EPA Region 5 Records Ctr.
279386

Five-Year Review Report

First Five-Year Review Report

for

Sparta Landfill

Sparta Township

Kent County, Michigan

September, 2007

PREPARED BY:

United States Environmental Protection Agency
Region 5
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9/20/07

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Five-Year Review Report

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List of Acronyms

AOC	Administrative Order on Consent
Agencies	MDEQ and U.S. EPA
ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPCs	Chemicals of Potential Concern
CFR	Code of Federal Regulations
DQOs	Data Quality Objectives
FS	Feasibility Study
FFS	Focused Feasibility Study
FRA	Focused Risk Assessment
GSI	Groundwater/surface water interface
IC	Institutional Control
KCDPW	Kent County Department of Public Works
MCL	Maximum Contaminant Level
MDNR	Michigan Department of Natural Resources
MDEQ	Michigan Department of Environmental Quality
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MSL	mean sea level
MZD	Mixed Zone Determination
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
PCBs	Polychlorinated Biphenyls
ppb	parts per billion
ppm	parts per million
PRP	Potentially Responsible Party
PVC	Polyvinyl Chloride
RA	Remedial Action
RI	Remedial Investigation
RI/FS	Remedial Investigation/ Feasibility Study
ROD	Record of Decision
Site	Sparta Landfill Superfund Site
SLERA	Screening Level Ecological Risk Assessment
SLRA	Screening Level Risk Assessment
SVOCs	Semi-Volatile Organic Compounds
TAL	Target Analyte List
TCL	Target Compound List
U.S. EPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
WP	Work Plan

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Executive Summary

The completion of the current five-year review confirms that the remedy selected in the 2000 Sparta Landfill Record of Decision (ROD) is being implemented and remains effective under the 2002 Sparta Landfill Administrative Order on Consent (AOC). This is the first five year-review for the Sparta Landfill Superfund Site (Site).

A landfill cap was installed in 1995 to stop precipitation from seeping into the landfill waste and potentially carrying the contamination into the soil and groundwater beneath the cap. The site achieved construction completion with the signing of the ROD on September 27, 2000. In the ROD, the U.S. EPA determined that no Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) remedial action was necessary for the Sparta Landfill Site in Kent County, Michigan. However, long-term groundwater monitoring was required to verify that no unacceptable risk exposures are posed by the Site in the future. The trigger action for this five-year review was the signing of the AOC on September 26, 2002.

The assessment of this five-year review has found that the remedy at the Site is protective of human health and the environment in the short term since all known exposure pathways have been eliminated. However, in order for the remedy to be protective in the long-term, groundwater cleanup standards based on Safe Drinking Water Act [Maximum Contaminant Levels (MCLs)] and risk-based criteria for protection of groundwater quality will need to be met. Further restrictions, in the form of effective Institutional Controls (ICs), that protect the integrity of the landfill cap and other remedial components, and prohibit Site groundwater use will need to be implemented and maintained. Compliance with effective ICs will be ensured by implementing, maintaining and monitoring effective ICs as well as maintaining the site remedy components.

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Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name ***(from WasteLAN)*****: Sparta Landfill**		
EPA ID ***(from WasteLAN)*****: MID000268136**		
Region: 5	**State: Michigan**	**City/County: Kent County**

SITE STATUS	
NPL status: X Final ☐ Deleted ☐ Other (specify)	
Remediation status (choose all that apply): ☐ Under Construction ☐ Operating X Complete	
Multiple OUs?* ☐ YES X NO	**Construction completion date:** 9/27/2000
Has site been put into reuse? ☐ YES X NO	

REVIEW STATUS	
Lead agency: X EPA ☐ State ☐ Tribe ☐ Other Federal Agency _____	
Author name: Scott Hansen	
Author title: Remedial Project Manager	**Author affiliation: Superfund Division**
Review period:** 9/30/2006 to 9/30/2007	
Date(s) of site inspection: 8/9/2007	
Type of review: X Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion	
Review number: X 1 (first) ☐ 2 (second) ☐ 3 (third) ☐ Other (specify) _____	
Triggering action: ☐ Actual RA Onsite Construction at OU #____ ☐ Construction Completion X Other (specify) The signing of the AOC.	☐Actual RA Start at OU#____ ☐ Previous Five-Year Review Report
Triggering action date ***(from WasteLAN)*****:** 9/26/2002	
Due date ***(five years after triggering action date)*****:** 9/26/2007	

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd.

Issues:

- Implement ICs.
- Complete a Contingency Plan
- Complete a Gas Monitoring Plan
- Update Groundwater Monitoring Plan
- Install Permanent Site Markers for notification purposes
- Long Term Stewardship of ICs need to be ensured

Recommendations and Follow-up Actions:

- ICs – Finalize the Restrictive Covenants
- Submit the Contingency Plan for U.S. EPA and MDEQ review and approval. Once the Contingency Plan is approved by U.S. EPA, the Work Plan needs to be updated.
- Submit Gas Monitoring Plan for U.S. EPA and MDEQ review and approval. Once the Gas Monitoring Plan is approved by U.S. EPA, the Work Plan needs to be updated.
- Update groundwater monitoring plan for Work Plan. Submit updated plan for review and approval.
- Permanent markers need to be placed at the perimeter of the site.
- ICs – Develop plan to maintain and monitor ICs.

Protectiveness Statement(s):

The assessment of this five-year review has found that the remedy at the Sparta Landfill Superfund site is protective of human health and the environment in the short term since all known exposure pathways have been eliminated. However, in order for the remedy to be protective in the long-term, groundwater cleanup standards based on Safe Drinking Water Act MCLs and risk-based criteria for protection of groundwater quality will need to be met. Further restrictions, in the form of effective Institutional Controls (ICs), that protect the integrity of the landfill cap and other remedial components, and prohibit Site groundwater use will need to be implemented and maintained. Compliance with effective ICs will be ensured by implementing, maintaining and monitoring effective ICs as well as maintaining the site remedy components.

Other Comments:

Date of last Regional review of Human Exposure Indicator (from WasteLAN): 09/26/2006
Human Exposure Survey Status (from WasteLAN): 09/23/2005
Date of last Regional review of Groundwater Migration Indicator (from WasteLAN): 06/22/2007
Groundwater Migration Survey Status (from WasteLAN): 09/23/2005
Ready for Reuse Determination Status (from WasteLAN): 08/17/2007

Five-Year Review Report

I. Introduction

The United States Environmental Protection Agency (U.S. EPA) Region 5 has conducted a five-year review of the remedial actions implemented at the Sparta Landfill Superfund Site in Sparta Township, Michigan. The review was conducted between July 2006 and September 2007. This report documents the results of the five-year review. The purpose of five-year reviews is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of the reviews are documented in the five-year review reports. In addition, five-year review reports identify issues found during the review, if any, and make recommendations to address them.

This review is required by statute. U.S. EPA must implement five-year reviews consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The NCP part 300.430(f)(4)(ii) of the Code of Federal Regulations (CFR) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

This is the first five-year review for the Sparta Landfill Site. Due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure, this five-year review is required.

II. Site Chronology

Table 1: Chronology of Site Events

Event	Date
Landfill operating period	1940s to 1977
Initial discovery of problem or contamination	1977
Pre-NPL Responses	1979 - 1982
NPL listing	September 1983
Enforcement documents (CD, AOC, Unilateral Administrative Order)	EPA Consent Order – September 23, 1993 – Under the presumptive remedy of the Consent Order, the PRP agreed to cap the landfill prior to initiating the RI in accordance with a February 7, 1994 MDNR AOC.
Remedial design start	April 24, 1995
Remedial design complete	June 8, 1995
Actual remedial action start	June 8, 1995
Construction dates (start, finish)	June 8, 1995 to February 1996
Construction completion date	July 26, 1996
Remedial Investigation/Feasibility Study complete	September 2000
ROD signature	September 27, 2000
Final Close-out Report	ROD - September 27, 2000 – No further action with groundwater monitoring
Enforcement documents (CD, AOC, Unilateral Administrative Order)	EPA AOC – September 26, 2002

III. Background

Physical Characteristics

The Sparta Landfill site is located at 10322 Alpine Avenue, N.W., in Sparta Township, Kent County Michigan. The Site is located approximately 1 mile southeast of the Village of Sparta, Michigan in Section 24, T9N, R12W (Attachment 1 – Site Base Map). The closed landfill occupies approximately 26 acres of property and is located approximately one-tenth of a mile northeast of the Rogue River. The City of Rockford municipal water supply utilizes the Rogue River. The water supply intakes are located approximately 10.75 miles downstream from the site. The public water supply wells for the Village of Sparta are located on a tributary of the Rogue River approximately two miles upstream from the Site.

Land and Resource Use

The Sparta Landfill site was operated as an open dump from the 1940s to 1977. Residential properties are present on the west and east sides of Alpine Avenue. The remainder of the landfill is surrounded by undeveloped and agricultural properties.

Unconsolidated glacial sediments underlie the landfill and surrounding properties. These sediments consist of sand and gravel outwash deposits which are underlain by clay till. The elevation of the clay till varies considerably across the site. In the northern portion of the landfill the clay till is present near the land surface at approximately 750 feet above mean sea level (MSL). To the south and west of the landfill, the clay till elevation decreases to 700 feet above MSL. Since the elevation of the clay till is higher in the northern portion of the site, the upper sand and gravel unit is only a few feet thick in this area. The sand and gravel thickness increases to approximately 50 feet in the southern and central portions of the Site.

Groundwater occurs in the upper sand and gravel unit under unconfined conditions and flows from the northeast to the southwest toward the Rogue River. The average groundwater velocity in the upper aquifer is approximately 3.46 ft/day (1,262 ft/year). The upper aquifer is underlain by a clay till. The clay till thickness varies from 15 feet south and west of the landfill to approximately 30 to 45 feet in the northern portion of the landfill. The clay till separates the upper aquifer from the lower sand and gravel aquifer which is present at elevations ranging from 680 to 704 feet above MSL.

Groundwater occurs in the lower silty sand and gravel aquifer under confined or semi-confined conditions and flows from the northeast to the southwest toward the Rogue River. The groundwater velocity in the lower aquifer was calculated to be 0.17 ft/day (62 ft/year).

Water from the upper and lower aquifers is not currently used as a potable water supply. The bedrock aquifer is the only potable aquifer in the vicinity of the landfill.

History of Contamination

Mr. Robert Schwab owned and operated about 12 acres of the Site beginning in the 1940s. The site, Schwab Dump, was operated as an open dump accepting general, residential, commercial, and solid wastes. In 1972, Kent County began operation of the Sparta Landfill on property adjacent to the Schwab Dump. In 1973, Kent County acquired the Schwab Dump property. The licensed landfill accepted municipal refuse and industrial wastes permitted under Michigan Public Act 87. In September 1976, the Kent County Department of Public Works (KCDPW) submitted an application to the Resource Recovery Section of the Michigan Department of Natural Resources (MDNR) for a sludge disposal facility to be located at the Sparta Landfill. In May 1977, KCDPW requested that this application be withdrawn. In 1977, the landfill was closed and a 2-foot final sand cover was placed on the landfill.

Beginning in 1977, the Kent County Health Department detected groundwater contamination near the site. Groundwater data indicated that contamination at the Site was limited to the landfill and the area immediately surrounding it.

Initial Response

The Kent County Health Department and the MDNR involvement dates back to 1977 when preliminary site studies and limited data collection were conducted. In August 1979, the MDNR detected organic solvents in samples from on-site monitoring wells as well as from nearby residential wells. Kent County installed four new water supply wells for the residents located southwest of the site. The original water wells were screened in the upper aquifer at depths ranging from 17 to 45 feet deep. The new wells, which were approximately 245 to 280 feet deep, were cased into the underlying bedrock, and showed no evidence of contamination.

The MDNR performed a hydrogeological investigation in 1981 and 1982. Nine monitoring wells were installed during this investigation. Several rounds of groundwater samples were collected from 1982 through 1986 by the MDNR. VOCs were detected in the on-site monitoring wells; however, the data was not generated using U.S. EPA's Level IV Data Quality Objectives (DQOs). As a result, historical data was not presented in the Remedial Investigation (RI).

In September 1983, the site was placed on the National Priorities List (NPL).

Basis for Taking Action

In May 1992 and July 1993, groundwater samples were collected from on-site monitoring wells. The July 1993, sampling also included the collection of three surface water samples and three residential well samples.

The RI incorporated historical analytical data (May 1992 and July 1993) as well as data generated from the implementation of the RI (1996). An additional interpretation of the extent and nature of groundwater impact is based on analytical data collected from permanent monitoring wells during the RI (May 1996), in February 1998 and March 1999.

The drinking water criteria discussed in this section incorporates both Michigan Department of Environmental Quality (MDEQ)'s health-based and aesthetic criteria; where as previous reports only incorporated health-based criteria. The MDEQ commonly considers aesthetic and health-based risks; whereas, the U.S. EPA recognizes health-based risks in CERCLA cleanups. A summary of this RI data is presented below:

Upper Aquifer

- Benzene was the only organic compound detected in groundwater at concentrations exceeding the maximum contaminant level (MCL) or Michigan's health-based drinking water criteria during the RI.
- Inorganic analytes arsenic and manganese were detected at concentrations exceeding the MCL or Michigan's health-based drinking water criteria.
- Inorganic analytes lead and zinc also exceeded the MCL and/or Michigan's health based drinking water criteria. The lead and zinc concentrations are not believed to be related to the landfill but to the galvanized well casings used in the monitoring wells.
- Nitrate-nitrogen concentrations exceeded the MCL and Michigan's health-based drinking water criteria in MW-08, which is located upgradient from the landfill and is considered representative of background conditions. A map indicating the well locations is included in Attachment 2. Elevated ammonia nitrogen concentrations were detected in downgradient monitoring wells, suggesting an effect from the landfill. There are no MCLs or Michigan health-based drinking water criteria for ammonia nitrogen.
- During the RI, four sampling locations, MW-01, MW-02, HP-02 and HP-03 (PZ-04) were selected for comparison to Michigan's groundwater/surface water interface generic (GSI) criteria. No organic compounds were detected in groundwater samples collected from these locations which exceed Michigan's generic GSI criteria. Dissolved mercury, zinc, and chromium were detected in groundwater samples at concentrations exceeding generic GSI criteria. The zinc exceedances were likely due to the galvanized well casing.

Volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in groundwater were not detected at concentrations exceeding the drinking water (health-based and aesthetic) criteria. No VOCs or SVOCs were detected in upgradient MW-08 and downgradient monitoring wells MW-01, MW-03, MW-09, and PZ-04 during the March 1999 sampling event. Volatile organic chemicals benzene and 1,1-dichloroethane were detected at MW-02 and/or MW-07 during the March 1999 sampling event. These VOCs were detected at trace concentrations (less than 2.6 ug/L). During the May 1996 and/or February 1998 sampling events, VOCs benzene, chlorobenzene, chloromethane, chloroethane, 1,4-dichlorobenzene, and 1,1-dichloroethane, were detected at low concentrations at MW-03. Carbon disulfide was detected at MW-11 during the May 1996 sampling event. In addition, SVOC naphthalene was detected at low concentrations at MW-03 during the May 1996 and/or February 1998 sampling events.

A few metals and nitrate-nitrite nitrogen exceeded drinking water criteria during the three groundwater monitoring events. Concentrations of aluminum, iron, and manganese exceeded aesthetic criteria, but not health-based criteria.

The highest concentrations of metals and nitrate-nitrite nitrogen were found in MW-02, MW-03, and MW-07 directly downgradient from the landfill. Dissolved zinc and nitrate-nitrite nitrogen were also detected in upgradient well MW-08; indicating the nitrate-nitrite concentrations in the upper aquifer may be due to another source other than the landfill and that the galvanized casing of the upper aquifer wells may be leaching to groundwater, yielding a false positive analytical result.

Lower Aquifer

The RI indicated that impacted groundwater has not migrated to the lower aquifer. Lead was detected above Michigan's health-based criteria but below the MCL at MW-7D.

Groundwater monitoring wells screened in the lower aquifer include MW-03D, MW-07D, and MW-08D. Of these wells, MW-08D is an upgradient monitoring well.

Volatile organic compounds and SVOCs were not detected in downgradient monitoring wells MW-03D and MW-07D or upgradient monitoring well MW-08D at concentrations exceeding DW or GSI criteria in 1996, 1998 and 1999 sampling events.

Since iron, lead, and manganese were detected in both the upgradient and downgradient monitoring wells at similar concentrations these analytes are not likely reflecting a contribution from the landfill.

Residential Wells (Bedrock Aquifer)

No organic compounds or inorganic analytes were present in groundwater samples collected during residential sampling events conducted in July 1993 and May 1996.

Surface Water

Surface water is a potential secondary transport mechanism because impacted groundwater from the upper aquifer could feasibly migrate to the Rogue River. Volatile organic compounds, SVOCs, PCBs, and pesticides were not detected in the surface water samples collected from the Rogue River during the July 1993 and May 1996 sampling events. With the exception of total cadmium, no inorganic analytes were detected at concentrations exceeding Michigan's Surface Water Rule 57 criteria. Cadmium was detected in one of three surface water samples; however, the exceedance was not replicated in the duplicate sample collected at that location (SW-03).

Ammonia nitrogen was detected in all three surface water sampling locations at similar concentrations. The detected concentrations exceeded the Surface Water Rule 57 criteria.

Chemicals of Potential Concern

Chemicals of Potential Concern (COPCs) are those chemicals that pose the greatest risk to human health at the Sparta Landfill site. The following screening process was used to identify the COPCs at the site. The first step was the evaluation of the Data Quality Objectives (DQOs) of a particular data set. The second step compared detected concentrations of chemicals to criteria for the protection of human health developed by the MDEQ. These criteria included residential drinking water criteria. Aesthetic (taste and odor) criteria were also considered in this step. Other guidelines were used if state criteria were not available. This step resulted in the elimination of chemicals with concentrations below health-based levels (or aesthetic based in a few cases) from the preliminary list of COPCs. The third step in the identification of the preliminary COPCs
consisted of comparing chemical concentrations in downgradient wells to concentrations in the upgradient wells.

The final COPCs were identified by evaluating specific analytical data for suitability for use in risk assessment. Zinc was eliminated as a COPC because the concentrations appeared to be associated with galvanized well casings rather than the landfill. To ensure that this elimination was valid, an additional monitoring well, constructed of polyvinyl chloride (PVC), was installed within 11 feet of a galvanized well. Both wells were sampled and analyzed for metals and VOCs. The results indicated that the high concentrations of zinc in the older galvanized wells are due to the well casings.

Silver was eliminated as a final COPC because the isolated silver detection was low in concentration. The U.S. EPA Risk Assessment Guidance for Superfund (1989) indicated that if the detected analyte is less than five times the concentration in the method blank then the data is not usable. Since the silver concentration was less than the concentration in the method blank, the silver data was not considered valid and was not included as a COPC. The final list of COPCs is shown below:

Aquifer	Chemicals of Potential Concern
Upper	Aluminum, Barium, Lead, Iron, Ammonia Nitrogen (un-ionized ammonia nitrogen), Manganese, and Nitrate-Nitrite Nitrogen
Lower	Aluminum, Iron, Lead, Manganese, Ammonia Nitrogen (un-ionized ammonia)

The above COPCs all occur naturally and may have other sources such as agricultural activities. Aluminum was included in the list of COPCs because it occurred in concentrations above the State's aesthetic criteria. The State does not have a health-based criteria for aluminum, and the concentrations were much less than the health-based criteria developed by the U.S. EPA.

As part of the RI in 1997, a Focused Risk Assessment (FRA) was completed to assess current and future risks of contaminants associated with the Sparta Landfill on human health. However, since some of the data used for the 1997 FRA did not meet federal quality standards for sampling, and it had been such a long time since the sampling was conducted, an updated Screening Level Risk Assessment (SLRA) was prepared using groundwater monitoring data from the 1996, 1998, and 1999 monitoring events.

Groundwater flowing downgradient of the landfill could potentially reach human and environmental receptors. However, because an alternate water source (bedrock aquifer) had been provided to residents in this area, risk to human receptors was believed to be within the U.S. EPA acceptable risk range. The SLRA concluded that there was no evidence that Sparta Landfill was causing concentrations in surface waters to exceed applicable water quality criteria. As noted in the SLRA, it was believed that the presumptive remedy employed (i.e., capping the landfill) will eliminate water intrusion into the landfill resulting in an overall decrease in the mass of constituents that may leach through the landfill.

Human Health

Drinking water wells have been installed in a bedrock aquifer that is known to be hydrologically separated from the upper and lower aquifer. This water supply is used by current residents downgradient of the site. Efforts to determine the use of the upper aquifer by residents was initiated in 1979 following the detection of contaminants in on-site monitoring wells. Following that investigation several shallow potable wells were replaced with deep wells. Currently, all existing drinking water wells in the vicinity of the site are in the deep, bedrock aquifer that is hydrologically separated from the upper aquifer. The replaced upper aquifer water wells were properly abandoned in accordance with State requirements.

Concentrations of COPCs in groundwater downgradient of the disposal area of Sparta Landfill exceed federal and/or state drinking water standards in the upper and lower aquifers. However, contamination is confined to saturated zones that are hydrologically separated from the deep bedrock wells drilled for the provision of a potable residential water supply. Also, neither of these aquifers is used for drinking water.

U.S. EPA uses health-based standards to determine risk while MDEQ uses both health and aesthetic (taste, color, odor, etc.) standards. Since the COPCs all occur naturally and a majority were detected in both the upgradient and downgradient monitoring wells at similar concentrations, these chemicals are not believed to be site related.

The COPCs present little or no risk to humans for the following reasons:

- Residents living downgradient from the landfill do not use the upper or lower aquifers for their water supply
- Existing local restriction prohibits unpermitted well installation – Kent County has a water supply permitting ordinance that allows the County to deny the installation of water supply wells in affected areas.

- COPC concentrations were similar to each other in upgradient and downgradient wells.

Ecological Risks

The Screening Level Ecological Risk Assessment (SLERA) was conducted to evaluate the potential for adverse impact to environmental receptors in the Rogue River. Data collected for the ecological risk assessment and presented in the RI report suggest that groundwater in the vicinity of the site continues to contain constituents at concentrations that exceed the GSI criteria. For this reason a mixing zone determination (MZD) was submitted to the MDEQ for review. Although the SLERA concluded that there was no evidence that the landfill is causing concentrations in surface waters to exceed Water Quality criteria, this conclusion was based on one surface water sampling event.

Pre-ROD Decisions

On September 23, 1993, KCDPW signed a Consent Order with the U.S. EPA to determine the potential threat to the public health caused by the release of contaminants from the Sparta Landfill. Under the presumptive remedy of the Consent Order, the KCDPW agreed to cap the landfill prior to initiating the Remedial Investigation in accordance with a February 7, 1994, MDNR Administrative Order of Consent.

The KCDPW submitted construction plans for the Sparta Landfill capping project to the MDEQ on April 24, 1995. The cap was designed substantially in accordance with Act 641. The MDEQ completed its review on June 8, 1995, and authorized the KCDPW to proceed with the capping project.

A flexible membrane liner system was installed in August 1995. This consisted of a passive gas system buried in a minimum of six inches of sand covered by layer of bentonite mats. A 30 mil PVC fused joint liner was installed over the bentonite liner. For added protection and drainage, an eight ounce geotextile fabric was placed over the PVC liner. The liner system was covered with a minimum of two feet of permeable soils and then six inches of top soil. In late September and early October, the entire cap was seeded with a mixture of grasses for soil stabilization.

In January 1991, the site was partially fenced and warning signs posted. The installation of the permanent chain-link fence which surrounds the landfill was completed in February 1996. On July 26, 1996, the MDEQ accepted the capping project as complete.

The RI resumed in 1996. Groundwater samples were collected during the RI in May 1996. The results of the RI were presented in *Groundwater and Surface Water Remedial Investigation Report of the Sparta Landfill Site, April 1997.* The Focused Feasibility Study (FFS) was submitted to U.S. EPA in August 1999. The purpose of the FFS was to identify and evaluate potentially applicable remedial alternatives for the site. The FFS report evaluated three alternatives: (1) no further action; (2) groundwater monitoring; (3) groundwater extraction and treatment. Alternative (1) described in the FFS is the same alternative that was recommended in

the proposed plan and the alternative that was selected in the ROD. The RI and FFS reports were approved by U.S. EPA in September 2000.

IV. Remedial Actions

Remedy Selection

On September 27, 2000, the U.S. EPA signed a ROD that calling for No Further Action with Groundwater Monitoring. The MDEQ did not concur with the ROD. The KCDPW signed an AOC with U.S. EPA on September 26, 2002, which required the PRP to submit a Work Plan (WP). The WP addresses site monitoring and maintenance issues which include groundwater and surface water monitoring, the installation of new monitoring wells, and reporting requirements.

The objectives of the site maintenance portion of the WP are as follows:

- Monitor and maintain the condition of the landfill cap and surrounding property;
- Evaluate and document groundwater quality by collecting and evaluating groundwater and surface water data;
- Install additional wells as replacements or as needed to guarantee accurate groundwater monitoring data collection;
- Verify the effectiveness of the remedy selected in the ROD; and
- Maintain compliance with the AOC dated September 26, 2002.

Remedy Implementation

The Sparta Landfill WP was submitted in November 2002. The site monitoring and maintenance program has been in effect since January 2003. The main objectives of the groundwater and surface water monitoring program include:

- Evaluate and document groundwater quality by collecting and evaluating groundwater and surface water data;
- Further establish background concentrations; and
- Verify the effectiveness of the remedy.

Groundwater samples are collected on a semi-annual basis from selected monitoring wells located downgradient, sidegradient and upgradient of the landfill. In 2003 and 2004, seven new monitoring wells were installed to replace existing wells. A map indicating the well locations is included in Attachment 2. Five of the wells were installed to replace existing wells at the site, MW-01, MW-02, MW-07, MW-08 and MW-09. The sixth new well was installed as a shallow upgradient well. This well will provide additional background data for the site, and provide useful groundwater flow data for the northeast portion of the site. The seventh new monitoring well was installed at the southeast corner of the landfill waste. This well will better delineate the extent of impacted groundwater along the southern and eastern boundaries of the site.

The replacement monitoring wells were designated as MW-101, MW-102, MW-107, MW-108, MW-109, MW-110, and MW-111. The new monitoring wells installed at the site were initially sampled quarterly, and analyzed for full Target Compound List (TCL) Organic and Target Analyte List (TAL) Inorganic parameters as Assessment Monitoring. The new replacement wells are now sampled semi-annually following successful completion of the Assessment Monitoring. Once the new replacement monitoring wells completed the Assessment Monitoring, the wells they replaced were abandoned in accordance with Michigan requirements for monitoring well abandonment.

In addition, static water levels are measured and recorded each quarter at all monitoring wells and piezometers. Also, surface water samples are collected from locations along the Rogue River upstream, adjacent to and downstream of the landfill site.

In a letter dated January 9, 2006, the PRP agreed to change the monitoring schedule and parameter list (See Attachment 3).

Institutional Controls

Decision Document:

Institutional controls (ICs) are required to ensure the protectiveness of the remedy. Institutional controls are non-engineered instruments, such as administrative and legal controls that help to minimize the potential for exposure to contamination and that protect the integrity of the remedy. Institutional controls are required to assure the long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE). Institutional controls are also required to maintain the integrity of the remedy.

In December 2006, U.S. EPA sent a letter to the PRP (Kent County) requesting an IC Work Plan. On December 29, 2006, U.S. EPA received a letter from the PRP which stated that they were going to comply with U.S. EPA's request for an IC Work Plan. The PRP submitted the IC Work Plan on January 31, 2007 (See Attachment 4). On
April 26, 2007, the PRP took ownership of the portion of the landfill property previously owned by Sparta Township. Following the transfer of property, all landfill property is owned by the PRP.

On June 21, 2007, in accordance with the IC Work Plan, the PRP submitted a Draft Declaration of Restrictive Covenants and Environmental Protection Easement (See Attachment 5). According to the IC Work Plan, once U.S. EPA approves the Draft Declaration of Restrictive Covenants and Environmental Protection Easement the PRP will submit the final copy to U.S. EPA by September 30, 2007.

Table 2. Institutional Controls Summary Table		
Media, Engineered Controls & Areas that Do Not Support UU/UE @ Current Conditions	**IC Objective**	**IC Instrument Implemented**
Site boundary/ Site area	Prohibits use of land underlying the Site	Planned
RA Components such as wells	Prohibits use of land underlying the Site, and assures integrity of remedy component	Planned
Landfill Cap	Prohibits use of land underlying the Site, and assures integrity of landfill	Planned
Groundwater-area that exceeds cleanup levels	Prohibits use of water until cleanup goals are achieved	Planned

Maps which depict the current conditions of the site areas which do not allow for Unlimited Use/Unlimited Exposure (UU/UE) will be developed as part of the Sparta Work Plan (O&M Plan).

Long -Term Stewardship: Long-term protectiveness at the Site requires compliance with use restrictions. To assure proper maintenance and monitoring of effective ICs, long- term stewardship procedures will be reviewed and a plan developed. That would include regular inspection of ICs at the Site and annual certification to U.S. EPA that ICs are in place and effective. Additionally, use of a communications plan and use of a one-call system should be explored for long-term stewardship.

Current Compliance: Based on inspections and interviews, U.S. EPA is not aware of site or media uses which are inconsistent with the stated objectives of the ICs. The remedy is functioning as intended.

System Operations and O&M Costs

Operation and Maintenance is performed by the PRP in accordance with the Sparta Work Plan (O&M Plan). Pursuant to that O&M Plan, all groundwater wells are monitored on a semi-annual basis with the exception of MW-101 and MW-102, which are sampled quarterly. Inspections of the site are also carried out during those monitoring events.

Groundwater monitoring has been performed pursuant to the details outlined in the O&M Plan to ensure that the chemical levels in the groundwater are not increasing. Analyses being performed include the chemicals listed in the letter dated January 9, 2006 (See Attachment 3). The U.S. EPA, in consultation with MDEQ, will certify completion of the groundwater remediation once it has been demonstrated that cleanup levels have been attained and maintained.

Long-term protectiveness requires compliance with land use restrictions that prohibit interference with the landfill cap and soil on Site and groundwater use restrictions. To ensure

compliance with the use restrictions, the O&M Plan will be modified to ensure that effective ICs are maintained and monitored and provide for an annual certification. This is addressed in the IC Plan discussed above.

The site is an enforcement lead so U.S. EPA was unable to obtain annual operation costs.

V. Progress Since the Last Review

This is the first five-year review.

VI. Five-Year Review Process

Administrative Components

The Sparta Landfill five-year review was prepared by Scott Hansen, U.S. EPA Remedial Project Manager for the Site. Walelign Wagaw, State Project Manager with MDEQ also assisted in the review. The five-year review consisted of a Site inspection and review of relevant documents. The completed report will be available in the Site information repository for public view.

Community Notification and Involvement

The completed five-year review report and background data will be available in the Site information repository, and the U.S. EPA website for public view. An advertisement notice regarding the five year-review process was placed in the newspaper for public review on August 1, 2007 (See Attachment 6). No public comments regarding the five-year review have been received.

Community relations ongoing at the Site include reporting on the comprehensive operation and maintenance sampling program currently being carried out.

Document Review

Sparta Landfill site documents reviewed in preparation of this five-year review report includes the following:

- Sparta Landfill Work Plan, October 2003
- AOC, September 2002
- Record of Decision, September 2000
- Sparta Landfill correspondence file
- Quarterly and Semi-Annual Groundwater Monitoring Results 2003-2007

Data Review

Groundwater monitoring has been occurring at this site since 1999. In addition, static water levels have been measured on a monthly, quarterly, or semi-annual basis since 1996. The *Quarterly Groundwater Monitoring Reports*, 2005-2007 were the comprehensive reports that were reviewed as part of this five-year review. The reports include the most recent results from the site groundwater monitoring wells along with groundwater level data.

Sampling has been conducted quarterly or semi-annually since 1999. Analysis of the samples includes VOCs, SVOCs, inorganics and metals. Attachment 3 includes the revised sampling schedule and parameter list.

A comparison of groundwater data to Michigan Part 201 Residential Drinking Water and GSI Criteria was completed for the 2004 to 2007 monitoring data. The Michigan Part 201 Residential Drinking Water criteria were exceeded for the following parameters during the January and April 2007 sampling events: Aluminum, Iron, Lead, Manganese, Ammonia, and Benzene. Attachment 7 includes the 2004 to 2007 Groundwater Comparison Tables.

Michigan Part 201 GSI criteria apply only to those wells designated as GSI monitoring points: MW-01, MW-101, MW-02, MW-102, MW-03-99, PZ-04, MW111S, and MW111D. Groundwater surface water interface (GSI) criteria were exceeded for the following parameters during the July and October 2006 monitoring events: Barium, Zinc, and Ammonia. No statistical analysis was prepared for the 2007 first and second quarter data. Instead, per MDEQ recommendation, data were compared to State of Michigan cleanup criteria. For parameters exceeding Part 201 cleanup criteria, time-series charts were completed to show the concentration of contaminants over time in individual wells. The time-series charts show that most of the parameter results are staying relatively consistent. Attachment 8 includes the Time-Series Charts, December 2003 through April 2007.

Landfill cap maintenance involves inspection and repair of any soil burrowing or erosion locations, and mowing of the landfill surface as needed.

