B	NS	0.41	0.13	0.06	0.34	NS	0.13	NS	0.40	NS	0.12	0.20	2.68	0.24
B-144B	NS	1.88	0.49	0.58	0.93	NS	1.66	NS	3.36	NS	2.18	2.28	2.56	3.90	
B-145B	NS	0.82	0.21	0.25	0.38	NS	0.65	NS	0.55	NS	0.15	0.44	0.25	0.38	
Bedrock Wells	B-113C	2.09	NS	0.14	NA <sup>4</sup>	0.46	NS	0.27	NS	NS	NS	NS	NS	NS	NS
	B-118C	NS	NS	0.22	0.21	0.52	NS	0.59	NS	0.43	NS	0.22	0.28	1.90	0.69
	B-119D	NS	NS	0.78	0.41	0.55	NS	0.25	NS	0.59	NS	0.42	0.66	1.95	0.66
	B-120D	NS	2.58 <sup>1</sup>	1.63 <sup>1</sup>	3.56 <sup>1</sup>	2.61 <sup>1</sup>	NS	0.25	NS	5.8 <sup>1</sup>	NS	7.84	9.32	3.78	6.16
	B-125B	1.17	0.72	0.14	0.11	0.22	NS	0.14	NS	0.56	NS	0.07	0.19	0.14	0.14
	B-126B	0.79	NS	NS	0.22	0.28	NS	0.30	NS	0.58	NS	0.70	0.69	2.27	0.19
	B-132B	0.50	0.86	0.21	0.14	0.25	NS	0.05	NS	0.40	NS	0.10	0.10	2.33	0.14
	B-136C	0.95	0.50	0.17	1.30	0.31	NS	0.60	NS	0.77	NS	0.06	2.75	0.12	0.30
	B-139C	0.66	0.58	0.10	0.23	0.46	NS	0.14	NS	0.13	NS	0.21	0.46	2.54	0.32
	B-143	NS	2.17	0.21	0.11	0.24	NS	0.30	NS	0.42	NS	0.07	0.11	2.23	0.17
	B-144C	NS	NS	0.32	0.27	1.13	NS	0.74	NS	0.84	NS	2.01	0.54	0.48	0.52
B-145C	NS	NS	0.23	0.29	0.37	NS	0.10	NS	0.67	NS	0.17	0.19	0.26	0.28	
Surface Water	SW01	NS	NS	NA	9.65	14.50	NS	11.06	NS	11.66	NS	10.21	10.62	15.34	11.38
	SW02	NS	3.60	NA	5.31	10.33	NS	11.86	NS	2.90	NS	8.98	10.24	12.89	7.41
	SW03	NS	NS	NA	10.13	11.75	NS	12.08	NS	14.05	NS	11.63	11.74	12.89	11.58
	SW04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	12.21
	SW05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	12.09
	SW06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	12.11
Residential Wells	Boulangier	NS	NA	NS	NS	3.42	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dodge	NS	NA	NS	NS	6.87	5.63	8.03	8.07	8.71	2.80	6.34	NS	NS	NS
	Mosher	NS	NA	NS	NS	13.05	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Sheltra	NS	NA	NA	NS	9.15	2.62	11.87	15.92	8.29	4.60	10.69	NS	NS	NS
	Vicaire-1	NS	NA	NA	NS	2.07	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vicaire-2	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

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**TABLE 2  
INDICATOR PARAMETER MEASUREMENTS  
LTMP MONITORING EVENTS  
PARKER LANDFILL  
LYNDON, VERMONT**

