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Division of Waste Management - Solid Waste

### Environmental Monitoring Reporting Form

**Notice:** This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

**Instructions:**

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

#### Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

C.T. Clayton, Sr., P.E., Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Tyrus Clayton, Jr., P.E.

Phone: (910) 897-7070

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Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Dunn/Erwin Landfill	SR 1725 Dunn, NC	43-02	.1600	October 23-24, 2007

**Environmental Status: (Check all that apply)**

- Initial/Background Monitoring     Detection Monitoring     Assessment Monitoring     Corrective Action

**Type of data submitted: (Check all that apply)**

- Groundwater monitoring data from monitoring wells     Methane gas monitoring data  
 Groundwater monitoring data from private water supply wells     Corrective action data (specify) \_\_\_\_\_  
 Leachate monitoring data     Other(specify) \_\_\_\_\_  
 Surface water monitoring data

**Notification attached?**

- No. No groundwater or surface water standards were exceeded.  
 Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.  
 Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

#### Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Tyrus Clayton, Sr., P.E., Inc.

Consultant

(910) 897-7070

Facility Representative Name (Print)

Title

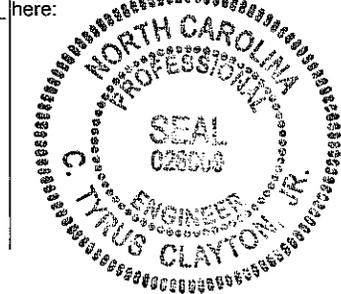
(Area Code) Telephone Number

Signature

February 18, 2008

Date

Affix NC Licensed Professional Geologist/Engineer Seal here:





February 15, 2008

Ms. Jaclynne Drummond  
Solid Waste Section  
Division of Waste Management  
North Carolina Department of Environment and Natural Resources  
Mail Service Center 1646  
Raleigh, NC 27699-1646

**RE: STATISTICAL ANALYSIS/EVALUATION: OCTOBER 2007  
DUNN-ERWIN MUNICIPAL SOLID WASTE LANDFILL, PERMIT 43-02  
HARNETT COUNTY, NORTH CAROLINA**

Dear Ms. Drummond:

On behalf of Harnett County, C.T. Clayton, Sr., PE, Inc. (CTC) is pleased to herewith submit the results of the statistical analysis for the semi-annual groundwater monitoring event of October 2007 performed at the Dunn-Erwin Municipal Solid Waste Landfill in accordance with North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633 and .1634. The findings and conclusions of this report have been incorporated into the assessment of corrective measures (ACM) for the groundwater contamination plume, downgradient of the existing landfill in accordance with North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1635.

The report is organized in sections entitled Executive Summary, Introduction, Methodology, and Results, and it has four appendices inclusive of the statistical model output.

Should you have any questions or comments, please contact me at our address shown above or by e-mail at tyrus@ctclayton.com.

Sincerely,

C. T. CLAYTON, SR., P.E., INC.

A handwritten signature in black ink, appearing to read "Tyrus Clayton, Jr.", is written over the typed name.

Tyrus Clayton, Jr., P.E.

cc. Jerry Blanchard - Harnett County  
C. T. Clayton, Sr., P.E  
C. J. poran, PE - ENSOL, Inc.

/attachments

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**STATISTICAL ANALYSIS/EVALUATION  
OCTOBER 2007  
DUNN-ERWIN MUNICIPAL SOLID WASTE LANDFILL  
PERMIT #43-02  
HARNETT COUNTY, NORTH CAROLINA**

Submitted to:  
**Solid Waste Section  
Division of Waste Management  
NCDENR  
1646 Mail Service Center  
Raleigh, NC 27699-1646**

Submitted by:  
**C.T. Clayton, Sr., P.E., Inc.  
P. O. Box 578  
Coats, NC 27521**



Submitted on behalf of:  
**Harnett County General Services  
900 South 9<sup>th</sup> Street  
Lillington, NC 27546**

**February 15, 2008**

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## EXECUTIVE SUMMARY

The October 2007 groundwater sampling event performed at the Dunn-Erwin Municipal Solid Waste Landfill (MSWLF) fulfilled the County's semi-annual groundwater sampling and analyses requirements in accordance with North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633 and .1634.

Prior to this report, an extensive study was completed in order to better understand the groundwater contamination plume at the site, as described in the report dated August 25, 2003, including the field investigation performed in October 2002 in conjunction with the scheduled October 2002 semi-annual sampling event. Also, 12 new observation wells were installed in the general area of the groundwater contamination plume during this field investigation. The field investigation was followed by additional laboratory testing, and an extensive analysis and computer modeling. Results from that study have been incorporated in this report also including the October 2002 delineation of the groundwater contaminant plume in the uppermost aquifer, downgradient of the MSWLF.

Several new wells (MW11, MW 12, MW 13, MW 14, and MW15) and piezometers (PZ-50, PZ-51, PZ-52, and PZ-53) have been installed and are associated with the proposed new construction and demolition debris (C&D) landfill in the southwest of the groundwater contaminant plume area.

Data from the October 2007 semi-annual sampling were evaluated in sets. Set 1 consists of wells monitoring the previously closed (December 1998) solid waste landfill portion of the site where active construction and demolition debris (C&D) placement is ongoing, including monitoring wells (MWs) MW1, MW2, MW3R, MW4, MW5, MW6, MW7B, MW8, and MW31. Monitoring well MW3, which was previously damaged during site operations prior to April 2005 sampling event has been replaced by MW3R as of June 2005. Monitoring wells MW9 and MW10 were installed in March 2001 and have been added to Data Set 1 as of April 2001. These wells have been incorporated into the statistical analysis as their background sampling was completed in October 2002.

In 2006, five (5) new MWs (MW11 - MW15) have been installed in conjunction with the proposed C&D landfill. Theoretically, these new wells belong to Set 1 since they are downgradient of the active C&D and closed MSWLF. These wells will be incorporated into the statistical analysis of Set 1 as Subset 1N after their background sampling is completed in October 2007. Within this Subset 1N, subject to the final proposed C&D landfill design and groundwater monitoring plan, one of these monitoring wells may be designated as an upgradient well to the new landfill. Additionally, one or more of the related four new piezometers (PZ-50 through PZ-53) could also be converted into monitoring wells for the new landfill, as needed.

Set 2 consists of wells monitoring the older closed portion of the landfill site, including MW16, MW23B, MW32, MW33, and the newer MW34 and MW35 installed in June 1996. Monitoring well MW23B is statistically compared with Set 1 as it appears to be located downgradient of these wells.

Set 3 consists of surface water monitoring points (SWPTs) along the wetlands between the active and the closed areas, including SWPT1, SWPT2, and SWPT3.

Groundwater levels at all monitoring wells are also recorded, as shown in Table 1. As an overall average, groundwater levels during this latest sampling event were approximately 4.59 feet below the average groundwater level based on all sampling events, for each respective well. This value also includes groundwater levels for recently installed wells MW11 - MW15.

The North Carolina Groundwater Standards (NCGS) have been amended as per 15A NCAC 02L.0202. The amendment went into effect as of April 1, 2005. This report incorporates the revised NCGS. Historical data has been comprehensively re-evaluated taking into consideration the revised NCGS.

In addition, this reporting has been revised to comply with the updated reporting requirements of the Solid Waste Section (SWS), per the SWS Memoranda dated October 27, 2006, February 23, 2007, and October 16, 2007. Specifically, the Solid Waste Section Limits (SWSL) and lower Method Detection Limits (MDLs) have been incorporated. Also, the 15A NCAC 13B groundwater protection standards (GPS) are also considered for those constituents that lack a 2L NCGS. The 13B GPS have been incorporated only as of October 2007 and are not compared to historic data.

The new MDLs are significantly less than previous detection limits. The SWSLs are more similar to the previous detection limits but are lower for several constituents. Table 6 of this report provides a comprehensive comparison of 2L NCGS, 13B groundwater protection standards, SWSL, and current and historical (2006) MDLs for constituents commonly included in the statistical analysis at the Dunn-Erwin landfill.

As required, concentrations greater than the MDL but less than the SWSL are reported by the laboratory as estimated values. Because historic data, including background sampling, was reported using much higher detection limits, estimated values are not incorporated into the current statistical analysis, except for the prediction interval intra-well comparison as discussed in Section III, Methodology. Only results exceeding SWSLs are included in the statistical analysis and presented in the summary tables found in Appendices A-C, as the SWSLs allow for a more consistent comparison of current and historical data. For a complete listing of estimated concentrations, refer to the laboratory reports.

As required by the new rules, the Environmental Monitoring Reporting Form accompanies this submittal. Table 4B serves as the notification table required with this form and includes results which exceed a 2L NCGS or a 13B GPS. Because some of the SWSLs are greater than the NCGS or GPS, estimated values which exceed NCGS or GPS are included. GPS have been included with NCGS in the statistical analysis tables in the Appendices for detections above the SWSL. However, these tables do not include the estimated detections below the SWSL and are not intended to be an exhaustive comparison to NCGS and GPS.

When compared to historical detection limits, the use of the generally lower SWSLs has resulted in an increase in the number of reported detections. In addition, the lower SWSLs, which are now used in place of the detection limits in qualitative analyses (refer to Section III, Methodology), have resulted in more constituents being statistically significant over background levels (SSIOBL).

The statistical analysis results indicate that compliance wells MW6, MW7B, MW8, MW9, and MW10 in Set 1 have statistically significant levels of one or more organics over background levels when compared with the background wells. In addition, the October 2007 results show that there were more organics detected in concentrations greater than NCGS or GPS when compared to the number of above NCGS organics detected in the May 2007 results, in part due to the lowered reporting limits. The October 2007 above NCGS organics include: benzene, 1,4-dichlorobenzene, 1,2-dichloroethane (estimated value), methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW6; benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW7B; benzene, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride (estimated value) in MW8; benzene, 1,4-dichlorobenzene, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW9; and benzene and vinyl chloride in MW10.

As part of this event's statistical analysis, the prediction interval intra-well comparison was incorporated to verify certain Test of Proportions (TOP) results. In select cases the compliance-to-background well analyses are not accurate because natural, statistically significant variations existed prior to the facility operation commencement. If the TOP indicates a result of Statistically Significant Increase Over Background Level (SSIOBL) for such a constituent, the prediction interval intra-well comparison is used to verify the result. If the average post-operational concentrations of the constituent are within the prediction interval analysis calculated based on background concentrations, the result is not considered SSIOBL.

Using this methodology, beryllium is not SSIOBL for MW2, MW3, and MW4 and cobalt and lead are not SSIOBL for MW7B, which would have resulted as SSIOBL using just the TOP. Cobalt and mercury in MW6 and mercury in MW7B also show statistically significant levels through the TOP. However, cobalt was not detected during MW6's background sampling, and mercury was not included in either well's background sampling. Consequently, these constituents do not qualify for an intra-well comparison. The following inorganics exceeded NCGS or GPS during this sampling event, representing an increase in the number of inorganics exceeding NCGS compared to the May 2007 results, in part due to the lowered reporting limits: vanadium in MW31; vanadium in MW6; lead, thallium, vanadium, and mercury in MW7B; mercury in MW9, and vanadium in MW10. The vanadium detections appear to be background, as vanadium was not SSIOBL for any well. The thallium detection is also likely trace background, and its concentration was above the 13B GPS but well below the SWSL. The thallium and vanadium exceedances were estimated concentration values.

In Set 2, no organics or inorganics are statistically significant. No organics were detected in October 2007, consistent with the results from October 2006. Of the inorganics, lead was detected over the SWSL in MW32 and barium was detected over the SWSL in MW35 in May 2007. These two constituents were also detected in May 2007.

The sampling points in Set 3 provided no data during this sampling event. These locations were unavailable for sampling due to dry conditions.

Details of the statistical procedures employed are discussed in Section III of this report, entitled Methodology. The results of the October 2007 analysis are summarized and discussed for each constituent detected over the SWSL at each monitoring well or surface water monitoring point in Section III, entitled Results. Appendices A, B, C, and D contain tabulated data for the individual wells with computer-generated results of the statistical analyses performed and laboratory results with chain of custody forms, respectively. Based on these statistical analysis results and the August 2003 detailed plume investigation report, the following conclusions regarding groundwater contamination and future monitoring at the Dunn-Erwin MSWLF are presented:

- The previously active portion of the Dunn-Erwin solid waste landfill is now closed with a final cap. C&D waste is being placed on the cap area, as per SWS approval. All parameters that have been detected in concentrations that are statistically significant over background levels (SSIOBL) are being compared with North Carolina Groundwater Standards (NCGS), as appropriate.
- Harnett County continues groundwater Assessment Monitoring in accordance with North Carolina Solid Waste Management Rule 15A N.C.A.C. 13 B, .1634. The findings and conclusions of this report are being incorporated into the assessment of corrective measures (ACM) for the groundwater contamination plume, downgradient of the existing landfill in accordance with North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1635.
- In 2007 the SWS reviewed the draft ACM and commented. The ACM was re-submitted to the SWS addressing the comments and was subsequently accepted by the SWS. Harnett County is making preparation to advertise the required public meeting and hold it accordingly.
- Once the public meeting is held and in accordance with any significant comments thereof, Harnett County is planning to select the appropriate Corrective Action Plan (CAP) and begin its implementation, possibly towards the middle of 2008.
- Based on updated groundwater analytical data accumulated since October 1994 from the scheduled semi-annual sampling events, the top four organic contaminants most frequently detected in downgradient monitoring wells at concentrations that consistently have exceeded NCGS include 1,1-dichloroethane, methylene chloride, tetrachloroethylene, and trichloroethylene. Prior to this event and since October 2003, benzene had been detected in the downgradient plume only in MW9 (both results occurring during the 2006 events). However,

benzene was detected in MW7B, MW9, and MW10 during the May 2007 sampling. The prevalence of benzene detections will be observed in future sampling events.