Site Inspection

The inspection at the site was conducted on August 9, 2007. In attendance were Scott Hansen, U.S. EPA; Walelign Wagaw, MDEQ; Ron Landis, KCDPW; and Molly Sherwood, KCDPW. The purpose of the inspection was to assess the protectiveness of the remedy, including the presence of fencing to restrict access, the integrity of the landfill cap, and general conditions of the site groundwater monitoring wells.

A walk was taken around the surface of the landfill. Site access is available through a locked gate which encloses the Site landfill. The Site Inspection Checklist is in Attachment 9.

The landfill cap over most of the site appeared to be in good condition and well vegetated. It was observed during the site inspection that KCDPW installed numerous active gas vents at the site.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents? Yes

RA Performance: The remedy selected in the 2000 ROD has been implemented and remains functional, operational and effective. With continued maintenance and monitoring of the Site landfill cap and groundwater monitoring wells, the remedy will ensure that the Site remains protective.

Cost of System Operations/O&M: Current annual O&M costs are not available since the site is an enforcement lead. The 2000 ROD does not include estimated annual O&M costs.

Opportunities for Optimization: At present time, the PRP has begun work on updating the WP to include a contingency plan to implement in the event that exceedances of the cleanup criteria begin to significantly increase.

Early Indicators of Potential Remedy Failure: One of the new wells (MW-101) installed in 2003 has been detecting benzene in the upper aquifer at or slightly above the MCL. However, maintenance activities have been consistent with expectations, and groundwater studies are being conducted to best assess the groundwater plume at the Site.

Implementation of Institutional Controls and Other Measures: Compliance with effective ICs will be ensured by implementing, maintaining and monitoring effective ICs as well as maintaining the site remedy components. Compliance with ICs is required to assure that the remedy continues to function as intended. Based on inspections and interviews, there appears to be compliance with the stated objectives of the use restrictions.

In December 2006, U.S. EPA sent a letter to the PRP requesting an IC Work Plan. On December 29, 2006, U.S. EPA received a letter from the PRP which stated that they were going to comply with U.S. EPA's request for an IC Work Plan. The PRP submitted the IC Work Plan on January 31, 2007 (See Attachment 4).

On June 21, 2007, in accordance with the IC Work Plan, the PRP submitted a Draft Declaration of Restrictive Covenants and Environmental Protection Easement (See Attachment 5). According to the IC Work Plan, once U.S. EPA approves the Draft Declaration of Restrictive Covenants and Environmental Protection Easement the PRP will submit the final copy to U.S. EPA. The PRP will then record the Restrictive Covenants and Environmental Protection Easement. Additionally, a plan will be developed to ensure long term site stewardship.

Question B: Are the assumptions used at the time of remedy selection still valid? Yes

Changes in Standards and To Be Considered: The MCL for arsenic in groundwater has been decreased from 50 to 10 mg/L. This standard will need to be incorporated into the updated Work Plan. All other standards outlined in the 2000 ROD and the O&M plan are still valid at the Site.

Changes in Exposure Pathways: No changes in the Site conditions that affect exposure pathways were identified as part of the five-year review. Currently, all existing drinking water wells in the vicinity of the site are in the deep, bedrock aquifer that is hydrologically separated from the upper and lower aquifer. There are no current or known planned changes in the Site land use. Groundwater studies are being conducted to best assess the Site groundwater plume.

Changes in Risk Assessment Methodologies: Changes in risk assessment methodologies are not significant and do not call into question the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? No

An IC evaluation revealed that ICs need to be put in place and maintained to provide long-term protectiveness. On April 26, 2007, the PRP (Kent County) took ownership of the portion of the landfill property previously owned by Sparta Township. Following the transfer of property, all landfill property is owned by the PRP. On June 21, 2007, the PRP submitted to U.S. EPA the draft Declaration of Restrictive Covenants and Environmental Protection Easement. Once the draft document is approved by U.S. EPA, the PRP will file the restrictive covenant document. Additionally, a plan will be developed to ensure long-term site stewardship. No other information has come to light that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to the data reviewed and the Site inspection, the remedy is functioning as intended by the 2000 ROD. There have been no changes in the physical conditions at the Site, standards, contaminant toxicity or exposure pathways that would affect the protectiveness of the remedy. There is no additional information that has been identified that would call into question the protectiveness of the remedy.

VIII. Issues

The following issues were identified during the five-year review process and the Sparta Site inspection, but do not impact either current or future protectiveness of the remedy.

- Update groundwater monitoring plan
- Install permanent markers

The following issues were identified during the five-year review process and the Sparta Site inspection, and could impact the future protectiveness of the remedy.

- Implement institutional controls
- Prepare a contingency plan
- Prepare a gas monitoring plan
- Ensure long-term stewardship

Table 3: Issues

Issues	Affects Current Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Complete gas monitoring plan	N	Y
Institutional controls need to be implemented	N	Y
Complete contingency plan	N	Y
Long-term stewardship ICs need to be ensured	N	Y

IX. Recommendations and Follow-up Actions

Table 4: Recommendations and Follow-up Actions

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
ICs - The required ICs have not been implemented. Implementing and maintaining ICs will be required to assure protectiveness of the remedy	Implement ICs	PRP	U.S EPA and MDEQ	12/31/2007	N	Y
Contingency Plan	Complete contingency plan	PRP	U.S EPA and MDEQ	9/30/2008	N	Y
Gas Monitoring Plan	Complete gas monitoring plan	PRP	U.S. EPA and MDEQ	9/30/2008	N	Y

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
ICs – Long term stewardship must be assured which includes maintaining and monitoring effective ICs.	Develop a plan or revised Work Plan (O&M) to oversee and monitor ICs to ensure long term stewardship.	PRP	U.S. EPA and MDEQ	9/30/2008	N	Y

X. Protectiveness Statement(s)

The assessment of this five-year review has found that the remedy at the Sparta Landfill Superfund site is protective of human health and the environment in the short term since all known exposure pathways have been eliminated. However, in order for the remedy to be protective in the long-term, groundwater cleanup standards based on Safe Drinking Water Act [Maximum Contaminant Levels (MCLs)] and risk-based criteria for protection of groundwater quality will need to be met. Further restrictions, in the form of effective ICs, that protect the integrity of the landfill cap and other remedial components, and prohibit Site groundwater use will need to be implemented and maintained. Compliance with effective ICs will be ensured by implementing, maintaining and monitoring effective ICs as well as maintaining the site remedy components.

XI. Next Review

U.S. EPA performs statutory reviews on remedies selected that result in hazardous substances, pollutants or contaminants remaining at sites above levels that allow for unlimited use and unrestricted exposure. Since hazardous substances, pollutants or contaminants are contained and will potentially remain above U.S. EPA regulatory standards in the future, the Sparta Site will require ongoing Five-Year Reviews. Therefore, another report is scheduled to be completed no later than five years after the completion of this five-year review. The completion date of the current five-year review is the signature date shown on the cover attached to the front of this report.

Attachments

Attachment 1 – Site Base Map
Attachment 2 – Well Location Map
Attachment 3 – Letter from KCDPW on monitoring schedule and parameter list
Attachment 4 – IC Work Plan
Attachment 5 – Draft Declaration of Restrictive Covenants and Environmental Protection Easements
Attachment 6 – Copy of Ad placed in the newspaper
Attachment 7 – Groundwater Comparison Tables, 2004-2007
Attachment 8 – Groundwater Time-Series Charts, 2003-2007
Attachment 9 – Site Inspection Checklist
Attachment 10 – List of Documents Reviewed

Attachment 1

Site Base Map

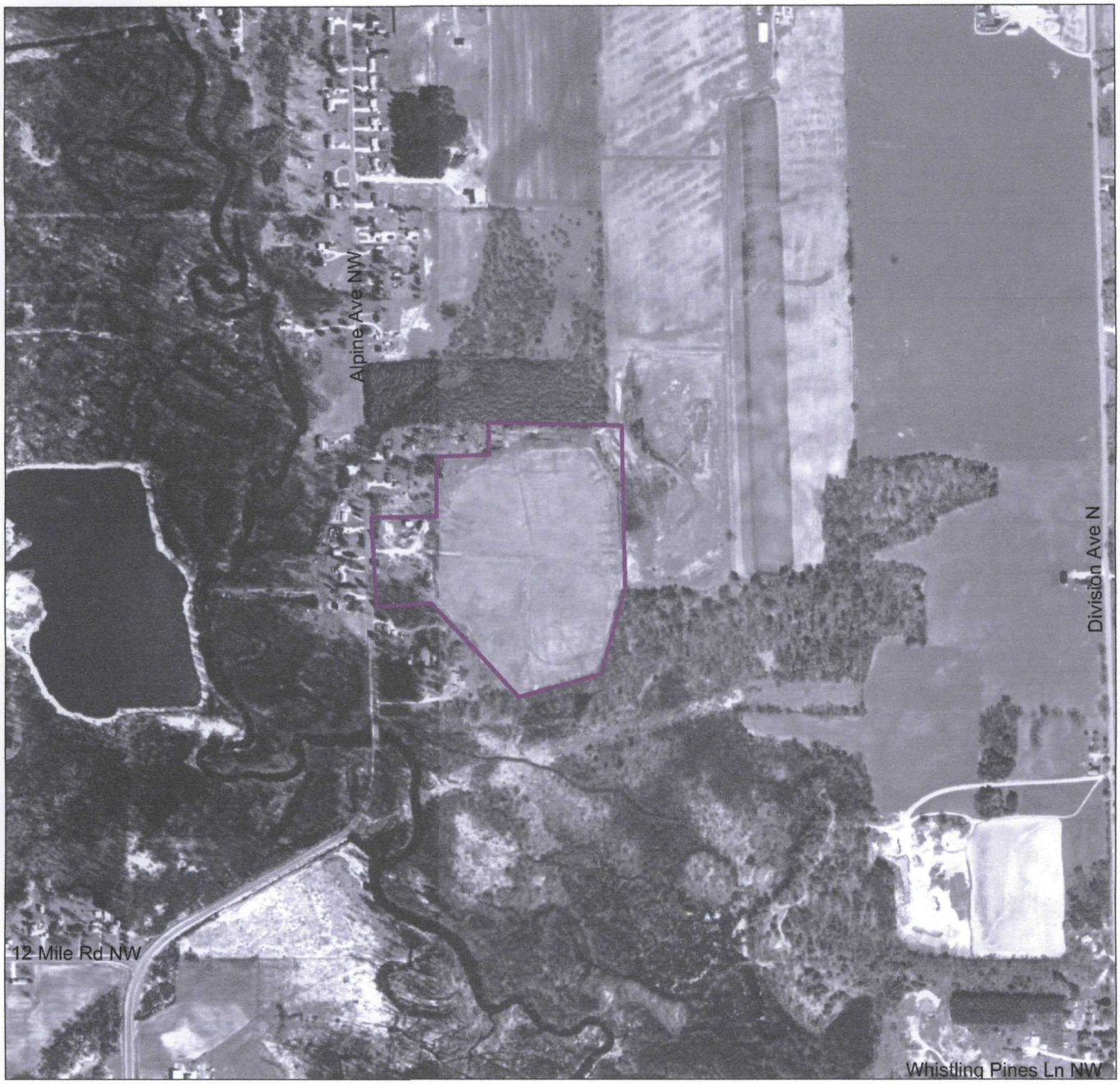
Institutional Control (IC) Review

Site Base Map

Superfund
U.S. Environmental Protection Agency

Sparta Landfill
Kent County, MI

MID000268136



Legend

Sparta Landfill Boundary

0 400 800 Feet

N

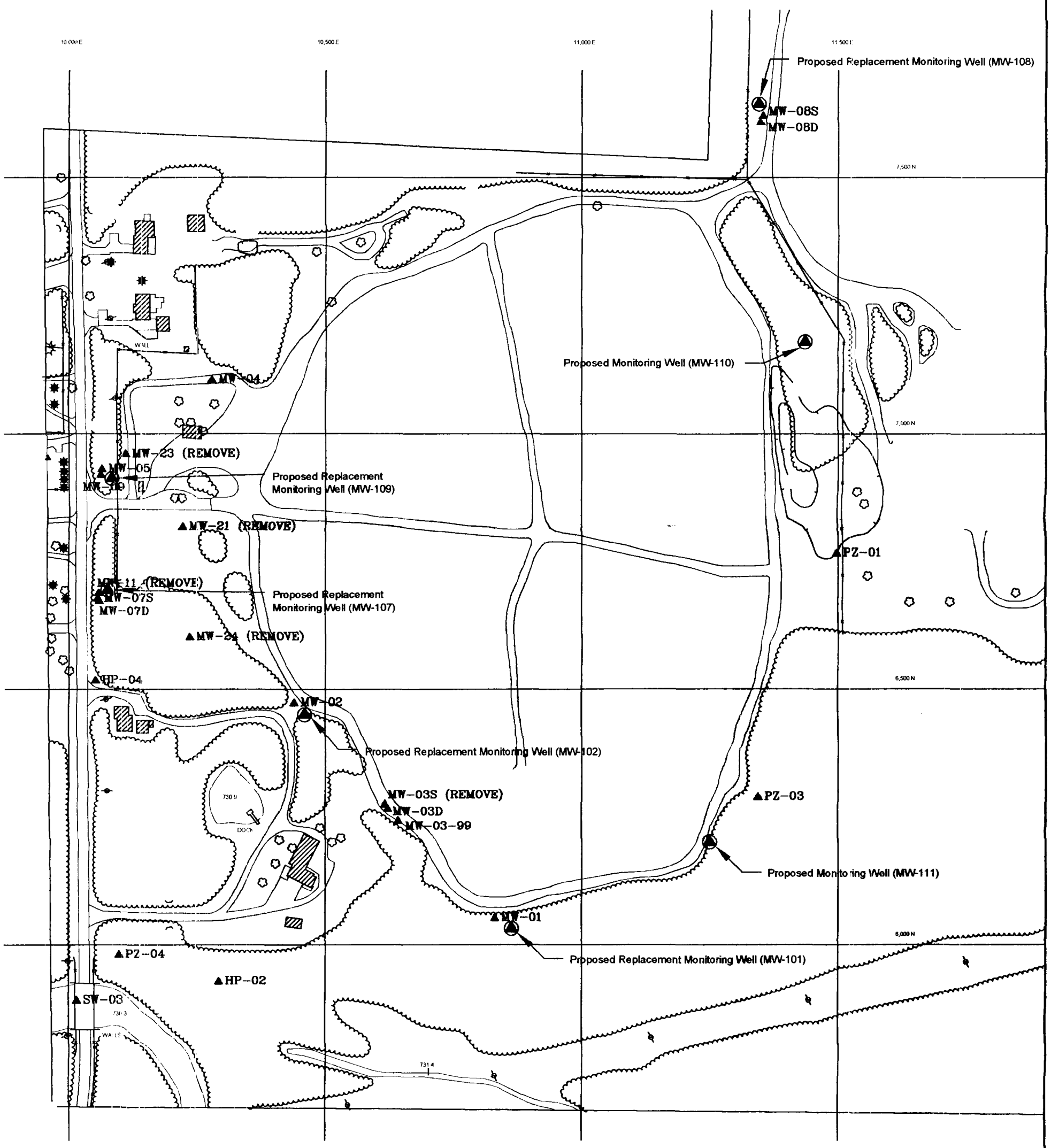
GEOS
Groundwater Evaluation and Optimization System

RPM: Scott Hansen

Created by Sarah Backhouse
U.S. EPA Region 5 on 9/27/06

Attachment 2

Well Location Map



▲ Existing Monitoring Wells

Proposed Monitoring Wells

Scale: 1"=200'	Site: SPARTA LANDFILL	Dwg. By: RSM
	SITEMAP AND GROUNDWATER	Rev. By:
	MONITORING LOCATIONS	Approved :
Date: 7/14/03	SPARTA LANDFILL	Drawing no : 2 Of 2

Attachment 3

Letter from KCDPW on Monitoring Schedule and Parameter List

SOLID WASTE DIVISION
Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

WATER AND SEWER DIVISION
Financing
Construction
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NADINE KLEIN
DALE SOMMERS
DOUG SPORTE
CURT A. KEMPPAINEN
Director

January 9, 2006

Mr. Scott Hansen
Sparta Landfill Remedial Project Manager
U.S. Environmental Protection Agency - Region V
77 West Jackson Boulevard SR-6J
Chicago, IL 60604-3590

Re: Sparta Landfill Groundwater Monitoring Schedule

Dear Mr. Hansen:

In their December 15, 2005 memo, the Michigan Department of Environmental Quality (MDEQ) agreed with the Kent County proposed monitoring changes for Sparta Landfill. In accordance with MDEQ recommendations, the following is a revised sampling schedule that we will be implementing in 2006.

WELL(s)	Frequency	ANLAYSES
MW-101, MW-102	Quarterly	• TCL Volatiles, TAL Inorganics, • No Pesticides or PCBs • total metals only, no dissolved metals
MW-01, MW-02, MW-03-99, PZ-04, MW-07, MW-07D, MW-08, MW-08D, MW-09	1st and 2nd Semi-Annual	• Reduced Metals List (Al, As, Ba, Cd, Cr, Fe, Pb, Mg, Mn, Hg, Ni, Ag, Na, Zn), Total Metals only, No dissolved metals • Reduced Inorganics List (chloride, ammonia, nitrate, nitrite, sulfate, COD, BOD, total phosphorus, cyanide) • Selected Volatiles/Semi-Volatiles (same as before)
MW-107, MW-108, MW-109, MW-111S, MW-111D, MW-112	1st Semi-Annual	• Reduced Metals List (Al, As, Ba, Cd, Cr, Fe, Pb, Mg, Mn, Hg, Ni, Ag, Na, Zn), Total Metals only, No dissolved metals • Reduced Inorganics List (chloride, ammonia, nitrate, nitrite, sulfate, COD, BOD, total phosphorus, cyanide) • Selected Volatiles/Semi-Volatiles (same as before)
MW-107, MW-108, MW-109, MW-111S, MW-111D MW-112	2nd Semi-Annual	• Reduced Metals List (Al, As, Ba, Cd, Cr, Fe, Pb, Mg, Mn, Hg, Ni, Ag, Na, Zn), Total Metals only, No dissolved metals • Reduced Inorganics List (chloride, ammonia, nitrate, nitrite, sulfate, COD, BOD, total phosphorus, cyanide) • Full VOC/SVOC scans

Earl G. Woodworth Building • 1500 Scribner Avenue, N.W. • Grand Rapids, Michigan 49504-3233
Telephone: (616) 336-3694 Facsimile: (616) 336-3338 E-Mail address: public.works@kentcounty.org

All groundwater wells will now be sampled only semi-annually with the exception of MW-101 and MW-102, which will continue to be sampled quarterly.

During the first semi-annual event, all semi-annual wells (new and old) may now be analyzed for the same reduced VOC/SVOC list that was being used for the old wells. For the new wells (MW-107, MW-108, MW-109, MW-111S, MW-111D, MW-112), the reduced VOC/SVOC list shall be replaced by full VOC/SVOC scan during the second semi-annual event

Only total metals analyses will be conducted; no dissolved metals. The list of metals for analysis for all wells other than MW-101 and MW-102 will now include only total aluminum, arsenic, barium, cadmium, chromium, iron, lead, magnesium, manganese, mercury, nickel, silver, sodium and zinc.

The Inorganic parameter list has been modified for all wells except MW-101 and MW-102 to include only the following; chloride, ammonia, nitrate, nitrite, sulfate, COD, BOD, total phosphorus and cyanide.

Water levels will continue to be measured every quarter.

We will implement the new sampling schedule beginning first quarter 2006. This first quarter sampling event is planned for the week of February 13th. Modification of the Sparta Landfill Workplan to reflect these changes will be completed in the near future and submitted to you for approval.

Please feel free to contact me with any questions or concerns.

Sincerely,
KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Ron Landis
Project Coordinator

Attachment 4

IC Work Plan

SOLID WASTE DIVISION
Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

UTILITY SERVICES DIVISION
Financing
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Operation

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Vice Chairman

WILLIAM BYL
Secretary

NADINE KLEIN
SANDI PARRISH
DAVID GROENLEER
GARY ROLLS

DOUGLAS G. WOOD
Director

January 31, 2007
CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Hansen
Remedial Project Manager
U.S. Environmental Protection Agency - Region 5-SR-6J
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Transmittal of *Institutional Control Workplan for the Sparta Landfill Site*
Sparta Landfill, Kent County, Michigan

Dear Mr. Hansen:

In accordance with the U.S. EPA Institutional Control Initiative, Kent County is hereby transmitting the above-referenced Workplan. This Workplan has been prepared in response to your certified letter, received December 26, 2006, regarding Institution Controls for the Sparta Landfill Superfund Site.

If you have any questions or comments, please feel free to contact me at (616) 336-4370.

Sincerely,
KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Ron Landis
Project Coordinator

enclosures: *Institutional Control Workplan for the Sparta Landfill Site*

Earl G. Woodworth Building 1500 Scribner Avenue, N.W. Grand Rapids, Michigan 49504-3233
Telephone: (616) 336-3694 Facsimile: (616) 336-3338 E-Mail Address: kcdpw@kentcounty.org
S:\SWO\SPL\EPA\LT070131EPA.doc

INSTITUTIONAL CONTROL WORKPLAN

for the

SPARTA LANDFILL SITE

SPARTA TOWNSHIP
KENT COUNTY, MICHIGAN

Prepared by:
Kent County Department of Public Works
1500 Scribner Avenue N.W.
Grand Rapids, Michigan 49504

January 30, 2007

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FIGURES

1 Sparta Landfill Parcel Map

1.0 INTRODUCTION

This Workplan has been prepared by Kent County Department of Public Works (KCDPW), the Responsible Party (PRP) for the Sparta Landfill Site, in accordance with the U.S. EPA initiative to ensure that institutional controls (ICs) are successfully implemented at Superfund Sites. This Workplan is designed to satisfy the requirements set forth in the U.S. EPA's "Strategy to Ensure Institutional Control Implementation at Superfund Sites," OSWER No. 9355.0-106, 2004.

1.1 Objectives

The objective of the IC Workplan is to demonstrate KCDPW's intent to comply with the previously cited U.S. EPA initiative to ensure institutional control at Superfund sites. Implementation of this Workplan will achieve the following:

- Identification of Property within Sparta Landfill,
- Completion of a title search,
- Implementation a restrictive covenant for the Sparta Landfill property.

1.2 Location

The Sparta Landfill site is an inactive landfill located at 10322 Alpine Avenue, N.W., in Sparta Township, Kent County, Michigan. The closed landfill occupies approximately 26 acres of property on two parcels. Following are the parcels that will be subject to institutional control:

#1 - 10216 Alpine Ave, PP No. 41-05-24-300-022, Owned by Kent County
#2 - 10355 Alpine Ave, PP No. 41-05-24-300-009, Owned by Sparta Township

One of the subject parcels is owned by Kent County, and the second parcel is owned by Sparta Township, as shown on Figure 1. Kent County is currently in negotiations to purchase the parcel owned by Sparta Township.

2.0 PROPERTY IDENTIFICATION

2.1 Mapping and Survey

A comprehensive parcel map of the Sparta Landfill property will be developed to include the following:

- Site boundaries
- Parcel boundaries, parcel numbers and ownership
- Restrictive Covenant Boundary
- Streets
- Any Easements or Encumbrances

The information presented on the comprehensive parcel map will be gathered and generated during the investigation outlined in this Workplan.

2.2 Legal Description

A legal description of the area to be covered by institution control will be included in the prepared restrictive covenant document.

2.3 Coordinates

Geographic Information System (GIS) or State Plane coordinates will be developed that show the boundaries of the landfill, properties boundaries, restrictive covenant boundaries, utilities and any other encumbrances. Boundaries will be formatted into ESRI polygon shape files, and projected into the UTM, NAD 83 projection system. Each polygon submitted shall be named, and the names provided.

3.0 TITLE COMMITTMENT

3.1 Title Insurance Commitment

A current title insurance commitment in the form of ALTA Commitment form-1982 (as amended) from a title company will be provided. The title insurance commitment will show title to the areas covered by the restrictive covenant to be free and clear of all prior liens and encumbrances, except where approved by U.S. EPA.

3.2 Encumbrances

Any encumbrances referenced in the title insurance commitment will be identified in writing and on the coordinate maps described in 2.3. If any encumbrances affect areas covered by the restrictive covenant, they will be identified and copies of subrogation agreements for those encumbrances will be included.

4.0 INSTITUTIONAL CONTROL

4.1 Draft Restrictive Covenant

A draft restrictive covenant covering the Sparta Landfill will be prepared. The restrictive covenant will be in a format approved by U.S. EPA, and will be enforceable under the laws of the State of Michigan.

4.2 Schedule of Implementation

The schedule of implementation of this Workplan will be dependent on the purchase of the 10355 Alpine Ave parcel from Sparta Township. If that purchase is successfully completed, both Sparta Landfill parcels will be included in the restrictive covenant prepared by kent County. There is, however, no way to know exactly how long the

purchase process will take. A conservative schedule has thus been prepared. This schedule will be updated, as needed, as the project proceeds.

Stage 1: The first stage of this process will include the continued attempt to purchase Parcel #2. It is conservatively anticipated that thie purchase may be completed by April 30, 2007.
Concurrently with the purchase of Parcel #2, mapping and survey, legal description and GIS activities will begin.

Stage 2: Assuming the purchase of Parcel #2 by April 30th, the draft restrictive covenant will be prepared and submitted to U.S. EPA for approval by June 30, 2007. Title research will also be completed by this date.

Stage 3: Following U.S. EPA approval of the draft restrictive covenant, the document will be filed. Following filing, the completed document including all associated maps and information will be submitted to U.S. EPA by September 30, 2007.

Stage 4: The Woprkplan for the Sparta Landfil Site, Rev.02, October 17, 2003 (O&M Workplan) shall be revised to include an annual review of institutional controls. The revised O&M Workplan will be submitted to U.S. EPA by December 31, 2007.

4.3 Proposed Monitoring Plan

As specified in Stage 4, above, the O&M Workplan will be revised to include an annual review of institutional controls. The revised O&M Workplan will be submitted to U.S. EPA by December 31, 2007.

Attachment 5

Draft Declaration of Restrictive Covenants and Environmental Protection Easements

SOLID WASTE DIVISION
Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

UTILITY SERVICES DIVISION
Financing
Construction
Operation

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Vice Chairman

WILLIAM BYL
Secretary

NADINE KLEIN
SANDI PARRISH
DAVID GROENLEER
GARY ROLLS

DOUGLAS G.WOOD
Director

June 21, 2007

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Hansen
Remedial Project Manager
U.S. Environmental Protection Agency - Region 5-SR-6J
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Transmittal of *Draft Declaration of Restrictive Covenants and Environmental Protection Easement* - Sparta Landfill, Kent County, Michigan

Dear Mr. Hansen:

In accordance with the January 30, 2007 *Institutional Control Workplan for the Sparta Landfill Site* (Workplan), Kent County is hereby transmitting the above-referenced draft restrictive covenant document. This draft document has been prepared in response to your certified letter, received December 26, 2006, regarding Institution Controls for the Sparta Landfill Superfund Site.

On April 26, 2007, Kent County took ownership of the portion of the landfill property previously owned by Sparta Township. Following this transfer of property, all landfill property is owned by Kent County. Also, title research on all parcels has been substantially completed.

Please review the enclosed draft document, and reply as soon as possible. In accordance with the Workplan, the restrictive covenant is to be completed and filed by September 30, 2007.

If you have any questions or comments, please feel free to contact me at (616) 336-4370.

Sincerely,
KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Ron Landis
Project Coordinator

enclosures: *Draft Restrictive Covenants and Environmental Protection Easement* for the Sparta Landfill Site

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DECLARATION OF RESTRICTIVE COVENANTS AND ENVIRONMENTAL PROTECTION EASEMENT

U.S. EPA Site No.: MID000268136

This Declaration of Restrictive Covenants and Environmental Protection Easement is made by and between Kent County Department of Public Works, Grantor; the United States of America and its assigns, having an address c/o the United States Environmental Protection Agency ("U.S. EPA"), Attn: Director, Superfund Division, Region 5, 77 W. Jackson Blvd. SR-6J, Chicago, Illinois 60604, Grantee.

This Declaration of Restrictive Covenants and Environmental Protection Easement has been recorded with the Kent County Register of Deeds for the purpose of protecting public health, safety, and welfare, and the environment by: (1) granting a right of access to the U.S. EPA and their authorized representatives to monitor and conduct Monitoring Activities, as that term is defined below; and (2) restricting unacceptable exposures to hazardous substances located on the 10216 Alpine Avenue and 10355 Alpine Avenue properties, as legally described on Exhibit 1 hereto (Property); (3) assuring that the use of Property is consistent with the exposure assumptions and control measures required pursuant to the Record of Decision ("ROD") issued by U.S. EPA on September 27, 2000 pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 *et seq.* ("CERCLA"); and (4) preventing damage or disturbance of any element of the remedial action constructed on the Property.

The Property is occupied by the Sparta Landfill Superfund Site ("Site"). The Site was placed on the National Priorities List on September 8, 1983, and is a facility, as that term is defined in Section 101(9) of CERCLA and Section 324.20101(o) of the Natural Resources and Environmental Protection Act, Part 201 of 1994 PA 451, as amended ("NREPA"). Information pertaining to the environmental conditions at the Property and the remedial actions to be undertaken at the Property is on file with the U.S. EPA and the Michigan Department of Environmental Quality (MDEQ), Remediation and Redevelopment Division.

The restrictions contained in this Declaration of Restrictive Covenants and Environmental Protection Easement are based upon information available to the U.S. EPA and MDEQ at the time the ROD was issued. Failure of the response activities to achieve and maintain the criteria, exposure controls, and requirements specified in

the ROD; future changes in the environmental condition of the Property or changes in the cleanup criteria developed under CERCLA and the NREPA; the discovery of environmental conditions at the Property that were not accounted for in the ROD; or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Declaration of Restrictive Covenants and Environmental Protection Easement not being protective of public health, safety, and welfare, and the environment.

Property Identification Number: MID000268136

Exhibit 1 provides a survey of the Property that is subject to the land use or resource use restrictions specified herein.

Summary of Response Activities

The Property was historically used as an open dump beginning in the 1940s. In 1972, Kent County began operation of a licensed landfill adjacent to the dump property. In 1973, Kent County acquired the adjacent older dump property. The licensed landfill accepted municipal refuse until its closure in 1977. The Michigan Department of Natural Resources ("MDNR"), predecessor to the MDEQ, performed a hydrogeological investigation in 1981 and 1982. MDNR groundwater monitoring continued from 1982 to 1986. In September 1993, Kent County signed a Consent Order with the U.S. EPA to investigate the potential threat to human health and the environment. Between 1993 and 1999, Kent County conducted a remedial investigation and feasibility study to determine the nature and extent of contamination at the property. In addition, the landfill was capped in1995. The remedy specified in the ROD included the monitoring of water wells near the site to ensure the integrity of the remedy. If monitoring results show and increase in groundwater contamination concentrations, a determination will be made whether additional response actions are needed. Groundwater monitoring has been conducted on a quarterly and semi-annual basis since 1999.

Definitions

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means, at any given time, the then current titleholder of the Property or any portion thereof.

"Owners Subsequent to Kent County" means, at any given time, the then current titleholder of the Property or any portion thereof except for Kent County.

"Kent County" shall mean the County of Kent, Michigan, the owner of the Property as of the date of the execution of this Declaration of Restrictive Covenants

and Environmental Protection Easement, and the Owner for as long as Kent County is a current titleholder of the Property or any portion thereof.

"Response Activities" shall mean, consistent with Section 101(25) of CERCLA, such actions as have been or may be necessary to conduct any removal, remedy or remedial action, as those terms are defined in Sections 101(23) and 101(24) of CERCLA, at the Property and/or at the Site, including enforcement activities related thereto.

"U.S. EPA" shall mean the United States Environmental Protection Agency, its successor entities and those persons or entities acting on its behalf.

All other terms used in this document which are defined in Part 3, Definitions, of the NREPA; Part 201 of the NREPA; or the Part 201 Administrative Rules (Part 201 Rules), 1990 AACS R 299.5101 et seq., shall have the same meaning in this document as in Parts 3 and 201 of the NREPA and the Part 201 Rules, as of the date of filing of this Declaration of Restrictive Covenants and Environmental Protection Easement.

NOW THEREFORE,

Grantor, on behalf of itself, its successors and assigns, in consideration of the terms of the Administrative Order on Consent in the case of the U.S. EPA v. Kent County, Civil Action No. V-W02-C-714, does hereby covenant and declare that the Property shall be subject to the restrictions on use set forth below, and conveys and warrants to the Grantee, and its assigns 1) the right to enforce such use restrictions, and 2) an environmental protection easement of the nature and character, and for the purposes hereinafter set forth, with respect to the Property.

Declaration of Land Use or Resource Use Restrictions

1. The Owner shall prohibit all uses of the Property that are not compatible with the Property's zoned land use designation, or other use that is consistent with the assumptions and basis for the cleanup criteria developed pursuant to Section 20120a(1) of the NREPA. Cleanup criteria for land use-based Response Activities are located in the Government Documents Section of the State of Michigan Library.

2. The Owner shall prohibit use of the Property or portions thereof, for any of the following purposes:

(a) A residence, including any mobile home or factory built housing, constructed or installed for use as residential human habitation,
(b) A hospital for humans,
(c) A public or private school for persons under 21 years of age,
(d) A day care center for children,
(e) Any purpose involving residential occupancy on a 24-hour basis.

(f) Any other use that would disturb or penetrate the landfill cover or erosion control system unless such use has been approved by the U.S. EPA, with or without the concurrence of the MDEQ.