	WELL	Redox Potential													
		(mV)													
		EVENT	Jan-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Oct-02	Apr-03
Shallow Overburden Wells	B-102A	NS	45 <sup>1</sup>	186.3 <sup>1</sup>	102.7 <sup>1</sup>	147.3 <sup>1</sup>	NS	-23.5 <sup>1</sup>	NS	12.9 <sup>1</sup>	NS	125.3 <sup>1</sup>	74.3 <sup>1</sup>	223.9 <sup>1</sup>	-34.7 <sup>1</sup>
	B-103A	93 <sup>2</sup>	165 <sup>1</sup>	98.6 <sup>1</sup>	165.9 <sup>1</sup>	230.4 <sup>1</sup>	NS	163.5 <sup>1</sup>	NS	100.9 <sup>1</sup>	NS	309.1 <sup>1</sup>	29.2 <sup>1</sup>	228.7 <sup>1</sup>	-17.3 <sup>1</sup>
	B-113A	NS	48.0	56.1	143.3	154.0	NS	28.7	NS	169.0	NS	121.5	130.9	20.9	73.2
	B-118A	NS	-5.0	35.9	39.2	141.3	NS	NA <sup>5</sup>	NS	87.1	NS	121.6	3.6	43.1	27.6
	B-119B	NS	-56.0	-173.4	-67.0	-164.1	NS	NA <sup>5</sup>	NS	-100.0	NS	-136.9	-102.6	-158.2	-176.5
	B-120A	NS	227.0	211.0	155.5	224.1	NS	NA <sup>5</sup>	NS	193.3	NS	255.4	10.8	96.5	40.4
	B-120B	11.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	B-121OW	NS	178.0	199.0	121.2	273.2	NS	NA <sup>5</sup>	NS	72.9	NS	265.0	170.8	132.1	116.7
	B-126S	NS	-413.0	145.7	-29.1	175.0	NS	NA <sup>5</sup>	NS	284.1	NS	169.9	79.3	319.2	206.0
	B-131B	NS	-228.0	-275.7	-3.0	-214.0	NS	-218.4	NS	-62.0	NS	-60.1	66.5	-40.9	-40.9
	B-133	NS	-32.0	67.4	70.1	113.1	NS	20.9	NS	93.6	NS	78.4	205.7	174.4	55.4
	B-136A	NS	228.0	102.5	188.5	225.6	NS	NA <sup>5</sup>	NS	152.4	NS	341.1	91.0	280.9	145.2
	B-137A	NS	-29.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	B-138A	-36.0	43.0	104.7	NS	226.6	NS	-12.6	NS	131.2	NS	287.9	122.2	3.2	23.4
	B-139A	0.0	108.0	73.9	208.0	102.0	NS	43.8	NS	140.7	NS	117.6	103.6	74.5	15.2
	B-144A	NS	120 <sup>1</sup>	72.3 <sup>1</sup>	261 <sup>1</sup>	210.9 <sup>1</sup>	NS	NA <sup>5</sup>	NS	104.4 <sup>1</sup>	NS	116.5 <sup>1</sup>	128.9 <sup>1</sup>	256.2 <sup>1</sup>	161.9 <sup>1</sup>
	B-201OW	NS	68.0	254.0	221.2	152.0	NS	NA <sup>5</sup>	NS	65.9	NS	281.6	42.0	196.5	10.2
MW-4A	NS	121.0	269.0	125.7	237.2	NS	NA <sup>5</sup>	NS	198.4	NS	373.3	97.6	269.0	170.4	
MW-6A	NS	119.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Top-of-Rock Wells	B-101B	NS	-97.0	-134.3	-131.0	-39.8	NS	-220.0	NS	-146.5	NS	-119.4	-88.8	-124.6	-157.7
	B-102B	NS	-200.0	-179.8	-190.0	-65.6	NS	-253.8	NS	-61.3	NS	-141.0	117.8	-145.7	-42.1
	B-103C	-125.0	-5.0	-151.9	163.4	-232.3	NS	-250.9	NS	-174.4	NS	-142.9	-134.9	-136.2	-181.7
	B-112B	-17.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	B-113BB	NS	-224.0	-210.0	-156.4	-167.6	NS	-238.9	NS	-195.2	NS	-173.8	-151.7	-159.0	-209.9
	B-118B	-139.0	-146.0	-152.6	-20.9	-158.6	NS	NA <sup>5</sup>	NS	-174.5	NS	-184.1	-85.7	-144.0	-196.8
	B-119C	-133.0	-151.0	-149.7	-100.4	-75.3	NS	NA <sup>5</sup>	NS	-122.7	NS	-138.6	-100.6	-92.8	-108.8
	B-120C	NS	-147.0	187.9	-191.8	-212.9	NS	NA <sup>5</sup>	NS	-53.0	NS	-136.6	-92.6	-163.0	-174.1
	B-122	NS	-136.0	-148.6	13.7	-89.8	NS	-191.2	NS	-5.9	NS	-85.4	-10.7	-75.7	-164.3
	B-125A	-134.0	-142.0	-113.0	-75.0	-132.3	NS	NA <sup>5</sup>	NS	-157.9	NS	-112.7	-93.6	-117.7	-157.7
	B-126A	35.0	26.0	-90.0	-11.6	-40.8	NS	NA <sup>5</sup>	NS	43.4	NS	-56.1	-1.1	-44.9	-65.3
	B-131C	-199.0	-212.0	-198.4	-160.2	-186.7	NS	-202.9	NS	-199.9	NS	-166.2	-160.8	-156.0	-224.2
	B-132	-69.0	76.0	-50.9	410.0	200.7	NS	15.2	NS	120.2	NS	131.9	144.8	176.4	20.1
	B-136B	-84.0	-57.0	-86.2	-49.1	-65.4	NS	NA <sup>5</sup>	NS	-129.6	NS	-76.4	-78.1	-68.1	-130.9
	B-137B	NS	-180.0	-175.5	-157.6	-153.0	NS	-196.9	NS	-172.8	NS	-211.0	-158.6	-160.1	-214.2
	B-138B	NS	-109.0	-115.0	NS	237.0	NS	-165.2	NS	-166.7	NS	-113.9	-118.7	NS <sup>6</sup>	-183.3
	B-139B	NS	-295.0	-176.1	-159.9	-344.0	NS	-138.1	NS	-185.2	NS	-129.8	48.9	-173.2	-178.3
B-144B	NS	156.0	-124.4	3.4	-52.0	NS	NA <sup>5</sup>	NS	52.2	NS	51.5	60.3	90.1	37.4	
B-145B	NS	-518.0	-151.4	-159.2	-142.0	NS	NA <sup>5</sup>	NS	-182.3	NS	-143.3	-156.9	-165.3	-234.9	
Bedrock Wells	B-113C	-338.0	NS	-331.8	-237.0	-25.0	NS	-242.4	NS	NS	NS	NS	NS	NS	
	B-118C	NS	NS	-235.7	-172.1	-129.5	NS	NA <sup>5</sup>	NS	-60.8	NS	34.4	45.7	-134.7	-27.8
	B-119D	NS	NS	-151.6	-175.2	-85.1	NS	-39.4	NS	-40.0	NS	27.8	20.1	20.8	162.0
	B-120D	NS	-66 <sup>1</sup>	151 <sup>1</sup>	-170.5 <sup>1</sup>	-107 <sup>1</sup>	NS	NA <sup>5</sup>	NS	-148.6 <sup>1</sup>	NS	-18.4	-99.7	-81.9	-134.5
	B-125B	-256.0	-295.0	-272.9	-158.9	-287.1	NS	NA <sup>5</sup>	NS	-291.2	NS	-266.0	-241.3	-235.6	-276.1
	B-126B	-188.0	NS	NS	-14.4	100.0	NS	NA <sup>5</sup>	NS	-1.6	NS	-47.8	-40.6	220.3	-21.7
	B-132B	-214.0	-365.0	-315.0	-219.0	-370.4	NS	38.7	NS	-279.5	NS	53.8	70.6	-223.0	-447.5
	B-136C	-150.0	-143.0	-139.4	-103.0	-124.9	NS	NA <sup>5</sup>	NS	-161.1	NS	-107.6	-142.1	-127.9	-225.7
	B-139C	-165.0	-188.0	-196.2	-128.8	-176.1	NS	-206.2	NS	-188.7	NS	-117.9	-71.0	-137.8	-178.8
	B-143	NS	-6.0	-207.2	-268.5	-206.4	NS	-21.5	NS	-28.5	NS	-38.2	99.8	18.4	-82.3
B-144C	NS	NS	-183.5	-75.1	51.5	NS	NA <sup>5</sup>	NS	21.0	NS	30.4	103.0	64.6	-173.2	
B-145C	NS	NS	141.6	-4.4	-42.1	NS	NA <sup>5</sup>	NS	32.8	NS	-197.3	-24.0	-223.2	-191.7	
Surface Water	SW01	NS	NS	NA	207.9	112.7	NS	99.8	NS	152.4	NS	84.9	193.2	187.7	7.4
	SW02	NS	42.0	NA	14.1	35.0	NS	57.2	NS	117.1	NS	94.4	155.1	-7.5	61.2
	SW03	NS	NS	NA	177.5	122.5	NS	89.9	NS	107.7	NS	59.6	170.0	211.0	133.7
	SW04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	107.0
	SW05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	14.9
	SW06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	21
Residential Wells	Boulangier	NS	NA	NS	NS	201.8	NS	NS	NS	NS	NS	NS	NS	NS	
	Dodge	NS	NA	NS	NS	143.7	278.0	NS	68.4	125.5	82.3	252.1	NS	NS	
	Mosher	NS	NA	NS	NS	181.3	NS	NS	NS	NS	NS	NS	NS	NS	
	Sheltra	NS	NA	NA	NS	178.6	270.7	NS	109.5	129.1	149.4	308.9	NS	NS	
	Vicaire-1	NS	NA	NA	NS	-110.7	NS	NS	NS	NS	NS	NS	NS	NS	
Vicaire-2	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		