- Of these four organics 1,1-dichloroethane, methylene chloride and trichloroethylene have been consistently considered as statistically significant in the semi-annual assessments. However, only methylene chloride has been consistently detected in average concentrations that are about one order of magnitude greater than NCGS. Therefore, methylene chloride has remained the key organic constituent in the groundwater contamination plume, downgradient of the MSWLF.
- With ten detections as of the October 2007 sampling event (including past events), vinyl chloride now qualifies for inclusion into the contamination plume review. However, Vinyl chloride results are not as prevalent as the other top organic contaminants, and its low 2L standard leads to apparent large average concentration-to-NCGS ratios. It has been included in Figure 3 to observe in future events.
- As of October 1999 only wells MW6, MW7B, and MW8 require annual sampling for Appendix II constituents while in assessment monitoring. All other monitoring wells of Set 1 were excluded from Appendix II sampling requirements based on approval of the North Carolina Solid Waste Section (SWS) from October 1999. However, the SWS requested in March 2007 that MW9 and MW10 also be added to the Appendix II testing since they are within the contaminant plume. Therefore, these five wells will be sampled for Appendix II constituents annually, as required by the SWS.
- All active monitoring well locations in Set 1 should continue to be sampled and analyzed for Appendix I constituents semi-annually as per North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633, with the next Appendix I sampling event scheduled for May 2008. Monitoring well MW3 was replaced by MW3R in June 2005.
- All active monitoring wells in Set 2 should continue to be sampled and analyzed for Appendix I organics and the eight RCRA metals semi-annually while in detection monitoring. The next sampling event should occur in May 2008.
- All active surface water point locations in Set 3 should continue to be sampled and analyzed for Appendix I constituents semi-annually as per North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633, with the next Appendix I sampling event scheduled for May 2008.
- Background sampling of the new MWs (MW11 - MW15) will continue in May 2008 for background level analysis. These wells will be incorporated into the statistical analysis of Set 1 as a Subset 1N after their background sampling is completed. Currently, two sampling events have been completed for these wells.
- The new reporting requirements have been incorporated for this sampling event. Reporting will be adjusted if required by the SWS. This first submittal under the new SWS reporting requirements includes:
  - (i) Environmental Monitoring Reporting Form (hardcopy)
  - (ii) Summary Table 4B with the parameters that exceed 2L NCGS or 13B GPS in October 2007
  - (iii) A hardcopy of the EXCEL sheets from the E11 lab
  - (iv) A hard copy of the complete assessment report

## I. Introduction

This statistical analysis was performed to evaluate whether groundwater and surface water monitoring results from the October 2007 sampling event at the Dunn-Erwin MSWLF in Harnett County demonstrate compliance with North Carolina Groundwater Standards (NCGS) with respect to Appendix I and Appendix II constituents of the North Carolina Solid Waste Management Rules 15A N.C.A.C. 13 B, .1633(a) and .1634(a). The United States Environmental Protection Agency (EPA) Guidance Document, Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, April 1989, was used as the main reference for the statistical procedures followed in this study. Details of the procedures and results obtained from the analysis are described in the following sections.

Conclusions and recommendations regarding subsequent sampling at the Dunn-Erwin MSWLF are presented in the Executive Summary. Based on the groundwater contamination plume assessment report submitted to the NCDENR Solid Waste Section (SWS) on August 25, 2003, Figure 1 shows the downgradient area of the MSWLF with approximate contamination plume boundaries of October 2002. A layout of approximate monitoring wells and surface water sampling locations and the MSWLF facility is shown in Figure 2.

## II. Groundwater Levels

Table 1 shows historic groundwater levels within monitoring wells at the Dunn-Erwin landfill. Generally, groundwater levels during the October 2007 sampling event were approximately 4.59 feet below the average groundwater level based on all sampling events, for each respective well. This value includes groundwater levels for recently installed wells MW11 - MW15.

Table 2 shows estimated groundwater velocity data, calculated based on groundwater levels recorded in the October 1995 sampling event and estimated range of site hydraulic conductivity and effective porosity values.

## III. Methodology

An Excel™ adaptation of the EPA software GRITS/STAT (A Ground Water Information Tracking System with Statistical Analysis Capability, Version 4.2) was utilized to perform statistical calculations. Downgradient monitoring wells (MWs) MW2, MW3R, MW4, MW5, MW6, MW7B, MW8, MW9, MW10, and MW23B were each compared with the upgradient wells MW1 and MW31 (Data Set 1), and downgradient wells MW32, MW33, MW34, and MW35 were each compared to upgradient well MW16 (Data Set 2) to evaluate the existence of statistically significant increases over background levels (SSIOBL) for each detected constituent. Surface Water Monitoring Points (SWPTs) SWPT2 and SWPT3 are compared with upgradient SWPT1 (Data Set 3) to evaluate the existence of SSIOBL for each Appendix I constituent.

For the reasons discussed in the Executive Summary regarding differences between historic and current method detection limits (MDLs) and the Solid Waste Section Limits (SWSLs), only detections exceeding the SWSLs are included in the statistical analysis. Estimated values (concentrations reported as greater than the MDL but less than the SWSL) are not included in the statistical analysis. When referring to the statistical analysis, a non-detect is a result less than the SWSL and a detection is a result greater than the SWSL. Where necessary, estimated values are compared to NCGS or 13B Groundwater Protection Standards (GPS). A comparison of NCGS and GPS standards, SWSLs, October 2007 MDLs and detection limits from 2006 for selected commonly detected constituents are presented in Table 6.

The one-way analysis of variance test (ANOVA) compares median concentrations of the respective upgradient and downgradient wells between data sets with at least four sampling events each. The Excel™ program was employed to perform the ANOVA for each parameter in a monitoring well group with less than 50% total non-detects in all wells over all sampling events.

All data sets with less than 15% non-detects were also tested for both normal and log-normal data distributions using EPA accepted normality tests. A parametric ANOVA was performed for those data sets meeting the normality and less than 15% non-detect requirements. The parametric ANOVA also tested for residual normality and homogeneity of variances (using Levene's Test) between data sets, both of which are necessary to determine those parameters that are SSIOBL using the parametric ANOVA. For both the parametric ANOVA and Levene's Test, non-detected concentrations were computed as one-half (1/2) of the method detection limit. If any of the above tests produced a negative result, the parametric ANOVA was disregarded. (No data sets met the criteria for a parametric ANOVA test during the latest event).

All data sets with less than 50% non-detects and not fulfilling the requirements of the parametric ANOVA test received the non-parametric ANOVA test, which utilized the Kruskal-Wallis Test for making comparisons between data sets.

The Test of Proportions, as outlined in Section 8.1.2 of the EPA Guidance document, was utilized for all data sets for constituents with less than or equal to 50% and above 10% detects in all monitoring wells combined. This test was further defined to include only those compliance wells (individually coupled with the background wells) that produced a large enough data set such that the total number of detects for the particular constituent was greater than or equal to five (5).

In select cases the compliance-to-background well analyses are not accurate because natural, statistically significant variations existed prior to the facility operation commencement. If the Test of Proportions indicates a result of SSIOBL for such a constituent, the prediction interval intra-well comparison was used to verify the statistical significance of the concentrations. If the average post-operational concentrations of the constituent are within the prediction interval analysis calculated based on background concentrations, the result is not considered SSIOBL. Estimated values are used in the prediction interval analysis. Previously, a non-detect value was treated as half the detection limit to calculate the interval. However, use of the estimated values allows for a more accurate prediction than using half the SWSL.

For all other instances that did not qualify for the ANOVA tests or the Test of Proportions, the detections were analyzed qualitatively. The qualitative analysis was conducted for individual constituents at a particular compliance well. Initially, the number of detections for the constituent in the particular compliance well was considered as follows:

- A compliance well with only one detection was not considered SSIOBL.
- For a compliance well with two or more detections and without detections in the background well, the order of magnitude (OOM) above the SWSL was evaluated. The OOM was computed as the logarithm of the actual detected concentration over the SWSL. If the average concentrations had an OOM greater than or equal to 0.67 (five times greater than the SWSL), the constituent was considered SSIOBL for the particular well. Prior to October 2007, the detection limit was used because the SWSLs had not been incorporated. As noted in the Executed Summary, the SWSL is more consistent with historic detection limits, compared to the much lower MDLs (refer to Table 6). As such, use of the SWSL allows for a more uniform comparison to the historic data and is also consistent with the use of SWSL in the other statistical analyses.
- For a compliance well with two or more detections and with detections of the particular constituent also in the compliance well, the compliance well was evaluated depending on the number and magnitude of detections at the compliance well, the background well, and their respective average concentration differences.

Additionally, Table 5 includes the analysis of cumulative results from all sampling events of the ongoing scheduled semi-annual analyses since October 1994, showing the summary of all organic detections in Data Set

1 that includes downgradient (compliance) monitoring wells (MWs) MW2, MW3R, MW4, MW5, MW6, MW7B, MW8, MW9, MW10, and MW23B.

Page 11 of 12 in Table 5 shows overall average concentration of organics detections with respect to the number of detections, and the average-concentration-to-NCGS ratio (ANR). The criteria selected to identify main organic constituents include these that had 10 or more detections with an ANR that approaches or exceeds 1.0. Vinyl chloride was added to the list of main constituents now that it has had 10 detections.

#### IV. Results

This section reports results from the statistical tests performed on detected constituents (greater than SWSL as of October 2007). A summary of upgradient wells (background wells) precedes the downgradient wells for each data set. The upgradient well summaries include a complete detection history for all sampling events per upgradient well. Downgradient well summaries include a brief detection history followed by the results of the statistical tests per detected constituent.

Detections noted prior to October 2007 include all results which exceeded the historic detection limits for the respective constituents. Unless otherwise noted, a detection is now defined as a result that exceeds the SWSL as of October 2007. Estimated values (greater than the current MDL but less than the SWSL) are not listed except for some instances to compare to NCGS or GPS.

A summary of the results of the statistical tests for inorganics is shown in Table 3. In addition to the types of statistical tests and inorganic results, Table 3 also shows which inorganics were detected, both above the MDL and also above the SWSL. Table 4A indicates those parameters that have been detected in concentrations that are statistically significant over background levels (SSIOBL). Table 4B lists parameters exceeding NCGS or GPS during the October 2007 sampling event. Table 4B is intended to also serve as the notification table that is required with the Environmental Monitoring Reporting Form. To allow for a concise and legible summary, only monitoring wells with results that exceeded NCGS or GPS are listed. Results for monitoring wells or parameters not listed did not exceed NCGS or GPS. It should also be noted that Table 4B includes estimated values.

Detailed summary tables of constituent detections over the SWSL per monitoring well, recommended statistical tests per constituent, and results of the respective statistical tests are enclosed in Appendices A, B, and C for Data Sets 1, 2, and 3, respectively. Laboratory analytical data and chain of custody forms are included in Appendix D.

In Table 5, Page 11 of 12, five organic compounds shown in bold face were identified as the top organic constituents in the groundwater contamination plume, including benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride. 1,1-dichloroethane has been added to this list due to its NCGS revision from 700 to 70 ug/l. Vinyl chloride has been added when after it had 10 detections (as of October 2007). Of these only 1,1-dichloroethane, methylene chloride, and trichloroethylene have consistently been identified as SSIOBL by the statistical analyses of the scheduled semi-annual sampling results.

An analysis to verify that these main organic constituents are consistent within the assumed area of the groundwater contamination plume was performed. The analysis included average concentration of organics detections, number of detections, and ANR values detected only in compliance wells MW6, MW7B, MW8, MW9, and MW10, and averaged only over these five (5) wells for all sampling events since October 1994. The results shown in Table 5, Page 12 of 12 verify that the main organic constituents that had 10 or more detections with an ANR that exceeds 1.0, shown in bold face, are benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride.

To obtain time-line perspective of these organics detections, Figure 3 shows the average ANR values per each scheduled semi-annual sampling event in the five downgradient wells located within the estimated groundwater contamination plume area for these five organic constituents. Of these five, methylene chloride has been detected most consistently with the highest ANR values, with a maximum of 31. The Figure also shows that 1,1-dichloroethane, trichloroethylene, and tetrachloroethylene have been detected with ANR values exceeding 1.0 since the beginning of data collection in October 1994, while benzene has only been detected with ANR values exceeding 1.0 since March 1999. Vinyl chloride shows high ANR values due to a relatively lower NCGS, however, it shows ANR values greater than 1.0 much less frequently than the other constituents. It is likely the vinyl chloride detections are a result of the degradation of the larger chlorinated compounds.

Finally, methylene chloride is the only SSI/OBL organic constituent that has consistently been detected in the plume area in concentrations that exceed NCGS by about one order of magnitude. Therefore, methylene chloride is identified as the key organic constituent in this groundwater contamination plume.

## SET 1

### Upgradient Wells (Background Wells):

MW1: MW1 is an upgradient well for MW2, MW3, MW4, MW5, MW6, MW7B, MW8, and MW23B (which is a Set 2 monitoring well). Historically, this well has shown inorganic concentrations above the detection limit for barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, tin, vanadium, and zinc. Of these constituents, cadmium exceeded NCGS in one sampling event with a concentration of 0.004 mg/l in January 1995. Lead exceeded NCGS in five sampling events with concentrations of 0.104, 0.104, 0.02, 0.028, and 0.018 mg/l in January, March and September 1995, and April and October 1997, respectively. Historically, carbon disulfide and diethylphthalate have been the only organic constituents detected in MW1. No constituents were detected during this latest sampling event.

The following summarizes the history of detected concentrations for each metal constituent:

barium: Barium was detected in six sampling events for MW1 with concentrations of 0.252, 0.024, 1.68, 0.586, 0.083, and 0.1 mg/l in October and November 1994, January and March 1995, October 1997, and October 1998, respectively.

beryllium: Beryllium was detected in nine sampling events for MW1 with concentrations of 0.024, 0.006, 0.002, 0.002, 0.003, 0.006, 0.001, 0.004, 0.003, 0.002, and 0.002 mg/l in January, March, and September 1995, April and October 1996, April and October 1997, April and October 1998, October 1999, and April 2002, respectively.

cadmium: Cadmium was detected in four sampling events for MW1 with concentrations of 0.0008, 0.001, 0.004, and 0.011 mg/l, in October and November 1994 and January and March 1995, respectively.

chromium: Chromium was detected in five sampling events with concentrations of 0.005, 0.018, 0.011, 0.013, 0.02 mg/l in October 1994, January and March 1995, April 1997, and April and October 1998, respectively.

cobalt: Cobalt was detected in only one sampling event for MW1 with a concentration of 0.016 mg/l in January 1995.

copper: Copper was detected in four sampling events for MW1 with concentrations of 0.017, 0.078, 0.018, and 0.007 mg/l in October 1994, January and March 1995, and October 1997, respectively.

lead: Lead was detected in six sampling events for MW1 with concentrations of 0.005, 0.104, 0.104, 0.02, 0.028, and 0.018 mg/l in October 1994 and January, March, and September 1995, and April and October 1997, respectively.

nickel: Nickel was detected for one sampling event in MW1 with a concentration of 0.03 mg/l in January 1995.

vanadium: Vanadium was detected in two sampling events for MW1 with concentrations of 0.02 and 0.083 mg/l in October 1994, and January 1995, respectively.

zinc: Zinc was detected in eight sampling events in MW1 with concentrations of 0.098, 0.012, 0.237, 0.038, 0.08, 0.065, 0.08, and 0.011 mg/l in October and November 1994 and January, March, and September 1995, April 1997, April 2004, and May 2007, respectively.