3. Owners Subsequent to Kent County shall prohibit activities, and Kent County shall not perform any activities, on the Property that may result in exposures above levels established in the ROD. These prohibited activities include:

(a) Any excavation, drilling, penetration or other disturbance of the surface or subsurface soils on the Property except as necessitated for compliance with the O&M plan or conducted in accordance with any work plan approved or modified by U.S. EPA with or without MDEQ concurrence. All excavation, drilling, penetration or other disturbance of the surface or subsurface soils on the Property must be conducted in accordance with a health and safety plan that complies with the Occupational Safety and Health Act of 1970, 20 C.F.R. 1910.120 and the Michigan Occupational Safety and Health Act.

(b) Any construction of buildings on the Property unless plans are submitted to and approved by the U.S. EPA with or without MDEQ concurrence. Any new construction must satisfy the indoor air inhalation criteria of Part 201.

4. Owners Subsequent to Kent County shall prohibit activities, and Kent County shall not perform any activities, on the Property that may interfere with any element of the ROD, including the performance of operation and maintenance activities, monitoring, or other measures necessary to ensure the effectiveness and integrity of the remedy.

5. The U.S. EPA may require modifications to the restrictions contained in this Declaration of Restrictive Covenants and Environmental Protection Easement as necessary to assure the integrity and effectiveness of the remedial action required under the ROD or to assure the protection of the public health, safety, welfare and the environment.

6. Owners Subsequent to Kent County shall comply with the applicable requirements of Section 20107a of the NREPA and Part 10 of the Part 201 Administrative Rules.

7. Contaminated Soil Management. Owners Subsequent to Kent County shall manage all soils, media and/or debris located on the Property in accordance with, and Kent County shall refrain from managing soils, media and/or debris located on the Property in contravention with the applicable requirements of Section 20120c of the NREPA; Part 111, Hazardous Waste Management, of the NREPA; Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 *et seq.*; the administrative rules promulgated thereunder, and all other relevant state and federal laws.

Environmental Protection Easement

8. Access. Grantor hereby grants to Grantee, and its assigns, an irrevocable and continuing right of access at all reasonable times to the Sparta Landfill Property for the purposes of:

(a) Overseeing and/or implementing the monitoring required in the ROD, including but not limited to installation of water monitoring wells, sampling of water wells and maintenance of the landfill cover system;

(b) Verifying any data or information submitted to U.S. EPA or MDEQ and monitoring compliance with the ROD and any implementing Workplan;

(c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;

(d) Monitoring Response Activities at the Site and conducting investigations relating to contamination on or near the Site, including, without limitations, sampling of air, water, sediments, soils, and specifically, without limitation, obtaining split or duplicate samples;

(e) Conducting periodic reviews of the Monitoring Activities at the Site, including but not limited to, reviews required by applicable statutes and/or regulations; and

(f) Implementing additional or new Response Activities if U.S. EPA determines, with or without MDEQ concurrence:

i) that such activities are necessary to protect public health, safety, welfare, or the environment because either the response action has proven to be ineffective or because new technology has been developed which will accomplish the purposes of the response action in a significantly more efficient or cost effective manner; and

ii) that the additional or new response activities will not impose any significantly greater burden on the Property or unduly interfere with the then existing uses of the Property.

Nothing in this instrument shall limit or otherwise affect U.S. EPA's right of entry and access or authority to take Response Activities as defined in this instrument, as well as in Section 20101(1)(ee) of Part 201 of the NREPA, under CERCLA, the National Contingency Plan, the NREPA, and any successor statutory provisions, or other state or federal law.

9. Transfer of Interest. The Owner shall provide notice to the U.S. EPA of the Owner's intent to transfer any interest in the Property at least fourteen (14) business days prior to consummating the conveyance. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner unless the Owner complies with the applicable provisions of Section 20116 of the NREPA. A copy of this Declaration of Restrictive Covenants and Environmental Protection Easement shall be provided to all future owners, heirs, successors, lessees, easement holders, assigns, and transferees by the person transferring the interest. The Owner shall include in any instrument conveying any interest in the Property or portion thereafter including but not limited to, deeds, leases, and mortgages a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF RESTRICTIVE COVENANTS AND ENVIRONMENTAL PROTECTION EASEMENT, DATED _____, 2007, AND RECORDED WITH THE KENT COUNTY REGISTER OF DEEDS, LIBER _____, PAGE_____.

10. Notices. Any notice, demand, request, consent, approval, or communication that is required to be made or obtained under this Declaration of Restrictive Covenants and Environmental Protection Easement shall be made in writing and include a statement that the notice is being made pursuant to the requirements of this Declaration of Restrictive Covenants and Environmental Protection Easement, U.S. EPA Site No. _____, and shall be served either personally or sent via first class mail, postage prepaid, as follows:

For U.S. EPA:

Director
Superfund Division
U.S. EPA
77 West Jackson Blvd. SR-6J
Chicago, Illinois 60604

with a copy to:

Office of Regional Counsel
U.S. EPA Region 5
77 West Jackson Blvd. C-14J
Chicago, IL 60604

11. Terms and Enforcement of Declaration of Restrictive Covenants and Environmental Protection Easement. This Declaration of Declaration of Restrictive Covenants and Environmental Protection Easement shall run with the land and shall be binding on the Grantor, its successors and assigns, including all lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control. This Declaration of Declaration of Restrictive

Covenants and Environmental Protection Easement may only be modified or rescinded with the written approval of the U.S. EPA.

12. Severability. If any provision of this instrument is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions hereof and all other provisions shall continue unimpaired and in full force and effect.

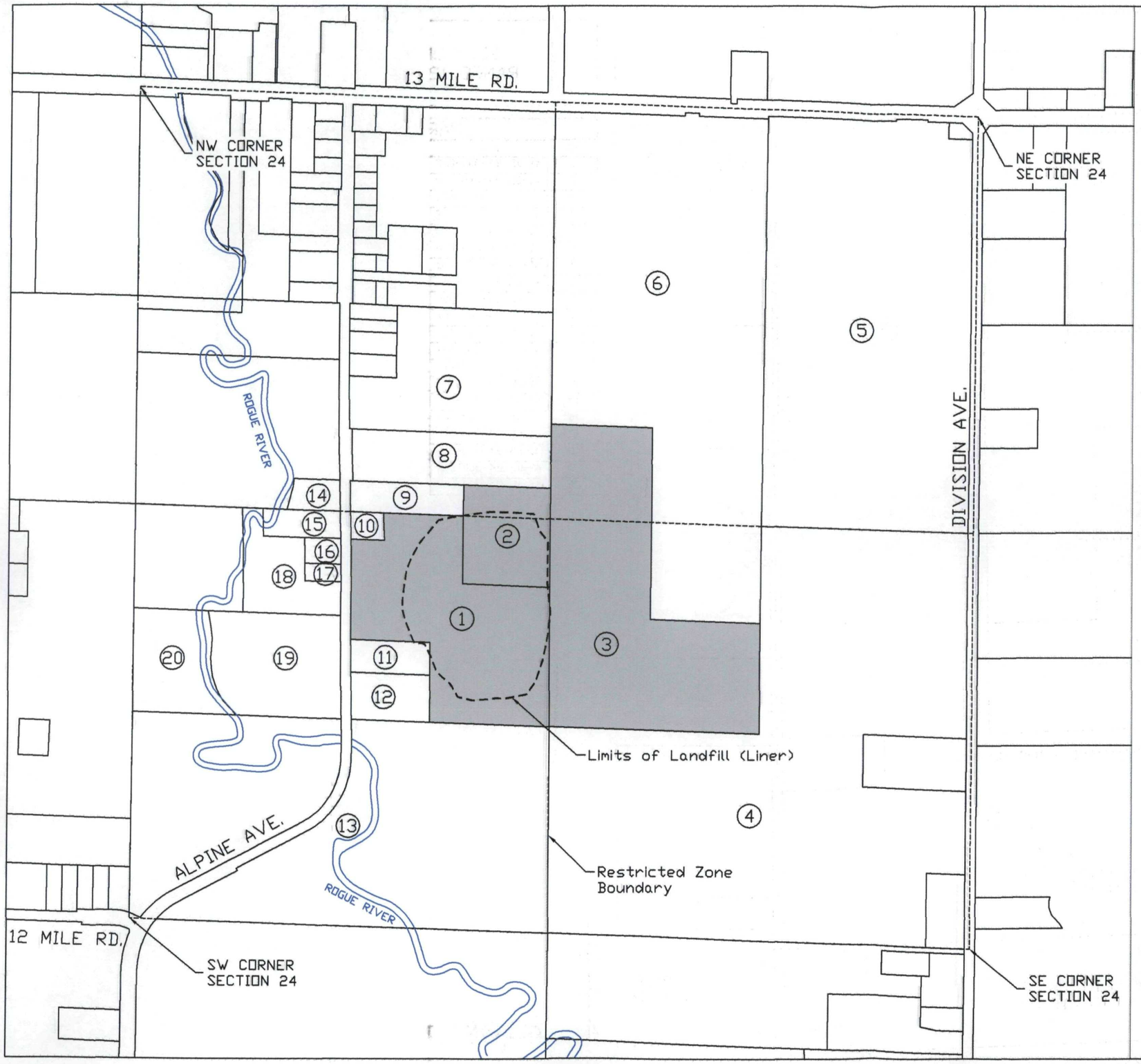
13. Authority to Execute Declaration of Restrictive Covenants and Environmental Protection Easement. The undersigned person executing this instrument is the Owner and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Declaration of Restrictive Covenants and Environmental Protection Easement.

14. Nothing in this Declaration of Restrictive Covenants and Environmental Protection Easement affects Kent County's obligations, if any, under Part 201 of the NREPA, CERCLA, or other State or federal laws, as may be amended from time to time, among: (a) the United States of America, on behalf of the United States Environmental Protection Agency, the United States Department of the Interior, and the National Oceanic and Atmospheric Administration of the United States, Department of Commerce, and including all departments, agencies and instrumentalities of the United States; (b) the State of Michigan, on behalf of Michael A. Cox, Attorney General for the State of Michigan, the Michigan Department of Environmental Quality, and all other departments, agencies and instrumentalities of the State of Michigan; and (e) Kent County, the final version of which, after publication in the Federal Register for the thirty-day public comment period specified by 42 U.S.C. § 9622(i), will be flied with the United States District Court for Western Michigan.

IN WITNESS WHEREOF, Kent County has caused this Declaration of Restrictive Covenant and Environmental Protection Easement to be executed on this ____ day of _____ , 2007.

Kent County

By: _____
Name: Douglas G. Wood
Its: Director of Public Works



SPARTA LANDFILL
SECTION 24, TOWNSHIP 9 NORTH
RANGE 12 WEST (SPARTA TOWNSHIP)
KENT COUNTY, MICHIGAN, U.S.A.

SPARTA LANDFILL PARCELS

ID	PPN	OWNER	ADDRESS
1	41-05-24-300-022	COUNTY OF KENT	10216 ALPINE AVE NW
2	41-05-24-300-009	SPARTA TOWNSHIP	10355 ALPINE AVE NW
3	41-05-24-400-001	KENT COUNTY ROAD COMM.	10305 DIVISION AVE NW
4	41-05-24-400-007	ANTOR, WILLIAM J.	10377 DIVISION AVE NW
5	41-05-24-200-006	ANTOR, MICHEAL W.	86 13 MILE RD NW
6	41-05-24-200-005	BRADFORD FAMILY TR.	250 13 MILE RD NW
7	41-05-24-176-012	VANGESSEL, RICHARD	10510 ALPINE AVE NW
8	41-05-24-176-011	BONTER, CLARENCE	10434 ALPINE AVE NW
9	41-05-24-176-009	HERRMANN, JAMES C.	10400 ALPINE AVE NW
10	41-05-24-300-007	STANTON, LAWRENCE	10380 ALPINE AVE NW
11	41-05-24-300-020	SCHWAB M.	10246 ALPINE AVE NW
12	41-05-24-300-021	LETTINGA, HOWARD	10214 ALPINE AVE NW
13	41-05-24-300-013	KENT COUNTY ROAD COMM.	10185 ALPINE AVE NW
14	41-05-24-152-003	RODE, JACQUELINE TR	10415 ALPINE AVE NW
15	41-05-24-300-002	LEVANDOWSKI, THOMAS	10385 ALPINE AVE NW
16	41-05-24-300-003	SCHUILING, DALE	10345 ALPINE AVE NW
17	41-05-24-300-017	MABIE, TODD	10321 ALPINE AVE NW
18	41-05-24-300-016	GERKE, GARY	10295 ALPINE AVE NW
19	41-05-24-300-006	MOORE, DENNIS	10279 ALPINE AVE NW
20	41-05-24-300-005	SIDLAUSKAS, EMILY EST.	10257 STEBBINS AVE NW

SPARTA LANDFILL SITE

N

0 50 100 150 200 300
SCALE: 1"=300'

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Attachment 6

Copy of Ad placed in the newspaper

EPA Begins Review of Sparta Landfill Superfund Site

Sparta, Michigan

U.S. Environmental Protection Agency, with assistance from the Michigan Department of Environmental Quality, is reviewing the effectiveness of the cleanup at the Sparta Landfill Superfund site, Sparta Township, Mich. The Superfund law requires five-year reviews of sites where the cleanup is either done or in progress but hazardous waste remains managed on-site. These five-year reviews are done to ensure that the cleanup remains effective and protects human health and the environment.

The cleanup plan chose continued ground water monitoring.

Five-year reviews look at:

- site information.
- how the cleanup was done.
- how well the cleanup is working.
- any future actions needed.

Site records can be viewed at the Sparta Township Public Library, 80 North Union, Sparta, Mich. or at EPA's Records Center, 7th Floor, 77 W. Jackson Blvd., Chicago.

Questions or concerns regarding the review should be directed to:

Scott Hansen
Remedial Project Manager
U.S. EPA Region 5 (SR-6J)
77 W. Jackson Blvd
Chicago, IL 60604
312-886-1999
hansen.scott@epa.gov
800-621-8431, Ext. 61999, weekdays 10:30 a.m. to 5:30 p.m.

Attachment 7

Groundwater Comparison Tables 2004 - 2007

Sparta Landfill
Groundwater Comparison
MW-01
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Part 201 Aplicable GSI Criteria	MW-01 6/2/04	MW-01 12/15/04	MW-01 6/15/05	MW-01 12/28/05	MW-01 DUP 12/28/05	MW-01 5/2/06	MW-01 10/18/06	MW-01 4/17/07
Aluminum, Total	ug/L	50	NA	<50	<50	<50	<50	<50	<50	<50	86
Arsenic, Total	ug/L	10	150	<5	<5	<5	<5	<5	<5	<5	<5
Barium, Total	ug/L	2,000	190	<100	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	9.5	1.4	1.3	2.1	2.1	2.3	<0.05	1.9	1.9
Chromium, Total	ug/L	100	11	<5	<5	<5	<5	<5	<5	<5	<5
Iron, Total	ug/L	300	NA	140	630	170	<100	<100	280	340	420
Lead, Total	ug/L	4.0	130	< 3	8	<3	<3	<3	3.5	4.9	3.3
Magnesium, Total	mg/L	400	NA	7.8	8.1	18	14	13	6.2	9.0	8.0
Manganese, Total	ug/L	50	5,300	< 20	23	48	18	18	<20	38	<10
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	< 1.0	<10	<10	<1.0	<1.0	<1.0	0.75	0.58
Zinc, Total	ug/L	2,400	1,100	481	400	612	620	650	260	1,100	200
Chloride	mg/L	250	50,000	<10	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.029	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate	mg/L	10	--	0.28	6.2	6.2	3.1	3.0	0.4	3.0	0.6
Nitrogen, Nitrite	mg/L	1	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	--	< 5.0	7.5	7.5	6.6	6.8	<5	<5	<5
Chem Oxygen Demand	mg/L	--	--	19	12	12	9.1	8.9	7.1	9.8	61.0
BOD (5-day)	mg/L	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	1.9	4.3
Phosphorous, Total	mg/L	63	--	0.02	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-01
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Part 201 Aplicable GSI Criteria	MW-01 6/2/04	MW-01 12/15/04	MW-01 6/15/05	MW-01 12/28/05	MW-01 DUP 12/28/05	MW-01 5/2/06	MW-01 10/18/06	MW-01 4/17/07
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroether	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	35	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
bis(2-ethylhexyl)phthal	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-101
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-101 03/17/05	MW-101 06/15/05	MW-101 09/21/05	MW-101 12/28/05	MW-101 02/02/06	MW-101 Duplicate 02/02/06	MW-101 05/01/06	MW-101 07/26/06	MW-101 Duplicate 07/26/06	MW-101 10/18/06	MW-101 01/18/07	MW-101 Duplicate 01/18/07	MW-101 04/17/07
Aluminum, Total	ug/L	50	NA	<50	130	200	57	<50	<50	<50	<50	<50	<50	53	<50	53
Antimony, Total	ug/L	6.0	130	<5.0	<5.0	<5.0	<5.0	2.0	2.3	2.0	<2.0	<2.0	<2.0	<2.0	4.0	<2.0
Arsenic, Total	ug/L	10	680	51	52	49	49	45	45	46	49	46	46	52	53	47
Barium, Total	ug/L	2,000	190	243	308	230	340	360	370	260	350	340	390	220	220	280
Beryllium, Total	ug/L	4.0	30.9	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium, Total	ug/L	5.0	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium, Total	mg/L	--	--	167	174	155	180	190	190	170	160	170	180	170	150	190
Chromium, Total	ug/L	100	3,700	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chromium, Hexavalent	ug/L	100	32	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt, Total	ug/L	40	100	<10	<10	<10	<10	<15	<15	<15	<15	<15	<15	<15	<15	<15
Copper, Total	ug/L	1,000	21.3	<5	<5	<5	<5	<2.0	<2.0	<2.0	2.5	<2.0	<2.0	<2.0	<2.0	<2.0
Iron, Total	ug/L	300	NA	30,800	33,200	31,400	31,000	30,000	31,000	31,000	29,000	31,000	29,000	31,000	29,000	32,000
Lead, Total	ug/L	4.0	2,300	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	NA	45	49	48	43	35	36	44	42	45	35	42	41	38
Manganese, Total	ug/L	50	5,300	180	200	190	150	150	160	170	160	170	140	160	150	160
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	16	21	18	<10	22	24	<10	14	16	25	18	13	15
Potassium, Total	mg/L	--	--	52	56	52	41	28	29	46	46	49	25	46	46	31
Selenium, Total	ug/L	50	5.0	2.9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	49	56	49	41	27	28	49	49	52	25	41	41	33
Thallium, Total	ug/L	2.0	3.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium, Total	ug/L	4.5	12	< 4	< 4	< 4	< 4	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc, Total	ug/L	2,400	1,100	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cyanide, Total	ug/L	200	5.2	<5	<5	7	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloride	mg/L	250	50,000	62	65	70	55	40	40	69	62	63	38	53	53	44
Nitrogen, Ammonia	mg/L	10	0.029	58	47	48	34	24	24	47	44	45	22	44	44	29
Nitrogen, Nitrate	mg/L	10	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Dema	mg/L	--	--	44	40	58	31	25	24	36	53	51	28	40	43	24
BOD (5-day)	mg/L	--	--	12	13	22	17	16	18	8.7	7.7	7.7	17	16	16	21
Phosphorous, Total	mg/L	63	NA	0.1	0.1	0.07	0.08	0.082	0.086	0.0408	0.0706	0.143	0.0464	0.0817	0.0756	0.541

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

2) Values shown in blue boxes exceed GSI Critieria.

3) Values shown in green boxes exceed both Drinking Water and GSI Critieria.

Sparta Landfill
Groundwater Comparison
MW-101
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-101 03/17/05	MW-101 06/15/05	MW-101 09/21/05	MW-101 12/28/05	MW-101 02/02/06	MW-101 Duplicate 02/02/06	MW-101 05/01/06	MW-101 07/26/06	MW-101 Duplicate 07/26/06	MW-101 10/18/06	MW-101 01/18/07	MW-101 Duplicate 01/18/07	MW-101 04/17/07
Phenol	ug/L	4,400	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethyl) ether	ug/L	2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Chlorophenol	ug/L	45	22	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroisopropyl) e	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
N-Nitroso-di-n-propylar	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachloroethane	ug/L	7.3	5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Nitrobenzene	ug/L	3.4	4.7	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Isophorone	ug/L	770	310	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Nitrophenol	ug/L	20	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) me	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dichlorophenol	ug/L	73	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	ug/L	70	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Naphthalene	ug/L	520	13	5.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Hexachlorobutadiene	ug/L	15	0.053	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloro-3-methylphen	ug/L	150	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylnaphthalene	ug/L	260	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorocyclopentad	ug/L	50	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4,6-Trichlorophenol	ug/L	120	4.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4,5-Trichlorophenol	ug/L	730	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chloronaphthalene	ug/L	1,800	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Dimethyl phthalate	ug/L	73,000	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acenaphthylene	ug/L	52	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,6-Dinitrotoluene	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
3-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Acenaphthene	ug/L	1,300	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dinitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-101
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-101 03/17/05	MW-101 06/15/05	MW-101 09/21/05	MW-101 12/28/05	MW-101 02/02/06	MW-101 Duplicate 02/02/06	MW-101 05/01/06	MW-101 07/26/06	MW-101 Duplicate 07/26/06	MW-101 10/18/06	MW-101 01/18/07	MW-101 Duplicate 01/18/07	MW-101 04/17/07
4-Nitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Dibenzofuran	ug/L	ID	4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dinitrotoluene	ug/L	7.7	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluorene	ug/L	880	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
4,6-Dinitro-2-methylph	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
N-Nitrosodiphenylamine	ug/L	270	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Bromophenyl phenyl	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	ug/L	52.0	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Anthracene	ug/L	43	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbazole	ug/L	85	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Di-n-butyl phthalate	ug/L	880	9.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluoranthene	ug/L	210	1.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Pyrene	ug/L	140	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Butyl benzyl phthalate	ug/L	1,200	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
3,3'-Dichlorobenzidine	ug/L	1.1	0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L	2.1	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chrysene	ug/L	5.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
bis(2-ethylhexyl)phthal	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(b)fluoranthene	ug/L	2.0	ID	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(k)fluoranthene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(a)pyrene	ug/L	5.0	ID	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Indeno(1,2,3-cd)pyrene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibenzo(a,h) anthracen	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(ghi)perylene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

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Sparta Landfill
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MW-101
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		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-101 03/17/05	MW-101 06/15/05	MW-101 09/21/05	MW-101 12/28/05	MW-101 02/02/06	MW-101 Duplicate 02/02/06	MW-101 05/01/06	MW-101 07/26/06	MW-101 Duplicate 07/26/06	MW-101 10/18/06	MW-101 01/18/07	MW-101 Duplicate 01/18/07	MW-101 04/17/07
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	ug/L	5.0	47	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/L	880	ID	1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.0	<1.0	1.0	1.2	1.1	1.2
1,1-Dichloroethylene	ug/L	7.0	24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	ug/L	5.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroether	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	77	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	ug/L	5.0	5.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorobromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	ug/L	5.0	9.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	ug/L	8.5	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	ug/L	5.0	12	7.7	8.7	10	6.6	4.0	4.1	6.7	7.4	7.6	4.0	7.7	7.6	5.1
trans-1,3-Dichloroprope	ug/L	--	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Methyl-2-pentanone	ug/L	1,800	ID	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2-Hexanone	ug/L	1,000	NA	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroeth	ug/L	8.5	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	47	13	13	15	10	7.1	7.2	12	12	13	6.1	14	14	8.1
Ethylbenzene	ug/L	74	320	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	630	<3.0	<3.0	17	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	ug/L	600	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	ug/L	75	13	5.3	4.7	5.7	4.8	3.9	3.8	5.5	4.8	4.8	<1.0	5.5	5.4	4
Isopropylbenzene	ug/L	800	ID	--	--	--	--	1.5	1.5	1.9	2.0	1.4	3.5	1.8	1.8	1.7
1,2,4-Trimethylbenzene	ug/L	63	17	--	--	--	--	1.5	1.5	1.8	1.6	1.6	<1.0	1.7	1.7	1.7
1,3,5-Trimathylbenzene	ug/L	72	45	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

2) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-02
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Part 201 Aplicable GSI Criteria	MW-02 6/3/04	MW-02 12/16/04	MW-02 6/16/05	MW-02 12/29/05	MW-02 5/2/06	MW-02 DUP 5/2/06	MW-02 10/18/06	MW-02 4/18/07
Aluminum, Total	ug/L	50	NA	<50	<50	<50	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	150	7.1	6.8	7.6	<5	8.1	7.5	8.1	9
Barium, Total	ug/L	2,000	190	<100	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	9.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	240	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	NA	27,800	17,100	35,100	16,000	30,000	29,000	18,000	30,000
Lead, Total	ug/L	4.0	130	9	3	5.3	6.2	<3	<3	7.2	6.1
Magnesium, Total	mg/L	400	NA	21	23	23	26	21	21	21	22
Manganese, Total	ug/L	50	5,300	3,920	1,580	4,100	2,600	4,000	4,000	1,800	3,600
Mercury, Total	ug/L	2.0	0.0013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel, Total	ug/L	100	124	<10	<10	13	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	1.1	1.6	1.1	0.9	1.2	1.3	1.1	0.7
Zinc, Total	ug/L	2,400	1,100	435	1,580	398	1,300	380	450	1,800	1,700

Chloride	mg/L	250	50,000	<10	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.029	1.8	0.99	0.99	1.0	1.1	1.1	1.2	1.0
Nitrogen, Nitrate	mg/L	10	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	250	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Phosphorous, Total	mg/L	--	NA	0.08	0.06	0.06	0.08	0.017	0.016	0.06	<0.01
Chemical Oxygen Demand	mg/L	--	--	8.6	11	11	6.9	<5	<5	18	<5
BOD (5-day)	mg/L	63	--	12	3.9	3.9	8.3	17	17	11	15

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

2) Values shown in blue boxes exceed GSI Critieria.

Sparta Landfill
Groundwater Comparison
MW-02
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Part 201 Aplicable GSI Criteria	MW-02 6/3/04	MW-02 12/16/04	MW-02 6/16/05	MW-02 12/29/05	MW-02 5/2/06	MW-02 DUP 5/2/06	MW-02 10/18/06	MW-02 4/18/07
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	47	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	ug/L	430	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	35	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

1) Values shown in blue boxes exceed GSI Critieria.

2) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-102
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-102 03/17/05	MW-102 DUP 03/17/05	MW-102 06/16/05	MW-102 09/21/05	MW-102 12/29/05	MW-102 DUP 12/29/05	MW-102 02/02/06	MW-102 05/02/06	MW-102 07/26/06	MW-102 10/18/06	MW-102 01/18/07	MW-102 04/18/07
Aluminum, Total	ug/L	50	NA	<50	<50	100	110	<50	<50	<50	<50	<50	<50	66	66
Antimony, Total	ug/L	6.0	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, Total	ug/L	10	680	31	32	29	32	33	35	35	32	29	36	40	32
Barium, Total	ug/L	2,000	190	140	144	147	149	160	170	150	140	140	160	140	140
Beryllium, Total	ug/L	4.0	30.9	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0
Cadmium, Total	ug/L	5.0	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium, Total	mg/L	--	--	251	243	281	260	260	260	260	250	270	250	250	240
Chromium, Total	ug/L	100	3,700	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chromium, Hexavalent	ug/L	100	32	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt, Total	ug/L	40	100	17	18	19	17	18	19	17	16	18	17	16	16
Copper, Total	ug/L	1,000	21.3	<5	<5	<5	<5	<5	<5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Iron, Total	ug/L	300	NA	15,000	14,700	18,000	18,000	18,000	19,000	27,000	17,000	18,000	18,000	18,000	19,000
Lead, Total	ug/L	4.0	2,300	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	NA	36	35	38	37	37	38	35	34	36	37	33	32
Manganese, Total	ug/L	50	5,300	1,060	1,050	1,130	970	1,000	1,100	950	920	970	950	900	840
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	12	12	21	28	<10	<10	18	18	16	12	22	10
Potassium, Total	mg/L	--	--	3.5	3.4	3.7	3.6	3.6	3.6	3.5	3.2	3.5	3.3	3.5	3.1
Selenium, Total	ug/L	50	5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	1.8	1.7	2.4	2.4	1.8	1.8	1.1	2.2	2.3	2.3	1.8	1.7
Thallium, Total	ug/L	2.0	3.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium, Total	ug/L	4.5	12	<4	<4	<4	<4	<4	<4	<10	<10	<10	<10	<10	<10
Zinc, Total	ug/L	2,400	1,100	<20	76	<20	<20	<20	<20	<20	<20	27	25	<20	<20
Cyanide, Total	ug/L	200	5.2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	250	50,000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.029	1.9	1.9	1.9	2.4	1.9	1.9	2.6	1.9	1.9	1.9	2.3	1.9
Nitrogen, Nitrate	mg/L	10	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	--	8.0	8.1	8.0	11	5.0	5.5	5.0	7.2	5.8	9.5	14	7.0
BOD (5-day)	mg/L	--	--	5.0	3.6	2.8	3.2	6.3	4.7	9.5	7.7	5.1	8.9	5.8	2.0
Phosphorous, Total	mg/L	63	NA	0.04	0.04	0.03	0.06	0.08	0.07	0.05	<0.01	0.027	0.016	0.0421	0.0219

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

2) Values shown in blue boxes exceed GSI Critieria.

Sparta Landfill
Groundwater Comparison
MW-102
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-102 03/17/05	MW-102 DUP 03/17/05	MW-102 06/16/05	MW-102 09/21/05	MW-102 12/29/05	MW-102 DUP 12/29/05	MW-102 02/02/06	MW-102 05/02/06	MW-102 07/26/06	MW-102 10/18/06	MW-102 01/18/07	MW-102 04/18/07
Phenol	ug/L	4,400	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethyl) ether	ug/L	2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Chlorophenol	ug/L	45	22	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroisopropyl) eth	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
N-Nitroso-di-n-propylamir	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachloroethane	ug/L	7.3	5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Nitrobenzene	ug/L	3.4	4.7	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Isophorone	ug/L	770	310	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Nitrophenol	ug/L	20	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) meth	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dichlorophenol	ug/L	73	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	ug/L	70	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Hexachlorobutadiene	ug/L	15	0.053	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloro-3-methylphenol	ug/L	150	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylnaphthalene	ug/L	260	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorocyclopentadie	ug/L	50	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4,6-Trichlorophenol	ug/L	120	4.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4,5-Trichlorophenol	ug/L	730	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chloronaphthalene	ug/L	1,800	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Dimethyl phthalate	ug/L	73,000	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acenaphthylene	ug/L	52	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,6-Dinitrotoluene	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
3-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Acenaphthene	ug/L	1,300	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dinitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-102
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-102 03/17/05	MW-102 DUP 03/17/05	MW-102 06/16/05	MW-102 09/21/05	MW-102 12/29/05	MW-102 DUP 12/29/05	MW-102 02/02/06	MW-102 05/02/06	MW-102 07/26/06	MW-102 10/18/06	MW-102 01/18/07	MW-102 04/18/07
4-Nitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Dibenzofuran	ug/L	ID	4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dinitrotoluene	ug/L	7.7	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl et	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluorene	ug/L	880	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
4,6-Dinitro-2-methylphen	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
N-Nitrosodiphenylamine	ug/L	270	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Bromophenyl phenyl et	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	ug/L	52.0	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Anthracene	ug/L	43	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbazole	ug/L	85	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Di-n-butyl phthalate	ug/L	880	9.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluoranthene	ug/L	210	1.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Pyrene	ug/L	140	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Butyl benzyl phthalate	ug/L	1,200	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
3,3'-Dichlorobenzidine	ug/L	1.1	0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L	2.1	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chrysene	ug/L	5.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
bis(2-ethylhexyl)phthalat	ug/L	6.0	32	<5.0	<5.0	5.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(b)fluoranthene	ug/L	2.0	ID	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(k)fluoranthene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(a)pyrene	ug/L	5.0	ID	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Indeno(1,2,3-cd)pyrene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibenzo(a,h) anthracene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(ghi)perylene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-102
March 2005 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-102 03/17/05	MW-102 DUP 03/17/05	MW-102 06/16/05	MW-102 09/21/05	MW-102 12/29/05	MW-102 DUP 12/29/05	MW-102 02/02/06	MW-102 05/02/06	MW-102 07/26/06	MW-102 10/18/06	MW-102 01/18/07	MW-102 04/18/07
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	7.0	7.6	6.8	6.8	6.6	6.6	5.6	6.2	8.0	6.9	6.4	5.4
Methylene Chloride	ug/L	5.0	47	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	ug/L	5.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	77	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	ug/L	5.0	5.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorobromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	ug/L	5.0	9.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	ug/L	8.5	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2
trans-1,3-Dichloropropene	ug/L	--	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Methyl-2-pentanone	ug/L	1,800	ID	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
2-Hexanone	ug/L	1,000	NA	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	47	4.4	4.2	4.6	4.9	4.9	4.7	4.1	4.5	4.5	4.6	4.7	4.2
Ethylbenzene	ug/L	74	320	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	630	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	ug/L	600	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	ug/L	75	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/L			--	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	ug/L			--	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimathylbenzene	ug/L			--	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-03-99
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Part 201 Aplicable GSI Criteria	MW-03-99 6/2/04	MW-03-99 12/15/04	MW-03-99 6/15/05	MW-03-99 DUP 6/15/05	MW-03-99 12/28/05	MW-03-99 5/1/06	MW-03-99 10/18/06	MW-03-99 4/17/07
Aluminum, Total	ug/L	50	NA	<50	120	61	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	150	24	20	18	9.2	20	16	16	12
Barium, Total	ug/L	2,000	190	128	147	122	<100	110	110	110	110
Cadmium, Total	ug/L	5.0	9.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	240	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	NA	35,300	43,900	31,600	31,400	29,000	38,000	32,000	35,000
Lead, Total	ug/L	4.0	130	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	NA	25	20	26	26	20	20	23	19
Manganese, Total	ug/L	50	1,200	630	970	620	620	610	810	850	940
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	1.9	1.9	1.3	1.3	1.0	1.3	1.1	1.6
Zinc, Total	ug/L	2,400	560	<20	<20	<20	<20	21	<20	<20	<20
Chloride	mg/L	250	50,000	<10	<10	12	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.029	4.9	3.9	2.6	2.7	2.3	2.2	1.9	1.8
Nitrogen, Nitrate	mg/L	10	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	250	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	29	<5.0
Phosphorous, Total	mg/L	--	NA	0.06	0.01	0.05	0.04	0.06	<0.01	0.033	0.0211
Chemical Oxygen Deman	mg/L	--	--	19	<5.0	20	20	9.7	18	23	18
BOD (5-day)	mg/L	63	--	10	8.0	7.3	9.3	8.9	5.1	7.9	12

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-03-99
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Part 201 Aplicable GSI Criteria	MW-03-99 6/2/04	MW-03-99 12/15/04	MW-03-99 6/15/05	MW-03-99 DUP 6/15/05	MW-03-99 12/28/05	MW-03-99 5/1/06	MW-03-99 10/18/06	MW-03-99 4/17/07
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	12	1.3	<1.0	1.2	1.4	<1.0	<1.0	<1.0	1.4
Chlorobenzene	ug/L	100	47	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	35	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	13	1.5	1.3	<1.0	<1.0	<1.0	1.1	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
bis(2-ethylhexyl)phthala	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	ug/L	1.0	ID	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

1) Values shown in blue boxes exceed GSI Critieria.

2) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-03D
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-03D 6/2/04	MW-03D 12/15/04	MW-03D 6/16/05	MW-03D 12/28/05	MW-03D 5/1/06	MW-03D 10/18/06	MW-03D 4/17/07
Aluminum, Total	ug/L	50	<50	<50	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium, Total	ug/L	2,000	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	200	570	360	480	390	570	310
Lead, Total	ug/L	4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	22	21	23	23	22	21	23
Manganese, Total	ug/L	50	<20	<20	<20	<20	<20	<10	<10
Mercury, Total	ug/L	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	12	13	13	12	12	12	13
Zinc, Total	ug/L	2,400	33	<20	32	<20	<20	<20	<20
Chloride	mg/L	250	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.43	0.52	0.4	0.46	0.51	0.46	0.37
Nitrogen, Nitrate	mg/L	10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	250	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	7.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
BOD (5-day)	mg/L	--	<1.0	<1.0	<1.0	<1.0	2.3	2.8	4.4
Phosphorous, Total	mg/L	63	0.05	0.06	0.08	0.07	<0.01	0.064	0.0338

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-03D
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-03D 6/2/04	MW-03D 12/15/04	MW-03D 6/16/05	MW-03D 12/28/05	MW-03D 5/1/06	MW-03D 10/18/06	MW-03D 4/17/07
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Diethyl phthalate	ug/L	5,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexahlorobenzene	ug/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	ug/L	520	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Sparta Landfill
Groundwater Comparison
PZ-04
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Applicable GSI Criteria	PZ-04 6/3/04	PZ-04 DUP 6/3/04	PZ-04 12/16/04	PZ-04 6/16/05	PZ-04 12/29/05	PZ-04 5/3/06	PZ-04 10/19/06	PZ-04 4/18/07
Aluminum, Total	ug/L	50	NA	<50	<50	59	68	<50	<50	<50	<50
Arsenic, Total	ug/L	10	680	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium, Total	ug/L	2,000	190	102	106	102	<100	<100	100	100	100
Cadmium, Total	ug/L	5.0	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	3,700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	NA	12,200	12,300	11,200	9,760	13,000	10,000	9,500	9,600
Lead, Total	ug/L	4.0	2,300	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	NA	30	30	25	21	26	23	21	22
Manganese, Total	ug/L	50	5,300	3,070	3,080	2,630	2,480	2,900	2,500	2,500	2,400
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	67	68	45	48	57	82	51	74
Zinc, Total	ug/L	2,400	1,100	<20	<20	<20	60	<20	<20	<20	<20
Chloride	mg/L	250	50,000	176	180	102	60	120	150	89	100
Nitrogen, Ammonia	mg/L	10	0.029	0.43	0.41	0.37	0.32	0.30	0.31	0.32	0.31
Nitrogen, Nitrate	mg/L	10	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	1	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	250	NA	46	47	13	18	20	35	<5.0	11
Chemical Oxygen Deman	ug/L	--	--	26	26	22	21	16	24	26	23
BOD (5-day)	ug/L	--	--	2.2	2.5	<1.0	<1.0	<1.0	2.0	<1.0	3.2
Phosphorous, Total	mg/L	63	NA	0.16	0.11	0.10	0.13	0.12	0.0791	0.117	0.118

NOTES:

1) Values shown in yellow exceed Drinking Water Criteria.

2) Values shown in blue exceed GSI Criteria.

Sparta Landfill
Groundwater Comparison
PZ-04
June 2004 - April 2007

		Part 201 Drinking Water Criteria	Applicable GSI Criteria	PZ-04 6/3/04	PZ-04 DUP 6/3/04	PZ-04 12/16/04	PZ-04 6/16/05	PZ-04 12/29/05	PZ-04 5/3/06	PZ-04 10/19/06	PZ-04 4/18/07
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	320	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	ug/L	13,000	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	5.0	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	790	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	100	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	5.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	2.0	630	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
bis(2-ethylhexyl)phthalat	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-07
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-07 6/3/04	MW-07 12/16/04	MW-07 6/16/05	MW-07 12/29/05	MW-07 5/3/06	MW-07 10/19/06	MW-07 DUP 10/19/06	MW-07 4/19/07	MW-07 DUP 4/19/07
Aluminum, Total	ug/L	50	<50	<50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Arsenic, Total	ug/L	10	34	25	26	31	35	34	34	37	39
Barium, Total	ug/L	2,000	435	196	380	420	430	240	250	350	370
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	11,300	4,790	10,500	11,000	12,000	6,200	6,100	12,000	11,000
Lead, Total	ug/L	4.0	<3	<3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	35	20	31	33	28	19	18	27	26
Manganese, Total	ug/L	50	78	39	63	70	69	44	44	72	71
Mercury, Total	ug/L	2.0	<0.2	<0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	11	14	14	12	11	12	12	7.0	6.7
Zinc, Total	ug/L	2,400	782	747	700	910	790	840	860	880	710
Chloride	mg/L	250	<10	<10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Nitrogen, Ammonia	mg/L	10	8.5	4.5	5.5	6.5	5.8	4.8	4.8	5.9	5.9
Nitrogen, Nitrate	mg/L	10	<0.01	<0.01	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	<0.01	<0.01	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	6	22	12	7.5	6.2	32	33	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	15	<5.0	<5.0	<5.0	9.7	7.5	9.3	8.3	7.7
BOD (5-day)	mg/L	--	11	2.0	4.1	10.0	12.0	4.8	5.5	7.9	8.3
Phosphorous, Total	mg/L	63	0.18	0.11	0.16	0.17	0.13	0.132	0.134	0.206	0.176

NOTES:

1) Values shown in yellow exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-07
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-07 6/3/04	MW-07 12/16/04	MW-07 6/16/05	MW-07 12/29/05	MW-07 5/3/06	MW-07 10/19/06	MW-07 DUP 10/19/06	MW-07 4/19/07	MW-07 DUP 4/19/07
1,1-Dichloroethane	ug/L	880	1.4	<1.0	<1.0	1.4	1.3	1.2	<1.0	1.3	1.4
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	1.2
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Diethyl phthalate	ug/L	5,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexachlorobenzene	ug/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	ug/L	520	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Sparta Landfill
Groundwater Comparison
MW-107
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-107 03/10/04	MW-107 06/03/04	MW-107 09/15/04	MW-107 12/16/04	MW-107 03/16/05	MW-107 06/16/05	MW-107 09/21/05	MW-107 12/29/05	MW-107 05/03/06	MW-107 10/19/06	MW-107 04/19/07
Aluminum, Total	ug/L	50	<50	<50	99	<100	<50	<50	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	23	24	25	28	29	25	24	30	33	27	21
Barium, Total	ug/L	2,000	262	208	182	192	199	163	158	210	160	140	130
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	11,200	8,800	9,390	10,100	9,990	7,110	7,140	9,600	7,700	6,900	580
Lead, Total	ug/L	4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	29	26	26	25	24	22	20	24	22	21	22
Manganese, Total	ug/L	50	200	130	160	180	170	110	120	180	120	150	110
Mercury, Total	ug/L	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	9.2	8.7	8.1	9.1	5.5	9.1	7.1	6.3	7.9	6.0	7.8
Zinc, Total	ug/L	2,400	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cyanide, Total	ug/L	200	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	250	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	5.0	3.3	3.0	2.8	2.7	2.2	2.8	3.0	2.2	2.5	2.2
Nitrogen, Nitrate	mg/L	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	8.7	12	10	10	8.4	15	14	7.6	11	<5.0	11
Chemical Oxygen Demand	mg/L	--	5.3	10	<5.0	5.6	<5.0	<5.0	7.9	<5.0	<5.0	9.7	<5.0
BOD (5-day)	mg/L	--	4.3	5.5	6.5	13	3.2	1.1	2.7	4.0	4.5	3.2	3.7
Phosphorous, Total	mg/L	63	0.08	0.11	0.10	0.11	0.10	0.10	0.09	0.12	0.06	0.097	0.099

NOTES:

1) Values shown in yellow exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-107
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-107 03/10/04	MW-107 06/03/04	MW-107 09/15/04	MW-107 12/16/04	MW-107 03/16/05	MW-107 06/16/05	MW-107 09/21/05	MW-107 12/29/05	MW-107 05/03/06	MW-107 10/19/06	MW-107 04/19/07
Phenol	ug/L	4,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroethyl) ether	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
2-Chlorophenol	ug/L	45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroisopropyl) ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
N-Nitroso-di-n-propylamine	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachloroethane	ug/L	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Nitrobenzene	ug/L	3.4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	--
Isophorone	ug/L	770	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitrophenol	ug/L	20	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dimethylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) methane	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dichlorophenol	ug/L	73	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,2,4-Trichlorobenzene	ug/L	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Naphthalene	ug/L	520	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Hexachlorobutadiene	ug/L	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Chloro-3-methylphenol	ug/L	150	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylnaphthalene	ug/L	260	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorocyclopentadiene	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,6-Trichlorophenol	ug/L	120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,5-Trichlorophenol	ug/L	730	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Chloronaphthalene	ug/L	1,800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dimethyl phthalate	ug/L	73,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acenaphthylene	ug/L	52	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,6-Dinitrotoluene	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Acenaphthene	ug/L	1,300	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--

Sparta Landfill
Groundwater Comparison
MW-107
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-107 03/10/04	MW-107 06/03/04	MW-107 09/15/04	MW-107 12/16/04	MW-107 03/16/05	MW-107 06/16/05	MW-107 09/21/05	MW-107 12/29/05	MW-107 05/03/06	MW-107 10/19/06	MW-107 04/19/07
4-Nitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dibenzofuran	ug/L	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrotoluene	ug/L	7.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Diethyl phthalate	ug/L	5,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluorene	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
4,6-Dinitro-2-methylphenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
N-Nitrosodiphenylamine	ug/L	270	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Bromophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorobenzene	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Phenanthrene	ug/L	52.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Anthracene	ug/L	43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Carbazole	ug/L	85	<10	<10	<10	<10	<10	<10	<10	<10	--	<10	--
Di-n-butyl phthalate	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluoranthene	ug/L	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Pyrene	ug/L	140	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Butyl benzyl phthalate	ug/L	1,200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3,3'-Dichlorobenzidine	ug/L	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzo(a)anthracene	ug/L	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Chrysene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
bis(2-ethylhexyl)phthalate	ug/L	6.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.5	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(b)fluoranthene	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Benzo(k)fluoranthene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(a)pyrene	ug/L	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--
Indeno(1,2,3-cd)pyrene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Dibenzo(a,h) anthracene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(ghi)perylene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--

NOTES:

1) ID - Insufficient Data to develop criterion.

2) Values shown in yellow exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-107
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-107 03/10/04	MW-107 06/03/04	MW-107 09/15/04	MW-107 12/16/04	MW-107 03/16/05	MW-107 06/16/05	MW-107 09/21/05	MW-107 12/29/05	MW-107 05/03/06	MW-107 10/19/06	MW-107 04/19/07
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	--	< 1.0	--
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Carbon Tetrachloride	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Dichlorobromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloropropane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,3-Dichloropropene	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,1,2-Trichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/L	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Bromoform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
4-Methyl-2-pentanone	ug/L	1,800	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
2-Hexanone	ug/L	1,000	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Chlorobenzene	ug/L	100	1.0	< 1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichlorobenzene	ug/L	600	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Sparta Landfill
Groundwater Comparison
MW-07D
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-07D 6/3/04	MW-07D 12/16/04	MW-07D 6/16/05	MW-07D 12/29/05	MW-07D 5/3/06	MW-07D 10/19/06	MW-07D 4/19/07
Aluminum, Total	ug/L	50	<50	<50	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium, Total	ug/L	2,000	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	660	600	740	690	680	730	760
Lead, Total	ug/L	4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	22	22	23	22	20	21	23
Manganese, Total	ug/L	50	< 20	< 20	21	21	20	19	19
Mercury, Total	ug/L	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	7.2	7.4	7.9	7.0	7.2	7.2	7.3
Zinc, Total	ug/L	2,400	48	<20	28	<20	<20	<20	<20
Chloride	mg/L	250	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.35	0.26	0.31	0.30	0.27	0.29	0.30
Nitrogen, Nitrate	mg/L	10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Nitrite	mg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	250	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	7.2	<5.0	<5.0	<5.0	<5.0	7.8	<5.0
BOD (5-day)	mg/L	--	<1.0	1.1	<1.0	<1.0	1.8	2.1	<1.0
Phosphorous, Total	mg/L	63	0.05	0.06	0.05	0.07	<0.01	0.0526	0.077

NOTES:

1) Values shown in yellow exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-07D
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-07D 6/3/04	MW-07D 12/16/04	MW-07D 6/16/05	MW-07D 12/29/05	MW-07D 5/3/06	MW-07D 10/19/06	MW-07D 4/19/07
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	< 5.0	< 5.0	20	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexachlorobenzene	ug/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	ug/L	520	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

NOTES:

1) Values shown in yellow exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-08
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-08 6/2/04	MW-08 DUP 6/2/04	MW-08 12/15/04	MW-08 6/15/05	MW-08 12/28/05	MW-08 5/1/06	MW-08 10/18/06	MW-08 4/17/07	MW-08 DUP 4/17/07
Aluminum, Total	ug/L	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	58	<50
Arsenic, Total	ug/L	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	<5
Barium, Total	ug/L	2,000	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chromium, Hexavalent	ug/L	100	< 5	< 5	< 5	< 5	< 5	--	--	--	--
Iron, Total	ug/L	300	< 100	< 100	< 100	< 100	< 100	< 100	11	< 20	< 20
Lead, Total	ug/L	4.0	< 3	< 3	< 3	3.8	<3	<3	<3	<3	<3
Magnesium, Total	mg/L	400	30	28	23	21	21	21	15	26	26
Manganese, Total	ug/L	50	< 20	< 20	< 20	< 20	< 20	< 20	<10	<10	<10
Mercury, Total	ug/L	2.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel, Total	ug/L	100	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	5.9	5.5	5.7	5.1	4.5	4.5	3.6	5.1	5.2
Zinc, Total	ug/L	2,400	219	222	380	183	210	140	170	130	120
Chloride	mg/L	250	17	18	15	<10	<10	<10	<10	58	59
Nitrogen, Ammonia	mg/L	10	< 0.05	< 0.05	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate	mg/L	10	26	27	12	9.7	4.9	6	1.3	4.9	5
Nitrogen, Nitrite	mg/L	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.1
Sulfate	mg/L	250	20	21	23	12	13	10	<5.0	17	17
Chemical Oxygen Demand	mg/L	--	8.2	8	<5.0	<5.0	<5.0	6.3	<5.0	<5.0	<5.0
BOD (5-day)	mg/L	--	< 1.0	< 1.0	< 1.0	1.2	<1.0	2.4	<1.0	3.7	2.1
Phosphorous, Total	mg/L	63	< 0.01	< 0.01	< 0.01	< 0.01	0.02	<0.01	<0.01	0.0178	<0.01

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-08
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-08 6/2/04	MW-08 DUP 6/2/04	MW-08 12/15/04	MW-08 6/15/05	MW-08 12/28/05	MW-08 5/1/06	MW-08 10/18/06	MW-08 4/17/07	MW-08 DUP 4/17/07
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	< 5.0	< 5.0	25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	ug/L	5,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexachlorobenzene	ug/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	ug/L	520	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-108
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-108 03/11/04	MW-108 06/02/04	MW-108 09/15/04	MW-108 12/15/04	MW-108 03/16/05	MW-108 06/15/05	MW-108 09/21/05	MW-108 12/28/05	MW-108 05/01/06	MW-108 10/18/06	MW-108 04/17/07
Aluminum, Total	ug/L	50	310	< 50	79	51	<50	<50	<50	<50	<50	<50	67
Arsenic, Total	ug/L	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium, Total	ug/L	2,000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	690	< 100	< 100	130	<100	<100	<100	<100	<100	680	33
Lead, Total	ug/L	4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	24	26	30	22	23	23	20	16	22	12	27
Manganese, Total	ug/L	50	<20	<20	<20	<20	<20	<20	<20	<20	<20	31	<20
Mercury, Total	ug/L	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	12	<10	<10	130	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	6.5	5.4	5.6	4.9	5.0	5.6	5.9	3.7	7.4	3.2	8.1
Zinc, Total	ug/L	2,400	<20	34	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cyanide, Total	ug/L	200	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	250	20	18	20	15	18	18	15	15	25	25	62
Nitrogen, Ammonia	mg/L	10	<0.05	<0.05	0.30	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate	mg/L	10	14	14	22	11	14	14	8.4	5.1	5.9	5.8	3.3
Nitrogen, Nitrite	mg/L	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	28	28	28	29	27	27	16	11	18	13	24
Chemical Oxygen Demand	mg/L	--	<5.0	7.8	<5.0	<5.0	<5.0	<5.0	7.1	<5.0	<5.0	<5.0	<5.0
BOD (5-day)	mg/L	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	3.1
Phosphorous, Total	mg/L	63	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-108
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-108 03/11/04	MW-108 06/02/04	MW-108 09/15/04	MW-108 12/15/04	MW-108 03/16/05	MW-108 06/15/05	MW-108 09/21/05	MW-108 12/28/05	MW-108 05/01/06	MW-108 10/18/06	MW-108 04/17/07
Phenol	ug/L	4,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroethyl) ether	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
2-Chlorophenol	ug/L	45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroisopropyl) ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
N-Nitroso-di-n-propylamine	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachloroethane	ug/L	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Nitrobenzene	ug/L	3.4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	--
Isophorone	ug/L	770	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitrophenol	ug/L	20	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dimethylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) methane	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dichlorophenol	ug/L	73	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,2,4-Trichlorobenzene	ug/L	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Naphthalene	ug/L	520	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Hexachlorobutadiene	ug/L	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Chloro-3-methylphenol	ug/L	150	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylnaphthalene	ug/L	260	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorocyclopentadiene	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,6-Trichlorophenol	ug/L	120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,5-Trichlorophenol	ug/L	730	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Chloronaphthalene	ug/L	1,800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dimethyl phthalate	ug/L	73,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acenaphthylene	ug/L	52	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,6-Dinitrotoluene	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Acenaphthene	ug/L	1,300	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--

Sparta Landfill
Groundwater Comparison
MW-108
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-108 03/11/04	MW-108 06/02/04	MW-108 09/15/04	MW-108 12/15/04	MW-108 03/16/05	MW-108 06/15/05	MW-108 09/21/05	MW-108 12/28/05	MW-108 05/01/06	MW-108 10/18/06	MW-108 04/17/07
4-Nitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dibenzofuran	ug/L	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrotoluene	ug/L	7.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Diethyl phthalate	ug/L	5,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluorene	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
4,6-Dinitro-2-methylphenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
N-Nitrosodiphenylamine	ug/L	270	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Bromophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorobenzene	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Phenanthrene	ug/L	52.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Anthracene	ug/L	43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Carbazole	ug/L	85	<10	<10	<10	<10	<10	<10	<10	<10	--	<10	--
Di-n-butyl phthalate	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluoranthene	ug/L	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Pyrene	ug/L	140	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Butyl benzyl phthalate	ug/L	1,200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3,3'-Dichlorobenzidine	ug/L	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzo(a)anthracene	ug/L	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Chrysene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
bis(2-ethylhexyl)phthalate	ug/L	6.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(b)fluoranthene	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Benzo(k)fluoranthene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(a)pyrene	ug/L	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--
Indeno(1,2,3-cd)pyrene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Dibenzo(a,h) anthracene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(ghi)perylene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-108
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-108 03/11/04	MW-108 06/02/04	MW-108 09/15/04	MW-108 12/15/04	MW-108 03/16/05	MW-108 06/15/05	MW-108 09/21/05	MW-108 12/28/05	MW-108 05/01/06	MW-108 10/18/06	MW-108 04/17/07
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	--	< 1.0	--
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Carbon Tetrachloride	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Dichlorobromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloropropane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,3-Dichloropropene	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,1,2-Trichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/L	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Bromoform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
4-Methyl-2-pentanone	ug/L	1,800	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
2-Hexanone	ug/L	1,000	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichlorobenzene	ug/L	600	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Sparta Landfill
Groundwater Comparison
MW-08D
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-08D 6/2/04	MW-08D 12/15/04	MW-08D 6/15/05	MW-08D 12/28/05	MW-08D 5/1/06	MW-08D 10/18/06	MW-08D 10/18/06	MW-08D 4/17/07
Aluminum, Total	ug/L	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	53
Arsenic, Total	ug/L	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Barium, Total	ug/L	2,000	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chromium, Hexavalent	ug/L	100	< 5	< 5	< 5	< 5	--	--	--	--
Iron, Total	ug/L	300	900	1,090	970	1,100	1,100	1,000	1,100	1,100
Lead, Total	ug/L	4.0	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Magnesium, Total	mg/L	400	23	24	24	25	22	23	24	23
Manganese, Total	ug/L	50	32	40	38	41	38	38	39	40
Mercury, Total	ug/L	2.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	6.8	7.5	7.8	6.4	6.9	6.9	7.0	6.6
Zinc, Total	ug/L	2,400	< 20	< 20	89	<20	<20	<20	<20	<20
Chloride	mg/L	250	< 10	< 10	< 10	< 10	0.44	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.54	0.57	0.36	0.43	<0.1	0.43	0.42	0.48
Nitrogen, Nitrate	mg/L	10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nitrogen, Nitrite	mg/L	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Sulfate	mg/L	250	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	7.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
BOD (5-day)	mg/L	--	1.3	1.4	1.4	<1.0	1.8	2.7	3.5	3.3
Phosphorous, Total	mg/L	63	0.09	0.09	0.08	0.10	0.044	0.082	0.0881	0.073

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-08D
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-08D 6/2/04	MW-08D 12/15/04	MW-08D 6/15/05	MW-08D 12/28/05	MW-08D 5/1/06	MW-08D 10/18/06	MW-08D 10/18/06	MW-08D 4/17/07
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Diethyl phthalate	ug/L	5,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexachlorobenzene	ug/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	ug/L	520	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-09
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-09 6/3/04	MW-09 12/16/04	MW-09 6/15/05	MW-09 12/29/05	MW-09 5/3/06	MW-09 10/19/06	MW-09 4/18/07
Aluminum, Total	ug/L	50	< 50	< 50	< 50	< 50	< 50	< 50	54
Arsenic, Total	ug/L	10	9.2	12	6.9	7.7	5.7	8.8	8.3
Barium, Total	ug/L	2,000	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Cadmium, Total	ug/L	5.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chromium, Total	ug/L	100	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Iron, Total	ug/L	300	5,440	4,770	2,910	2,600	2,500	3,200	3,300
Lead, Total	ug/L	4.0	3.2	<3	<3	<3	5.8	<3	3.6
Magnesium, Total	mg/L	400	18	21	22	25	17	20	19
Manganese, Total	ug/L	50	410	540	310	400	270	380	370
Mercury, Total	ug/L	2.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium, Total	mg/L	120	< 1.0	1.7	1.4	1.9	0.85	1.3	0.83
Zinc, Total	ug/L	2,400	183	368	97	320	350	170	470
Chloride	mg/L	250	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Nitrogen, Ammonia	mg/L	10	0.07	0.14	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate	mg/L	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	7.5	6.4	8.8	8.6	6.3	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	10	6	<5.0	<5.0	6.9	6.6	<5.0
BOD (5-day)	mg/L	--	2.2	1.2	1.0	<1.0	2.5	2.7	1.4
Phosphorous, Total	mg/L	63	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-09
June 2004 - April 2007

		Part 201 Drinking Water Criteria	MW-09 6/3/04	MW-09 12/16/04	MW-09 6/15/05	MW-09 12/29/05	MW-09 5/3/06	MW-09 10/19/06	MW-09 4/18/07
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	260	<1.0	1.1	1.1	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,4-Dimethylphenol	ug/L	370	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
bis(2-ethylhexyl)phthalate	ug/L	6.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Diethyl phthalate	ug/L	5,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Hexachlorobenzene	ug/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	ug/L	520	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Sparta Landfill
Groundwater Comparison
MW-109
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-109 03/10/04	MW-109 06/03/04	MW-109 09/15/04	MW-109 12/16/04	MW-109 03/16/05	MW-109 06/15/05	MW-109 09/21/05	MW-109 12/29/05	MW-109 05/03/06	MW-109 10/19/06	MW-109 04/18/07
Aluminum, Total	ug/L	50	<50	<50	54	<50	<50	<50	<50	<50	<50	<50	62
Arsenic, Total	ug/L	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium, Total	ug/L	2,000	<100	<100	<100	113	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	130	< 100	170	660	<100	<100	<100	2,900	78	2,900	25
Lead, Total	ug/L	4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	17	16	20	24	10	19	22	27	13	21	13
Manganese, Total	ug/L	50	<20	<20	500	1,180	<20	<20	470	660	<10	880	<10
Mercury, Total	ug/L	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10	20	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	4.8	2.4	<1.0	2.1	1.3	1.2	1.9	1.3	1.2	1.5	1.3
Zinc, Total	ug/L	2,400	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Cyanide, Total	ug/L	200	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	250	19	< 10	< 10	< 10	< 10	< 10	< 10	< 10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	<0.05	<0.05	0.34	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate	mg/L	10	0.21	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	14	9.5	8.9	5.6	<5.0	<5.0	7.7	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	<5.0	8.0	<5.0	6.0	<5.0	<5.0	8.0	<5.0	<5.0	10	5.5
BOD (5-day)	mg/L	--	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	2.2	1.6
Phosphorous, Total	mg/L	63	<0.01	<0.01	<0.01	<0.01	0.03	0.03	<0.01	0.02	<0.01	<0.01	0.014

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-109
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-109 03/10/04	MW-109 06/03/04	MW-109 09/15/04	MW-109 12/16/04	MW-109 03/16/05	MW-109 06/15/05	MW-109 09/21/05	MW-109 12/29/05	MW-109 05/03/06	MW-109 10/19/06	MW-109 04/18/07
Phenol	ug/L	4,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroethyl) ether	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
2-Chlorophenol	ug/L	45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroisopropyl) ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
N-Nitroso-di-n-propylamine	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachloroethane	ug/L	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Nitrobenzene	ug/L	3.4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	--
Isophorone	ug/L	770	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitrophenol	ug/L	20	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dimethylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) methane	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dichlorophenol	ug/L	73	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,2,4-Trichlorobenzene	ug/L	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Naphthalene	ug/L	520	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Hexachlorobutadiene	ug/L	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Chloro-3-methylphenol	ug/L	150	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylnaphthalene	ug/L	260	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorocyclopentadiene	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,6-Trichlorophenol	ug/L	120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,5-Trichlorophenol	ug/L	730	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Chloronaphthalene	ug/L	1,800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dimethyl phthalate	ug/L	73,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acenaphthylene	ug/L	52	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,6-Dinitrotoluene	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Acenaphthene	ug/L	1,300	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--

Sparta Landfill
Groundwater Comparison
MW-109
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-109 03/10/04	MW-109 06/03/04	MW-109 09/15/04	MW-109 12/16/04	MW-109 03/16/05	MW-109 06/15/05	MW-109 09/21/05	MW-109 12/29/05	MW-109 05/03/06	MW-109 10/19/06	MW-109 04/18/07
4-Nitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dibenzofuran	ug/L	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrotoluene	ug/L	7.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Diethyl phthalate	ug/L	5,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluorene	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
4,6-Dinitro-2-methylphenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
N-Nitrosodiphenylamine	ug/L	270	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Bromophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorobenzene	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Phenanthrene	ug/L	52.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Anthracene	ug/L	43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Carbazole	ug/L	85	<10	<10	<10	<10	<10	<10	<10	<10	--	<10	--
Di-n-butyl phthalate	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluoranthene	ug/L	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Pyrene	ug/L	140	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Butyl benzyl phthalate	ug/L	1,200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3,3'-Dichlorobenzidine	ug/L	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzo(a)anthracene	ug/L	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Chrysene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
bis(2-ethylhexyl)phthalate	ug/L	6.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(b)fluoranthene	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Benzo(k)fluoranthene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(a)pyrene	ug/L	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--
Indeno(1,2,3-cd)pyrene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Dibenzo(a,h) anthracene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(ghi)perylene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--

Sparta Landfill
Groundwater Comparison
MW-109
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-109 03/10/04	MW-109 06/03/04	MW-109 09/15/04	MW-109 12/16/04	MW-109 03/16/05	MW-109 06/15/05	MW-109 09/21/05	MW-109 12/29/05	MW-109 05/03/06	MW-109 10/19/06	MW-109 04/18/07
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Carbon Tetrachloride	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Dichlorobromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloropropane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,3-Dichloropropene	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,1,2-Trichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/L	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Bromoform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
4-Methyl-2-pentanone	ug/L	1,800	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
2-Hexanone	ug/L	1,000	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichlorobenzene	ug/L	600	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111s 03/10/04	MW-111s 06/03/04	MW-111s 09/15/04	MW-111s DUP 09/15/04	MW-111s 12/15/04	MW-111s 03/17/05	MW-111s 06/15/05	MW-111s DUP 06/15/05	MW-111s 09/21/05	MW-111s DUP 09/21/05	MW-111s 12/28/05	MW-111s 05/01/06	MW-111s 10/18/06	MW-111s 04/17/07
Aluminum, Total	ug/L	50	NA	<50	<50	<50	<50	120	<50	<50	<50	<50	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	680	16	15	17	17	16	15	13	14	15	14	15	12	17	14
Barium, Total	ug/L	2,000	190	<100	104	104	<100	<100	116	<100	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	3,700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	NA	24,700	41,900	20,000	19,500	19,000	37,600	34,700	32,100	14,900	14,500	17,000	38,000	16,000	31,000
Lead, Total	ug/L	4.0	2,300	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	NA	20	19	22	22	21	21	19	18	20	19	19	16	18	18
Manganese, Total	ug/L	50	5,300	210	460	180	170	160	240	260	250	110	110	130	580	120	450
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	<10	<10	14	<10	<10	<10	12	<10	11	11	<10	<10	<10	<10
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	1.5	1.3	<1.0	<1.0	1.7	<1.0	1.2	1.1	1.3	1.7	1.0	1.4	1.2	0.85
Zinc, Total	ug/L	2,400	1,100	<20	21	<20	<20	<20	<20	<20	<20	<20	63	<20	<20	21	<20
Cyanide, Total	ug/L	200	5.2	<5	<5	<5	<5	<5	<5	<5	<5	20	<5	<5	<5	<5	<5
Chloride	mg/L	250	50,000	<10	21	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.029	1.1	1.2	0.39	0.81	0.64	1.4	0.52	0.51	0.44	0.46	0.62	0.30	0.66	0.34
Nitrogen, Nitrate	mg/L	10	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	NA	<5.0	6.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chemical Oxygen Demand	mg/L	--	--	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7.8	<5.0	8.3	<5.0
BOD (5-day)	mg/L	--	--	6.5	24	3.5	2.1	3.0	10	5.1	4.5	2.0	<1.0	2.0	18	6.5	14
Phosphorous, Total	mg/L	63	NA	0.01	0.03	0.02	0.03	0.04	0.03	0.04	0.02	0.13	0.01	0.02	<0.01	0.0132	<0.01

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

2) Values shown in blue boxes exceed GSI Critieria.