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**TABLE 2  
INDICATOR PARAMETER MEASUREMENTS  
LTMP MONITORING EVENTS  
PARKER LANDFILL  
LYNDON, VERMONT**

	WELL	Turbidity <sup>3</sup> (NTU)													
		EVENT	Jan-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02	Oct-02	Apr-03
Shallow Overburden Wells	B-102A	NS	NA	265	NM	>999	NS	177	NS	849	NS	>1000	390	>1000	NM
	B-103A	NA	NA	115	23	787	NS	>1000	NS	>1000	NS	306	132	NA	NM
	B-113A	NS	7	5	5	1	NS	2	NS	3	NS	3	4.19	0.25	163
	B-118A	NS	5	2	23	5	NS	4	NS	1	NS	2	1.7	3.23	0.4
	B-119B	NS	NA	1263	6	3	NS	1	NS	5	NS	2	5.29	10.6	10.9
	B-120A	NS	30	NA	0	0	NS	2	NS	<1	NS	2	0.11	0.18	0.10
	B-120B	NA	NS	NS											
	B-121OW	NS	844	457	1414	265	NS	237	NS	269	NS	26	4.99	12.9	1.33
	B-126S	NS	0	316	NM	1	NS	21	NS	1	NS	1	0.57	0.67	0.72
	B-131B	NS	2	-1	9	2	NS	3	NS	2	NS	5	3.11	2.70	2.37
	B-133	NS	24	206	84	78	NS	24	NS	23	NS	20	27	7.75	32.8
	B-136A	NS	1	108	0	0	NS	0	NS	2	NS	1	0.1	0.40	0.1
	B-137A	NS	60	NS	NS										
	B-138A	NA	NA	9	NS	8	NS	8	NS	10	NS	6	6.1	2.83	8.40
	B-139A	NA	53	-10	7	4	NS	3	NS	6	NS	10	4	10	1.59
	B-144A	NS	>200	9	53	300	NS	>1000	NS	199	NS	546	247	362	990
B-201OW	NS	1	-4	-1	2	NS	1	NS	2	NS	1	0.8	1.61	3.7	
MW-4A	NS	1	1	41	4	NS	1	NS	1	NS	3	0.72	0.48	1.2	
MW-6A	NS	6	NS												
Top-of-Rock Wells	B-101B	NS	103	550	215	44	NS	59	NS	56	NS	19	20.3	13.3	12.7
	B-102B	NS	151	219	213	110	NS	215	NS	326	NS	296	533	287.0	850.0
	B-103C	NA	6	154	0	1	NS	1	NS	2	NS	1	1.1	1.37	0.8
	B-112B	NA	NS	NS											
	B-113BB	NS	3	1236	1369	3	NS	12	NS	4	NS	7	15.6	6.05	26
	B-118B	NA	NA	86	38	5	NS	6	NS	6	NS	9	3.9	2.43	23.1
	B-119C	NA	2	523	0	1	NS	1	NS	2	NS	1	2	4.76	0.82
	B-120C	NS	270	37	1	4	NS	1	NS	<1	NS	2	0.46	1.14	0.45
	B-122	NS	200	-22	-2	1	NS	0	NS	1	NS	0	0.8	0.51	1.29
	B-125A	NA	0	-2	-1	1	NS	1	NS	1	NS	1	0.4	1.02	0.5
	B-126A	NA	0	776	1169	0	NS	1	NS	0	NS	0	0.24	0.18	0.31
	B-131C	NA	6	1030	9	13	NS	2	NS	14	NS	3	3.98	3.69	1.7
	B-132	NA	666	163	1052	22	NS	971	NS	68	NS	135	20	332	88.9
	B-136B	NA	NA	-1	-2	0	NS	1	NS	0	NS	0	0.21	43.6	0.2
	B-137B	NS	2	23	19	10	NS	4	NS	5	NS	8	9.3	13.6	5.46
	B-138B	NS	0	764	NS	3	NS	0	NS	3	NS	58	22.1	NS <sup>6</sup>	8.7
B-139B	NS	143	1232	578	>1000	NS	106	NS	>1000	NS	404	>1000	>1000	158	
B-144B	NS	14	-4	125	22	NS	15	NS	7	NS	62	8.5	15.9	117	
B-145B	NS	11	37	33	8	NS	1	NS	1	NS	2	5	9.01	5.93	
Bedrock Wells	B-113C	NA	NS	6	NM	55	NS	18	NS	NS	NS	NS	NS	NS	
	B-118C	NS	NS	1141	322	79	NS	49	NS	39	NS	27	9	12.2	2.9
	B-119D	NS	NS	87	49	23	NS	55	NS	16	NS	31	28.8	12.1	22.9
	B-120D	NS	24	NA	34	6	NS	3	NS	NM	NS	39	130	6.41	NM
	B-125B	NA	29	4	7	10	NS	17	NS	17	NS	20	15	15.2	8.4
	B-126B	NA	NS	NS	9	14	NS	6	NS	2	NS	2	1.11	0.68	1.41
	B-132B	NA	80	6	6	15	NS	9	NS	349	NS	39	147	8.44	9.38
	B-136C	NA	1	27	4	6	NS	6	NS	4	NS	3	5	2.93	7.0
	B-139C	NA	NA	1362	126	3	NS	67	NS	4	NS	4	10.8	2.95	2.65
	B-143	NS	81	101	106	35	NS	12	NS	74	NS	69	73.8	12.2	81.8
B-144C	NS	NS	-4	11	6	NS	4	NS	5	NS	4	7.52	10.7	6.06	
B-145C	NS	NS	86	60	24	NS	14	NS	14	NS	15	4.9	8.26	11	
Surface Water	SW01	NS	NS	NA	0	6	NS	NA	NS	10	NS	NA	NS	NA	11.0
	SW02	NS	NA	NA	48	1	NS	7	NS	NM	NS	NA	NS	NA	0.74
	SW03	NS	NS	NA	-7	NM	NS	10	NS	NM	NS	NA	NS	4.42	6.29
	SW04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.83
	SW05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.80
	SW06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.69
Residential Wells	Boulanger	NS	NA	NS	NS	0	NS								
	Dodge	NS	NA	NS	NS	0	0	0	0	1	<1	2	NS	NS	
	Mosher	NS	NA	NS	NS	0	NS								
	Sheltra	NS	NA	NA	NS	10	5	4	3	1	<1	2	NS	NS	
	Vicaire-1	NS	NA	NA	NS	1	NS								
Vicaire-2	NS	NA	NS												