The following organics have been detected in MW1:

carbon disulfide: Carbon disulfide was detected in two sampling event in MW1 with concentrations of 20.9 and 7.4 mg/l in November 1994 and October 1999, respectively.

diethylphthalate: Diethylphthalate was detected in three sampling events for MW1 with concentrations of 5.3, 5.3 and 9.8 ug/l in September 1995, April 1996 and April 1997, respectively.

MW31: MW31 is a background well for MW2, MW3, MW4, MW5, MW6, MW7B, MW8 and MW23B. The detected metals in MW31 have been barium, beryllium, cadmium, chromium, cobalt, copper, lead, vanadium, and zinc. Of these, arsenic exceeded NCGS in one sampling event with a concentrations of 0.055 mg/l in September 1995. Cadmium exceeded NCGS in three events with concentrations of 0.005, 0.003, and 0.003 in January 1995, March 1995, and September 1995, respectively. Chromium exceeded NCGS in five events with concentrations of 0.21, 0.124, 0.06, 0.08, and 0.1 mg/l in September 1995, April and October 1997, October 1998, and March and October 1999, respectively, and was detected at a concentration of 0.01 mg/l in April 2000. Lead exceeded NCGS in nine events with concentrations of 0.0052, 0.033, 0.17, 0.031, 0.088, 0.045, 0.03, 0.05, and 0.06 mg/l in January, March and September 1995, April 1996, April and October 1997, October 1998, and March and October 1999, respectively. Vanadium exceeded the 13B GPS with an estimated result of 6.6 ug/l in October 2007. There have been no detected organics in MW31. No constituents were detected during this latest sampling event.

The following summarizes the history of detected concentrations for each metal constituent in MW31:

arsenic: Arsenic was detected in five sampling events for MW31 with concentrations of 0.005, 0.055, 0.011, 0.032, and 0.005 mg/l in March and September 1995 April 1996, and April and October 1997, respectively.

barium: Barium was detected in four sampling events for MW31 with concentrations of 0.04, 0.157, 0.097, and 0.098 mg/l in October 1994, January and March 1995, and October 1997 respectively.

beryllium: Beryllium was detected in four sampling events for MW31 with concentrations of 0.028, 0.006, 0.003, 0.001 and 0.005 mg/l in November 1994, September 1995, April and October 1997, and October 1999, respectively.

cadmium: Cadmium was detected in four sampling events for MW31 with concentrations of 0.005, 0.003, 0.003, and 0.001 mg/l in January, March, and September 1995, and April 1997, respectively.

chromium: Chromium was detected in nine sampling events for MW31 with concentrations of 0.021, 0.015, 0.021, 0.21, 0.044, 0.124, 0.06, 0.04, 0.01, and 0.01 mg/l in October and November 1994, January and September 1995, April 1996, April and October 1997, October 1998, October 1999, and April 2000, respectively.

cobalt: Cobalt was detected in two sampling events for MW31 with concentrations of 0.007 and 0.02 mg/l in January and September 1995, respectively.

copper: Copper was detected in eight sampling events for MW31 with concentrations of 0.011, 0.006, 0.052, 0.033, 0.017, 0.033, 0.043, and 0.06 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April 1997, and October 1998, respectively.

lead: Lead was detected in nine sampling events for MW31 with concentrations of 0.011, 0.006, 0.052, 0.033, 0.017, 0.031, 0.088, 0.045, 0.03 and 0.06 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, October 1998, and October 1999, respectively.

vanadium: Vanadium was detected for nine sampling events for MW31 with concentrations of 0.045, 0.026, 0.032, 0.08, 0.41, 0.087, 0.235, 0.11, and 0.04 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, and October 1998, respectively.

zinc: Zinc was detected for eight sampling events in MW31 with concentrations of 0.017, 0.01, 0.027, 0.037, 0.07, 0.05, 0.04, 0.01, and 0.017 mg/l, in October and November 1994, January, March, and September 1995, April 1996, October 1997, October 1998, October 1999, and May 2007, respectively.

#### Downgradient Wells (Compliance Wells):

MW2: Compliance well MW2 has shown inorganic detections for arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. Of these, cadmium exceeded NCGS in two events, with concentrations of 0.003 and 0.004 mg/l in March and September 1995, respectively. Lead exceeded NCGS in four events, with concentrations of 0.025, 0.025, 0.041, and 0.025 mg/l in November 1994 and January, March and September 1995, respectively. Diethylphthalate, an Appendix II constituent not included in Appendix I, was detected in September 1995 in MW2. This was the only organic constituent detected for all sampling events in MW2. Beryllium was the only constituent detected during this latest sampling event.

The following results were obtained for the detected metals in May 2007:

beryllium: Beryllium resulted as not SSI OBL for MW2 using the Prediction Interval Analysis.

MW3R: Compliance well MW3R has replaced compliance well MW3. Groundwater data from sampling events prior to October 2005 from MW3 have been utilized to compare with the data for MW3R sampled beginning in October 2005.

Compliance well MW3 and/or MW3R previously had metal detections for barium, beryllium, cadmium, chromium, cobalt, copper, lead, vanadium, and zinc. Cadmium, exceeded NCGS in two sampling events with concentrations of 0.002 and 0.011 mg/l in November 1994 and March 1995, respectively. Carbon disulfide has been the only organic constituent detected in MW3/3R. No constituents were detected during this latest sampling event.

MW4: MW4 has had a history of detections of inorganics barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. Cadmium has exceeded NCGS in one event with a concentration of 0.004 mg/l in March 1995. Lead has exceeded NCGS in two events: 0.018 mg/l in both November 1994 and October 1996. Carbon disulfide and diethylphthalate have been the only detected organics for MW4, however no organics were detected in this latest sampling. Beryllium was the only constituent detected during this latest sampling event.

The following results were obtained for the detected metals in October 2007:

beryllium: Beryllium resulted as not SSI OBL for MW4 using the Prediction Interval Analysis.

MW5: Compliance well MW5 had shown above the detection limit inorganic concentrations for barium, cadmium, chromium, copper, lead, nickel, vanadium, and zinc. Of these, chromium exceeded NCGS in one sampling event with a concentration of 0.009 mg/l in October 1994. Carbon disulfide has been the only organic constituent detected with a concentration of 30.5 and 6.4 ug/l in November 1994 and October 1999. Barium was the only constituent detected during this latest sampling event.

The following result was obtained for the detected metal in October 2007:

barium: Barium resulted as not SSI OBL for MW5 using the Test of Proportions.

MW6: Compliance well MW6 has a history of inorganic detections for arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc. Of these, cadmium has exceeded NCGS in three sampling event with concentrations of 0.005, 0.009, and 0.004 mg/l in October and November 1994 and January 1995, respectively. Lead has exceeded NCGS in four sampling events with concentrations of 0.019, 0.033, 0.037, and 0.019 mg/l in November 1994, January and September 1995, and April 1996, respectively. Mercury exceeded NCGS in two sampling events with a concentration of 0.002 mg/l in October 1999. Zinc exceeded NCGS in one sampling event with a concentration of 91.5 mg/l in October 2004. Vanadium exceeded 13B GPS with an estimated result of 7.3 ug/l in October 2007. Barium, cobalt, zinc, and mercury were the only inorganic constituents detected during this latest sampling event at MW6.

Detected organics for MW6 include acetone, benzene, bis(2-ethylhexyl)phthalate, carbon disulfide, chlorobenzene, 1,4-dichlorobenzene, chloroethane, 1,1-dichloroethane, 1,1-dichloroethene, dichlorodifluoromethane, methylene chloride, 1,1,1-trichloroethane, trichloroethylene, vinyl chloride, and xylenes. Benzene has exceeded NCGS in four sampling events with concentrations of 2.7, 3.4, 9.5, 6.1 ug/l in March and October 1999, April 2001, and October 2007, respectively. Chlorobenzene exceeded NCGS in October 1998 with a concentration of 70 ug/l. Chloromethane exceeded NCGS in one sampling event with a concentration of 46 ug/l in April 2000. 1,4-dichlorobenzene has exceeded NCGS in four sampling events with concentrations of 7.2, 6.9, 3.2, and 7.7 ug/l in April 2001, October 2005, May 2007, and October 2007 respectively. 1,1-dichloroethane has exceeded NCGS in seven sampling events with concentrations of 78.9, 105, 87.1, 80, 134, 160, and 88 ug/l in October 1994, January and March 1995, October 1996, April and October 1997, and March 1999, respectively. 1,1-dichloroethene has exceeded NCGS in one sampling event with a concentration of 83.2 ug/l in January 1995. 1,2-dichloroethane has exceeded NCGS in one sampling event with a concentration of 0.6 ug/l (estimated) in October 2007. Methylene chloride has exceeded NCGS in 12 sampling events with concentrations of 66, 109, 47, 37, 34.8, 28.2, 12.8, 64.5, 20.1, 12.9, 8.8, and 33 ug/l in October 2000, April and October 2001, April and October 2002, October 2003, April 2004, October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene has exceeded NCGS in 10 sampling events with concentrations of 5.3, 3.8, 5.6, 1.9, 8.2, 7.1, 6.2, 8.0, 6.9, and 9.3 ug/l in October 1994, January and March 1995, October 1999, April 2001, October 2005, April and October 2006, and May and October 2007, respectively. Trichloroethylene has exceeded NCGS in 17 sampling events with concentrations of 8.4, 6.7, 10.6, 8.8, 7.2, 6.8, 11, 9.9, 8.7, 7.0, 17, 5.4, 5.2, 8.8, 7.1, 8.1, 7.7, and 9.24 ug/l in October and November 1994, January and March 1995, February and October 1996, April and October 1997, October 1999, April 2000, April and October 2001, April 2002, October 2005, April and October 2006, and May and October 2007, respectively. Vinyl chloride has exceeded NCGS in four sampling events with concentrations of 22, 11.2, 8, and 7.2 ug/l in April 2001, April 2006, and May and October 2007, respectively.

Benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride were the detected organics at MW6 during this latest sampling event.

The following results were obtained for the detected metals in MW6 in October 2007:

barium: Barium resulted as not SSIOBL for MW6 using the Test of Proportions.  
cobalt: Cobalt resulted as SSIOBL for MW6 using the Test of Proportions.  
zinc: Zinc resulted as not SSIOBL for MW6 using the Test of Proportions.  
mercury: Mercury resulted as SSIOBL for MW6 using the Test of Proportions.

The following results were obtained for the detected organics in October 2007:

benzene: Benzene resulted as SSIOBL for MW6 using the Qualitative Test.  
1,4-dichlorobenzene: 1,4-dichlorobenzene resulted as SSIOBL for MW6 using the Qualitative Test.  
cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as not SSIOBL for MW6 using the Qualitative Test.  
1,1-dichloroethane: 1,1-dichloroethane resulted as SSIOBL for MW6 using the Test of Proportions.  
methylene chloride: Methylene chloride resulted as SSIOBL for MW6 using the Test of Proportions.  
tetrachloroethylene: Tetrachloroethylene resulted as SSIOBL for MW6 using the Qualitative Test.  
trichloroethylene: Trichloroethylene resulted as SSIOBL for MW6 using the Test of Proportions.  
vinyl chloride: Vinyl chloride resulted as SSIOBL for MW6 using the Qualitative Test.

MW7B: Compliance well MW7B has replaced compliance well MW7. Groundwater data from previous sampling events (October and November 1994, and January and March 1995) from MW7 have been utilized to compare with the data for MW7B sampled since September 1995.

Detected metals in MW7 and/or MW7B include arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, zinc, and mercury. Of these, arsenic exceeded NCGS in one sampling event with a concentration of 0.279 mg/l in October 1997. Cadmium exceeded NCGS in two sampling events with a concentration of 0.004 in both September 1995 and April 1997. Chromium exceeded NCGS in three sampling events with concentrations of 0.04, 0.09, and 0.071 mg/l in March and September 1995, and April 1997, respectively. Lead exceeded NCGS in 19 sampling events with concentrations of 0.519, 0.044, 0.36, 0.196, 0.087, 0.264, 0.062, 0.070, 0.71, 0.05, 0.10, 0.036, 0.017, 0.020, 0.035, 0.018, 0.027, 0.019, and 0.031 mg/l in October 1994, March and September 1995, April and October 1996, April and October 1997, April 1998, March and October 1999, April and October 2000, October 2001, April 2002, October 2003, October 2004, and April and October 2005, and October 2007, respectively. Mercury exceeded NCGS in six sampling events with concentrations of 0.0027, 0.00142, 0.0011, 0.0015, 0.0046, and 0.0026 mg/l in October 2002, October 2003, October 2004, October 2005, October 2006, and October 2007, respectively. Thallium exceeded 13B GPS with an estimated result of 0.5 ug/l in October 2007. Vanadium exceeded 13B GPS with an estimated result of 14.2 ug/l in October 2007.

Barium, cobalt, lead, and mercury were the detected metals at MW7 during this latest sampling event.