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		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111s 03/10/04	MW-111s 06/03/04	MW-111s 09/15/04	MW-111s DUP 09/15/04	MW-111s 12/15/04	MW-111s 03/17/05	MW-111s 06/15/05	MW-111s DUP 06/15/05	MW-111s 09/21/05	MW-111s DUP 09/21/05	MW-111s 12/28/05	MW-111s 05/01/06	MW-111s 10/18/06	MW-111s 04/17/07
Phenol	ug/L	4,400	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroethyl) ether	ug/L	2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
2-Chlorophenol	ug/L	45	22	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroisopropyl) ether	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
N-Nitroso-di-n-propylamine	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachloroethane	ug/L	7.3	5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Nitrobenzene	ug/L	3.4	4.7	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	--
Isophorone	ug/L	770	310	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitrophenol	ug/L	20	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) methane	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dichlorophenol	ug/L	73	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,2,4-Trichlorobenzene	ug/L	70	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Hexachlorobutadiene	ug/L	15	0.053	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Chloro-3-methylphenol	ug/L	150	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylnaphthalene	ug/L	260	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorocyclopentadiene	ug/L	50	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,6-Trichlorophenol	ug/L	120	4.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,5-Trichlorophenol	ug/L	730	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Chloronaphthalene	ug/L	1,800	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dimethyl phthalate	ug/L	73,000	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acenaphthylene	ug/L	52	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,6-Dinitrotoluene	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Acenaphthene	ug/L	1,300	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
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		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111s 03/10/04	MW-111s 06/03/04	MW-111s 09/15/04	MW-111s DUP 09/15/04	MW-111s 12/15/04	MW-111s 03/17/05	MW-111s 06/15/05	MW-111s DUP 06/15/05	MW-111s 09/21/05	MW-111s DUP 09/21/05	MW-111s 12/28/05	MW-111s 05/01/06	MW-111s 10/18/06	MW-111s 04/17/07
4-Nitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dibenzofuran	ug/L	ID	4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrotoluene	ug/L	7.7	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluorene	ug/L	880	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
4,6-Dinitro-2-methylphenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
N-Nitrosodiphenylamine	ug/L	270	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Bromophenyl phenyl ether	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Phenanthrene	ug/L	52.0	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Anthracene	ug/L	43	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Carbazole	ug/L	85	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--	<10	--
Di-n-butyl phthalate	ug/L	880	9.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluoranthene	ug/L	210	1.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Pyrene	ug/L	140	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Butyl benzyl phthalate	ug/L	1,200	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3,3'-Dichlorobenzidine	ug/L	1.1	0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzo(a)anthracene	ug/L	2.1	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Chrysene	ug/L	5.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
bis(2-ethylhexyl)phthalate	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(b)fluoranthene	ug/L	2.0	ID	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Benzo(k)fluoranthene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(a)pyrene	ug/L	5.0	ID	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--
Indeno(1,2,3-cd)pyrene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Dibenzo(a,h) anthracene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(ghi)perylene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-111s
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111s 03/10/04	MW-111s 06/03/04	MW-111s 09/15/04	MW-111s DUP 09/15/04	MW-111s 12/15/04	MW-111s 03/17/05	MW-111s 06/15/05	MW-111s DUP 06/15/05	MW-111s 09/21/05	MW-111s DUP 09/21/05	MW-111s 12/28/05	MW-111s 05/01/06	MW-111s 10/18/06	MW-111s 04/17/07
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	ug/L	5.0	47	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloroethane	ug/L	5.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	77	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Carbon Tetrachloride	ug/L	5.0	5.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Dichlorobromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloropropane	ug/L	5.0	9.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,3-Dichloropropene	ug/L	8.5	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,1,2-Trichloroethane	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzene	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/L	--	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Bromoform	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
4-Methyl-2-pentanone	ug/L	1,800	ID	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
2-Hexanone	ug/L	1,000	NA	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Chlorobenzene	ug/L	100	47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	320	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Xylene (Total)	ug/L	280	630	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichlorobenzene	ug/L	600	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,4-Dichlorobenzene	ug/L	75	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-111d
June 2004 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111d 06/03/04	MW-111d 09/15/04	MW-111d 12/15/04	MW-111d 03/17/05	MW-111d 06/15/05	MW-111d 09/21/05	MW-111d 12/28/05	MW-111d 05/01/06	MW-111d 10/18/06	MW-111d 04/17/07
Aluminum, Total	ug/L	50	NA	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Arsenic, Total	ug/L	10	680	7	<5.0	<5.0	7.4	<5	<5	<5	8.6	<5	13
Barium, Total	ug/L	2,000	190	<100	<100	<100	<100	<100	<100	<100	<100	<100	120
Cadmium, Total	ug/L	5.0	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	3,700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	NA	9,690	340	180	6,930	2,170	470	2,800	17,000	1,200	33,000
Lead, Total	ug/L	4.0	2,300	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	NA	25	18	18	25	14	21	24	21	17	23
Manganese, Total	ug/L	50	5,300	570	470	490	600	280	360	520	780	480	500
Mercury, Total	ug/L	2.0	0.0013	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	124	<10	<10	<10	<10	<10	12	<10	<10	<10	14
Silver, Total	ug/L	34	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	NA	1.6	<1	1.8	1.6	1.2	1.9	1.5	1.8	1.8	1.2
Zinc, Total	ug/L	2,400	1,100	<20	<20	<20	<20	23	<20	<20	<20	<20	<20
Cyanide, Total	ug/L	200	5.2	<5	<5	<5	<5	<5	20	<5	<5	<5	<5
Chloride	mg/L	250	50,000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Nitrogen, Ammonia	mg/L	10	0.029	0.25	<0.05	0.06	0.09	<0.05	0.06	<0.05	<0.05	<0.05	0.28
Nitrogen, Nitrate	mg/L	10	NA	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	NA	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	NA	5.3	8.8	8.8	<5.0	6.6	6.1	<5.0	<5.0	10	<5.0
Chemical Oxygen Demand	mg/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	6.1	<5.0	<5.0	5.1	<5.0
BOD (5-day)	mg/L	--	--	5.3	<1.0	<1.0	1.5	1.8	1.8	<1.0	3.2	2.3	11
Phosphorous, Total	mg/L	63	NA	0.04	<0.01	<0.01	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

2) Values shown in blue boxes exceed GSI Critieria.

Sparta Landfill
Groundwater Comparison
MW-111d
June 2004 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111d 06/03/04	MW-111d 09/15/04	MW-111d 12/15/04	MW-111d 03/17/05	MW-111d 06/15/05	MW-111d 09/21/05	MW-111d 12/28/05	MW-111d 05/01/06	MW-111d 10/18/06	MW-111d 04/17/07
Phenol	ug/L	4,400	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroethyl) ether	ug/L	2.0	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
2-Chlorophenol	ug/L	45	22	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroisopropyl) ether	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Methylphenol	ug/L	370	71	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
N-Nitroso-di-n-propylamine	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachloroethane	ug/L	7.3	5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Nitrobenzene	ug/L	3.4	4.7	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	--
Isophorone	ug/L	770	310	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitrophenol	ug/L	20	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dimethylphenol	ug/L	370	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) methane	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dichlorophenol	ug/L	73	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,2,4-Trichlorobenzene	ug/L	70	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Naphthalene	ug/L	520	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Hexachlorobutadiene	ug/L	15	0.053	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Chloro-3-methylphenol	ug/L	150	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylnaphthalene	ug/L	260	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorocyclopentadiene	ug/L	50	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,6-Trichlorophenol	ug/L	120	4.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,5-Trichlorophenol	ug/L	730	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Chloronaphthalene	ug/L	1,800	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dimethyl phthalate	ug/L	73,000	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acenaphthylene	ug/L	52	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,6-Dinitrotoluene	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Acenaphthene	ug/L	1,300	19	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-111d
June 2004 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111d 06/03/04	MW-111d 09/15/04	MW-111d 12/15/04	MW-111d 03/17/05	MW-111d 06/15/05	MW-111d 09/21/05	MW-111d 12/28/05	MW-111d 05/01/06	MW-111d 10/18/06	MW-111d 04/17/07
4-Nitrophenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dibenzofuran	ug/L	ID	4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrotoluene	ug/L	7.7	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Diethyl phthalate	ug/L	5,500	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluorene	ug/L	880	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Nitroaniline	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--
4,6-Dinitro-2-methylphenol	ug/L	--	--	<20	<20	<20	<20	<20	<20	<20	--	<20	--
N-Nitrosodiphenylamine	ug/L	270	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Bromophenyl phenyl ether	ug/L	--	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorobenzene	ug/L	1.0	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Phenanthrene	ug/L	52.0	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Anthracene	ug/L	43	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Carbazole	ug/L	85	10	<10	<10	<10	<10	<10	<10	<10	--	<10	--
Di-n-butyl phthalate	ug/L	880	9.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.6	--	<5.0	--
Fluoranthene	ug/L	210	1.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Pyrene	ug/L	140	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Butyl benzyl phthalate	ug/L	1,200	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3,3'-Dichlorobenzidine	ug/L	1.1	0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzo(a)anthracene	ug/L	2.1	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Chrysene	ug/L	5.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
bis(2-ethylhexyl)phthalate	ug/L	6.0	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(b)fluoranthene	ug/L	2.0	ID	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Benzo(k)fluoranthene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(a)pyrene	ug/L	5.0	ID	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--
Indeno(1,2,3-cd)pyrene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Dibenzo(a,h) anthracene	ug/L	2.0	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(ghi)perylene	ug/L	5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-111d
June 2004 - April 2007

		Part 201 Res Drinking Water Criteria	Applicable GSI Criteria	MW-111d 06/03/04	MW-111d 09/15/04	MW-111d 12/15/04	MW-111d 03/17/05	MW-111d 06/15/05	MW-111d 09/21/05	MW-111d 12/28/05	MW-111d 05/01/06	MW-111d 10/18/06	MW-111d 04/17/07
Chloromethane	ug/L	260	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	35	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Vinyl Chloride	ug/L	2.0	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	ug/L	5.0	47	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acetone	ug/L	730	1,700	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,1-Dichloroethane	ug/L	880	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	24	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloroethane	ug/L	5.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,2-Dichloroethene	ug/L	70	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	77	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Methyl Ethyl Ketone	ug/L	13,000	2,200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Carbon Tetrachloride	ug/L	5.0	5.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Dichlorobromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloropropane	ug/L	5.0	9.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,3-Dichloropropene	ug/L	8.5	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Trichloroethene	ug/L	5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,1,2-Trichloroethane	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzene	ug/L	5.0	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/L	--	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Bromoform	ug/L	100	ID	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
4-Methyl-2-pentanone	ug/L	1,800	ID	<50	<50	<50	<50	<50	<50	<50	--	<50	--
2-Hexanone	ug/L	1,000	NA	<50	<50	<50	<50	<50	<50	<50	--	<50	--
Tetrachloroethene	ug/L	5.0	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	140	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	3.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Chlorobenzene	ug/L	100	47	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	320	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Xylene (Total)	ug/L	280	630	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	38	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichlorobenzene	ug/L	600	16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,4-Dichlorobenzene	ug/L	75	13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-112
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-112 3/10/04	MW-112 6/3/04	MW-112 9/15/04	MW-112 12/15/04	MW-112 DUP 12/15/04	MW-112 3/16/05	MW-112 6/15/05	MW-112 9/21/05	MW-112 12/28/05	MW-112 05/01/06	MW-112 10/18/06	MW-112 04/17/07
Aluminum, Total	ug/L	50	51	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	<50	<50	54
Arsenic, Total	ug/L	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Barium, Total	ug/L	2,000	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cadmium, Total	ug/L	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.05	<0.5	<0.5	<0.5
Chromium, Total	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Iron, Total	ug/L	300	1,080	500	470	480	500	680	530	430	470	500	480	440
Lead, Total	ug/L	4.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium, Total	mg/L	400	26	24	25	25	26	26	25	26	29	26	28	28
Manganese, Total	ug/L	50	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	16	17
Mercury, Total	ug/L	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel, Total	ug/L	100	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver, Total	ug/L	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
Sodium, Total	mg/L	120	8.4	7.5	7.9	7.7	7.8	6.9	6.6	6.0	5.7	6.2	5.9	5.8
Zinc, Total	ug/L	2,400	<21	< 20	< 20	< 20	< 20	< 20	< 20	24	<20	<20	<20	<20
Cyanide, Total	ug/L	200	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	250	14	11	13	12	13	12	11	11	11	11	11	11
Nitrogen, Ammonia	mg/L	10	0.11	0.18	0.31	0.26	0.26	0.17	0.14	0.18	0.08	0.069	0.064	0.082
Nitrogen, Nitrate	mg/L	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen, Nitrite	mg/L	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	250	15	14	14	13	14	15	14	13	13	14	21	12
Chemical Oxygen Demand	mg/L	--	<5.0	7.1	<5.0	<5.0	<5.0	<5.0	<5.0	7.3	7.3	<5.0	<5.0	<5.0
BOD (5-day)	mg/L	--	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	2.1	2.6	2.9
Phosphorous, Total	mg/L	63	0.06	0.04	0.03	0.03	0.04	0.05	0.02	0.02	0.04	<0.01	0.0333	0.0187

NOTES:

1) Values shown in yellow boxes exceed Drinking Water Criteria.

Sparta Landfill
Groundwater Comparison
MW-112
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-112 3/10/04	MW-112 6/3/04	MW-112 9/15/04	MW-112 12/15/04	MW-112 DUP 12/15/04	MW-112 3/16/05	MW-112 6/15/05	MW-112 9/21/05	MW-112 12/28/05	MW-112 05/01/06	MW-112 10/18/06	MW-112 04/17/07
Phenol	ug/L	4,400	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroethyl) ether	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
2-Chlorophenol	ug/L	45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Bis(2-chloroisopropyl) ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Methylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
N-Nitroso-di-n-propylamine	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachloroethane	ug/L	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Nitrobenzene	ug/L	3.4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	<3.0	--
Isophorone	ug/L	770	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitrophenol	ug/L	20	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dimethylphenol	ug/L	370	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy) methane	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dichlorophenol	ug/L	73	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,2,4-Trichlorobenzene	ug/L	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Naphthalene	ug/L	520	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Hexachlorobutadiene	ug/L	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Chloro-3-methylphenol	ug/L	150	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Methylnaphthalene	ug/L	260	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorocyclopentadiene	ug/L	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,6-Trichlorophenol	ug/L	120	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4,5-Trichlorophenol	ug/L	730	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Chloronaphthalene	ug/L	1,800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dimethyl phthalate	ug/L	73,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acenaphthylene	ug/L	52	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,6-Dinitrotoluene	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Acenaphthene	ug/L	1,300	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta La. dfill
Groundwater Comparison
MW-112
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-112 3/10/04	MW-112 6/3/04	MW-112 9/15/04	MW-112 12/15/04	MW-112 DUP 12/15/04	MW-112 3/16/05	MW-112 6/15/05	MW-112 9/21/05	MW-112 12/28/05	MW-112 05/01/06	MW-112 10/18/06	MW-112 04/17/07
4-Nitrophenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
Dibenzofuran	ug/L	ID	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
2,4-Dinitrotoluene	ug/L	7.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Diethyl phthalate	ug/L	5,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluorene	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Nitroaniline	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
4,6-Dinitro-2-methylphenol	ug/L	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	--	<20	--
N-Nitrosodiphenylamine	ug/L	270	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
4-Bromophenyl phenyl ether	ug/L	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Hexachlorobenzene	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pentachlorophenol	ug/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Phenanthrene	ug/L	52.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Anthracene	ug/L	43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Carbazole	ug/L	85	<10	<10	<10	<10	<10	<10	<10	<10	<10	--	<10	--
Di-n-butyl phthalate	ug/L	880	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Fluoranthene	ug/L	210	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Pyrene	ug/L	140	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Butyl benzyl phthalate	ug/L	1,200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
3,3'-Dichlorobenzidine	ug/L	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzo(a)anthracene	ug/L	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Chrysene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
bis(2-ethylhexyl)phthalate	ug/L	6.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	ug/L	130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(b)fluoranthene	ug/L	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	--
Benzo(k)fluoranthene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(a)pyrene	ug/L	5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	<0.2	--
Indeno(1,2,3-cd)pyrene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Dibenzo(a,h) anthracene	ug/L	2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Benzo(ghi)perylene	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--

NOTES:

1) ID - Insufficient Data to develop criterion.

Sparta Landfill
Groundwater Comparison
MW-112
March 2004 - April 2007

		Part 201 Res Drinking Water Criteria	MW-112 3/10/04	MW-112 6/3/04	MW-112 9/15/04	MW-112 12/15/04	MW-112 DUP 12/15/04	MW-112 3/16/05	MW-112 6/15/05	MW-112 9/21/05	MW-112 12/28/05	MW-112 05/01/06	MW-112 10/18/06	MW-112 04/17/07
Chloromethane	ug/L	260	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Vinyl Chloride	ug/L	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	430	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	ug/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
Acetone	ug/L	730	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Carbon Disulfide	ug/L	800	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--
1,1-Dichloroethane	ug/L	880	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	ug/L	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,2-Dichloroethene	ug/L	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Methyl Ethyl Ketone	ug/L	13,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
1,1,1-Trichloroethane	ug/L	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Carbon Tetrachloride	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Dichlorobromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichloropropane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
cis-1,3-Dichloropropene	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Trichloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,1,2-Trichloroethane	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Benzene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	ug/L	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Bromoform	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
4-Methyl-2-pentanone	ug/L	1,800	<50	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
2-Hexanone	ug/L	1,000	<50	<50	<50	<50	<50	<50	<50	<50	<50	--	<50	--
Tetrachloroethene	ug/L	5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	790	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	ug/L	8.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Chlorobenzene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/L	74	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	ug/L	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
Xylene (Total)	ug/L	280	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,3-Dichlorobenzene	ug/L	6.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,2-Dichlorobenzene	ug/L	600	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	--
1,4-Dichlorobenzene	ug/L	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

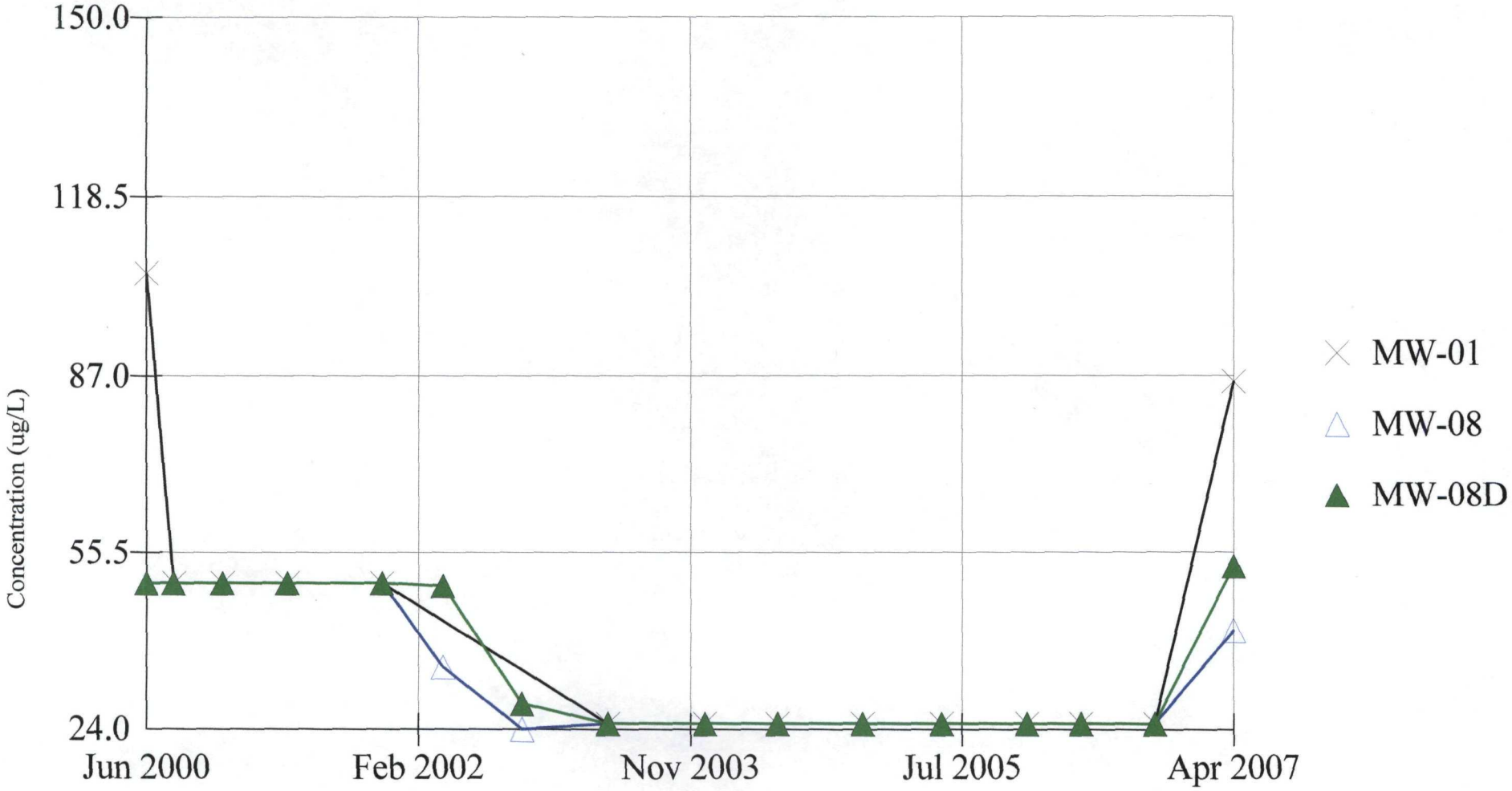
NOTES:

1) ID - Insufficient Data to develop criterion.

Attachment 8

Groundwater Time-Series Charts 2003 - 2007

TIME SERIES



Constituent: Aluminum, Total (ug/L)

Date: 7/2/07, 2:11 PM

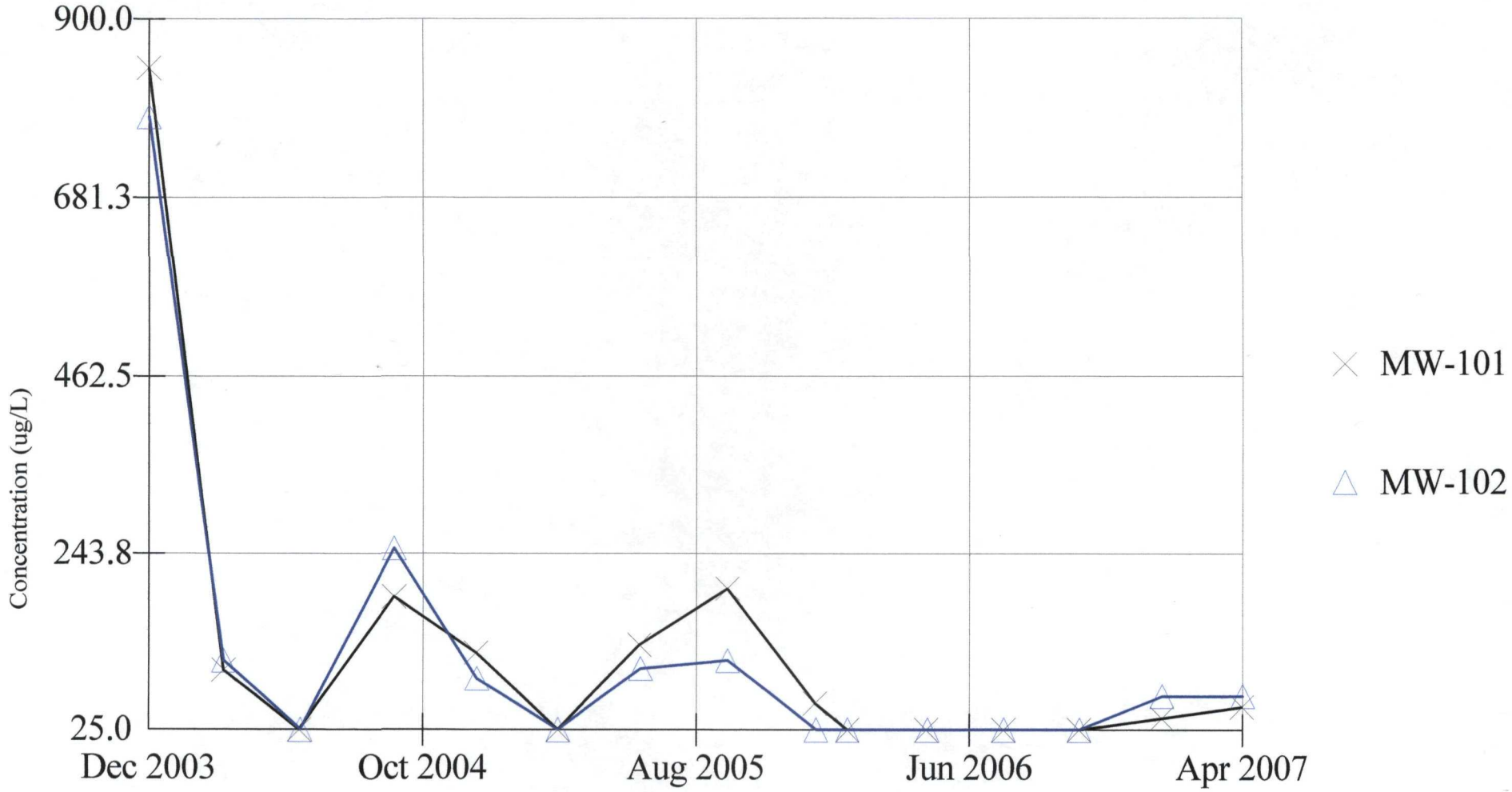
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Aluminum, Total (ug/L)

Date: 7/2/07, 2:12 PM

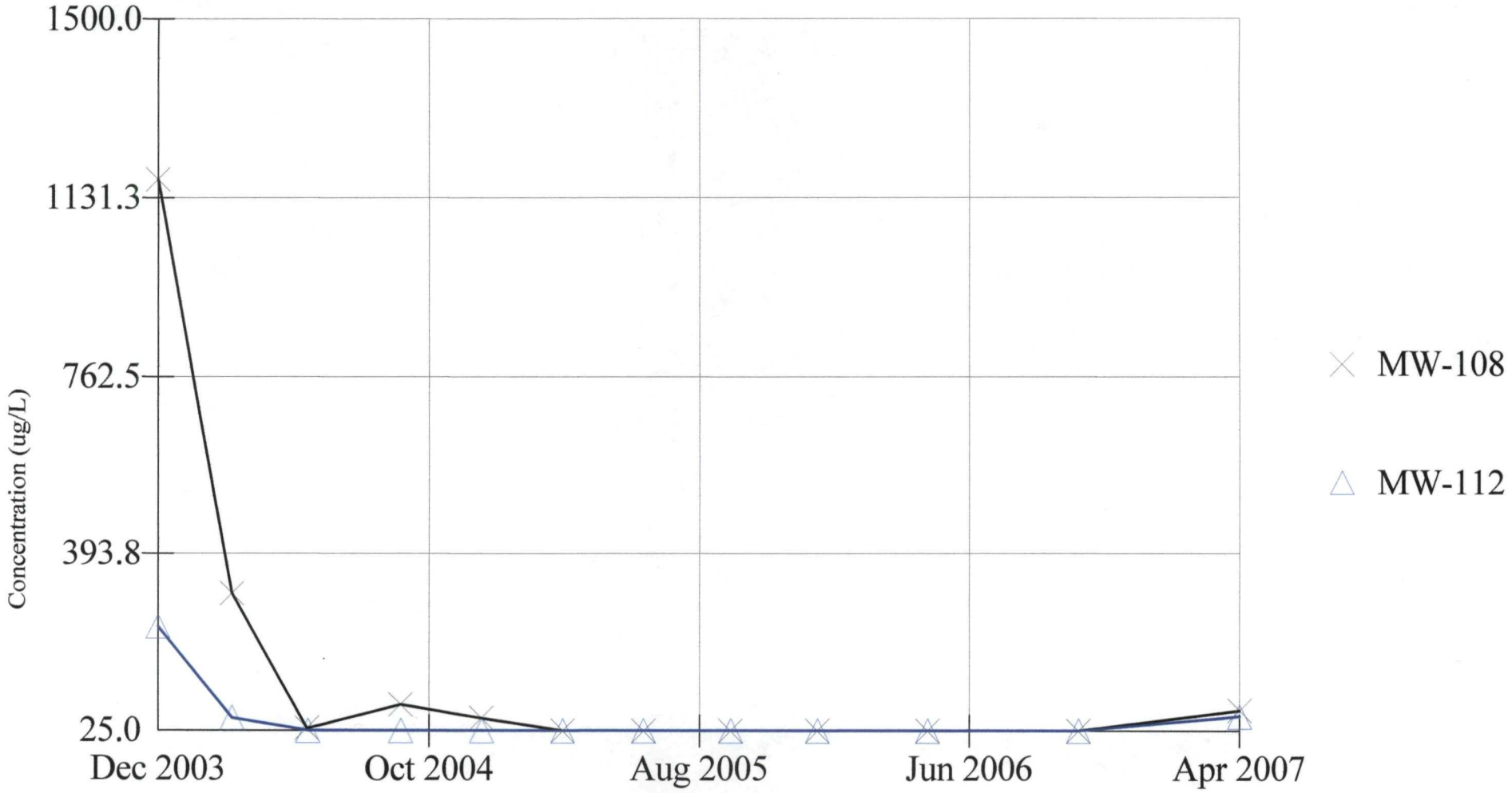
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Aluminum, Total (ug/L)

Date: 7/2/07, 2:12 PM

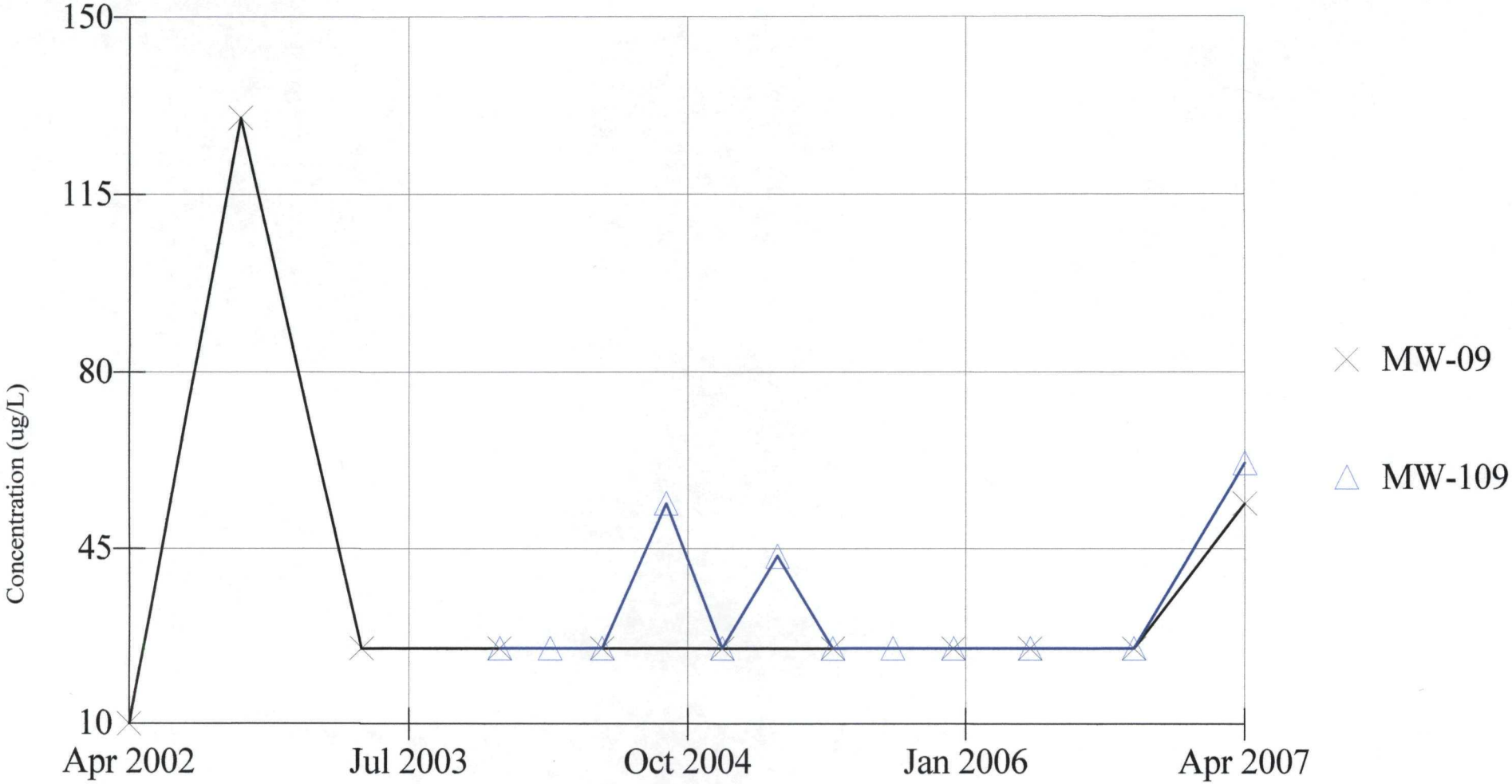
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Aluminum, Total (ug/L)