See page 7 for notes

**TABLE 2**  
**INDICATOR PARAMETER MEASUREMENTS**  
**LTMP MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

**Notes:**

std. units = standard units

<sup>o</sup>C = degrees Celsius

umhos/cm = micromhos per centimeter

mg/l = milligrams per liter

mV = millivolts

NTU = Nephelometric Turbidity Unit

NA = Not Available

NS = Not Sampled

NM = Not Measured

> = Exceeds range of instrument

<sup>1</sup> = Well was purged using a bailer. Because sample was exposed to air, redox potential, and dissolved oxygen should be considered as approximate. Indicator parameter measurements from other wells obtained using a flow cell.

<sup>2</sup> = Dissolved oxygen probe and redox probe yielding spurious readings. Well purged dry, measurements considered suspect.

<sup>3</sup> = The lower calibration for turbidity is 1 NTU. Field readings lower than 1 NTU as recorded on the field sheets are considered < 1 NTU.

<sup>4</sup> = Dissolved oxygen value reported as a negative value. The accuracy specification for dissolved oxygen readings at zero is +/- 0.2 mg/l.

<sup>5</sup> = Redox value unavailable due to inconsistencies in instrument calibration.

<sup>6</sup> = Pump malfunctioned during purging process.

**TABLE 3**  
**APRIL AND OCTOBER 2003 MONITORING EVENT ANALYSIS SUMMARY**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

SAMPLE ID	VOCs	SVOCs	Ethane/Ethene <sup>1</sup>	Metals - Total
B101B	X/X			X/X
B102A	X/X			X/X
B102B	X/X			X/X
B103A	X/X		X/X	X/X
B103C	X/X			X/X
B113A	X/X			X/X
B113BB	X/X	X/X	X/X	X/X
B118A	X/X			X/X
B118B	X/X			X/X
B118C	X/X			X/X
B119B	X/X			X/X
B119C	X/X			X/X
B119D	X/X			X/X
B120A	X/X			X/X
B120C	X/X		X/X	X/X
B120D	X/X		X/X	X/X
B121OW	X/X			X/X
B122	X/X			X/X
B125A	X/X		X/X	X/X
B125B	X/X		X/X	X/X
B126A	X/X		X/X	X/X
B126B	X/X		X/X	X/X
B126S	X/X			X/X
B131B	X/X			X/X
B131C	X/X	X/X	X/X	X/X
B132	X/X		X/X	X/X
B132B	X/X		X/X	X/X
B133	X/X		X/X	X/X
B136A	X/X		X/X	X/X
B136B	X/X		X/X	X/X
B136C	X/X		X/X	X/X
B137B	X/X		X/X	X/X
B138A	X/X		X/X	X/X
B138B	X/X	X/X	X/X	X/X
B139A	X/X		X/X	X/X
B139B	X/X			X/X
B139C	X/X			X/X
B143	X/X			X/X
B144A	X/X			X/X
B144B	X/X			X/X
B144C	X/X			X/X
B145B	X/X			X/X
B145C	X/X			X/X
B201OW	X/X			X/X
MW4A	X/X		X/X	X/X
SW01	X/X			X/X
SW02	X/X			X/X
SW03	X/X			X/X
SW04	X/X			X/X
SW05	X/X			X/X
SW06	X/X			X/X
SD01	X/X			X/X
SD02	X/X			X/X
SD03	X/X			X/X
SD04	X			X
SD05	X			X
SD06	X			X

**Notes:**

VOCs = Volatile Organic Compounds

SVOCs= Semi-Volatile Organic Compounds

Metals analysis includes Target Analyte List metals

<sup>1</sup> = Analysis included quantification of methane and propane.