Detected organics have included benzene, chlorobenzene, chloroethane, 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, toluene, 1,1,1-trichloroethane, tetrachloroethylene, trichloroethylene,

trichlorofluoromethane, xylenes, dichlorodifluoromethane, diethylphthalate, and bis(2-ethylhexyl)phthalate. Of these, benzene has exceeded NCGS in three sampling events with concentrations of 1.1, 4.7, and 4.1 ug/l in March 1999, May 2007, and October 2007, respectively. Chloromethane has exceeded NCGS in one sampling event with a concentration of 64 ug/l in April 2000. 1,1-dichloroethane has exceeded NCGS in 22 sampling events with concentrations of 262, 100, 92, 77, 100, 99.5, 110, 210, 170, 90, 176, 230, 87.1, 220, 141, 137, 113, 147, 176, 174, 153, and 129 ug/l in October 1994, September 1995, February, April and October 1996, April 1998, March and October 1999, April and October 2000, October 2001, April and October 2002, April and October 2003, April and October 2004, April 2005, April and October 2006, and May and October 2007, respectively. 1,2-dichloroethane has exceeded NCGS in one sampling event with a concentration of 8.7 ug/l in April 2003. 1,1-dichloroethene has exceeded NCGS in one sampling event with a concentration of 8.1 ug/l in April 2003. Methylene chloride has exceeded NCGS in 15 sampling events with concentrations of 60, 75, 138, 154, 26.4, 174, 70.3, 93.3, 101, 75.1, 59.6, 79.9, 74.1, 74.5, and 45.5 ug/l in October 2000, April and October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene exceeded NCGS in two sampling events with concentrations of 9.0 and 3.7 ug/l in October 2005 and October 2007, respectively. Trichloroethylene exceeded NCGS in 16 sampling events, with concentrations of 9.9, 10.7, 3.6, 7.8, 6.0, 5.3, 7.3, 8.8, 6.8, 7.6, 7.7, 7.5, 10.5, 9.9, 8.8, and 9.2 ug/l in October and November 1994, March and October 1999, April 2000, April and October 2001, April 2002, October 2003, April and October 2004, April 2005, April and October 2006, and May and October 2007, respectively. Vinyl chloride has exceeded NCGS in two sampling events with concentrations of 5 and 5 ug/l in May and October 2007.

During this latest sampling event, benzene, chloroethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, trichlorofluoromethane, vinyl chloride, and dichlorodifluoromethane were detected at MW7B.

The following results were obtained for the detected inorganics in MW7/7B in October 2007:

barium: Barium resulted as not SSI OBL for MW7/7B using the Test of Proportions.

cobalt: Cobalt resulted as not SSI OBL for MW7/7B using the Prediction Interval Analysis.

lead: Lead resulted as not SSI OBL for MW7/7B using the Prediction Interval Analysis.

The following results were obtained for the detected organics in October 2007:

benzene: Benzene resulted as not SSI OBL for MW7/7B using the Qualitative Test.

chloroethane: Chloroethane resulted as SSI OBL for MW7/7B using the Test of Proportions.

1,1-dichloroethane: 1,1-Dichloroethane resulted as SSI OBL for MW7/7B using the Test of Proportions.

methylene chloride: Methylene chloride resulted as SSI OBL for MW7/7B using the Test of Proportions.

tetrachloroethylene: Tetrachloroethylene resulted as SSI OBL for MW7/7B using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSI OBL for MW7/7B using the Test of Proportions.

trichlorofluoromethane: Trichlorofluoromethane resulted as SSI OBL for MW7/7B using the Qualitative Test.

vinyl chloride: Vinyl chloride resulted as SSI OBL for MW7/7B using the Qualitative Test.

dichlorodifluoromethane: Dichlorodifluoromethane resulted as SSI OBL for MW7/7B using the Test of Proportions.

MW8: Compliance well MW8 has shown above detection limit inorganic concentrations for barium, beryllium, cadmium, chromium, copper, lead, vanadium, zinc, cyanide, and mercury. Cadmium exceeded NCGS in two sampling event with a concentration of 0.002 mg/l in both November 1994 and April 1997. Chromium exceeded NCGS in one sampling event with a concentration of 0.111 mg/l in April 1997. Lead exceeded NCGS in one sampling event with a concentration of 0.073 mg/l in April 1997. Cyanide exceeded NCGS in one sampling event with a concentration of 0.127 mg/l in October 1996. Mercury exceeded NCGS in one sampling event with a concentration of 0.002 mg/l in October 1998. No inorganics were detected during the latest sampling event at MW8.

Detected organics at MW8 have included benzene, cis-1,2-dichloroethene, carbon disulfide, chloroethane, chloromethane, 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, dichlorodifluoromethane, and xylenes. Benzene exceeded NCGS in three sampling events, with concentrations of 2.1, 1.6, and 2.6 ug/l in October 1997, March 1999, and October 2007, respectively. Chloromethane exceeded NCGS in three sampling events, with concentrations of 6.1, 88, and 25 ug/l in October 1999, April 2000, and October 2001, respectively. 1,1-dichloroethane exceeded NCGS in five sampling events with concentrations of 92, 135, 80, 76.8, and 71.5 ug/l in April 2000, April 2001, April and October 2002, and April 2003, respectively. 1,1-dichloroethene exceeded NCGS in one sampling event, with a concentration of 81 ug/l in October 2001. Methylene chloride exceeded NCGS in 20 sampling events, with concentrations of 49, 31, 5.2, 25, 30, 74, 140, 92, 90, 80.5, 71.2, 69, 44.5, 39.9, 40.6, 63.3, 64, 67.2, 48.4, and 35.9 ug/l in April and October 1997, April and October 1998, March 1999, October 2000, April and October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene exceeded NCGS in three sampling events, with concentrations of 5.2, 5, and 6.5 ug/l in October 2006 and May and October 2007, respectively. Trichloroethylene exceeded NCGS in four sampling events, with concentrations of 6.8, 5.3, 4, and 4.4 ug/l in April and October 2001, and May and October 2007, respectively. Vinyl chloride exceeded NCGS with an estimated result of 0.9 ug/l in October 2007

During this latest sampling event, benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, and trichloroethylene were detected at MW8.

The following results were obtained for the detected organics in MW8 in October 2007:

benzene: Benzene resulted as not SSI OBL for MW8 using the Qualitative Test.

1,4-dichlorobenzene: 1,4-Dichlorobenzene resulted as not SSI OBL for MW8 using the Qualitative Test.

cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as not SSI OBL for MW8 using the Qualitative Test.

1,1-dichloroethane: 1,1-Dichloroethane resulted as SSI OBL for MW8 using the Test of Proportions.

methylene chloride: Methylene chloride resulted as SSI OBL for MW8 using the Test of Proportions.

tetrachloroethylene: Tetrachloroethylene resulted as SSI OBL for MW8 using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSI OBL for MW8 using the Test of Proportions.

MW9: Compliance well MW9 was installed in March 2001 and was sampled for the first time in April 2001. The data are now included in the statistical analysis.

Detected metals in MW9 include barium, chromium, copper, lead, mercury, and vanadium. Chromium exceeded NCGS in one sampling event with a concentration of 0.082 mg/l in October 2002. Mercury exceeded NCGS in

one sampling event with a concentration of 0.005 mg/l in October 2007. Barium, copper, and mercury were the detected inorganics during this latest sampling event.

Detected organics at MW9 have included benzene, chlorobenzene, chloroethane, chloromethane, 1,2-dibromoethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, and xylenes. Of these, benzene exceeded NCGS in 10 sampling events, with concentrations of 8.6, 11, 7.8, 8.2, 8.1, 6.4, 5.6, 5.2, 5, and 5.4 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2006, and May and October 2007, respectively. Chloromethane exceeded NCGS in one sampling event, with a concentration of 189 ug/l in April 2001. 1,2-dibromoethane exceeded NCGS in one sampling event, with a concentration of 14 ug/l in October 2001. 1,4-dichlorobenzene exceeded NCGS in one sampling event, with a concentration of 2.5 ug/l in October 2007. 1,1-dichloroethane exceeded NCGS in 12 sampling events, with concentrations of 126, 219, 170, 202, 135, 122, 75.2, 81.9, 110, 103, 87, and 74.7 ug/l in October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May 2007, respectively. 1,2-dichloroethane exceeded NCGS in one sampling event, with a concentration of 11.8 ug/l in April 2003. Methylene chloride exceeded NCGS in 13 sampling events, with concentrations of 195, 231, 272, 197, 166, 127, 67.9, 56.7, 75.7, 122, 96.4, 64.2, and 49.6 ug/l in October 2001, April and October 2002, April and October 2003, April and October 2004, April and October 2005, April and October 2006, and May and October 2007, respectively. Tetrachloroethylene exceeded NCGS in four sampling events, with concentrations of 5.3, 5.3, 5.1, and 2.9 ug/l in October 2001, October 2002, April 2003, and October 2007, respectively. Trichloroethylene exceeded NCGS in 13 sampling events, with concentrations of 11, 15, 9.8, 10, 9.5, 8.2, 5.8, 7.0, 6.5, 6.2, 5.0, 4.7, and 3.9 ug/l in April and October 2001, April and October 2002, October 2003, April and October 2004, April and October 2005, April and October 2006, and May and October 2007, respectively. Vinyl chloride exceeded NCGS in two sampling events, with concentrations of 9.1 and 5.9 ug/l in May and October 2007.

Benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride were detected at MW9 during this latest sampling event.

The following result was obtained for the detected inorganic in MW9 in October 2007:

barium: Barium resulted as not SSIOBL for MW9 using the Test of Proportions.  
copper: Copper resulted as not SSIOBL for MW9 using the Test of Proportions.  
mercury: Mercury resulted as not SSIOBL for MW9 using the Qualitative Test.

The following results were obtained for the detected organics in MW9 in October 2007:

benzene: Benzene resulted as SSIOBL for MW9 using the Qualitative Test.  
chlorobenzene: Chlorobenzene resulted as not SSIOBL for MW9 using the Qualitative Test.  
chloroethane: Chloroethane resulted as SSIOBL for MW9 using the Test of Proportions.  
1,4-dichlorobenzene: 1,4-dichlorobenzene resulted as not SSIOBL for MW9 using the Qualitative Test.  
cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as not SSIOBL for MW9 using the Qualitative Test.  
1,1-dichloroethane: 1,1-Dichloroethane resulted as SSIOBL for MW9 using the Test of Proportions.  
methylene chloride: Methylene chloride resulted as SSIOBL for MW9 using the Test of Proportions.

tetrachloroethylene: Tetrachloroethylene resulted as not SSI OBL for MW9 using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSI OBL for MW9 using the Test of Proportions.

vinyl chloride: Vinyl chloride resulted as SSI OBL for MW9 using the Qualitative Test.

MW10: Compliance well MW10 was installed in March 2001 and was sampled for the first time in April 2001. The data are now included in the statistical analysis.

Detected metals in MW10 include chromium, copper, lead, vanadium and zinc. Chromium exceeded NCGS in one sampling event with a concentration of 0.118 mg/l in October 2002. Vanadium exceeded 13B GPS with an estimated result of 12.2 ug/l in October 2007. Copper was the only inorganic detected during this latest sampling event.

Detected organics at MW10 have included acetone, benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,2-dibromoethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, and xylenes. Of these, benzene exceeded NCGS in five sampling events, with concentrations of 6.9, 7.3, 6.2, 4.6, and 2 ug/l in April and October 2001, April 2002, and May and October 2007, respectively. 1,1-dichloroethane exceeded NCGS in three sampling events, with concentrations of 266, 109, and 606 ug/l, in Oct. 2001, April 2002, and April 2004, respectively. Methylene chloride exceeded NCGS in ten sampling events, with concentrations of 120, 310, 132, 59.3, 19.7, 48.7, 48, 67.7, 51.6, 27.1, and 14.4 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2004, April 2005, and April 2006, respectively. Tetrachloroethylene exceeded NCGS in six sampling events, with concentrations of 12, 11, 13, 6.8, 7.1, and 7.3 ug/l in April and October 2001, April and October 2002, and April and October 2003, respectively. Trichloroethylene exceeded NCGS in four sampling events, with a concentrations of 11, 11, 9.1, and 5.7 ug/l in April and October 2001, April 2002, and October 2003, respectively. Vinyl chloride exceeded NCGS in two sampling events, with concentrations of 10 and 1.4 ug/l in April 2001 and October 2007, respectively.

Benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, and vinyl chloride were the detected organics at MW10 during this latest sampling event.

The following result was obtained for the detected inorganic in MW10 in October 2007:

zinc: Zinc resulted as not SSI OBL for MW10 using the Test of Proportions.

The following results were obtained for the detected organics in MW10 in October 2007:

benzene: Benzene resulted as not SSI OBL for MW10 using the Qualitative Test.

1,4-dichlorobenzene: 1,4-Dichlorobenzene resulted as not SSI OBL for MW10 using the Qualitative Test.

cis-1,2-dichloroethene: Cis-1,2-dichloroethene resulted as not SSI OBL for MW10 using the Qualitative Test.

1,1-dichloroethane: 1,1-Dichloroethane resulted as SSI OBL for MW10 using the Test of Proportions.

vinyl chloride: Vinyl chloride resulted as not SSI OBL for MW10 using the Qualitative Test.

MW23B: MW23B is a Set 2 well. It does not follow the Set 1 analysis schedule since it is too remote to be a monitoring point for the active portion of the landfill. It is analyzed for Appendix I organics plus the eight RCRA metals as a part of Set 2. However, it is statistically compared with Set 1 because it appears to be located downgradient of the active landfill.

Compliance well MW23B had shown above the detection limit inorganic concentrations for barium, beryllium, cadmium, chromium, copper, lead, selenium, silver, zinc, and mercury. Of these, lead exceeded NCGS in March and September 1995, February 1996, March and October 1999 with concentrations of 0.018, 0.027, 0.0157, 0.049, and 0.089 mg/l, respectively. Arsenic exceeded NCGS in one sampling event with a concentration of 0.064 in October 1997. Silver exceeded NCGS in one sampling event with a concentration of 0.105 in January 1995. No organics have been detected in MW23B. Mercury also exceeded NCGS in one sampling event with a concentration of 0.0017 mg/l in March 1999. No constituents were detected during the latest sampling event.

## DATA SET 2

In October 2007, Set 2 monitoring wells were sampled, analyzed, and statistically evaluated for Appendix I organics and eight RCRA metals only as they monitor the older, closed-out portion of the landfill. Prior to September 1995, there are data for all Appendix I constituents. These data are reported, however analyses are performed for only the eight RCRA metals.