Date: 7/2/07, 2:13 PM

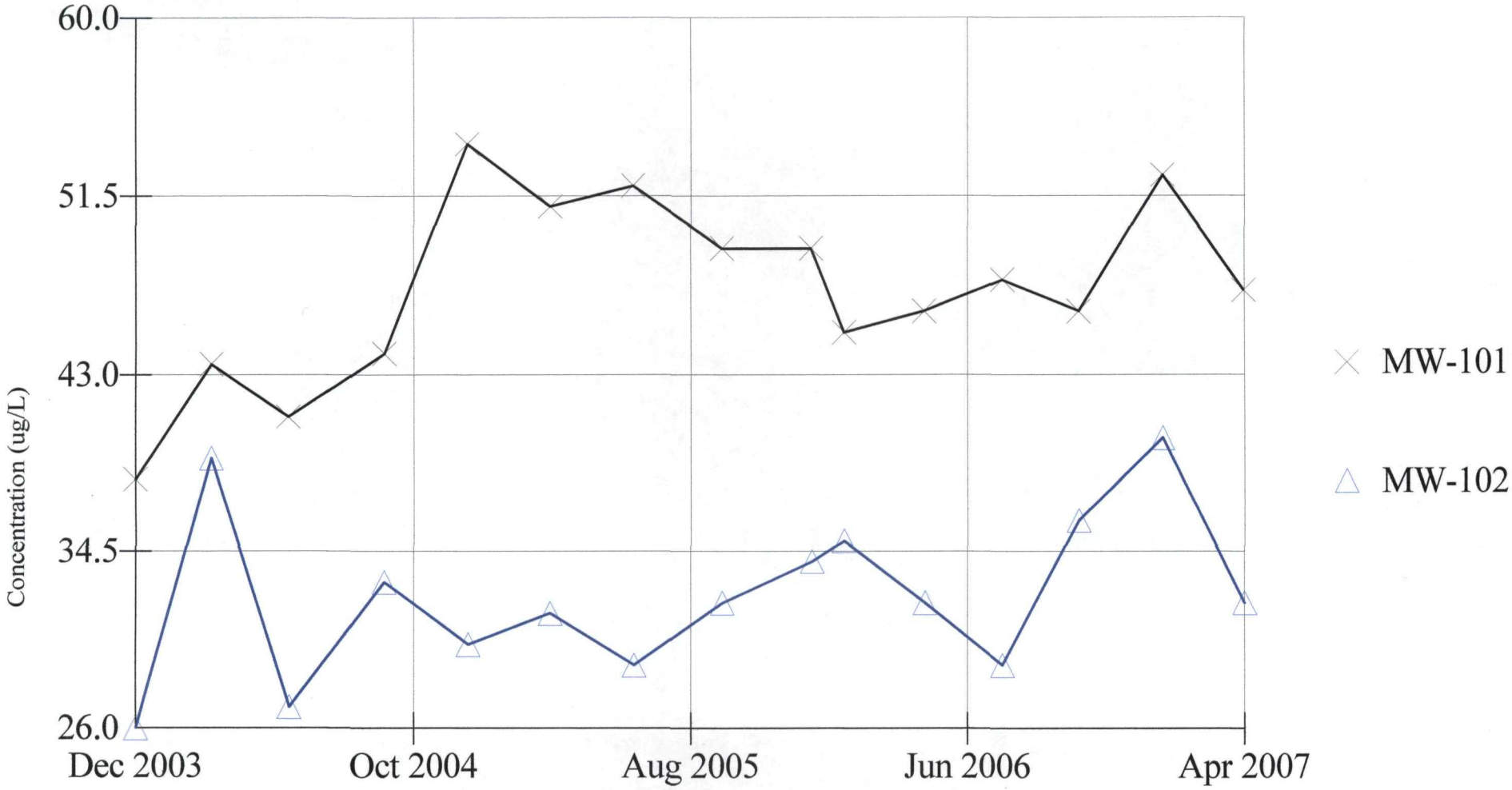
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Arsenic, Total (ug/L)

Date: 7/2/07, 2:14 PM

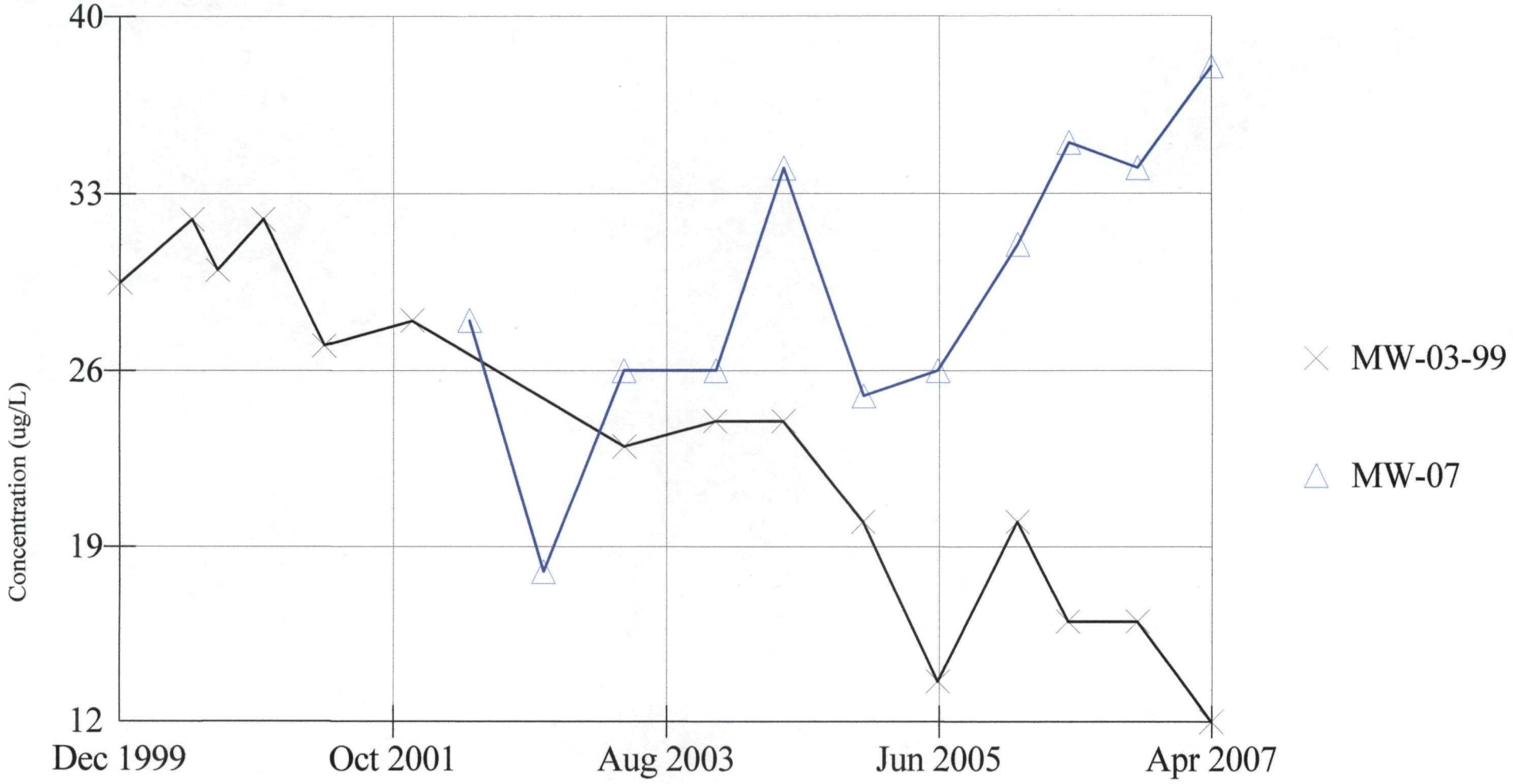
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Arsenic, Total (ug/L)

Date: 7/2/07, 2:15 PM

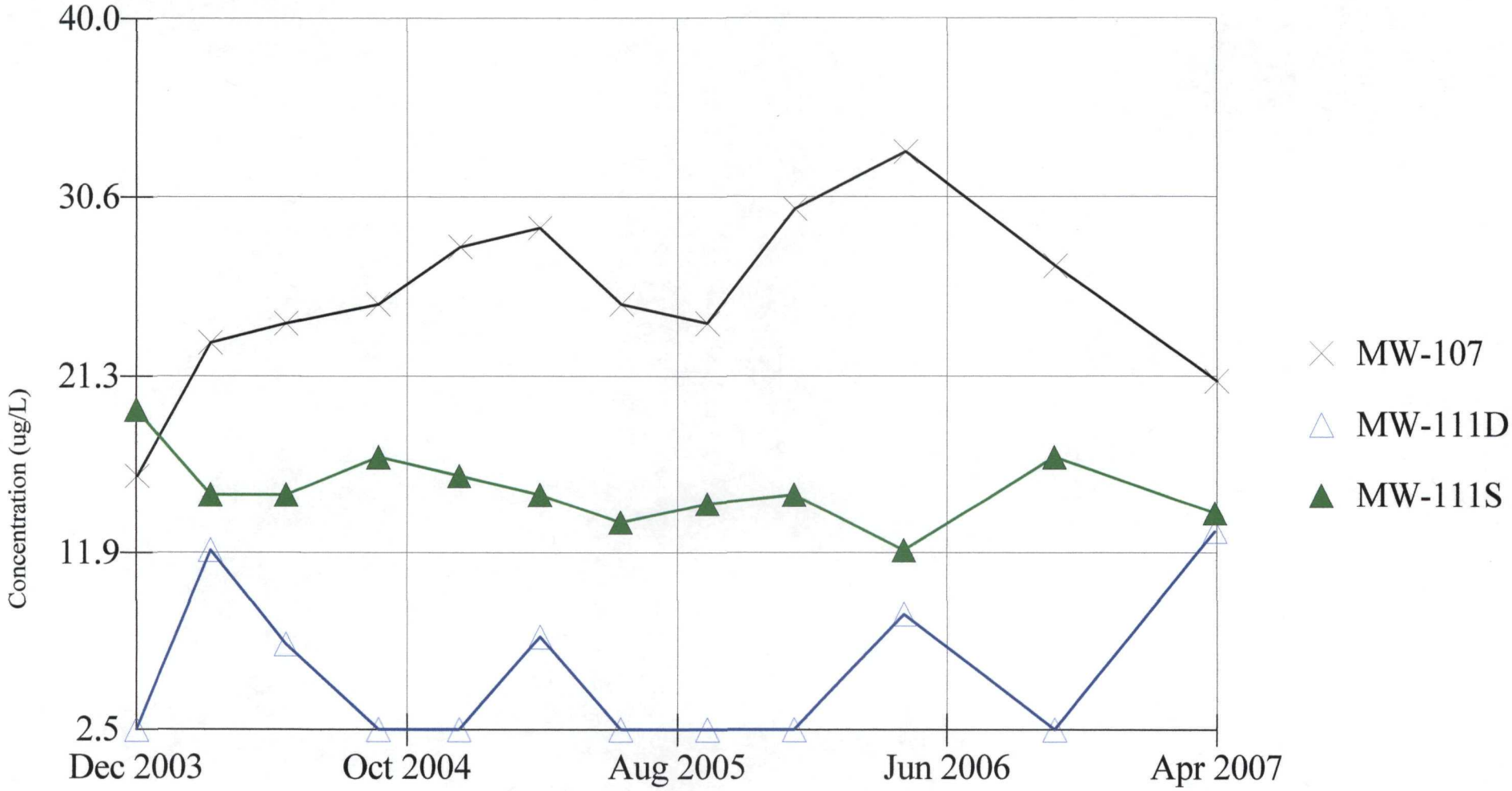
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Arsenic, Total (ug/L)

Date: 7/2/07, 2:15 PM

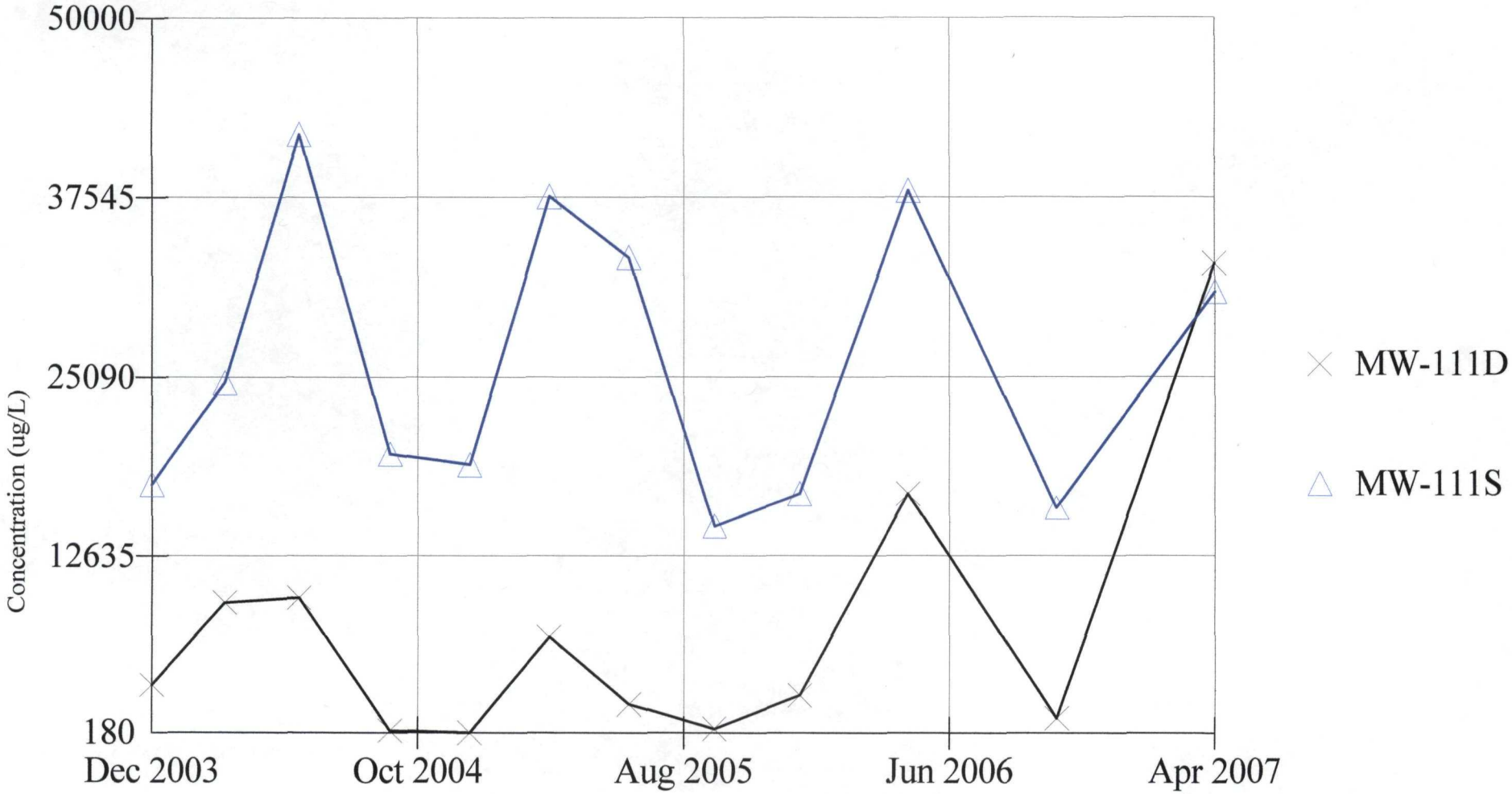
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:16 PM

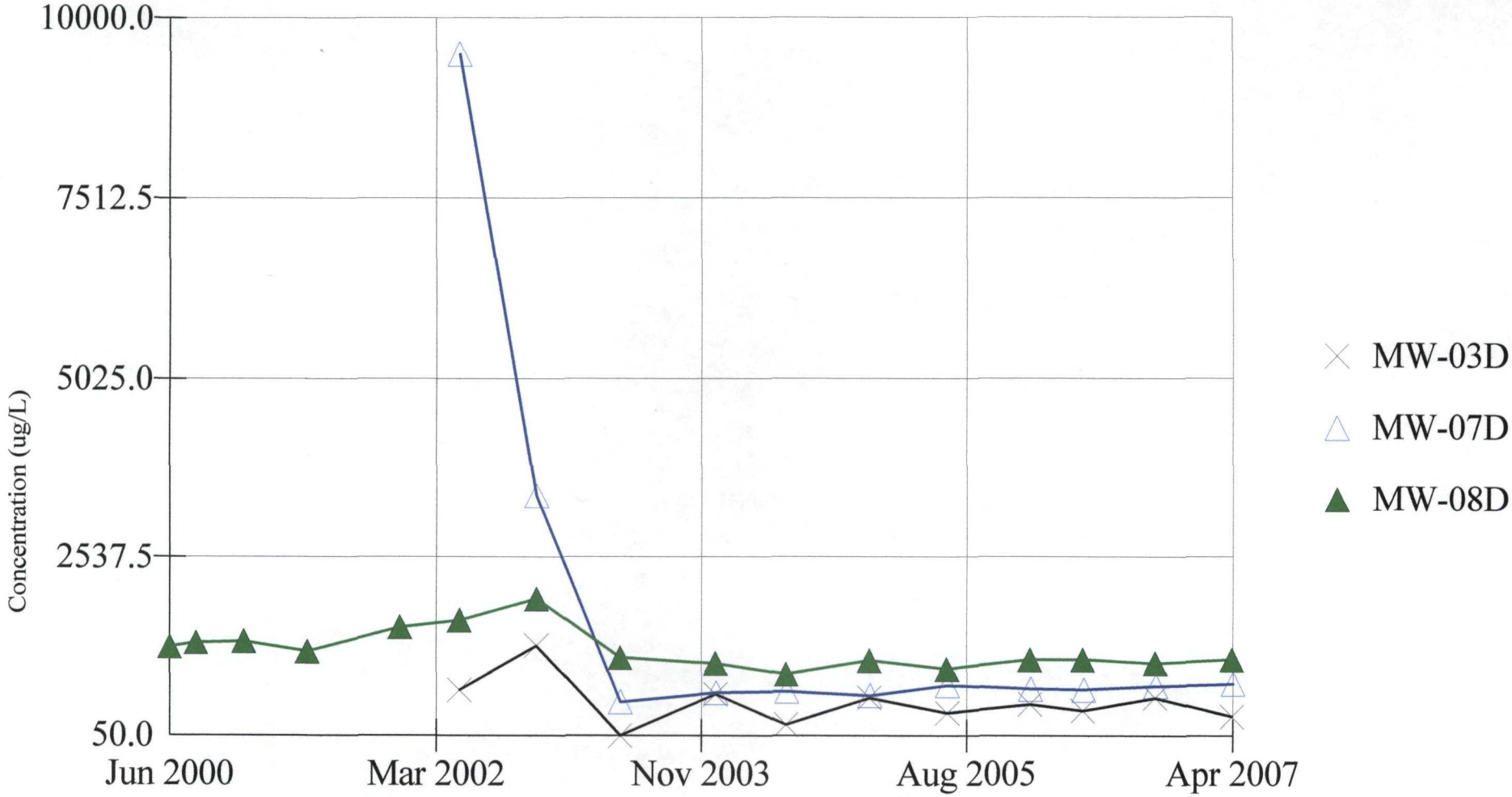
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:17 PM

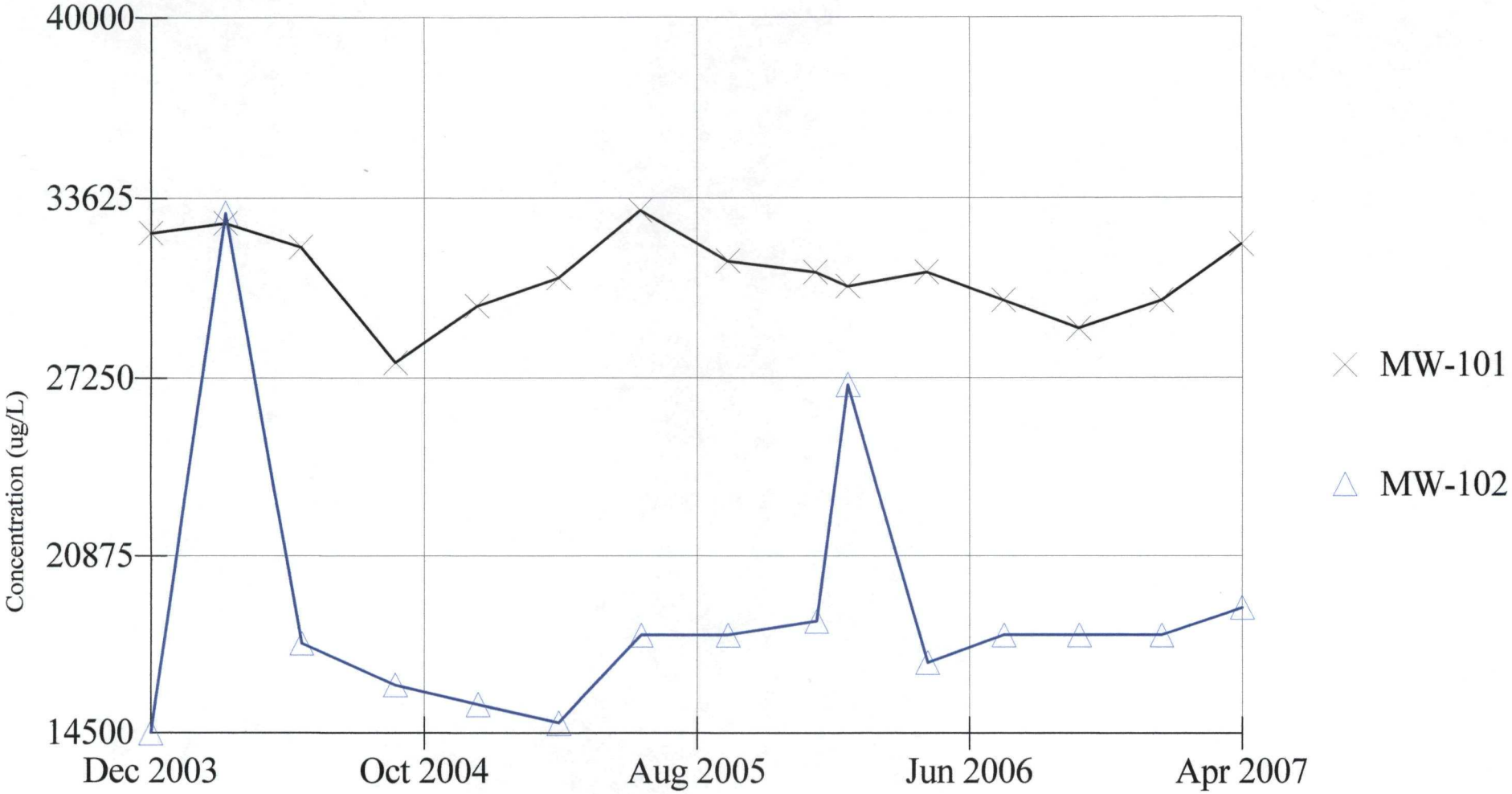
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:17 PM

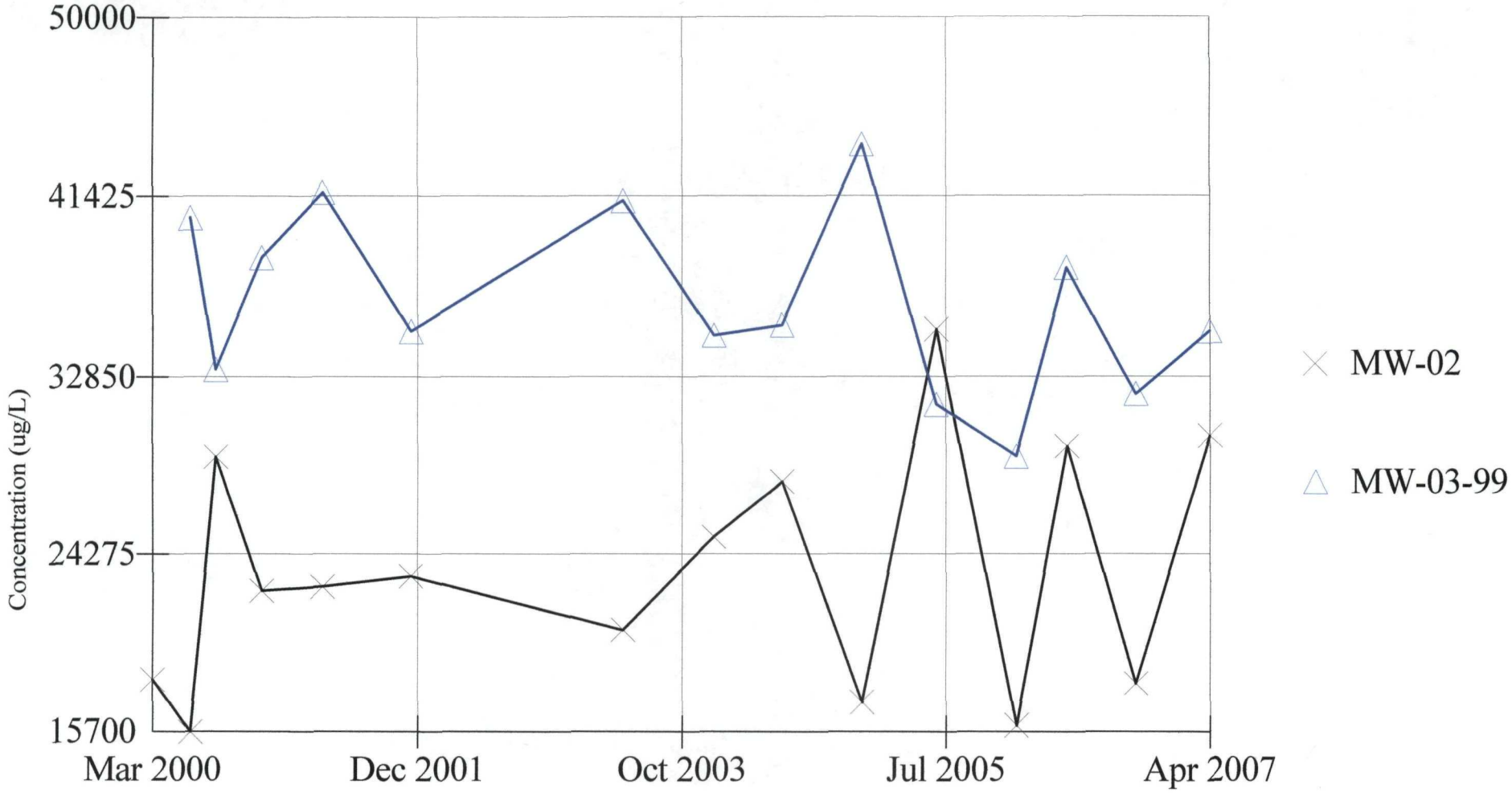
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:17 PM

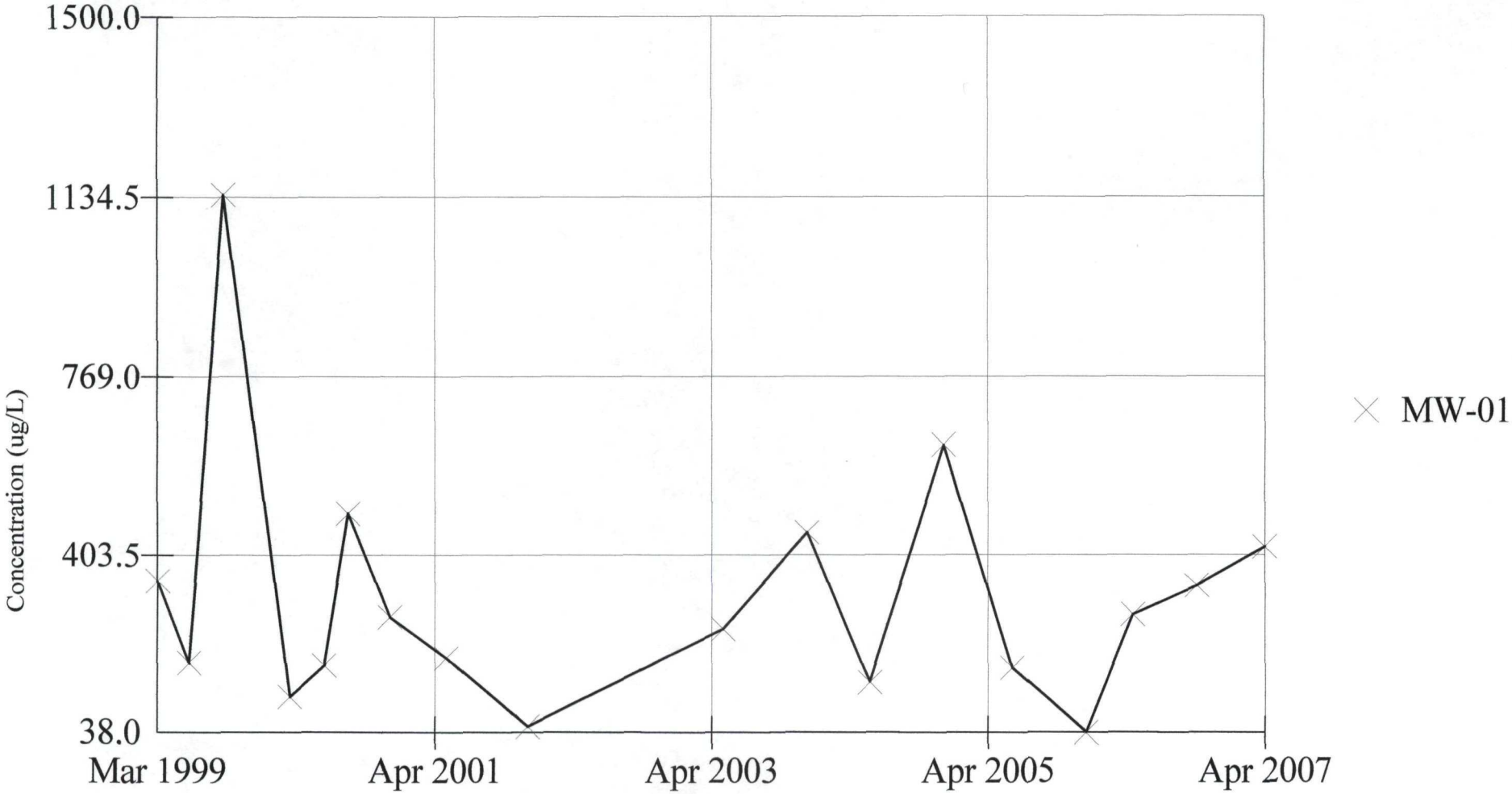
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:18 PM

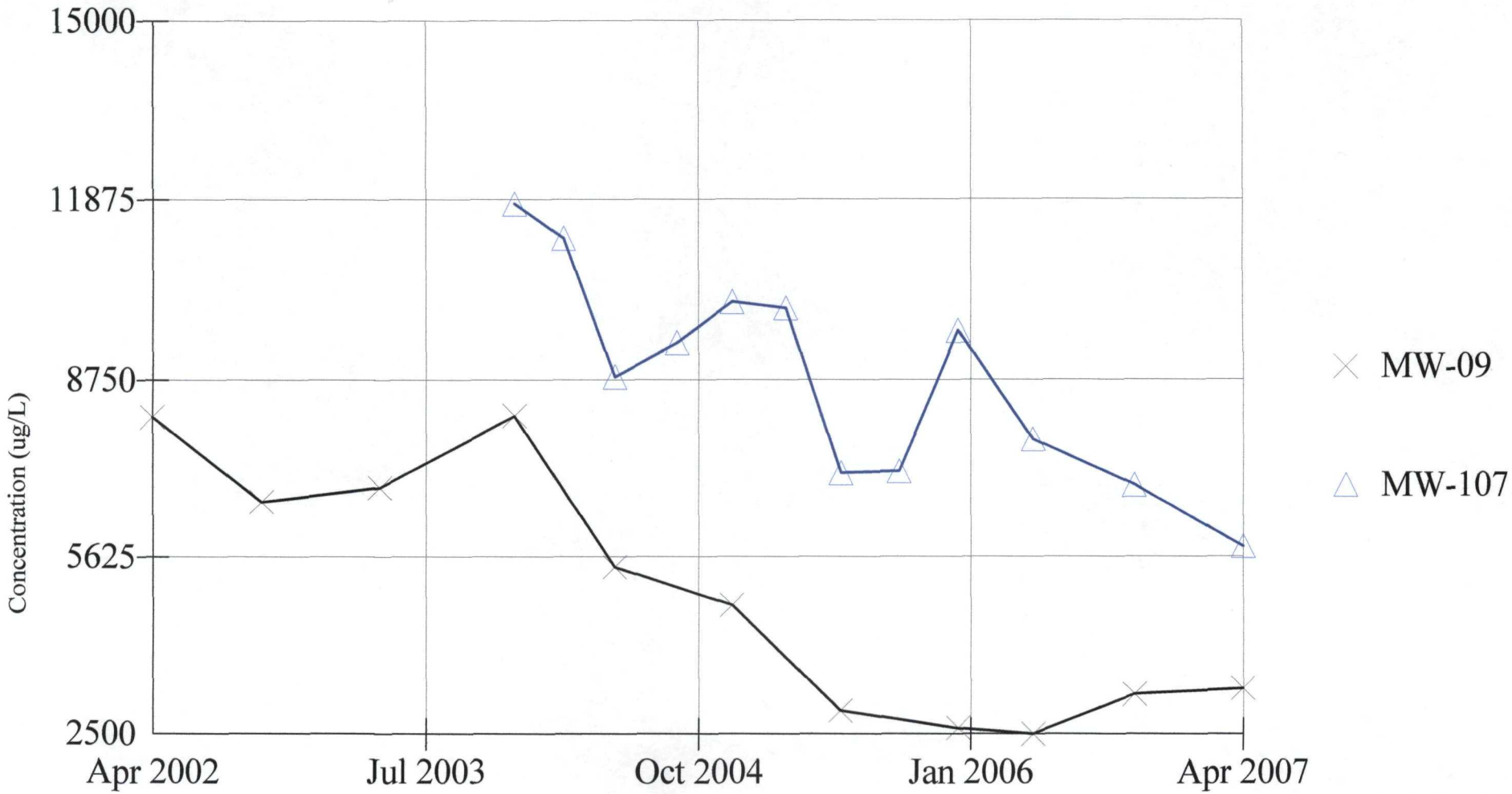
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:19 PM