X/X = Parameter analyzed during April and October 2003 monitoring event.

X = Parameter analyzed during October 2003 monitoring event only.

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>METALS</b>					
B102A	4/30/03	Chromium	1	0.468 J	0.1
	4/30/03	Lead	1	0.0973	0.015
	4/30/03	Manganese	1	6.69	0.18
	4/30/03	Nickel	1	0.357	0.1
	4/30/03	Thallium	1	0.0195	0.002
	4/30/03	Vanadium	1	0.548 J	0.0002
	10/3/03	Manganese	1	0.287	0.18
	10/3/03	Vanadium	1	0.0228	0.0002
B102B	4/29/03	Manganese	1	0.281	0.18
	4/29/03	Vanadium	1	0.0178	0.0002
	10/1/03	Chromium	2	0.235	0.1
	10/1/03	Manganese	2	0.861	0.18
	10/1/03	Nickel	2	0.141 J	0.1
	10/1/03	Vanadium	2	0.0599	0.0002
B103A	4/30/03	Vanadium	1	0.0110	0.0002
	10/3/03	Vanadium	1	0.0132	0.0002
B113A	10/2/03	Manganese	1	0.259	0.18
	10/2/03	Vanadium	1	0.0169	0.0002
B113BB	4/24/03	Manganese	1	0.752	0.18
	4/24/03	Vanadium	1	0.0025 J	0.0002
	10/2/03	Manganese	1	0.625	0.18
B119C	4/28/03	Thallium	1	0.0047	0.002
	10/3/03	Manganese	1	0.182	0.18
B119D	4/28/03	Vanadium	1	0.0018	0.0002
	10/3/03	Vanadium	1	0.0021	0.0002
B121OW	4/21/03	Vanadium	1	0.0033	0.0002
B125A	4/23/03	Manganese	1	0.842	0.18
	10/1/03	Manganese	1	0.739	0.18
B125B	4/23/03	Manganese	1	0.2	0.18
	10/1/03	Manganese	1	0.185	0.18
B126B	4/21/03	Vanadium	1	0.0018	0.0002
B126BQ	4/21/03	Vanadium	1	0.0018	0.0002
B132	4/22/03	Manganese	1	0.261	0.18
	4/22/03	Vanadium	1	0.0301	0.0002
	9/29/03	Manganese	1	0.633	0.18
	9/29/03	Vanadium	1	0.0519	0.0002

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>METALS</b>					
B133	10/1/03	Chromium	1	0.120	0.1
	10/1/03	Vanadium	1	0.0111	0.0002
B136B	4/29/03	Manganese	1	1.13	0.18
	10/1/03	Manganese	1	2.040	0.18
B136C	4/22/03	Manganese	1	0.461	0.18
	4/22/03	Vanadium	1	0.0017	0.0002
	9/29/03	Manganese	1	0.457	0.18
B137B	4/29/03	Manganese	1	0.567	0.18
	10/6/03	Manganese	1	0.528	0.18
B138A	4/24/03	Chromium	1	0.276	0.1
	4/24/03	Nickel	1	0.2	0.1
B138B	4/24/03	Manganese	1	0.253	0.18
	4/24/03	Vanadium	1	0.0028 J	0.0002
	10/2/03	Manganese	1	0.268	0.18
B138BQ	4/24/03	Manganese	1	0.256	0.18
	4/24/03	Vanadium	1	0.0027 J	0.0002
	10/2/03	Manganese	1	0.266	0.18
B139AQ	4/24/03	Vanadium	1	0.0013	0.0002
B139B	4/23/03	Chromium	1	0.728	0.1
	4/23/03	Lead	1	0.0637	0.015
	4/23/03	Manganese	1	5.5	0.18
	4/23/03	Nickel	1	0.518	0.1
	4/23/03	Thallium	1	0.0220	0.002
	4/23/03	Vanadium	1	0.392 J	0.0002
	10/1/03	Manganese	1	0.343	0.18
	10/1/03	Vanadium	1	0.0201	0.0002
B143	9/29/03	Vanadium	1	0.0052	0.0002
B144A	4/21/03	Vanadium	1	0.0116	0.0002
	9/29/03	Vanadium	1	0.0056	0.0002
B144B	4/21/03	Vanadium	1	0.0018	0.0002
	9/29/03	Manganese	1	0.233	0.18
	9/29/03	Vanadium	1	0.0098	0.0002
B201OW	10/1/03	Chromium	1	0.780	0.1
	10/1/03	Manganese	1	0.242	0.18
	10/1/03	Nickel	1	0.454 J	0.1
	10/1/03	Vanadium	1	0.0053	0.0002

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>					
B113BB	4/24/03	3-Methylphenol/4-Methylphenol	0.95	0.51 J	0.2
	4/24/03	3-Methylphenol/4-Methylphenol	9.5	1.2	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	9.3	1.600 J	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	18.6	1.500 J	0.2
B131C	10/2/03	3-Methylphenol/4-Methylphenol	0.97	0.960 J	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	19.4	0.720 J	0.2
B138B	4/24/03	3-Methylphenol/4-Methylphenol	0.93	0.22 J	0.2
	4/24/03	3-Methylphenol/4-Methylphenol	4.65	0.25	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	0.96	0.650 J	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	19.4	0.530 J	0.2
B138BQ	4/24/03	3-Methylphenol/4-Methylphenol	0.93	0.21 J	0.2
	4/24/03	3-Methylphenol/4-Methylphenol	4.65	0.24	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	0.96	0.700 J	0.2
	10/2/03	3-Methylphenol/4-Methylphenol	19.3	0.580 J	0.2