### Upgradient Well (Background Well):

MW16: MW16 is a background well for MW32, MW33, MW34, and MW35 in this analysis. The detected inorganics in MW16 include barium, cadmium, chromium, cobalt, copper, lead, mercury, vanadium, and zinc. Of these, cadmium exceeded NCGS in six sampling events with concentrations of 0.0018, 0.006, 0.007, 0.002, 0.0075, and 0.0049 mg/l in October 1994, January, March, and September 1995, October 1996, and April 1997, respectively. Lead exceeded NCGS in two sampling events with a concentration of 0.02 and 0.039 ug/l in April 1997 and March 1999, respectively. Chromium exceeded NCGS in one sampling event with a concentration of 0.062 ug/l in March 1999. The only detected organic in MW16 was methylene chloride in January 1995, which exceeded NCGS with a concentration of 29.4 ug/l. No constituents were detected during the latest sampling event.

The following summarizes the history of detected concentrations for each metal constituent in MW16:

barium: Barium was detected in ten sampling events for MW16 with concentrations of 0.112, 0.194, 0.114, 0.147, 0.014, 0.099, 0.1, 0.281, 0.162, and 0.06 mg/l in October and November 1994, January and March 1995, October 1997, April and October 1998, March and October 1999, and April 2000, respectively.

cadmium: Cadmium was detected in eight sampling events for MW16 with concentrations of 0.0018, 0.001, 0.006, 0.007, 0.002, 0.0075, 0.0049, and 0.001 mg/l in October and November 1994, January, March, and September 1995, October 1996, April 1997, and March 1999, respectively.

chromium: Chromium was detected in eight sampling events for MW16 with concentrations of 0.004, 0.007, 0.005, 0.01, 0.019, 0.006, 0.008, 0.062 and 0.019 mg/l in October and November 1994, March, and September 1995, April 1997, April and October 1998, and March and October 1999, respectively.

copper: Copper was detected in four sampling events for MW16 with concentrations of 0.008, 0.009, 0.018, and 0.014 mg/l in October and November 1994 and January and March 1995, respectively.

lead: Lead was detected in ten sampling events for MW16 with concentrations of 0.002, 0.003, 0.004, 0.013, 0.012, 0.020, 0.002, 0.005, 0.039, 0.011, and 0.002 mg/l in October and November 1994, March and September 1995, October 1996, April and October 1997, October 1998, March and October 1999, and April 2000, respectively.

mercury: Mercury was detected in only one sampling event for MW16 with a concentration of 0.0002 mg/l in October 1998.

vanadium: Vanadium was detected in two sampling events for MW16 with concentrations of 0.005 and 0.012 mg/l in October and November 1994.

zinc: Zinc was detected in five sampling events for MW16 with concentrations of 0.012, 0.014, 0.015, 0.027, and 0.07 mg/l in October and November 1994, January and March 1995, and October 1996, respectively.

#### Downgradient Wells (Compliance Wells):

MW32: Compliance well MW32 has had detections for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, vanadium, and zinc. Of these, cadmium exceeded NCGS in two sampling event with concentrations of 0.004 and 0.025 mg/l in November 1994 and October 1998. Chromium exceeded NCGS in two sampling events with concentrations of 0.133 mg/l and 0.094 mg/l in November 1994 and April 2003, respectively. Lead exceeded NCGS in seven sampling events with concentrations of 0.09, 0.02, 0.064, 0.033, 0.063, 0.029, and 0.021 mg/l in November 1994, March 1995, March and October 1999, April 2003, April 2005, and April 2006, respectively. The only detected organic constituent for MW32 was MEK (2-butanone) with a concentration of 471 ug/l in January 1995. Lead was the only constituent detected during the latest sampling event.

The following result was obtained for the detected inorganic in MW32 in October 2007:

lead: Lead resulted as not SSI OBL for MW32 using the Test of Proportions.

MW33: Compliance well MW33 has had detections for barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, vanadium, zinc. Of these, cadmium exceeded NCGS in three sampling events with concentrations of 0.0021, 0.003, and 0.005 mg/l in October and November 1994 and January 1995, respectively. Lead exceeded NCGS in two sampling events with concentrations of 0.014 and 0.016 mg/l in January 1995 and October 1998, respectively. Chromium exceeded NCGS in October 1998 with a concentration of 0.016 mg/l. The only detected organic was cis-1,2-dichloroethene, detected in October 1998 with a concentration of 1.8 ug/l. No constituents were detected in MW33 during the latest sampling event.

MW34: This compliance well, installed in June 1996, was sampled for Appendix I organics and the eight RCRA metals in April 1998. Inorganics barium, chromium, lead, and mercury have been detected in MW34. No organics have been detected at this monitoring well. Detections above NCGS include one detect of chromium with a concentration of 0.017 in October 1998 and three detects of lead with concentrations of 0.02, 0.025 and 0.02 mg/l in October 1998, and March and October 1999, respectively. No constituents were detected in MW34 during the latest sampling event.

MW35: This compliance well, installed in June 1996, was analyzed for Appendix I organics and the eight RCRA metals in April 1998. Inorganics arsenic, barium, cadmium, chromium, lead, mercury and selenium have been detected at MW35. Of these arsenic exceeded NCGS in one sampling event with a concentration of 0.0681 in April 1997. Barium has exceeded NCGS in one sampling event with a concentration of 2.06 mg/l in April 1997. Cadmium has exceeded NCGS in two sampling events with concentrations of 0.0119 and 0.208 mg/l in April and October 1997. Chromium has exceeded NCGS in three sampling events with concentrations of 0.0119, 0.208, and 0.148 mg/l in April and October 1997, and March 1999. Lead has exceeded NCGS in five sampling events with concentrations of 0.355, 0.105, 0.055, 0.110 and 0.043 mg/l in April and October 1997, October 1998, and March and October 1999, respectively. Mercury exceeded NCGS in one sampling event with a concentration of 2.06 mg/l in 0.002 mg/l in April 1997. No organics have been detected in MW35. Barium was the only constituent detected during the latest sampling event.

The following result was obtained for the detected inorganic in MW35 in October 2007:

barium: Barium resulted as not SSIOBL for MW35 using the Test of Proportions.

### **SET 3: SURFACE WATER MONITORING POINTS**

Set 3 surface water monitoring points were sampled, analyzed, and statistically evaluated for Appendix I parameters only.

#### Upgradient Surface Water Monitoring Point (Background):

SWPT1: SWPT1 is an upgradient surface water monitoring point for SWPT2 and SWPT3. SWPT1 has had detected metal concentrations for arsenic, barium, cadmium, chromium, copper, and zinc. There were no concentrations exceeding NCGS. The only organic detected at SWPT1 was toluene in October 1999. SWPT1 was unavailable for sampling during this event due to dry conditions.

The following summarizes the detection history at SWPT1:

arsenic: Arsenic was detected in two sampling events for SWPT1 with concentrations of 0.007 and 0.013 mg/l in October 1994 and September 1995, respectively.

barium: Barium was detected in four sampling events for SWPT1 with concentrations of 0.045, 0.033, 0.03, and 0.029 mg/l in October and November 1994, and January and March 1995, respectively.

cadmium: Cadmium was detected in two sampling events for SWPT1 with concentrations of 0.001 mg/l in September 1995 and October 2003.

chromium: Chromium was detected in one sampling event for SWPT1 with a concentration of 0.002 mg/l in October 1994.

cobalt: Cobalt was detected in one sampling event for SWPT1 with a concentration of 0.010 mg/l in October 1999.

copper: Copper was detected in two sampling events for SWPT1 with concentrations of 0.006 and 0.006 mg/l in October 1994 and March 1995, respectively.

zinc: Zinc was detected in seven sampling events for SWPT1 with concentrations of 0.011, 0.016, 0.021, 0.013, 0.22, 0.04, and 0.011 mg/l in October and November 1994, January and March 1995, October 1997, October 1998, and May 2007, respectively.

toluene: Toluene was detected in one sampling event for SWPT1 with a concentration of 1.3 ug/l in October 1999.

#### Downgradient Surface Water Monitoring Points (Compliance):

SWPT2: SWPT2 is a compliance surface water monitoring point with previously detected metal concentrations for arsenic, barium, cadmium, chromium, copper, lead and zinc. There have been no concentrations exceeding

NCGS. There were also no organics detected. SWPT2 was unavailable for sampling during this event due to dry conditions.

SWPT3: SWPT3 is a compliance surface water monitoring point with previously detected metal concentrations for arsenic, barium, cadmium, chromium, cobalt, copper, lead and zinc. Of these, cadmium exceeded NCGS in two sampling events with concentrations of 0.0045 and 0.006 mg/l in October 1994 and September 1995. Lead exceeded NCGS in one sampling event with a concentration of 0.02 mg/l in October 1998. The previously detected organics for SWPT3 include benzene, cis-1,2-dichloroethene, ethylbenzene, toluene, vinyl chloride, and xylenes. Of these, benzene and vinyl chloride exceeded groundwater standards for the September 1995 sampling event with concentrations of 9.1 and 15 ug/l, respectively. SWPT3 was unavailable for sampling during this event due to dry conditions.

## TABLES

**Table 1**  
**Static Water Elevations for**  
**Dunn/Erwin Landfill**

Monitor Well	TOC Elevation	Ground Elevation	Screen Elevations		Static Water Elevations				
			Upper	Lower	9/-/86	23-Oct-94	16-Nov-94	10-Jan-95	17-Mar-95
MW1	235.67	234.27	no schematic		-	210.37	211.17	211.97	212.07
MW2	198.01	196.01	181.01	166.01	-	182.01	182.21	182.09	183.67
MW3	182.16	180.16	171.16	161.16	-	175.66	176.36	176.76	176.66
MW3R	181.52	179.44	168.52	158.52	-	-	-	-	-
MW4	178.72	176.12	167.12	157.12	-	173.72	174.12	173.02	175.22
MW5	188.75	186.75	167.75	152.75	-	173.45	173.15	172.75	172.75
MW6	208.60	205.60	no schematic		-	192.20	192.10	192.25	194.65
MW7	218.52	216.12	202.12	192.12	-	193.52	193.22	193.06	195.24
MW7B	219.33	216.10	204.10	189.10	-	-	-	-	-
MW8	218.71	216.01	207.01	192.01	-	201.01	200.71	200.51	202.56
MW9	219.43	217.17	202.17	187.17	-	-	-	-	-
MW10	214.54	211.57	203.57	188.57	-	-	-	-	-
MW11	203.41	200.88	188.41	178.41	-	-	-	-	-
MW12	172.48	169.95	162.48	152.48	-	-	-	-	-
MW13	187.39	184.80	154.39	139.39	-	-	-	-	-
MW14	170.91	168.59	162.91	142.91	-	-	-	-	-
MW15	190.18	187.80	183.18	178.18	-	-	-	-	-
MW16	195.61	194.20	188.54	170.54	188.20	192.81	191.91	190.47	189.81
MW23B	169.98	168.37	154.97	144.97	163.00	163.98	164.38	164.77	164.83
MW31	233.30	231.90	203.20	193.20	212.00	210.80	211.60	211.30	212.80
MW32	183.84	182.20	148.81	138.81	175.60	174.34	175.64	175.24	176.71
MW33	173.88	170.90	156.90	146.90	164.20	163.88	163.98	164.65	167.53
MW34**	194.06	191.12	no schematic		-	-	-	-	-
MW35**	181.77	179.31	no schematic		-	-	-	-	-
Averages						185.21	185.43	185.30	186.50

NOTES:

\*\* MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

**Table 1**  
**Static Water Elevations for**  
**Dunn/Erwin Landfill**

Monitor Well	Static Water Elevations							
	28-Mar-95	27-Apr-95	03-Jun-95	07-Jul-95	21-Aug-95	9/13/95**	20-Sep-95	18-Oct-95
MW1	210.77	210.67	210.67	215.67	209.92	211.07	209.87	211.37
MW2	182.85	181.89	182.01	184.01	181.81	181.82	181.91	181.51
MW3	175.91	175.49	176.56	178.16	175.96	176.05	176.16	175.96
MW3R	-	-	-	-	-	-	-	-
MW4	173.82	173.89	175.02	174.72	173.72	173.70	173.82	173.92
MW5	172.08	172.25	173.75	173.75	173.15	173.47	173.45	173.55
MW6	193.70	193.60	192.60	194.60	194.00	193.48	193.30	193.50
MW7	193.27	193.02	-	-	195.42	-	194.62	194.22
MW7B	-	-	-	-	-	197.08	194.93	194.53
MW8	201.21	201.70	-	201.31	201.91	201.46	201.36	201.11
MW9	-	-	-	-	-	-	-	-
MW10	-	-	-	-	-	-	-	-
MW11	-	-	-	-	-	-	-	-
MW12	-	-	-	-	-	-	-	-
MW13	-	-	-	-	-	-	-	-
MW14	-	-	-	-	-	-	-	-
MW15	-	-	-	-	-	-	-	-
MW16	190.61	190.61	191.11	191.31	193.01	193.26	183.51	191.61
MW23B	164.73	164.73	-	165.28	164.48	164.85	164.88	164.60
MW31	212.22	210.97	-	212.30	210.90	210.59	210.90	211.00
MW32	174.34	174.67	-	176.34	-	175.79	-	176.14
MW33	-	-	-	-	-	163.96	163.88	163.68
MW34**	-	-	-	-	-	-	-	-
MW35**	-	-	-	-	-	-	-	-
Averages	187.13	186.96	185.96	187.95	188.57	185.89	186.35	186.19

NOTES:

\*\* MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

**Table 1  
Static Water Elevations for  
Dunn/Erwin Landfill**

Monitor Well	Static Water Elevations								
	09-Feb-96	03-Apr-96	07-Oct-96	15-Apr-97	29-Sep-97	07-Oct-98	23-Mar-99	13-Oct-99	20-Apr-00
MW1	213.25	212.10	211.10	210.12	210.42	210.56	212.21	210.50	211.70
MW2	183.89	183.07	182.52	182.01	183.71	182.36	183.91	184.02	183.67
MW3	177.25	177.22	177.80	176.03	176.77	176.62	176.91	177.37	176.85
MW3R	-	-	-	-	-	-	-	-	-
MW4	174.81	174.61	174.97	172.91	175.04	174.09	175.47	175.78	174.67
MW5	172.76	172.62	173.85	172.50	173.76	173.55	173.88	174.40	172.67
MW6	193.11	193.21	193.77	193.09	192.45	192.08	192.64	193.21	193.05
MW7	-	-	-	-	-	-	-	-	-
MW7B	194.71	195.25	195.64	195.11	193.55	193.78	192.86	193.02	191.46
MW8	201.39	201.68	201.36	201.31	200.97	201.67	202.79	202.77	203.01
MW9	-	-	-	-	-	-	-	-	-
MW10	-	-	-	-	-	-	-	-	-
MW11	-	-	-	-	-	-	-	-	-
MW12	-	-	-	-	-	-	-	-	-
MW13	-	-	-	-	-	-	-	-	-
MW14	-	-	-	-	-	-	-	-	-
MW15	-	-	-	-	-	-	-	-	-
MW16	-	189.96	193.29	190.70	192.79	192.96	190.01	192.91	190.49
MW23B	-	165.40	166.80	164.99	164.92	164.33	164.61	164.84	164.14
MW31	212.51	210.40	213.94	212.84	209.93	210.48	211.00	211.60	209.98
MW32	-	176.09	176.46	175.48	176.15	176.09	175.25	176.75	175.63
MW33	-	165.63	166.04	164.74	165.62	163.95	165.71	167.33	165.59
MW34**	-	-	190.88	188.76	190.93	190.90	189.20	191.34	189.21
MW35**	-	-	176.56	176.04	176.58	175.99	172.72	176.67	175.84
Averages	191.52	185.94	186.33	185.11	185.57	185.29	185.28	186.17	185.20

NOTES:

\*\* MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

**Table 1  
Static Water Elevations for  
Dunn/Erwin Landfill**

Monitor Well	Static Water Elevations											
	11-Oct-00	19-Apr-01	15-16-Oct-01	03-Apr-02	15-Oct-02	30-Apr-03	29-Oct-03	21-Apr-04	28-Oct-04	26-Apr-05	18-Oct-05	19-Apr-06
MW1	210.43	210.41	210.92	211.41	210.83	211.57	211.22	210.99	211.53	211.42	208.53	209.70
MW2	183.69	183.49	183.34	183.62	183.46	183.01	183.25	182.82	183.14	183.52	181.59	182.07
MW3	176.70	176.70	176.95	177.21	177.28	177.84	177.77	177.66	177.88	-	-	-
MW3R	-	-	-	-	-	-	-	-	-	-	177.12	175.64
MW4	174.66	174.54	174.73	175.19	175.57	175.68	175.78	176.98	176.58	174.35	174.45	174.33
MW5	173.90	172.66	174.10	173.14	174.40	173.55	175.15	175.61	176.26	173.18	174.19	172.64
MW6	192.74	192.62	192.70	192.68	192.15	194.11	192.75	192.81	192.95	193.12	191.99	192.50
MW7	-	-	-	-	-	-	-	-	-	-	-	-
MW7B	193.38	192.96	193.87	193.46	192.67	195.73	194.22	194.32	194.44	194.32	193.02	193.29
MW8	209.31	203.09	209.72	203.06	202.65	203.98	203.00	202.96	202.53	202.95	201.41	202.18
MW9	-	192.81	193.60	193.21	192.23	195.59	193.78	194.01	194.12	194.09	192.51	192.89
MW10	-	193.16	193.28	192.98	192.04	195.54	192.90	193.53	193.65	194.06	191.95	192.66
MW11	-	-	-	-	-	-	-	-	-	-	-	185.43
MW12	-	-	-	-	-	-	-	-	-	-	-	166.16
MW13	-	-	-	-	-	-	-	-	-	-	-	162.71
MW14	-	-	-	-	-	-	-	-	-	-	-	161.61
MW15	-	-	-	-	-	-	-	-	-	-	-	182.45
MW16	188.19	186.60	188.28	186.74	188.05	187.78	188.61	187.06	189.07	187.37	186.87	186.75
MW23B	164.67	164.06	164.39	164.46	164.58	164.35	164.18	164.23	163.67	163.94	163.67	163.96
MW31	210.96	210.27	211.21	210.12	210.40	211.03	210.55	209.86	211.30	211.02	209.58	209.72
MW32	181.16	178.28	181.16	178.21	181.12	178.80	181.02	178.31	181.06	180.40	180.81	178.01
MW33	165.59	165.63	164.43	165.20	164.68	166.21	164.08	164.53	164.45	165.65	163.66	164.44
MW34**	191.09	189.03	191.01	189.38	191.41	189.38	190.85	188.92	190.89	189.14	190.85	189.13
MW35**	176.47	175.35	176.35	175.46	176.81	175.67	176.36	176.16	176.42	175.49	176.05	175.47
Averages	186.20	185.98	187.06	186.21	186.49	187.05	186.79	186.52	187.06	187.13	185.78	182.44

NOTES:

\*\* MW34 and MW35 Ground Elevation and TOC elevation are estimated from the contour map (Fig. 1).

denotes day of highest groundwater level (of total days sampled) for the particular MW

denotes day of lowest groundwater level (of total days sampled) for the particular MW

Well 7B Installed Sept. 1995

MW3R replaced MW3 as of Oct. 2005.

**Table 1**  
**Static Water Elevations for**  
**Dunn/Erwin Landfill**

Monitor Well	Static Water Elevations							
	10/23-24/06	02-May-07	24-Oct-07	Min	Max	Ave	Range	Std Dev
MW1	209.41	209.64	208.61	208.53	215.67	210.95	7.14	1.3
MW2	181.99	182.33	179.47	179.47	184.02	182.71	4.55	1.0
MW3	-	-	-	175.49	178.16	176.82	2.67	0.7
MW3R	176.43	175.72	171.57	171.57	177.12	175.30	5.55	2.2
MW4	174.88	174.39	171.22	171.22	176.98	174.57	5.76	1.1
MW5	173.98	172.81	171.05	171.05	176.26	173.45	5.21	1.0
MW6	192.17	191.75	191.84	191.75	194.65	192.93	2.90	0.7
MW7	-	-	-	193.02	195.42	193.95	2.40	0.9
MW7B	193.23	194.32	192.73	191.46	197.08	194.00	5.62	1.2
MW8	201.95	202.15	201.13	200.51	209.72	202.40	9.21	2.0
MW9	192.73	194.02	192.21	192.21	195.59	193.41	3.38	0.9
MW10	191.46	193.70	191.86	191.46	195.54	193.06	4.08	1.1
MW11	184.74	184.36	183.89	183.89	185.43	184.61		
MW12	165.65	166.23	163.37	163.37	166.23	165.35		
MW13	163.71	162.48	162.48	162.48	163.71	162.85		
MW14	164.44	163.61	160.85	160.85	164.44	162.63		
MW15	178.36	180.58	-	178.36	182.45	180.46		
MW16	188.36	187.21	187.62	183.51	193.29	189.61	9.78	2.4
MW23B	163.87	163.70	160.58	160.58	166.80	164.37	6.22	0.9
MW31	210.45	210.74	208.96	208.96	213.94	211.01	4.98	1.0
MW32	180.64	178.74	180.63	174.34	181.16	177.61	6.82	2.3
MW33	163.92	164.98	162.86	162.86	167.53	164.86	4.67	1.1
MW34**	190.96	189.29	190.97	188.76	191.41	190.16	2.65	1.0
MW35**	176.40	175.76	175.22	172.72	176.81	175.90	4.09	0.9
Averages	182.72	182.66	181.39	180.77	185.39	183.04	5.14	1.24

Range and Std Dev for wells MW11 - MW15 will be added after more data is available.

**Table 1B**  
**Piezometer Static Water Elevations for**  
**Dunn/Erwin Landfill**

Piez. No.	TOC El.	Grnd. El.	Screen Elev.		Average Water Level	Date Sampled							
			Upper	Lower		3/19/1991	3/26/1991	4/12/1991	6/27/1991	3/28/1995	4/27/1995	7/7/1995	8/21/1995
40S	176.17	174.20	163.70	158.80	168.12	171.68	171.44	171.38	170.61	ND	ND	ND	168.77
41S	208.58	205.90	192.40	187.40	192.62	192.83	192.85	192.89	192.21	194.33	193.48	194.58	192.68
42S	168.05	166.00	152.40	142.50	162.02	163.03	162.81	162.32	162.63	163.15	163.30	163.55	164.25
44S	184.20	182.41	172.40	167.10	179.45	180.86	180.79	179.20	180.46	179.83	179.70	ND	180.90
45S	202.71	200.10	183.90	178.90	180.74	181.26	181.16	181.82	180.54	ND	181.51	ND	180.91
46S	220.77	218.20	197.70	187.70	194.19	193.17	194.14	193.23	193.76	195.87	195.27	196.77	195.17
47S	189.89	188.21	178.60	168.60	181.73	184.25	183.81	183.46	181.83	184.82	184.39	185.39	180.89
48S	208.27	207.20	195.10	185.10	195.05	197.22	197.01	196.85	196.41	197.52	196.52	198.57	196.37
GP-24-W	198.27	193.94	189.94	184.94	190.46	ND	ND	ND	ND	ND	ND	ND	ND
GP-25-W	200.69	196.45	191.45	186.45	191.50	ND	ND	ND	ND	ND	ND	ND	ND
GP-27-W	207.41	203.01	195.01	185.01	190.50	ND	ND	ND	ND	ND	ND	ND	ND
GP-28-W	204.26	199.79	194.79	184.79	191.79	ND	ND	ND	ND	ND	ND	ND	ND
GP-30-W	208.76	204.44	198.44	188.44	192.52	ND	ND	ND	ND	ND	ND	ND	ND
GP-31-W	199.44	195.24	190.24	185.24	190.74	ND	ND	ND	ND	ND	ND	ND	ND
GP-33-W	212.15	207.94	195.94	185.94	191.83	ND	ND	ND	ND	ND	ND	ND	ND
GP-34-W	210.15	205.77	197.77	187.77	192.23	ND	ND	ND	ND	ND	ND	ND	ND
GP-35-W	193.87	189.65	187.65	182.65	189.53	ND	ND	ND	ND	ND	ND	ND	ND
GP-36-W	211.71	207.34	195.34	185.34	192.04	ND	ND	ND	ND	ND	ND	ND	ND
GP-37-W	197.28	193.08	188.08	183.08	188.07	ND	ND	ND	ND	ND	ND	ND	ND
GP-38-W	215.79	211.09	206.09	196.09	199.64	ND	ND	ND	ND	ND	ND	ND	ND
PZ-50	205.53	204.00	195.53	185.53	189.73	ND	ND	ND	ND	ND	ND	ND	ND
PZ-51	179.75	177.24	168.75	153.75	168.81	ND	ND	ND	ND	ND	ND	ND	ND
PZ-52	198.49	197.00	185.49	175.49	178.35	ND	ND	ND	ND	ND	ND	ND	ND
PZ-53	201.27	198.96	186.27	181.27	183.24	ND	ND	ND	ND	ND	ND	ND	ND
Average Surficial	NA	NA	NA	NA	185.42	183.04	183.00	182.64	182.31	185.92	184.88	187.77	182.49
42D	167.96	165.80	126.60	116.70	152.77	148.23	148.08	148.07	147.68	ND	147.96	ND	147.06
44D	184.28	182.61	143.40	133.50	173.06	173.13	171.86	171.17	170.30	170.16	170.18	ND	170.48
46D	221.38	218.20	179.20	169.20	193.14	ND	ND	ND	ND	193.71	192.88	195.88	194.78
47D	190.10	189.16	145.20	135.20	162.72	163.39	161.38	161.13	161.03	ND	165.30	165.50	160.8
Average Deep	NA	NA	NA	NA	172.93	161.58	160.44	160.12	159.67	181.93	169.08	180.69	168.28
PB9	211.24		203.60	183.60	190.31	190.82	190.40	190.07	189.93	---	---	---	---
NOTE:		Indicates LOW Water											
		Indicates HIGH Water											
		ND= No Data											
		Range is the difference in high and low water levels for piezometer											

**Table 1B  
Piezometer Static Water Elevations for  
Dunn/Erwin Landfill**

Piez. No.	Date Sampled		10/5/1998	3/23/1999	10/14/1999	4/20/2000	10/11/2000	4/17/2001	9/13/2001	10/15/2001	4/3/2002
	9/20/1995	10/19/1995									
40S	167.57	167.77	156.72	Dry	Dry	Dry	167.11	ND	ND	ND	ND
41S	192.18	194.28	191.13	192.22	193.93	192.76	192.58	ND	ND	ND	ND
42S	164.65	163.85	ND	ND	ND	ND	168.05	154.20	160.44	154.91	157.11
44S	180.3	180.4	172.88	180.95	181.85	181.18	180.01	180.91	181.31	180.67	181.06
45S	179.81	180.01	179.11	180.76	182.63	181.22	179.91	181.03	181.22	180.41	180.82
46S	194.47	193.97	192.15	192.37	196.41	ND	196.09	ND	ND	193.39	192.98
47S	179.49	179.89	180.42	184.53	ND	184.93	182.67	178.85	183.14	182.07	183.84
48S	196.27	196.07	ND	ND	ND	ND	ND	192.63	195.87	195.77	193.55
GP-24-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.09
GP-25-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.95
GP-27-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.10
GP-28-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.79
GP-30-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	191.61
GP-31-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.34
GP-33-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.74
GP-34-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	191.52
GP-35-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	189.35
GP-36-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190.84
GP-37-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	187.98
GP-38-W	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	196.89
PZ-50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PZ-51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PZ-52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PZ-53	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<i>Average Surficial</i>	<i>181.84</i>	<i>182.03</i>	<i>178.74</i>	<i>186.17</i>	<i>188.71</i>	<i>185.02</i>	<i>180.92</i>	<i>177.52</i>	<i>180.40</i>	<i>181.20</i>	<i>187.81</i>
42D	147.36	147.26	ND	ND	ND	ND	167.96	157.87	160.39	158.37	159.98
44D	171.18	171.28	179.57	173.11	174.02	172.59	174.03	172.17	173.61	174.32	173.55
46D	194.28	194.08	193.4	191.98	192.65	193.33	192.53	191.65	192.83	195.13	192.38
47D	161.10	160.60	162.22	161.64	ND	161.91	162.52	162.19	162.9	163.21	163.13
<i>Average Deep</i>	<i>168.48</i>	<i>168.31</i>	<i>178.40</i>	<i>175.58</i>	<i>183.34</i>	<i>175.94</i>	<i>174.26</i>	<i>170.97</i>	<i>172.43</i>	<i>172.76</i>	<i>172.26</i>
PB9	---	---	---	---	---	---	---	---	---	---	---
NOTE:	Indicates LOW Water										
	Indicates HIGH Water										
	ND= No Data										
	Range is the difference in high and low water levels for piezometer										