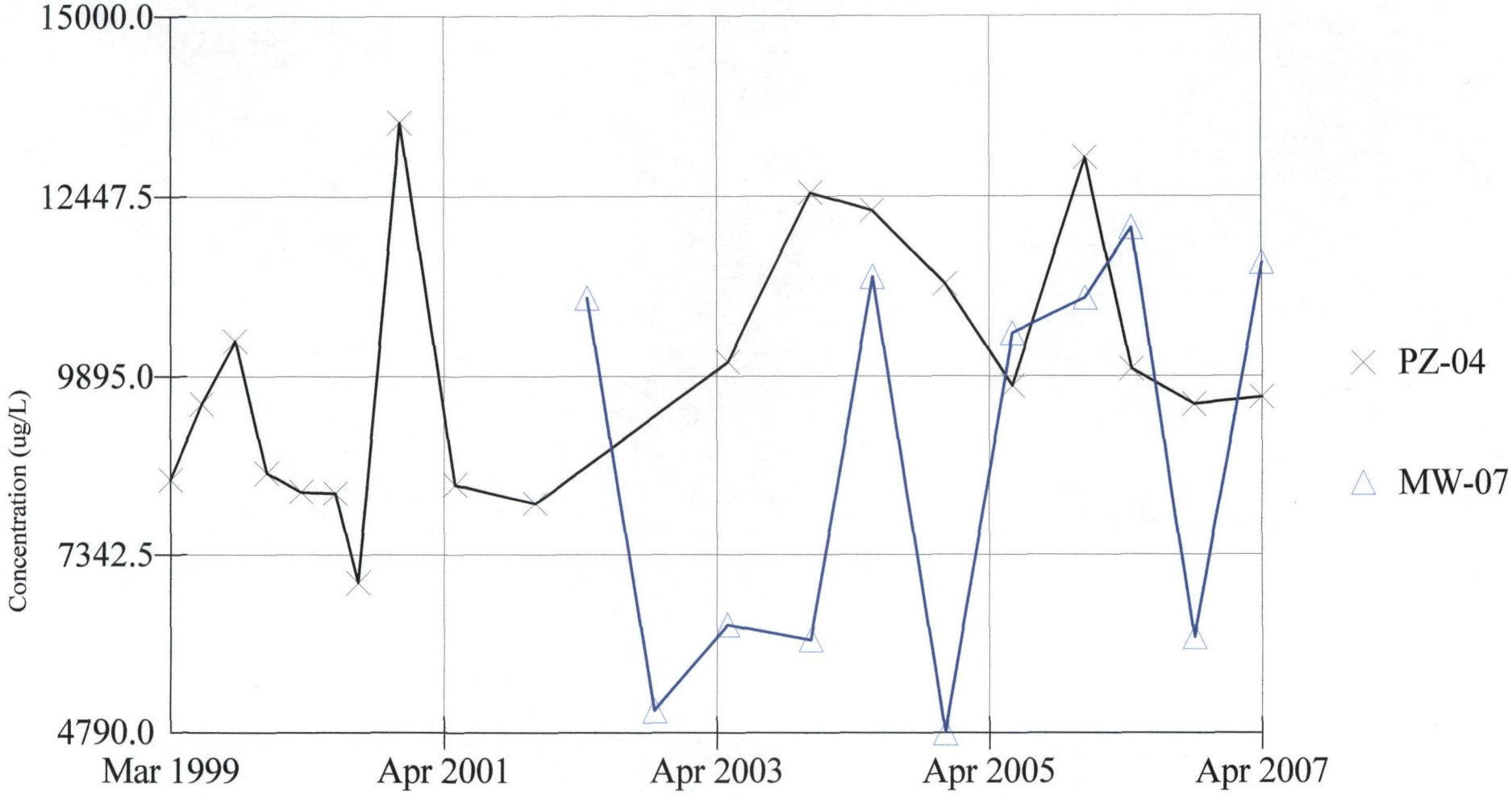
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:20 PM

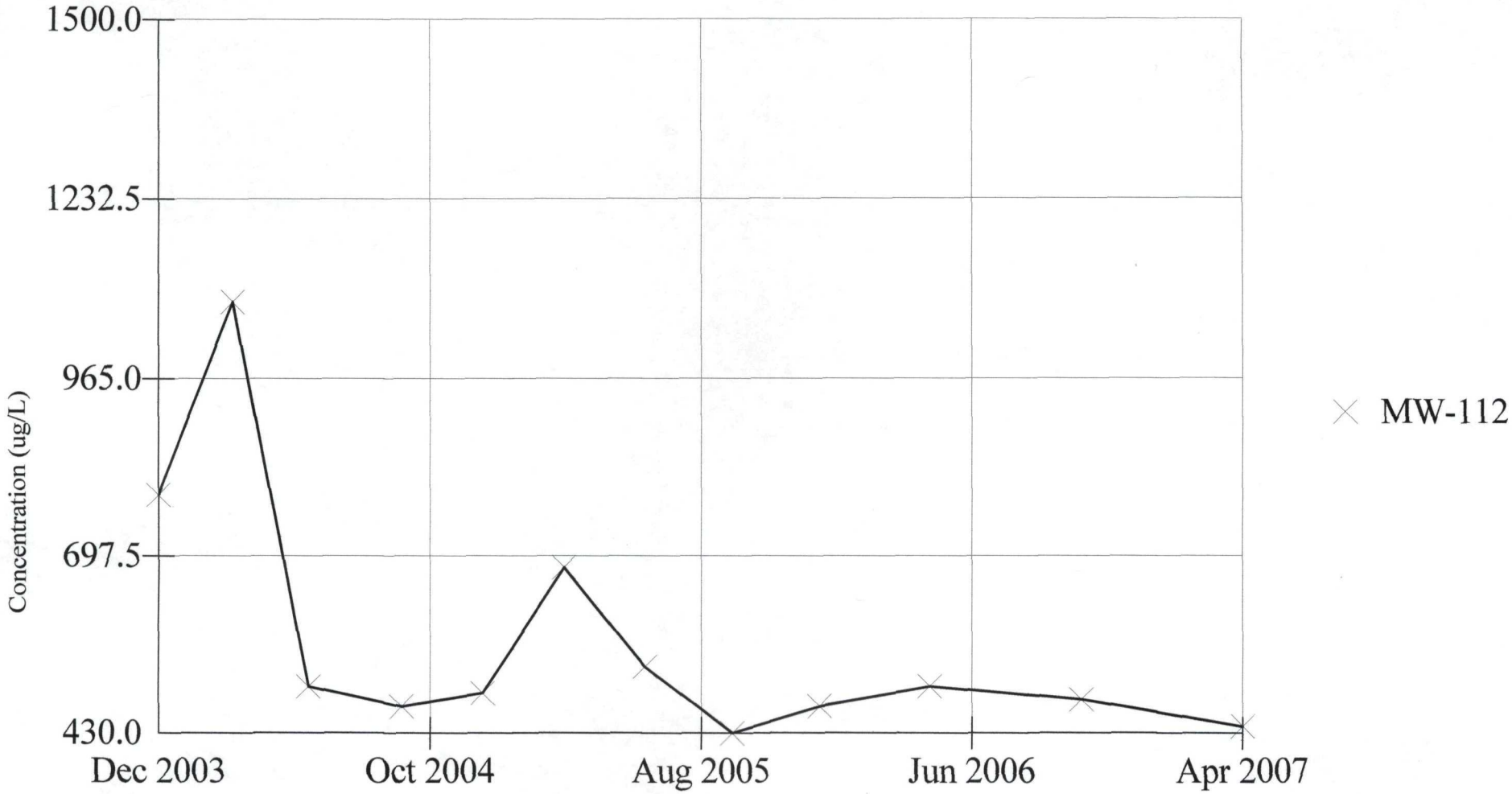
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Iron, Total (ug/L)

Date: 7/2/07, 2:21 PM

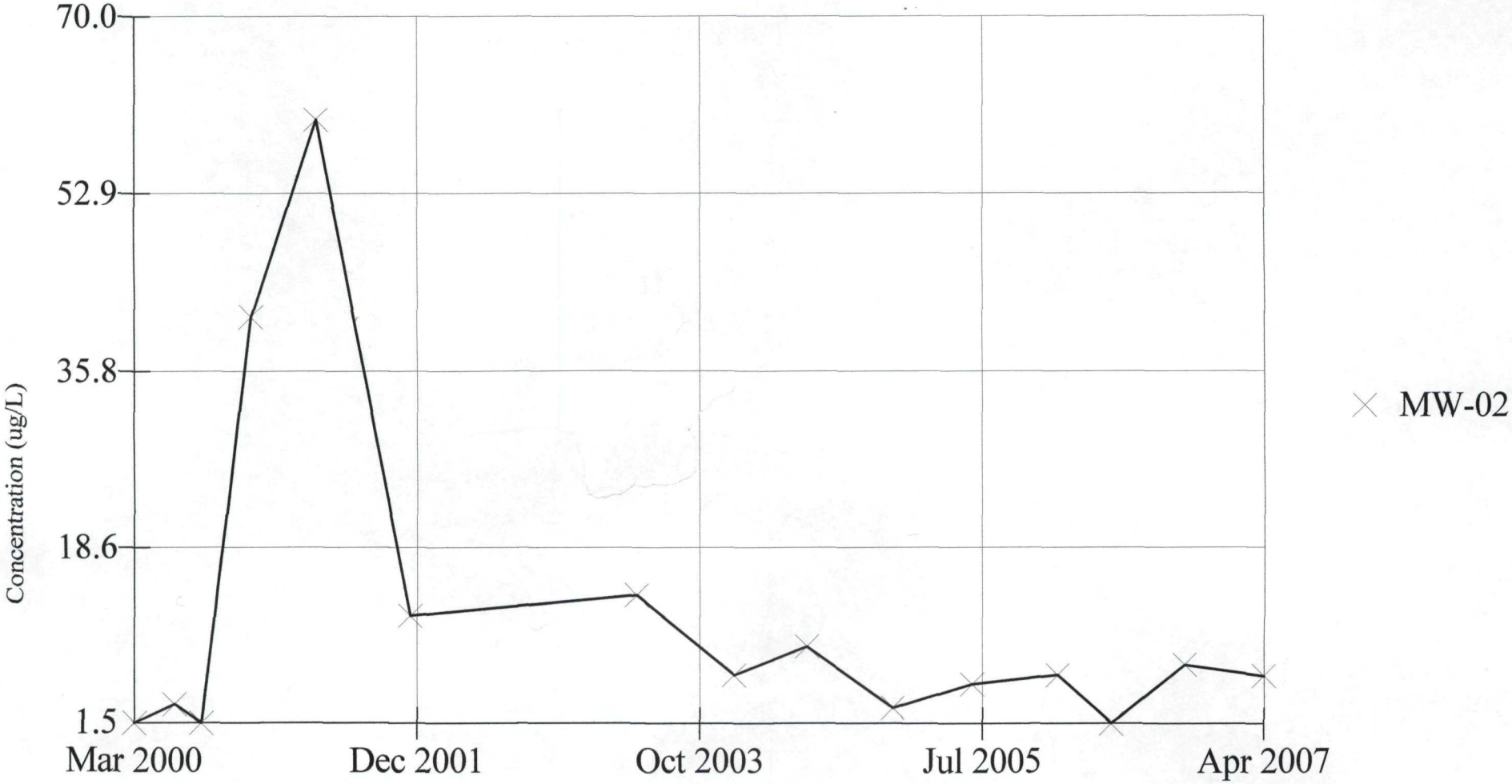
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Lead, Total (ug/L)

Date: 7/2/07, 2:23 PM

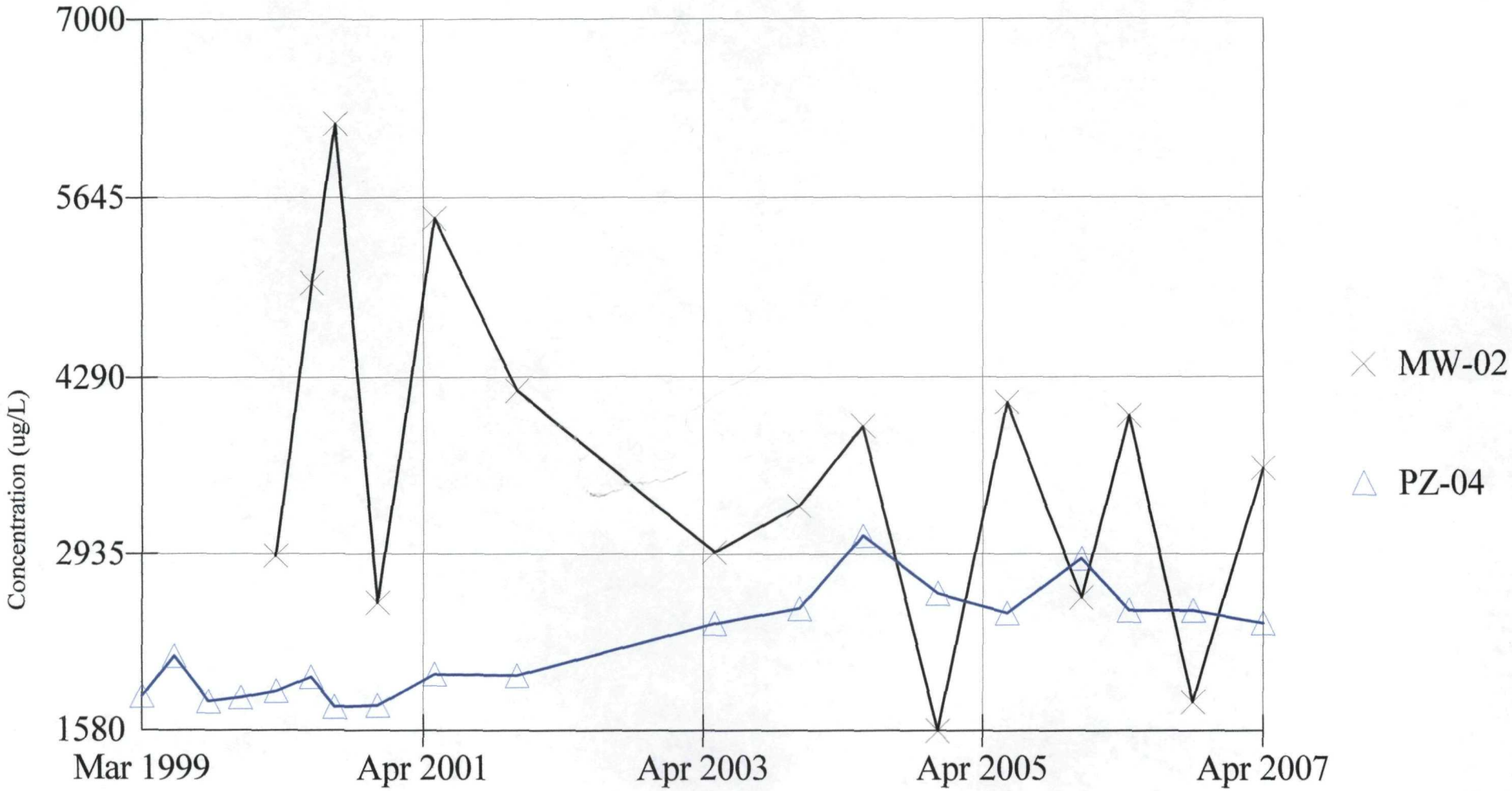
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Manganese, Total (ug/L)

Date: 7/2/07, 2:24 PM

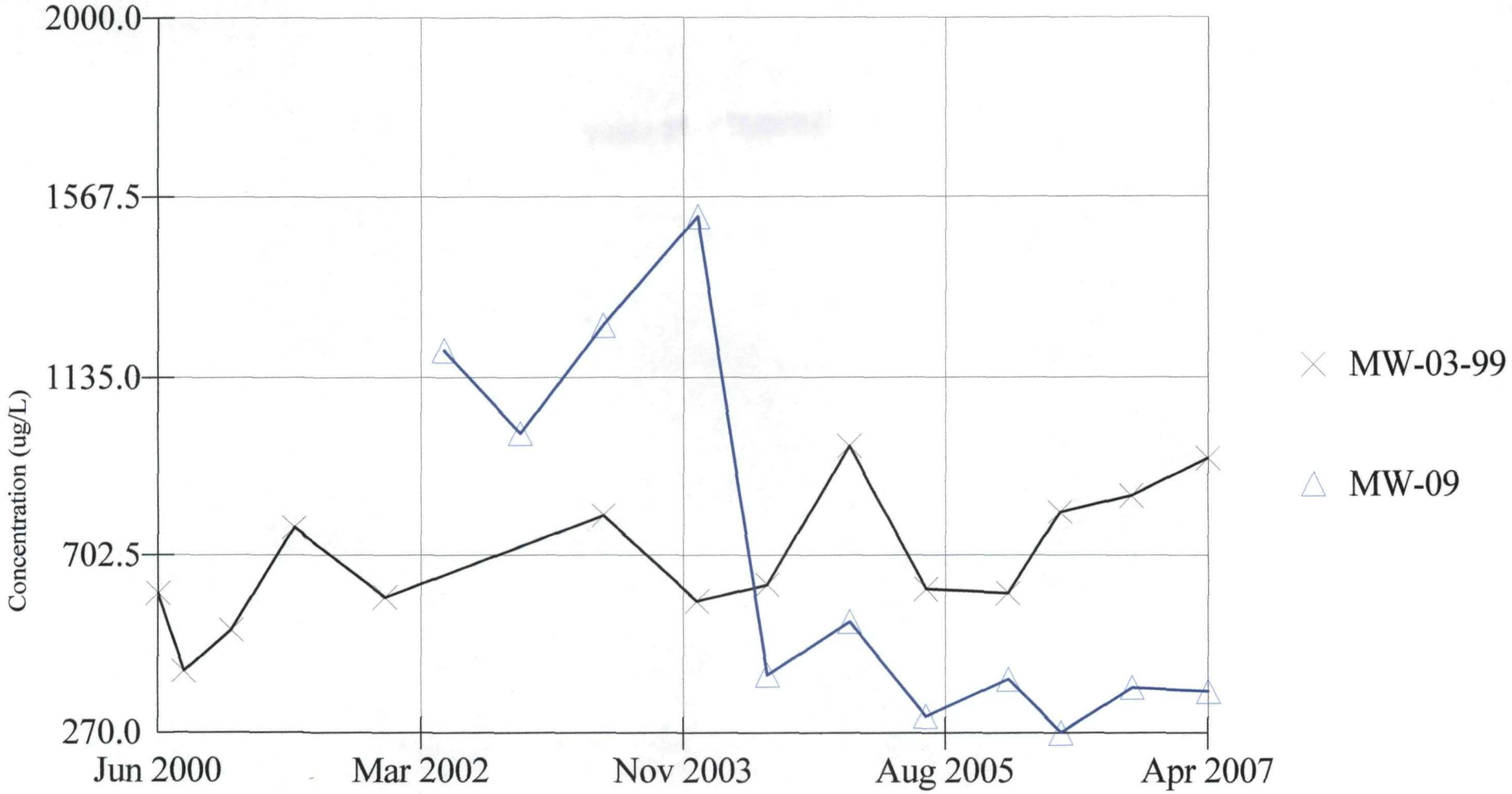
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Manganese, Total (ug/L)

Date: 7/2/07, 2:24 PM

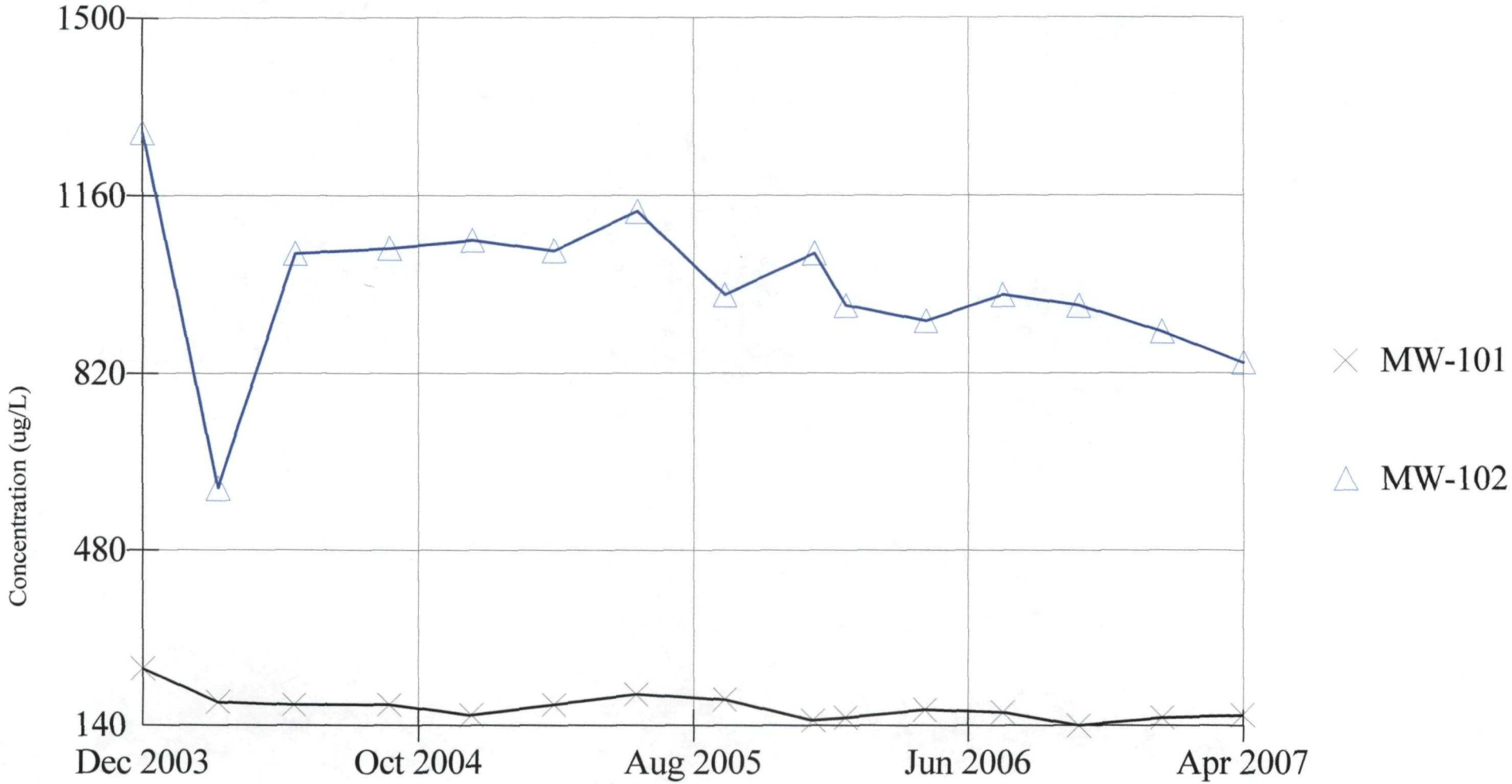
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Manganese, Total (ug/L)

Date: 7/2/07, 2:25 PM

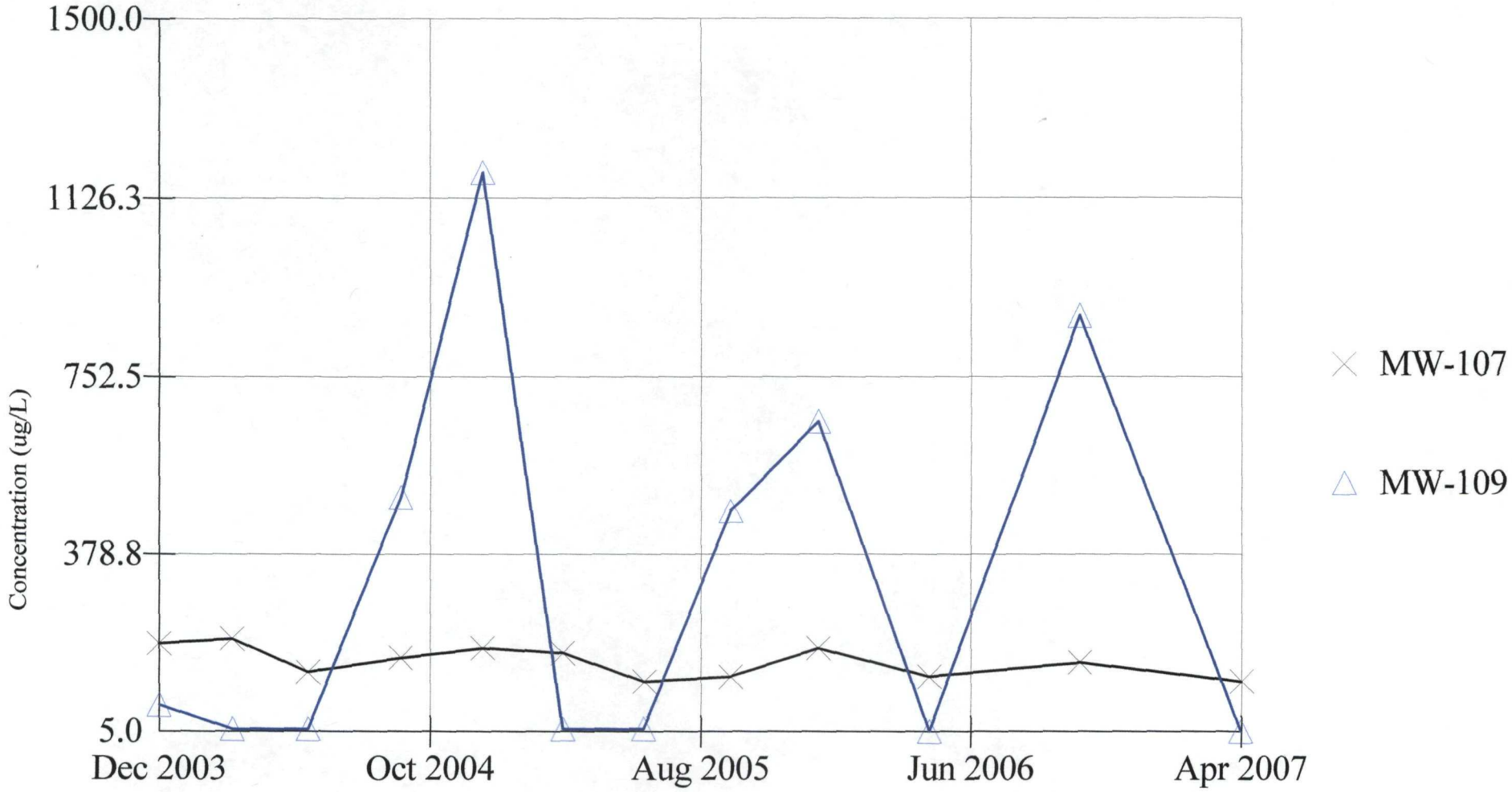
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Manganese, Total (ug/L)

Date: 7/2/07, 2:25 PM

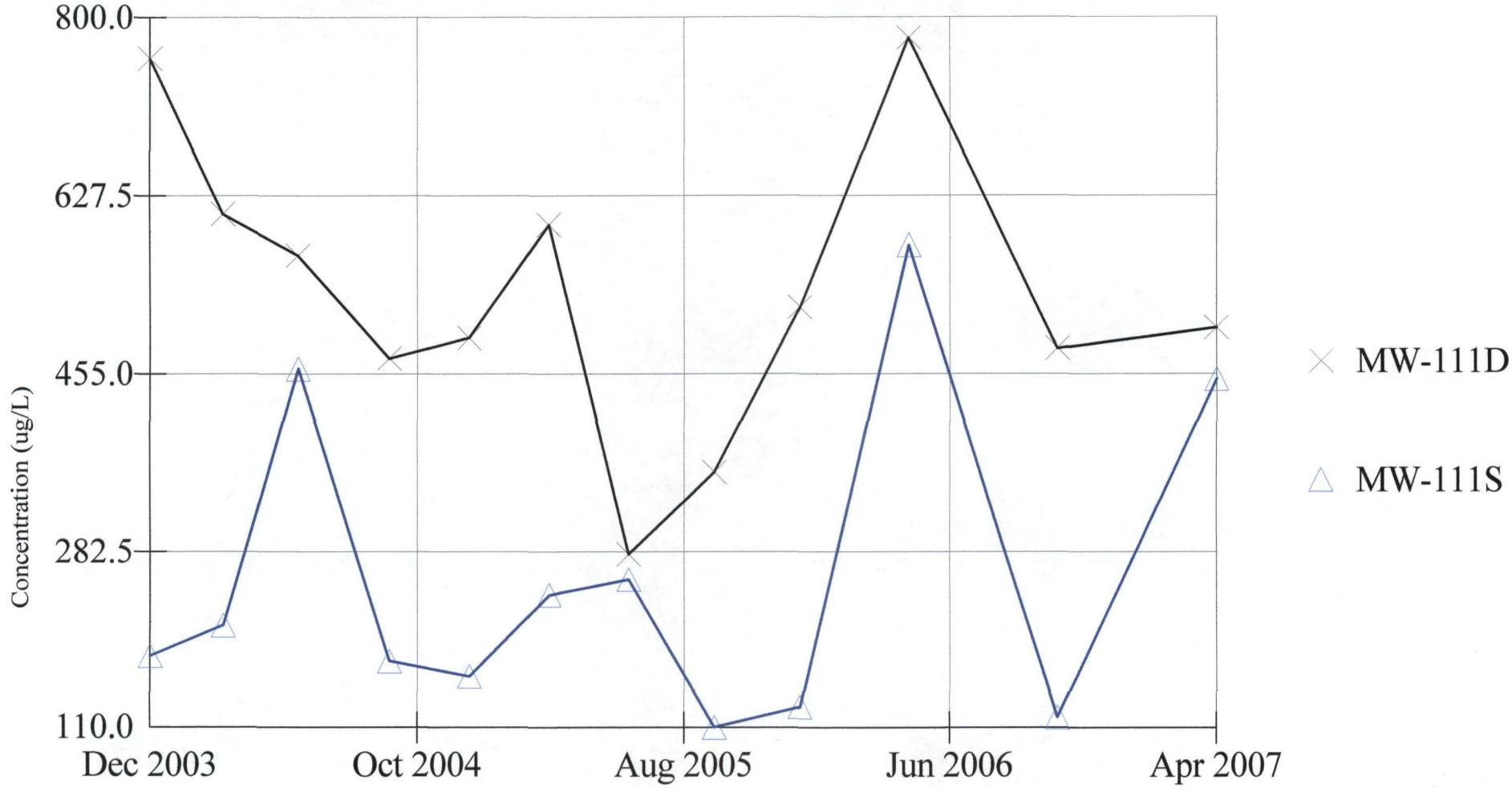
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Manganese, Total (ug/L)

Date: 7/2/07, 2:26 PM

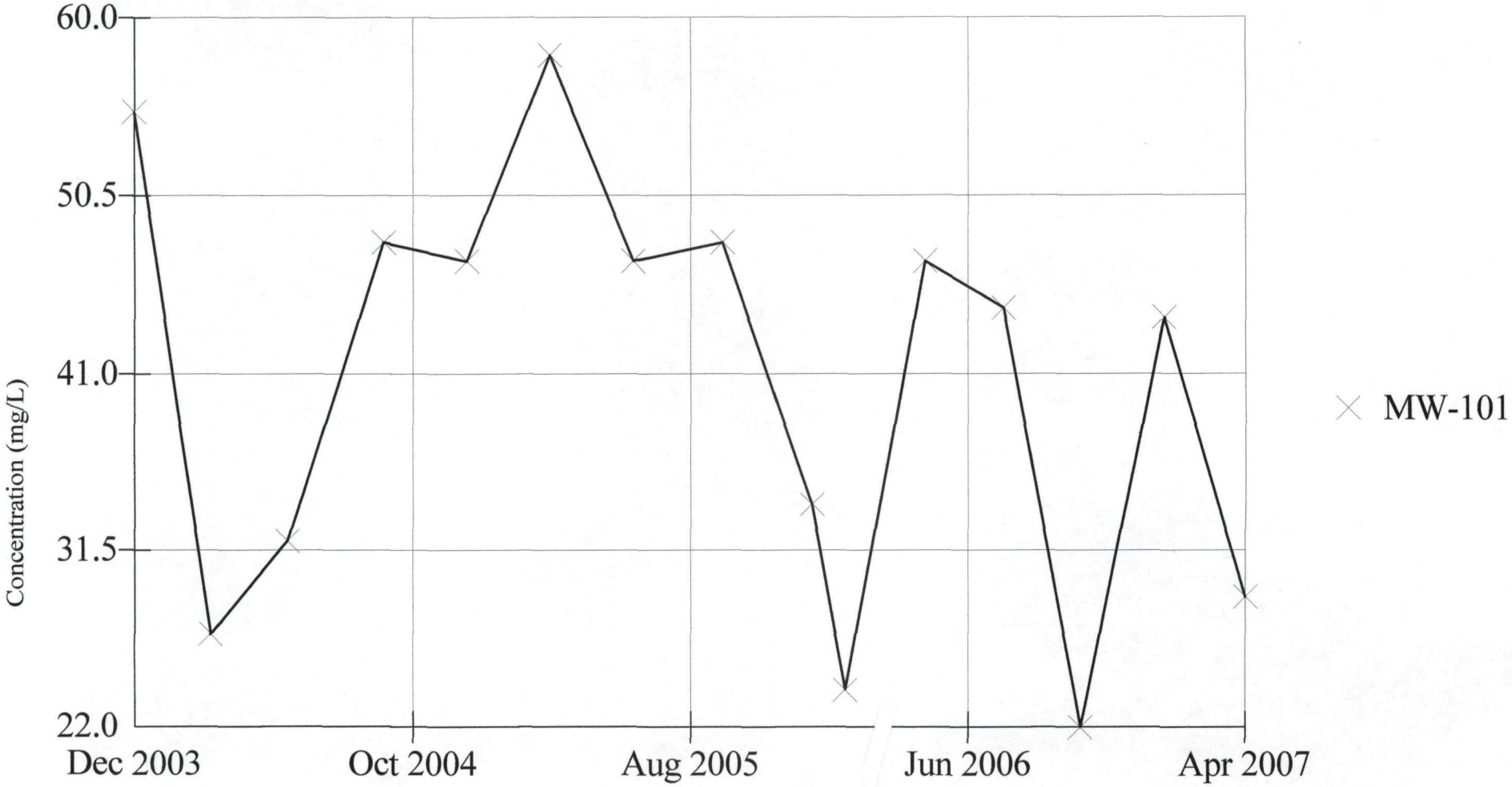
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Nitrogen, Ammonia (mg/L)