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>VOLATILE ORGANIC COMPOUNDS</b>					
B103A	4/30/03	Tetrachloroethene	10	0.0032 J	0.0007
	4/30/03	Trichloroethene	10	0.32	0.005
	10/3/03	Tetrachloroethene	2.5	0.0031	0.0007
	10/3/03	Trichloroethene	2.5	0.340	0.005
B113BB	4/24/03	2-Butanone (MEK)	25	1.4	0.17
	4/24/03	cis-1,2-Dichloroethene	25	0.72	0.07
	4/24/03	Trichloroethene	25	0.0092 J	0.005
	4/24/03	Vinyl chloride	25	0.16	0.002
	10/2/03	1,2-Dichloroethane	2	0.0018 J	0.0005
	10/2/03	1,2-Dichloropropane	2	0.0026	0.0006
	10/2/03	2-Butanone (MEK)	2	1.400 J	0.17
	10/2/03	2-Butanone (MEK)	10	1.300	0.17
	10/2/03	cis-1,2-Dichloroethene	2	0.980 J	0.07
	10/2/03	cis-1,2-Dichloroethene	10	1.000	0.07
	10/2/03	Trichloroethene	10	0.0059 J	0.005
	10/2/03	Vinyl chloride	2	0.100	0.002
	10/2/03	Vinyl chloride	10	0.096	0.002
	B120C	4/23/03	cis-1,2-Dichloroethene	200	0.72
4/23/03		Trichloroethene	200	6	0.005
10/6/03		cis-1,2-Dichloroethene	50	0.750	0.07
10/6/03		Trichloroethene	50	6.800	0.005
B120D	4/23/03	cis-1,2-Dichloroethene	10	0.29	0.07
	4/23/03	Trichloroethene	10	0.17	0.005
	4/23/03	Vinyl chloride	10	0.021	0.002
	10/6/03	cis-1,2-Dichloroethene	2	0.270	0.07
	10/6/03	Trichloroethene	2	0.260	0.005
	10/6/03	Vinyl chloride	2	0.017	0.002
B125A	4/23/03	Trichloroethene	1	0.016	0.005
	10/1/03	Trichloroethene	1	0.016	0.005
B125B	4/23/03	Trichloroethene	2	0.093 J	0.005
	4/23/03	Trichloroethene	2.5	0.089	0.005
	4/23/03	Vinyl chloride	2	0.0043	0.002
	4/23/03	Vinyl chloride	2.5	0.0036	0.002
	10/1/03	cis-1,2-Dichloroethene	1	0.090	0.07
	10/1/03	Trichloroethene	1	0.160	0.005
	10/1/03	Vinyl chloride	1	0.0065	0.002

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>VOLATILE ORGANIC COMPOUNDS</b>					
B126A	4/21/03	cis-1,2-Dichloroethene	20	1.2 J	0.07
	4/21/03	cis-1,2-Dichloroethene	40	1.2	0.07
	4/21/03	Trichloroethene	20	0.9 J	0.005
	4/21/03	Trichloroethene	40	0.93	0.005
	4/21/03	Vinyl chloride	20	0.0072 J	0.002
	9/29/03	cis-1,2-Dichloroethene	20	2.000	0.07
	9/29/03	Trichloroethene	20	1.400	0.005
B126B	4/21/03	cis-1,2-Dichloroethene	1	0.088 J	0.07
	4/21/03	cis-1,2-Dichloroethene	2.5	0.096	0.07
	4/21/03	Trichloroethene	1	0.059 J	0.005
	4/21/03	Trichloroethene	2.5	0.063	0.005
	4/21/03	Vinyl chloride	1	0.0024	0.002
	4/21/03	Vinyl chloride	2.5	0.0026	0.002
	9/29/03	Trichloroethene	1	0.012	0.005
B126BQ	4/21/03	cis-1,2-Dichloroethene	2.5	0.091	0.07
	4/21/03	Trichloroethene	2.5	0.061	0.005
	4/21/03	Vinyl chloride	2.5	0.0026	0.002
	9/29/03	Trichloroethene	1	0.024	0.005
B131C	4/25/03	1,2-Dichloropropane	1	0.0013	0.0006
	10/2/03	1,2-Dichloroethane	1	0.0014	0.0005
	10/2/03	1,2-Dichloroethane	2.5	0.0015 J	0.0005
	10/2/03	1,2-Dichloropropane	1	0.0036	0.0006
	10/2/03	1,2-Dichloropropane	2.5	0.0028	0.0006
	10/2/03	2-Butanone (MEK)	1	0.380 J	0.17
	10/2/03	2-Butanone (MEK)	2.5	0.340	0.17
B132	4/22/03	cis-1,2-Dichloroethene	20	0.43	0.07
	4/22/03	Tetrachloroethene	20	0.03	0.0007
	4/22/03	Trichloroethene	20	0.53	0.005
	9/29/03	cis-1,2-Dichloroethene	2	0.380	0.07
	9/29/03	cis-1,2-Dichloroethene	2.5	0.390	0.07
	9/29/03	Tetrachloroethene	2	0.028	0.0007
	9/29/03	Tetrachloroethene	2.5	0.028	0.0007
	9/29/03	Trichloroethene	2	0.460 J	0.005
	9/29/03	Trichloroethene	2.5	0.470	0.005
	B132B	4/22/03	cis-1,2-Dichloroethene	2	0.12 J
4/22/03		cis-1,2-Dichloroethene	10	0.12	0.07
4/22/03		Tetrachloroethene	2	0.0014 J	0.0007
9/29/03		cis-1,2-Dichloroethene	2	0.290	0.07
9/29/03		Tetrachloroethene	2	0.0035	0.0007
9/29/03		Trichloroethene	2	0.012	0.005
B133	4/23/03	cis-1,2-Dichloroethene	200	2.6	0.07
	4/23/03	Methylene Chloride	200	0.088 J	0.005
	4/23/03	Tetrachloroethene	200	0.15	0.0007
	4/23/03	Trichloroethene	200	6	0.005
	10/1/03	cis-1,2-Dichloroethene	20	1.000	0.07
	10/1/03	Tetrachloroethene	20	0.049	0.0007
	10/1/03	Trichloroethene	20	2.100	0.005
B136A	4/22/03	Tetrachloroethene	1	0.0014	0.0007
	4/22/03	Trichloroethene	1	0.015	0.005
	9/29/03	Tetrachloroethene	1	0.00090 J	0.0007
	9/29/03	Trichloroethene	1	0.011	0.005