**Table 1B  
Piezometer Static Water Elevations for  
Dunn/Erwin Landfill**

Piez. No.	Date Sampled											RANGE	
	10/15/2002	4/30/2003	10/28/2003	4/21/2004	10/27/2004	4/25/2005	10/17/2005	4/18/2006	10/23/2006	10/23/2006	10/23/2007		
40S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.96
41S	ND	194.23	191.58	192.27	192.35	193.22	190.71	191.80	191.58	192.58	190.37	190.37	4.21
42S	164.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.85
44S	179.82	ND	179.8	171.66	181.07	181.44	171.66	180.16	179.88	180.91	175.03	175.03	10.19
45S	179.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.52
46S	192.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.77
47S	180.63	ND	182.31	178.88	182.44	179.08	176.58	182.58	179.18	183.18	174.92	174.92	10.47
48S	195.52	193.46	195.75	185.53	196.17	193.49	194.46	193.06	195.33	193.24	193.72	193.72	13.04
GP-24-W	ND	ND	191.11	189.76	191.59	190.04	189.72	190.78	190.57	191.51	189.47	189.47	2.12
GP-25-W	ND	192.89	191.81	192.04	192.07	192.33	190.55	191.31	190.95	191.94	189.63	189.63	3.26
GP-27-W	ND	ND	190.17	190.89	191.02	192.04	189.33	190.57	190.38	191.38	189.15	189.15	2.89
GP-28-W	ND	ND	192.29	192.65	192.58	192.97	190.85	191.76	191.23	192.63	190.17	190.17	2.80
GP-30-W	ND	195.21	192.19	192.84	192.95	193.76	190.98	192.16	191.92	193.24	190.84	190.84	4.37
GP-31-W	ND	ND	191.33	191.06	191.66	190.32	190.24	191.00	190.60	191.73	189.09	189.09	2.64
GP-33-W	ND	194.45	191.75	192.16	192.39	192.81	190.45	191.54	191.18	192.54	190.15	190.15	4.30
GP-34-W	ND	ND	192.38	193.04	193.19	193.75	191.11	192.22	191.96	192.33	190.82	190.82	2.93
GP-35-W	ND	ND	189.91	189.84	189.90	189.87	189.28	189.65	189.48	189.83	188.17	188.17	1.74
GP-36-W	ND	ND	192.25	192.80	192.91	193.35	191.00	191.95	191.70	193.04	190.58	190.58	2.77
GP-37-W	ND	188.73	188.17	188.79	188.23	188.66	187.62	188.50	188.01	188.52	185.58	185.58	3.21
GP-38-W	ND	200.37	200.19	199.75	199.98	199.79	199.90	199.67	199.91	199.78	199.84	199.84	3.48
PZ-50	ND	ND	ND	ND	ND	ND	ND	190.22	189.24	ND	ND	ND	0.98
PZ-51	ND	ND	ND	ND	ND	ND	ND	168.96	169.52	168.33	168.43	168.43	1.19
PZ-52	ND	ND	ND	ND	ND	ND	ND	179.22	177.92	178.77	177.47	177.47	1.75
PZ-53	ND	ND	ND	ND	ND	ND	ND	183.71	183.28	183.61	182.36	182.36	1.35
<i>Average Surficial</i>	<i>181.86</i>	<i>194.19</i>	<i>190.81</i>	<i>189.62</i>	<i>191.28</i>	<i>191.06</i>	<i>189.03</i>	<i>188.54</i>	<i>188.19</i>	<i>188.90</i>	<i>186.62</i>		
42D	152.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.90
44D	174.63	ND	174.82	172.87	175.47	173.57	173.75	173.05	174.63	173.21	172.90	172.90	9.41
46D	192.16	ND	193.54	192.82	193.72	192.95	192.19	192.03	192.45	193.07	192.05	192.05	4.23
47D	163.45	ND	163.65	163.06	164.16	163.49	163.15	163.22	163.80	163.25	162.13	162.13	4.90
<i>Average Deep</i>	<i>170.68</i>	<i>ND</i>	<i>177.34</i>	<i>176.25</i>	<i>177.78</i>	<i>176.67</i>	<i>176.36</i>	<i>176.10</i>	<i>176.96</i>	<i>176.51</i>	<i>175.69</i>		
PB9	---	---	---	---	---	---	---	---	---	---	---	---	0.89
NOTE:		Indicates LOW Water											
		Indicates HIGH Water											
		ND= No Data											
		Range is the difference in high and low water levels for piezometer											

**Table 1B  
Piezometer Static Water Elevations for  
Dunn/Erwin Landfill**

Piez. No.	MIN	MAX
40S	156.72	171.68
41S	190.37	194.58
42S	154.20	168.05
44S	171.66	181.85
45S	179.11	182.63
46S	192.00	196.77
47S	174.92	185.39
48S	185.53	198.57
GP-24-W	189.47	191.59
GP-25-W	189.63	192.89
GP-27-W	189.15	192.04
GP-28-W	190.17	192.97
GP-30-W	190.84	195.21
GP-31-W	189.09	191.73
GP-33-W	190.15	194.45
GP-34-W	190.82	193.75
GP-35-W	188.17	189.91
GP-36-W	190.58	193.35
GP-37-W	185.58	188.79
GP-38-W	196.89	200.37
PZ-50	189.24	190.22
PZ-51	168.33	169.52
PZ-52	177.47	179.22
PZ-53	182.36	183.71
<i>Average Surficial</i>		
42D	147.06	167.96
44D	170.16	179.57
46D	191.65	195.88
47D	160.60	165.50
<i>Average Deep</i>		
PB9	189.93	190.82
NOTE:		

**Table 1C**  
**Turbidity and Specific Conductivity Measurements**  
**Dunn-Erwin MSW Landfill**  
**Harnett County, North Carolina**

	Oct-07			
	Turbidity	Temp.	pH	Conductivity
	<i>NTU</i>	<i>°C</i>	<i>pH</i>	<i>uMhos</i>
MW1	16	18	5.4	60
MW2	14	18	4.5	99
MW3R	28	18	5.6	127
MW4	19	20	4.6	70
MW5	32	19	6.4	169
MW6	65	21	4.6	144
MW7	120	19	4.6	180
MW8	1.9	20	4.5	119
MW9	50	19	4.6	117
MW10	140	20	5.8	198
MW16	40	18	6.1	136
MW23B	19	19	5.6	46
MW31	380	19	5.0	32
MW32	700	18	5.9	54
MW33	16.0	20	5.0	76
MW34	13	20	5.7	83
MW35	55	20	5.5	485
SWPT1	NA	NA	NA	NA
SWPT2	NA	NA	NA	NA
SWPT3	NA	NA	NA	NA

**Table 2**  
**Harnett County Dunn-Erwin Landfill**  
**Groundwater Velocity Data**  
**Based on Groundwater Gradients Estimated for the October 1995 Sampling Event**

MW	Shallow Wells						Estimated Velocities* (cm/s)					
	Note Ref.	K (cm/sec)*		n values*				1, Oct. 95	=(1)*i/(3) = (1)*i/(4) = (2)*i/(5) = (2)*i/(6)			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(a)	(b)	(c)	(d)
MW1		7.9E-07	1.0E-03	0.1	0.2	0.3	0.4	3.3E-02	2.6E-07	1.3E-07	1.1E-04	8.3E-05
MW2		3.5E-05	1.0E-03	0.1	0.2	0.3	0.4	4.0E-02	1.4E-05	7.0E-06	1.3E-04	1.0E-04
MW3		1.2E-05	1.0E-03	0.1	0.2	0.3	0.4	8.0E-02	9.2E-06	4.6E-06	2.7E-04	2.0E-04
MW4		1.2E-05	1.0E-03	0.1	0.2	0.3	0.4	8.0E-02	9.9E-06	5.0E-06	2.7E-04	2.0E-04
MW5		4.0E-05	1.0E-03	0.1	0.2	0.3	0.4	1.0E-01	4.0E-05	2.0E-05	3.3E-04	2.5E-04
MW6		3.5E-05	1.0E-03	0.1	0.2	0.3	0.4	8.0E-02	2.8E-05	1.4E-05	2.7E-04	2.0E-04
MW7B		NA	1.0E-03	0.1	0.2	0.3	0.4	1.0E-02	NA	NA	3.3E-05	2.5E-05
MW8		2.0E-06	1.0E-03	0.1	0.2	0.3	0.4	1.3E-02	2.5E-07	1.3E-07	4.2E-05	3.1E-05
MW9		8.6E-04				0.25		1.5E-02			5.2E-05	
MW10		3.0E-06				0.25		1.7E-02			2.0E-07	
MW11		2.5E-05				NA		NA			NA	
MW12		2.3E-05				NA		NA			NA	
MW13		5.5E-06				NA		NA			NA	
MW14		7.4E-07				NA		NA			NA	
MW15		2.2E-05				NA		NA			NA	
MW16		7.3E-08	1.0E-03	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW23B		2.8E-04	1.0E-03	0.1	0.2	0.3	0.4	2.0E-02	5.6E-05	2.8E-05	6.7E-05	5.0E-05
MW31		3.2E-06	1.0E-03	0.1	0.2	0.3	0.4	2.5E-02	8.0E-07	4.0E-07	8.3E-05	6.3E-05
MW32		2.9E-06	1.0E-03	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW33		4.1E-06	1.0E-03	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW34		NA	NA	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA
MW35		NA	NA	0.1	0.2	0.3	0.4	NA	NA	NA	NA	NA

\* Equation  $V=Ki/n$  (cm/sec)

Where V = Mean groundwater velocity as calculated by the above equation  
i = Hydraulic gradient (unitless), see note (7)  
n = Effective porosity (unitless), see notes (3) through (6)  
k = hydraulic conductivity, see notes (1) and (2)

**Notes:**

- NA refers to wells where data is unavailable
- (1) In situ hydraulic conductivity as estimated by Withers and Ravenel, "Evaluation of Groundwater Flow and Direction", November 1994
- (2) In situ site hydraulic conductivity as estimated for "Field Investigation of Contaminant Plume", October 1996, except MW9 and MW10 installed in March 2001, for which values are obtained from the Titan report. MW11 - MW15 calculated by ENSOL, Inc., August 2006 (based on slug tests).
- (3) Estimated as the lower limit for effective porosity, n, by Withers and Ravenel, Evaluation of Groundwater Flow and Direction, November 1994
- (4) Estimated as the upper limit for effective porosity, n, by Withers and Ravenel, Evaluation of Groundwater Flow and Direction, November 1994
- (5) Lower limit of effective porosity estimation in "Field Investigation of Contaminant Plume", October 1996.
- (6) Upper limit of effective porosity estimation in "Field Investigation of Contaminant Plume", October 1996.
- (7) Hydraulic gradient as estimated from groundwater contours based on groundwater data sampled in October 1995.
- (a) Velocity as estimated using Withers and Ravenel estimated hydraulic conductivity (1), the lower limit for effective porosity (3), and the corresponding hydraulic gradient estimated from Figure 1.
- (b) Velocity as estimated using Withers and Ravenel estimated hydraulic conductivity (1), the upper limit for effective porosity (4), and the corresponding hydraulic gradient estimated from Figure 1.
- (c) Velocity as estimated using estimated hydraulic conductivity (2), the effective porosity (5), and the corresponding hydraulic gradient estimated from Figure 1.
- (d) Velocity as estimated using estimated hydraulic conductivity (2), the effective porosity (6), and the corresponding hydraulic gradient estimated from Figure 1.
- (e) For MW9 and MW10 installed in March 2001, velocity was computed for values obtained from the Titan report.

**Table 3  
Summary of Results of Various Statistical Analyses Detected Inorganics  
October 2007**

Constituent	Test Set 1 <sup>1</sup>	Test Set 2 <sup>1</sup>	Test Set 3	Monitoring Wells Indicating SSI OBL	Detected > MDL	Detected > SWSL
Arsenic	Qualitative	Qualitative	Qualitative	None	Yes	No
Barium	TOP <sup>2</sup>	TOP <sup>2</sup>	TOP <sup>2</sup>	None	Yes	Yes
Beryllium	TOP <sup>2</sup> , PIA <sup>5</sup>	NA <sup>3</sup>	Qualitative	None	Yes	Yes
Cadmium	Qualitative	TOP <sup>2</sup>	Qualitative	None	Yes	No
Chromium	TOP <sup>2</sup>	TOP <sup>2</sup>	Qualitative	None	Yes	No
Cobalt	TOP <sup>2</sup> , PIA <sup>5</sup>	NA <sup>3</sup>	Qualitative	MW6	Yes	Yes
Copper	TOP <sup>2</sup>	NA <sup>3</sup>	TOP <sup>2</sup>	None	Yes	Yes
Lead	TOP <sup>2</sup> , PIA <sup>5</sup>	TOP <sup>2</sup>	Qualitative	None	Yes	Yes
Mercury	TOP <sup>2</sup>	Qualitative	NA <sup>6</sup>	MW6, MW7	Yes	Yes
Nickel	Qualitative	NA <sup>3</sup>	Qualitative	None	Yes	No
Selenium	Qualitative	Qualitative	Qualitative	None	Yes	No
Silver	Qualitative	Qualitative	Qualitative	None	No	No
Thallium	NA <sup>7</sup>	NA <sup>7</sup>	NA <sup>7</sup>	NA <sup>7</sup>	Yes	No
Tin	Qualitative	NA <sup>3</sup>	NA <sup>6</sup>	None	Yes	No
Vanadium	TOP <sup>2</sup>	NA <sup>3</sup>	Qualitative	None	Yes	No
Zinc	TOP <sup>2</sup>	NA <sup>3</sup>	TOP <sup>2</sup>	None	Yes	Yes

**Notes to Table 1:**

- MW23B, a Set 2 well, is statistically compared with Set 1 since it is located downgradient of the Set 1 wells.
- Those constituents which were tested using the test of proportions were also reviewed qualitatively.
- These constituents are not included in the 8 RCRA metals sampled for in data Set 2.
- Mercury is included only in Data Set 2 and annually in monitoring wells MW6, MW7, 7B, and MW8 in Data Set 1.
- The Prediction Interval Analysis is used when the TOP results are not accurate due to natural, statistically significant variations in concentrations which existed prior to the facility operation commencement.
- Tin and mercury are not included in the sampling of Data Set 3.
- Thallium was only detected at estimated values below SWSL; estimated values not included in statistical analysis.