Date: 7/2/07, 2:26 PM

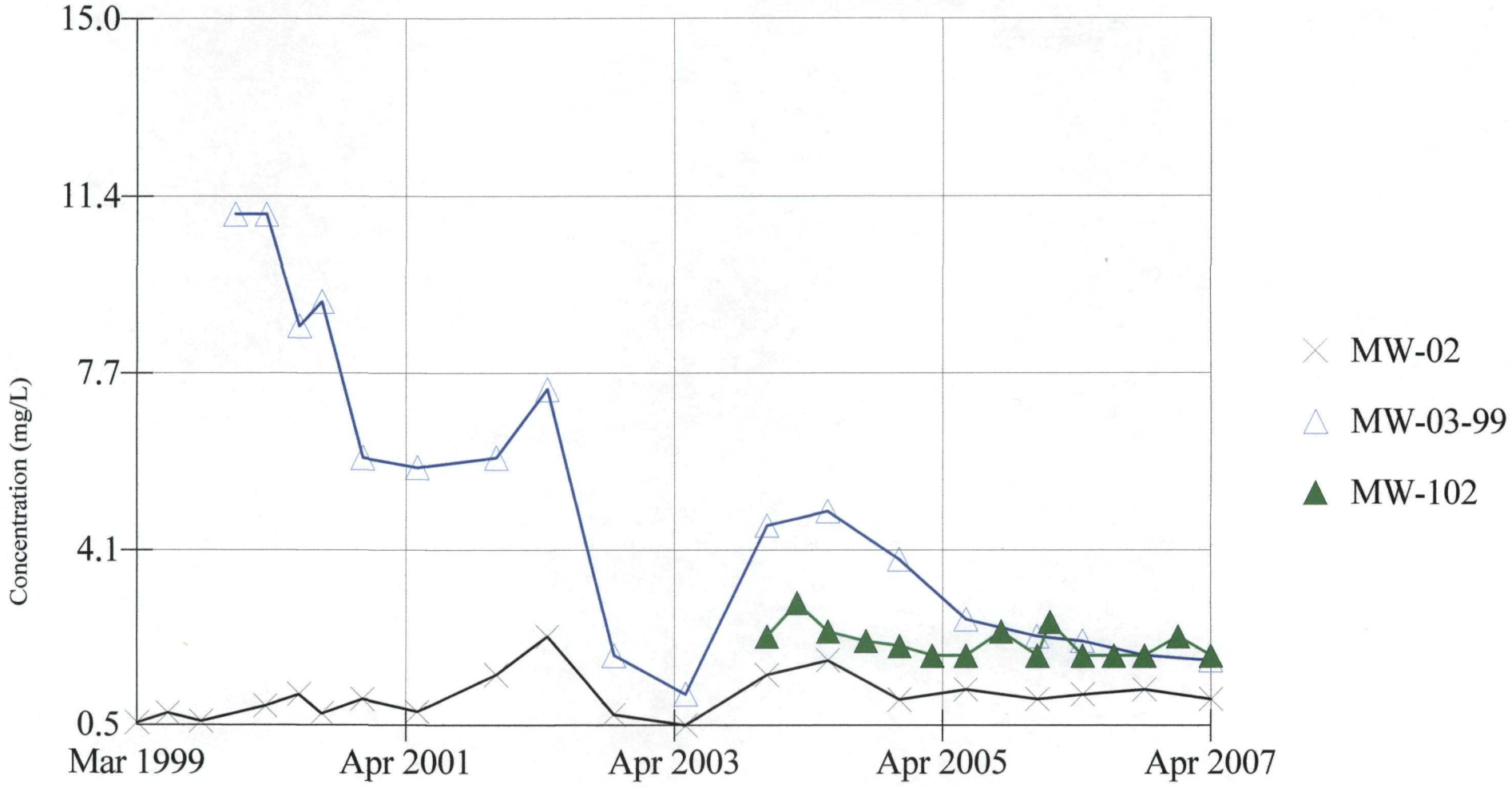
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Nitrogen, Ammonia (mg/L)

Date: 7/2/07, 2:27 PM

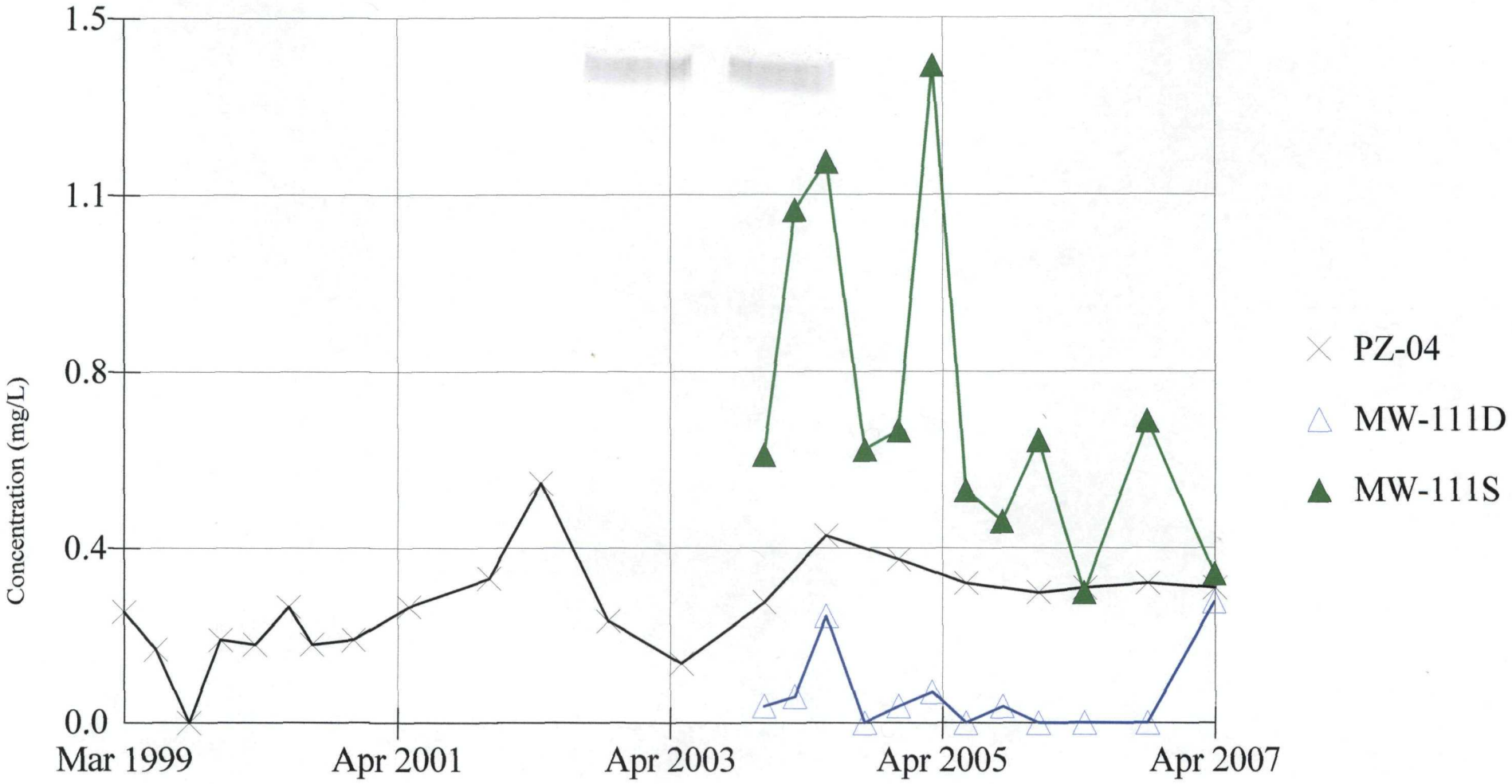
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Nitrogen, Ammonia (mg/L)

Date: 7/2/07, 2:28 PM

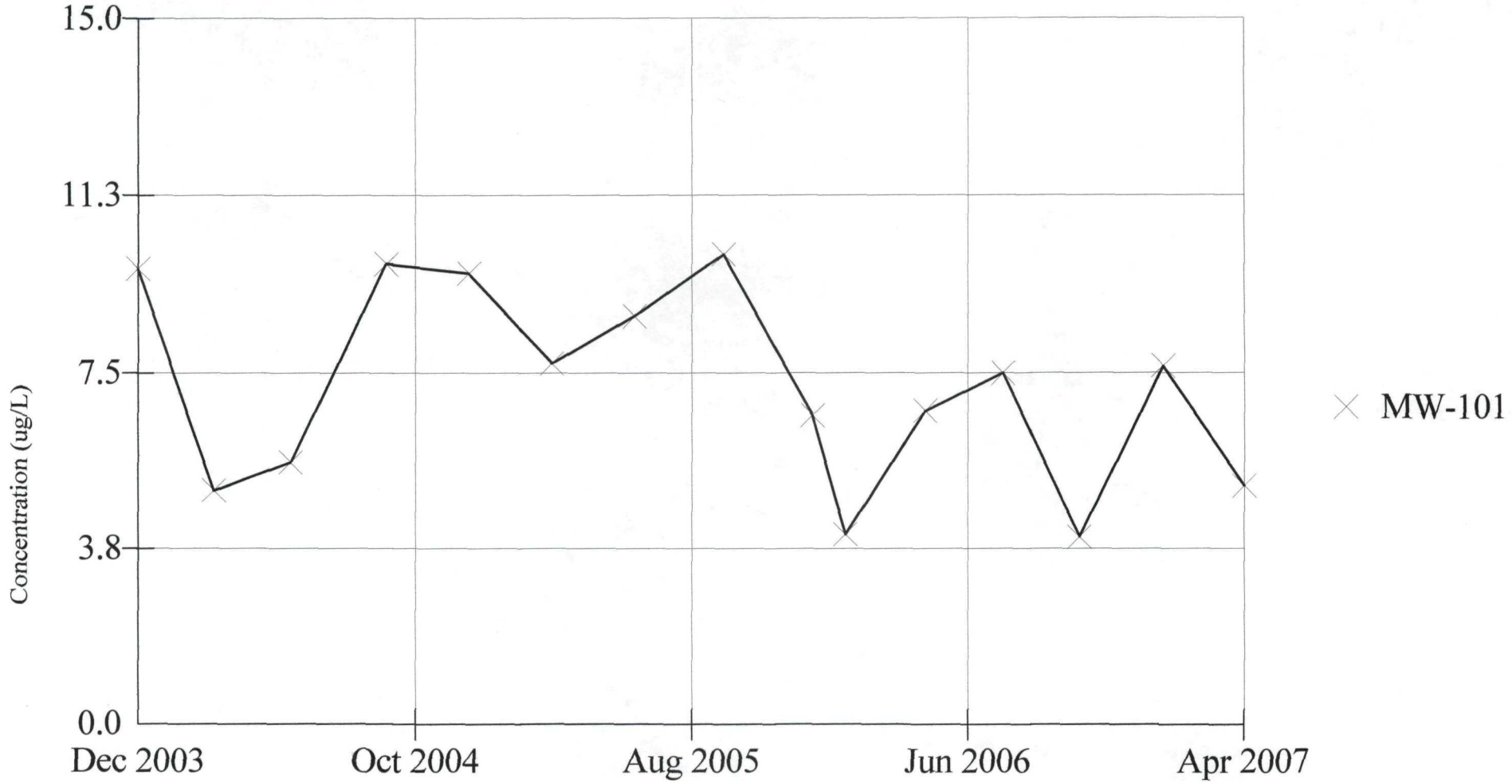
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Benzene (ug/L)

Date: 7/2/07, 2:29 PM

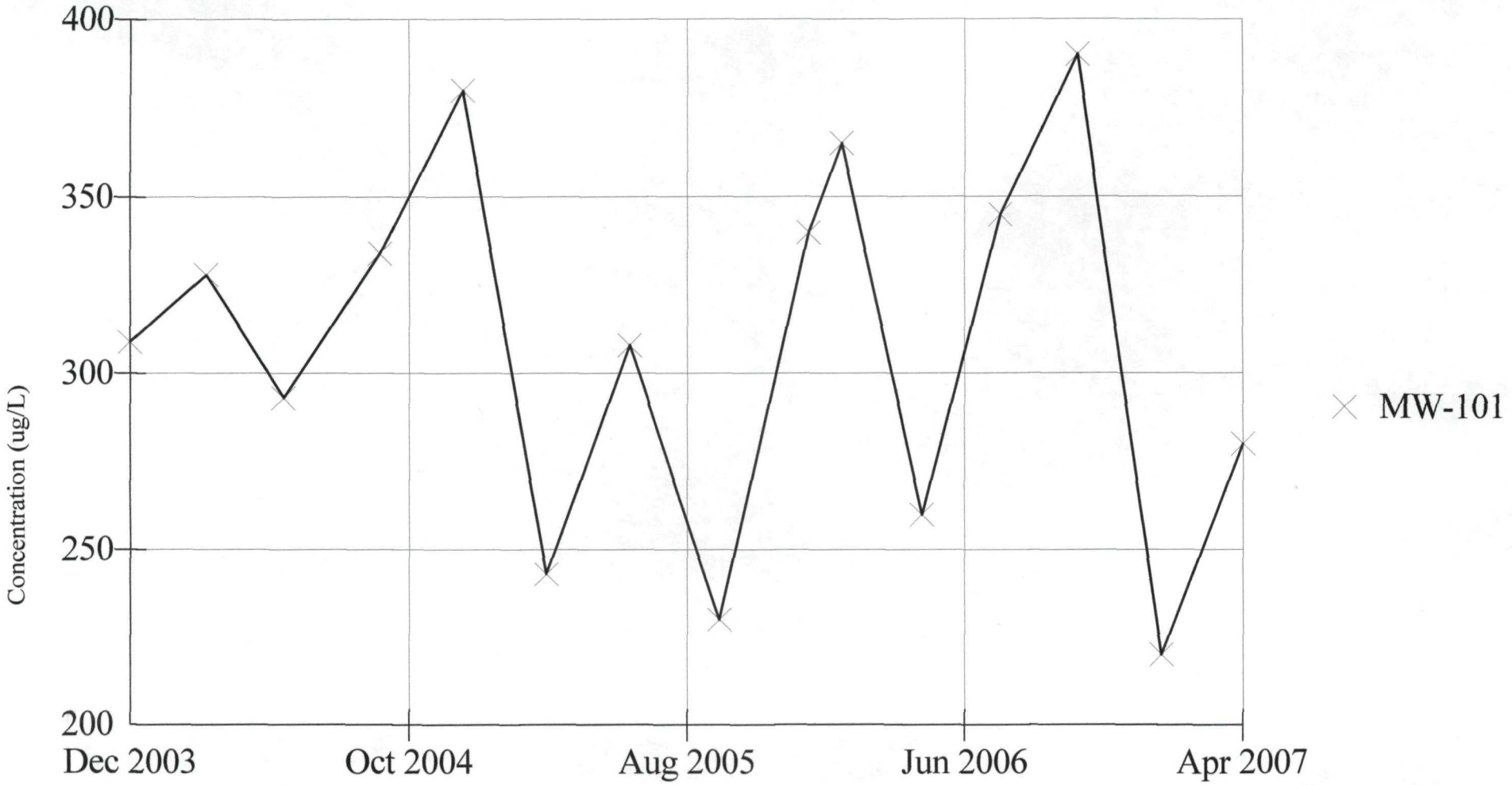
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Barium, Total (ug/L)

Date: 7/2/07, 2:30 PM

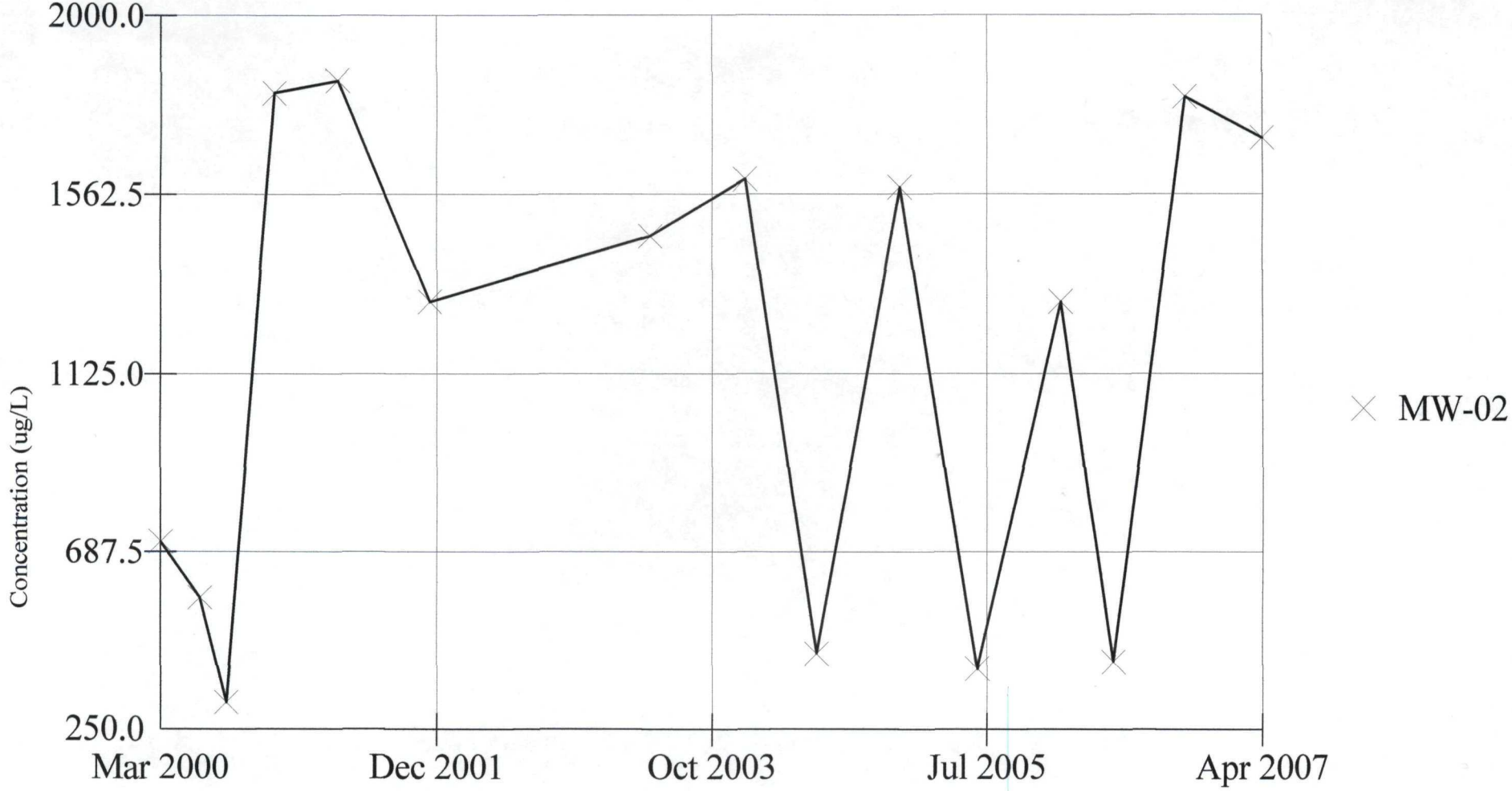
Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

TIME SERIES



Constituent: Zinc, Total (ug/L)

Date: 7/2/07, 2:31 PM

Facility: North Kent LF

Client: IN Dept. of Env. Mgmt.

Data File: SPARTA~1

View: 6_2007

Attachment 9

Site Inspection Checklist

Site Inspection Checklist

☒

☐

I. SITE INFORMATION	
Site name: Sparta Landfill	**Date of inspection:** 8/9/07
Location and Region: Sparta, MI Region 5	**EPA ID:** MID002268136
Agency, office, or company leading the five-year review: EPA	**Weather/temperature:** Cloudy/Sprinkles 80°

Remedy Includes: (Check all that apply)

- ☑ Landfill cover/containment
- ☑ Access controls
- ☐ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Other _____
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** Ron Landis _____ 8/9/07
   Name Title Date
   Interviewed ☑ at site ☐ at office ☐ by phone Phone no. _____
   Problems, suggestions; ☐ Report attached _____

2. **O&M staff** Molly Sherwood _____ 8/9/07
   Name Title Date
   Interviewed ☑ at site ☐ at office ☐ by phone Phone no. _____
   Problems, suggestions; ☐ Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency MDEQ
Contact Walelign Wagaw Project Manager 8/8/07 517-373-9896
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached

Agency
Contact
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached

Agency
Contact
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached

Agency
Contact
Name Title Date Phone no.
Problems; suggestions; ☐ Report attached

4. **Other interviews** (optional) ☐ Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. **O&M Documents**
   - ☑ O&M manual (Work Plan) ☑ Readily available ☐ Up to date ☐ N/A
   - ☐ As-built drawings ☐ Readily available ☐ Up to date ☐ N/A
   - ☐ Maintenance logs ☐ Readily available ☐ Up to date ☐ N/A

   Remarks_____

2. **Site-Specific Health and Safety Plan** ☑ Readily available ☐ Up to date ☐ N/A
   - ☐ Contingency plan/emergency response plan ☐ Readily available ☐ Up to date ☐ N/A

   Remarks_____

3. **O&M and OSHA Training Records** ☑ Readily available ☐ Up to date ☐ N/A

   Remarks_____

4. **Permits and Service Agreements**
   - ☐ Air discharge permit ☐ Readily available ☐ Up to date ☑ N/A
   - ☐ Effluent discharge ☐ Readily available ☐ Up to date ☑ N/A
   - ☐ Waste disposal, POTW ☐ Readily available ☐ Up to date ☑ N/A
   - ☐ Other permits_____ ☐ Readily available ☐ Up to date ☑ N/A

   Remarks_____

5. **Gas Generation Records** ☑ Readily available ☐ Up to date ☐ N/A

   Remarks_____

6. **Settlement Monument Records** ☐ Readily available ☐ Up to date ☑ N/A

   Remarks_____

7. **Groundwater Monitoring Records** ☑ Readily available ☐ Up to date ☐ N/A

   Remarks_____

8. **Leachate Extraction Records** ☐ Readily available ☐ Up to date ☑ N/A

   Remarks_____

9. **Discharge Compliance Records**
   - ☐ Air ☑ Readily available ☐ Up to date ☐ N/A
   - ☐ Water (effluent) ☐ Readily available ☐ Up to date ☑ N/A

   Remarks_____

10. **Daily Access/Security Logs** ☑ Readily available ☐ Up to date ☐ N/A

    Remarks_____

IV. O&M COSTS

1. **O&M Organization**

☐ State in-house ☐ Contractor for State
☑ PRP in-house ☐ Contractor for PRP
☐ Federal Facility in-house ☐ Contractor for Federal Facility
☐ Other_____

2. **O&M Cost Records**

☐ Readily available ☐ Up to date
☐ Funding mechanism/agreement in place
Original O&M cost estimate_____ ☐ Breakdown attached

Total annual cost by year for review period if available

From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost
From_____ To_____ _____ ☐ Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS ☑ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on site map ☑ Gates secured ☑ N/A

Remarks_____

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☐ N/A

Remarks Signs are in place

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented ☐ Yes ☐ No ☑ N/A
Site conditions imply ICs not being fully enforced ☐ Yes ☐ No ☑ N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____
Frequency _____
Responsible party/agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.

Reporting is up-to-date ☑ Yes ☐ No ☐ N/A
Reports are verified by the lead agency ☑ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☐ Yes ☑ No ☐ N/A
Violations have been reported ☐ Yes ☐ No ☑ N/A
Other problems or suggestions: ☐ Report attached

Need ICs implemented

2. **Adequacy** ☐ ICs are adequate ☑ ICs are inadequate ☐ N/A
Remarks_____

D. General

1. **Vandalism/trespassing** ☐ Location shown on site map ☑ No vandalism evident
Remarks_____

2. **Land use changes on site** ☑ N/A
Remarks_____

3. **Land use changes off site** ☑ N/A
Remarks_____

VI. GENERAL SITE CONDITIONS

A. Roads ☑ Applicable ☐ N/A

1. **Roads damaged** ☐ Location shown on site map ☑ Roads adequate ☐ N/A
Remarks_____

B. Other Site Conditions

Remarks _____

VII. LANDFILL COVERS ☑ Applicable ☐ N/A

A. Landfill Surface

1. **Settlement** (Low spots) ☐ Location shown on site map ☑ Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Cracks** ☐ Location shown on site map ☑ Cracking not evident
   Lengths_____ Widths_____ Depths_____
   Remarks_____

3. **Erosion** ☐ Location shown on site map ☑ Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Holes** ☐ Location shown on site map ☑ Holes not evident
   Areal extent_____ Depth_____
   Remarks_____

5. **Vegetative Cover** ☐ Grass ☑ Cover properly established ☐ No signs of stress
   ☐ Trees/Shrubs (indicate size and locations on a diagram)
   Remarks_____

6. **Alternative Cover (armored rock, concrete, etc.)** ☑ N/A
   Remarks_____

7. **Bulges** ☐ Location shown on site map ☑ Bulges not evident
   Areal extent_____ Height_____
   Remarks_____

8. **Wet Areas/Water Damage** ☑ Wet areas/water damage not evident
   ☐ Wet areas ☐ Location shown on site map Areal extent_____
   ☐ Ponding ☐ Location shown on site map Areal extent_____
   ☐ Seeps ☐ Location shown on site map Areal extent_____
   ☐ Soft subgrade ☐ Location shown on site map Areal extent_____
   Remarks_____

9.	**Slope Instability**	☐ Slides	☐ Location shown on site map ☑ No evidence of slope instability
	Areal extent_____		
	Remarks_____		

B. Benches ☐ Applicable ☑ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1.	**Flows Bypass Bench**	☐ Location shown on site map	☑ N/A or okay
	Remarks_____		
2.	**Bench Breached**	☐ Location shown on site map	☑ N/A or okay
	Remarks_____		
3.	**Bench Overtopped**	☐ Location shown on site map	☑ N/A or okay
	Remarks_____		

C. Letdown Channels ☐ Applicable ☐ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1.	**Settlement**	☐ Location shown on site map	☑ No evidence of settlement
	Areal extent_____	Depth_____	
	Remarks_____		
2.	**Material Degradation**	☐ Location shown on site map	☑ No evidence of degradation
	Material type_____	Areal extent_____	
	Remarks_____		
3.	**Erosion**	☐ Location shown on site map	☑ No evidence of erosion
	Areal extent_____	Depth_____	
	Remarks_____		

4. **Undercutting** ☐ Location shown on site map ☑ No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ ☑ No obstructions
☐ Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
☑ No evidence of excessive growth
☐ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations ☑ Applicable ☐ N/A

1. **Gas Vents** ☑ Active ☑ Passive
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance
☐ N/A
Remarks Need Gas Monitoring Plan

2. **Gas Monitoring Probes**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☑ N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☑ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks Update Monitoring Plan

4. **Leachate Extraction Wells**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☑ N/A
Remarks_____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☑ N/A
Remarks_____

E. Gas Collection and Treatment ☐ Applicable ☑ N/A

1. **Gas Treatment Facilities**
   ☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
   ☐ Good condition ☐ Needs Maintenance
   Remarks Need Gas Monitoring plan

2. **Gas Collection Wells, Manifolds and Piping**
   ☑ Good condition ☐ Needs Maintenance
   Remarks

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   ☐ Good condition ☐ Needs Maintenance ☐ N/A
   Remarks Need gas monitoring plan

F. Cover Drainage Layer ☑ Applicable ☐ N/A

1. **Outlet Pipes Inspected** ☐ Functioning ☑ N/A
   Remarks

2. **Outlet Rock Inspected** ☐ Functioning ☑ N/A
   Remarks

G. Detention/Sedimentation Ponds ☑ Applicable ☐ N/A

1. **Siltation** Areal extent_____ Depth_____ ☐ N/A
   ☑ Siltation not evident
   Remarks

2. **Erosion** Areal extent_____ Depth_____
   ☑ Erosion not evident
   Remarks

3. **Outlet Works** ☐ Functioning ☑ N/A
   Remarks

4. **Dam** ☐ Functioning ☑ N/A
   Remarks

H. Retaining Walls ☐ Applicable ☑ N/A

1. **Deformations** ☐ Location shown on site map ☐ Deformation not evident
Horizontal displacement_____ Vertical displacement_____
Rotational displacement_____
Remarks_____

2. **Degradation** ☐ Location shown on site map ☑ Degradation not evident
Remarks_____

I. Perimeter Ditches/Off-Site Discharge ☑ Applicable ☐ N/A

1. **Siltation** ☐ Location shown on site map ☑ Siltation not evident
Areal extent_____ Depth_____
Remarks_____

2. **Vegetative Growth** ☐ Location shown on site map ☐ N/A
☑ Vegetation does not impede flow
Areal extent_____ Type_____
Remarks_____

3. **Erosion** ☐ Location shown on site map ☑ Erosion not evident
Areal extent_____ Depth_____
Remarks_____

4. **Discharge Structure** ☐ Functioning ☑ N/A
Remarks_____

VIII. VERTICAL BARRIER WALLS ☐ Applicable ☑ N/A

1. **Settlement** ☐ Location shown on site map ☐ Settlement not evident
Areal extent_____ Depth_____
Remarks_____

2. **Performance Monitoring** Type of monitoring_____
☐ Performance not monitored
Frequency_____ ☐ Evidence of breaching
Head differential_____
Remarks_____

IX. GROUNDWATER / SURFACE WATER REMEDIES Applicable NA
A. Groundwater Extraction Wells, Pumps. and Pipelines Applicable NA
1. Pumps, Wellhead Plumbing. and Electrical Good condition All required wells properly operating Needs Maintenance NA Remarks
2. Extraction System Pipelines. Valves, Valve Boxes, and Other Appurtenances Good condition Needs Maintenance Remarks: _____
3. Spare Parts and Equipment Readily available Good condition Requires upgrade Needs to be provided Remarks:
B. Surface Water Collection Structures, Pumps. and Pipelines Applicable NA
1. Collection Structures, Pumps, and Electrical Good condition Needs Mamtenauce Remarks
2. Surface Water Collection System Pipelines, Valves, Valve Bo!es, and Other Appurtenances Good condition Needs Maintenance Remarks -_____
3. Spare Parts and Equipment Readily available Good condition Requires upgrade Needs to be provided Remarks

C. Treatment System ☐ Applicable ☑ N/A

1. **Treatment Train** (Check components that apply)
   ☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
   ☐ Air stripping ☐ Carbon adsorbers
   ☐ Filters_____
   ☐ Additive (*e.g.*, chelation agent, flocculent)_____
   ☐ Others_____
   ☐ Good condition ☐ Needs Maintenance
   ☐ Sampling ports properly marked and functional
   ☐ Sampling/maintenance log displayed and up to date
   ☐ Equipment properly identified
   ☐ Quantity of groundwater treated annually_____
   ☐ Quantity of surface water treated annually_____
   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   ☐ N/A ☐ Good condition ☐ Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   ☐ N/A ☐ Good condition ☐ Proper secondary containment ☐ Needs Maintenance
   Remarks_____

4. **Discharge Structure and Appurtenances**
   ☐ N/A ☐ Good condition ☐ Needs Maintenance
   Remarks_____

5. **Treatment Building(s)**
   ☐ N/A ☐ Good condition (esp. roof and doorways) ☐ Needs repair
   ☐ Chemicals and equipment properly stored
   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
   ☐ All required wells located ☐ Needs Maintenance ☐ N/A
   Remarks_____

D. Monitoring Data

1. Monitoring Data
   ☑ Is routinely submitted on time ☑ Is of acceptable quality

2. Monitoring data suggests:
   ☐ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☑ N/A
Remarks_____

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

Need to update Work Plan

C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

Attachment 10

List of Documents Reviewed

List of Documents Reviewed

- Sparta Landfill Work Plan, October 2003
- AOC, September 2002
- Record of Decision, September 2000
- Sparta Landfill correspondence file
- Quarterly and Semi-Annual Groundwater Monitoring Results 2003-2007