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>VOLATILE ORGANIC COMPOUNDS</b>					
B136B	4/29/03	cis-1,2-Dichloroethene	100	2.5	0.07
	4/29/03	cis-1,2-Dichloroethene	200	2.6	0.07
	4/29/03	Tetrachloroethene	100	0.035 J	0.0007
	4/29/03	Trichloroethene	100	5 J	0.005
	4/29/03	Trichloroethene	200	5.2	0.005
	4/29/03	Vinyl chloride	100	0.09 J	0.002
	4/29/03	Vinyl chloride	200	0.11 J	0.002
	10/1/03	Benzene	10	0.0063 J	0.005
	10/1/03	cis-1,2-Dichloroethene	10	0.920	0.07
	10/1/03	cis-1,2-Dichloroethene	20	0.930	0.07
	10/1/03	Tetrachloroethene	10	0.017	0.0007
	10/1/03	Tetrachloroethene	20	0.022	0.0007
	10/1/03	Trichloroethene	10	2.200 J	0.005
	10/1/03	Trichloroethene	20	2.300	0.005
	10/1/03	Vinyl chloride	10	0.036	0.002
	10/1/03	Vinyl chloride	20	0.034	0.002
B136C	4/22/03	1,2-Dichloropropane	10	0.0048 J	0.0006
	4/22/03	cis-1,2-Dichloroethene	10	0.24	0.07
	4/22/03	Trichloroethene	10	0.28	0.005
	4/22/03	Vinyl chloride	10	0.025	0.002
	9/29/03	1,2-Dichloroethane	1	0.0019	0.0005
	9/29/03	1,2-Dichloroethane	2.5	0.0018	0.0005
	9/29/03	1,2-Dichloropropane	1	0.0044	0.0006
	9/29/03	1,2-Dichloropropane	2.5	0.0034	0.0006
	9/29/03	cis-1,2-Dichloroethene	1	0.150	0.07
	9/29/03	cis-1,2-Dichloroethene	2.5	0.140	0.07
	9/29/03	Trichloroethene	1	0.360 J	0.005
	9/29/03	Trichloroethene	2.5	0.390	0.005
	9/29/03	Vinyl chloride	1	0.046	0.002
	9/29/03	Vinyl chloride	2.5	0.046	0.002
B137B	4/29/03	1,2-Dichloroethane	2	0.0062	0.0005
	4/29/03	2-Butanone (MEK)	2	0.23	0.17
	10/6/03	1,2-Dichloroethane	1	0.0064	0.0005
B138B	4/24/03	1,2-Dichloroethane	5	0.0018 J	0.0005
	4/24/03	1,2-Dichloropropane	5	0.01	0.0006
	4/24/03	2-Butanone (MEK)	5	0.28	0.17
	4/24/03	cis-1,2-Dichloroethene	5	0.15	0.07
	4/24/03	Trichloroethene	5	0.066	0.005
	4/24/03	Vinyl chloride	5	0.058	0.002
	10/2/03	1,2-Dichloroethane	1	0.0016	0.0005
	10/2/03	1,2-Dichloropropane	1	0.0064	0.0006
	10/2/03	1,2-Dichloropropane	5	0.0052	0.0006
	10/2/03	2-Butanone (MEK)	1	0.760 J	0.17
	10/2/03	2-Butanone (MEK)	5	0.680	0.17
	10/2/03	cis-1,2-Dichloroethene	1	0.072	0.07
	10/2/03	Trichloroethene	1	0.032	0.005
	10/2/03	Trichloroethene	5	0.028	0.005
	10/2/03	Vinyl chloride	1	0.064	0.002
	10/2/03	Vinyl chloride	5	0.063	0.002

**TABLE 4**  
**EXCEEDANCES OF IGCLs IN GROUNDWATER**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Well ID	Sample Date	Compound	Dilution	Result (mg/l)	IGCL (mg/l)
<b>VOLATILE ORGANIC COMPOUNDS</b>					
B138BQ	4/24/03	1,2-Dichloroethane	5	0.0025	0.0005
	4/24/03	1,2-Dichloropropane	5	0.014	0.0006
	4/24/03	2-Butanone (MEK)	5	0.69	0.17
	4/24/03	cis-1,2-Dichloroethene	5	0.16	0.07
	4/24/03	Trichloroethene	5	0.055	0.005
	4/24/03	Vinyl chloride	5	0.083	0.002
	10/2/03	1,2-Dichloroethane	1	0.0016	0.0005
	10/2/03	1,2-Dichloropropane	1	0.0070	0.0006
	10/2/03	1,2-Dichloropropane	5	0.0061	0.0006
	10/2/03	2-Butanone (MEK)	1	0.740 J	0.17
	10/2/03	2-Butanone (MEK)	5	0.680	0.17
	10/2/03	cis-1,2-Dichloroethene	1	0.084	0.07
	10/2/03	cis-1,2-Dichloroethene	5	0.070	0.07
	10/2/03	Trichloroethene	1	0.037	0.005
	10/2/03	Trichloroethene	5	0.037	0.005
	10/2/03	Vinyl chloride	1	0.073	0.002
10/2/03	Vinyl chloride	5	0.068	0.002	
B139A	4/24/03	cis-1,2-Dichloroethene	20	0.48	0.07
	4/24/03	Tetrachloroethene	20	0.033	0.0007
	4/24/03	Trichloroethene	20	0.57	0.005
	10/1/03	cis-1,2-Dichloroethene	10	0.740	0.07
	10/1/03	Tetrachloroethene	10	0.045	0.0007
	10/1/03	Trichloroethene	10	1.000	0.005
B139AQ	4/24/03	cis-1,2-Dichloroethene	20	0.48	0.07
	4/24/03	Tetrachloroethene	20	0.033	0.0007
	4/24/03	Trichloroethene	20	0.59	0.005
	10/1/03	cis-1,2-Dichloroethene	10	0.720	0.07
	10/1/03	Tetrachloroethene	10	0.042	0.0007
	10/1/03	Trichloroethene	10	0.950	0.005
B145B	4/21/03	1,2-Dichloropropane	1	0.00077	0.0006
	10/6/03	1,2-Dichloropropane	1	0.00097	0.0006
B145C	4/21/03	1,2-Dichloropropane	1	0.00090	0.0006
	9/29/03	1,2-Dichloropropane	1	0.0014	0.0006

**Legend/Notes:**

IGCL = Interim Groundwater Cleanup Level for Contaminants of Concern (ROD, Section X.A), for all other compound concentrations listed are lesser of MCL, VAL, and VHA.

mg/L = Milligrams per liter

J = Estimated concentration.

"Q" designation following sample ID indicates duplicate.

IGCL reported for cis- and trans- 1,3-Dichloropropene is standard for total 1,3-Dichloropropene.

IGCL reported for cis- and trans- 1,2-Dichloroethene is standard total 1,2-Dichloroethene.

Quantifiable detection limit for vanadium is 0.002 mg/l.

MCL = U.S. EPA Maximum Contaminant Level (December, 2002).

VAL = Vermont Action Level (December, 2002).

VHA = Vermont Health Advisory (December, 2002).

**TABLE 5**  
**EXCEEDANCES OF SURFACE WATER AMBIENT WATER QUALITY CRITERIA**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Location	Sample Date	Compound	Dilution	Result (mg/l)	AWQC (mg/l)
<b>METALS</b>					
SW01	4/30/03	Cobalt	1	0.0199	0.0154
	4/30/03	Lead	1	0.0614	0.0050
	4/30/03	Zinc	1	0.238	0.2001
<b>VOLATILE ORGANIC COMPOUNDS</b>					
No Exceedances Observed					

**Legend/Notes:**

mg/L = Milligrams per liter

J = Estimated concentration.

"Q" designation following sample ID indicates duplicate.

AWQC = National Recommended Ambient Water Quality Criteria

Surface Water Quality Guidelines for contaminants of concern

published in *Final Risk Assessment* (TRC, 1993).

AWQC are not published for listed volatile organic compounds.

Guideline criteria for organic compounds established by TRC

using guidance documents published by EPA and independent

researchers, as noted in the *Final Risk Assessment* (TRC, 1993).

AWQC established for metals have been adjusted where necessary for hardness as per

*The National Recommended Water Quality Criteria-Correction* (EPA, 1999).

Reported AWQC concentration is the lower value of the acute and chronic criteria.

**TABLE 6**  
**EXCEEDANCES OF SEDIMENT QUALITY GUIDELINES**  
**APRIL AND OCTOBER 2003 MONITORING EVENTS**  
**PARKER LANDFILL**  
**LYNDON, VERMONT**

Location	Sample Date	Compound	Dilution	Result (mg/kg)	Sediment Quality Guidelines (mg/kg)
<b>METALS</b>					
SD01	4/30/03	Barium	1	50	20
	4/30/03	Manganese	1	403	300
	10/7/03	Barium	1	84.2 J	20
	10/7/03	Iron	1	29000.	17000
	10/7/03	Manganese	1	1810.	300
SD02	4/30/03	Barium	1	28.9	20
	4/30/03	Manganese	1	415	300
SD02Q	4/30/03	Barium	1	26.7	20
	4/30/03	Manganese	1	536	300
SD02	10/7/03	Barium	1	27.4	20
	10/7/03	Manganese	1	835.	300
SD02Q	10/7/03	Barium	1	31.7	20
	10/7/03	Manganese	1	1160.	300
SD03	4/30/03	Barium	1	38.7	20
	4/30/03	Manganese	1	411	300
	10/7/03	Barium	1	46.4	20
	10/7/03	Manganese	1	465.	300
SD04	10/7/03	Barium	1	87.9	20
	10/7/03	Iron	1	21600.	17000
	10/7/03	Manganese	1	947.	300
	10/7/03	Nickel	1	32.6	30
SD05	10/7/03	Barium	1	48.8	20
	10/7/03	Manganese	1	528.	300
SD06	10/7/03	Barium	1	31.2	20
<b>VOLATILE ORGANIC COMPOUNDS</b>					
SD01	4/30/03	Acetone	0.9	0.23	0.17
	4/30/03	Acetone	0.93	0.39	0.17
SD04	10/7/03	Acetone	0.76	0.190	0.17

**Legend/Notes:**

mg/kg = Milligrams per kilogram

J = Estimated concentration.

"Q" designation following sample ID indicates duplicate.

For metals, Sediment Quality Guidelines for contaminants of concern published in *Final Risk Assessment* (TRC, 1993).

Guidelines criteria for inorganic compounds established by TRC using guidance documents published by both the National Oceanic Atmospheric Administration (NOAA) and the United States Department of Environmental Protection (USEPA).

For VOCs, Sediment Quality Guidelines for contaminants of concern published in *Final Risk Assessment*

(TRC, 1993). Guidelines criteria for organic compounds established using the equilibrium partitioning method.