**Abbreviations**

NP ANOVA = Non-Parametric ANOVA  
 TOP = Test of Proportions  
 PIA = Prediction Interval Analysis  
 NA = Not applicable  
 MDL = Method Detection Limit  
 SWSL = Solid Waste Section Limit

**Table 4A**  
**Summary of Appendices I & II Statistical Analysis Results**  
**October 2007**

Monitoring Well	Parameters Indicating SSIOBL	
	Inorganics	Organics
<b>Set 1</b>		
MW1 <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
MW31 <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
MW2	none	none
MW3	none	none
MW4	none	none
MW5	none	none
MW6	cobalt, mercury	benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene, vinyl chloride, xylenes, dichlorodifluoromethane
MW7B	mercury	chloroethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,1-trichloroethane, trichloroethylene, trichlorofluoromethane, vinyl chloride, xylenes, dichlorodifluoromethane
MW8	none	chloroethane, chloromethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene
MW9	none	benzene, chloroethane, 1,1-dichloroethane, methylene chloride, trichloroethylene, vinyl chloride, xylenes
MW10	none	chloroethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, xylenes
MW23B <sup>2</sup>	none	none
<b>Set 2 <sup>3</sup></b>		
MW16 <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
MW32	none	none
MW33	none	none
MW34	none	none
MW35	none	none
<b>Set 3 <sup>3</sup></b>		
SWPT1 <sup>1</sup>	NA <sup>1</sup>	NA <sup>1</sup>
SWPT2	none	none
SWPT3	none	none

1. NA indicates Not Applicable. These are upgradient wells or surface water points.
2. MW23B, a set 2 well, is statistically compared with Set 1 as it is located downgradient of the active landfill.
3. Set 2 was sampled, analyzed, and evaluated for Appendix I organics plus the eight (8) RCRA metals only. Set 3 was sampled, analyzed, and evaluated for Appendix I parameters only.

**Table 4B**  
**Notification Table**  
**NC Groundwater Exceedances**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**  
**October 2007**

Constituent	2L STD	13B STD	SWSL	MW31	MW6	MW7B	MW8	MW9	MW10	Notes
<b>Inorganics</b>										
Lead	15	--	10			31				Not SSIOBL, background Probable trace background Not SSIOBL, background Previously found in plume area
Thallium	NE	0.28	5.5			0.5				
Vanadium	NE	3.5	25	6.6	7.3	14.2			12.2	
Mercury	1.05	--	0.2			2.6		5		
<b>Organics</b>										
Benzene	1	--	1		6.1	4.1	2.6	5.4	2	MW6 - MW10 are located within previously identified contaminant plume. This area is included in pending corrective action.
1,4-Dichlorobenzene	1.4	--	1		7.7			2.5		
1,1-Dichloroethane	70	--	5			129				
1,2-Dichloroethane	0.38	--	1		0.6					
Methylene chloride	4.6	--	1		33	45.5	35.9	49.6		
Tetrachloroethylene	0.7	--	1		9.3	3.7	6.5	2.9		
Trichloroethylene	2.8	--	1		9.24	9.2	4.4	3.9		
Vinyl chloride	0.015	--	1		7.2	5	0.9	5.9	1.4	
<p>NE = Not Established  All units are in (ug/L) unless noted.  Values in italics are estimated.  Only wells with exceedances shown.  Only values &gt; 2L or 13B STD shown.</p>										

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 2 (MW2)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW2 Detects		NCGS (ug/l)	# Detects Averages	
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	0	29	700	0	0
Benzene	0	29	1	0	0
Carbon Disulfide	0	29	700	0	0
Chlorobenzene	0	29	50	0	0
Chloroethane	0	29	2800	0	0
Chloromethane	0	29	2.6	0	0
1,2-Dibromoethane	0	29	0.0004	0	0
1,4-Dichlorobenzene	0	29	1.4	0	0
cis-1,2-Dichloroethene	0	29	70	0	0
1,1-Dichloroethane	0	29	70	0	0
1,2-Dichloroethane	0	29	0.38	0	0
1,1-Dichloroethene	0	29	7	0	0
Methylene Chloride	0	29	4.6	0	0
Tetrachloroethylene	0	29	0.7	0	0
Toluene	0	29	1000	0	0
1,1,1-Trichloroethane	0	29	200	0	0
Trichloroethylene	0	29	2.8	0	0
Trichloroflouromethane	0	29	2100	0	0
Vinyl Chloride	0	29	0.015	0	0
Xylenes	0	29	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethylphthalate*	13	10	5000	1	1.3
bis(2-ethylhexyl)phthalate*	0	10	NE	0	0
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 3 (MW3)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW3 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	28	700	0	0
Benzene	0	28	1	0	0
Carbon Disulfide	64.4	28	700	1	2.30
Chlorobenzene	0	28	50	0	0
Chloroethane	0	28	2800	0	0
Chloromethane	0	28	2.6	0	0
1,2-Dibromoethane	0	28	0.0004	0	0
1,4-Dichlorobenzene	0	28	1.4	0	0
cis-1,2-Dichloroethene	0	28	70	0	0
1,1-Dichloroethane	0	28	70	0	0
1,2-Dichloroethane	0	28	0.38	0	0
1,1-Dichloroethene	0	28	7	0	0
Methylene Chloride	0	28	4.6	0	0
Tetrachloroethylene	0	28	0.7	0	0
Toluene	0	28	1000	0	0
1,1,1-Trichloroethane	0	28	200	0	0
Trichloroethylene	0	28	2.8	0	0
Trichlorofluoromethane	0	28	2100	0	0
Vinyl Chloride	0	28	0.015	0	0
Xylenes	0	28	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethylphthalate*	0	10	5000	0	0
bis(2-ethylhexyl)phthalate*	0	10	NE	0	0
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 4 (MW4)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW4 Detects		NCGS (ug/l)	# Detects : Averages	
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	0	29	700	0	0
Benzene	0	29	1	0	0
Carbon Disulfide	48.8	29	700	3	1.68
Chlorobenzene	0	29	50	0	0
Chloroethane	0	29	2800	0	0
Chloromethane	0	29	2.6	0	0
1,2-Dibromoethane	0	29	0.0004	0	0
1,4-Dichlorobenzene	0	29	1.4	0	0
cis-1,2-Dichloroethene	0	29	70	0	0
1,1-Dichloroethane	0	29	70	0	0
1,2-Dichloroethane	0	29	0.38	0	0
1,1-Dichloroethene	0	29	7	0	0
Methylene Chloride	0	29	4.6	0	0
Tetrachloroethylene	0	29	0.7	0	0
Toluene	0	29	1000	0	0
1,1,1-Trichloroethane	0	29	200	0	0
Trichloroethylene	0	29	2.8	0	0
Trichloroflouromethane	0	29	2100	0	0
Vinyl Chloride	0	29	0.015	0	0
Xylenes	0	29	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethyphthalate*	26	10	5000	2	2.60
bis(2-ethylhexyl)phthalate*	0	10	NE	0	0
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 5 (MW5)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW5 Detects		NCGS (ug/l)
	SUM	Events	
SAMPLING DATES			
ORGANICS (ug/l)			
Acetone	0	29	700
Benzene	0	29	1
Carbon Disulfide	37.3	29	700
Chlorobenzene	0	29	50
Chloroethane	0	29	2800
Chloromethane	0	29	2.6
1,2-Dibromoethane	0	29	0.0004
1,4-Dichlorobenzene	0	29	1.4
cis-1,2-Dichloroethene	0	29	70
1,1-Dichloroethane	0	29	70
1,2-Dichloroethane	0	29	0.38
1,1-Dichloroethene	0	29	7
Methylene Chloride	0	29	4.6
Tetrachloroethylene	0	29	0.7
Toluene	0	29	1000
1,1,1-Trichloroethane	0	29	200
Trichloroethylene	0	29	2.8
Trichloroflouromethane	0	29	2100
Vinyl Chloride	0	29	0.015
Xylenes	0	29	530
Dichlorodifluoromethane*	0	10	1400
Diethylphthalate*	0	10	5000
bis(2-ethylhexyl)phthalate*	0	10	NE
NOTES			

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 6 (MW6)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW6 Detects		NCGS (ug/l)	# Detects	Averages
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	170	30	700	1	5.67
Benzene	21.7	30	1	4	0.72
Carbon Disulfide	7.9	30	700	1	0.26
Chlorobenzene	135.6	30	50	7	4.52
Chloroethane	850.8	30	2800	17	28.36
Chloromethane	46	30	2.6	1	1.53
1,2-Dibromoethane	0	30	0.0004	0	0.00
1,4-Dichlorobenzene	25	30	1.4	4	0.83
cis-1,2-Dichloroethene	101	30	70	9	3.37
1,1-Dichloroethane	1394.7	30	70	28	46.49
1,2-Dichloroethane	0	30	0.38	0	0.00
1,1-Dichloroethene	84.6	30	7	2	2.82
Methylene Chloride	1338.8	30	4.6	24	44.63
Tetrachloroethylene	64.7	30	0.7	11	2.16
Toluene	0	30	1000	0	0.00
1,1,1-Trichloroethane	94.5	30	200	9	3.15
Trichloroethylene	161.54	30	2.8	19	5.38
Trichlorofluoromethane	0	30	2100	0	0.00
Vinyl Chloride	48.4	30	0.015	4	1.61
Xylenes (total)	437	30	530	13	14.57
Dichlorodifluoromethane*	42.1	19	1400	7	2.22
Diethylphthalate*	0	19	5000	0	0.00
bis(2-ethylhexyl)phthalate*	6.8	19	NE	1	0.36
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 7,7B (MW7,7B)**  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW7,7B Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	28	700	0	0
Benzene	9.9	28	1	3	0.353571
Carbon Disulfide	0	28	700	0	0
Chlorobenzene	11.3	28	50	2	0.403571
Chloroethane	772.1	28	2800	25	27.575
Chloromethane	64	28	2.6	1	2.285714
1,2-Dibromoethane	0	28	0.0004	0	0
1,4-Dichlorobenzene	0	28	1.4	0	0
cis-1,2-Dichloroethene	6	28	70	1	0.214286
1,1-Dichloroethane	3424.2	28	70	27	122.2929
1,2-Dichloroethane	8.7	28	0.38	1	0.310714
1,1-Dichloroethene	188.6	28	7	20	6.735714
Methylene Chloride	1422.7	28	4.6	21	50.81071
Tetrachloroethylene	12.7	28	0.7	2	0.453571
Toluene	76.8	28	1000	7	2.742857
1,1,1-Trichloroethane	600.7	28	200	17	21.45357
Trichloroethylene	128.4	28	2.8	17	4.585714
Trichloroflouromethane	131.8	28	2100	13	4.707143
Vinyl Chloride	10	28	0.015	2	0.357143
Xylenes	54.7	28	530	8	1.953571
Dichlorodifluoromethane*	761.5	19	1400	16	40.07895
Diethylphthalate*	13	19	5000	1	0.684211
bis(2-ethylhexyl)phthalate*	24	19	NE	1	1.263158
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 8 (MW8)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW8 Detects		NCGS (ug/l)	# Detects	Averages
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	0	30	700	0	0.00
Benzene	6.3	30	1	3	0.21
Carbon Disulfide	0	30	700	0	0.00
Chlorobenzene	0	30	50	0	0.00
Chloroethane	268.6	30	2800	14	8.95
Chloromethane	119.1	30	2.6	3	3.97
1,2-Dibromoethane	0	30	0.0004	0	0.00
1,4-Dichlorobenzene	1.3	30	1.4	1	0.04
cis-1,2-Dichloroethene	12.4	30	70	2	0.41
1,1-Dichloroethane	1217.5	30	70	24	40.58
1,2-Dichloroethane	0	30	0.38	0	0.00
1,1-Dichloroethene	81	30	7	1	2.70
Methylene Chloride	1160.7	30	4.6	20	38.69
Tetrachloroethylene	16.7	30	0.7	3	0.56
Toluene	0	30	1000	0	0.00
1,1,1-Trichloroethane	0	30	200	0	0.00
Trichloroethylene	27.3	30	2.8	7	0.91
Trichlorofluoromethane	0	30	2100	0	0.00
Vinyl Chloride	0	30	0.015	0	0.00
Xylenes	5	30	530	1	0.17
Dichlorodifluoromethane*	20.4	19	1400	4	1.073684
Diethylphthalate*	0	19	5000	0	0
bis(2-ethylhexyl)phthalate*	0	19	NE	0	0
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 9 (MW9)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW9 Detects		NCGS (ug/l)	# Detects	Averages
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	0	14	700	0	0
Benzene	71.3	14	1	10	5.092857
Carbon Disulfide	0	14	700	0	0
Chlorobenzene	180.9	14	50	12	12.92143
Chloroethane	399.3	14	2800	14	28.52143
Chloromethane	189	14	2.6	1	13.5
1,2-Dibromoethane	14	14	0.0004	1	1
1,4-Dichlorobenzene	2.5	14	1.4	1	0.178571
cis-1,2-Dichloroethene	34.1	14	70	5	2.435714
1,1-Dichloroethane	1563.9	14	70	13	111.7071
1,2-Dichloroethane	11.8	14	0.38	1	0.842857
1,1-Dichloroethene	0	14	7	0	0
Methylene Chloride	1720.5	14	4.6	13	122.8929
Tetrachloroethylene	18.6	14	0.7	4	1.328571
Toluene	0	14	1000	0	0
1,1,1-Trichloroethane	0	14	200	0	0
Trichloroethylene	102.6	14	2.8	13	7.328571
Trichloroflouromethane	0	14	2100	0	0
Vinyl Chloride	15	14	0.015	2	1.071429
Xylenes	169.7	14	530	9	12.12143
Dichlorodifluoromethane*	0	1	1400	0	NA
Diethyphthalate*	0	1	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	1	NE	0	NA
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 10 (MW10)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW10 Detects		NCGS (ug/l)	# Detects	Averages
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	939	14	700	4	67.07143
Benzene	27	14	1	5	1.928571
Carbon Disulfide	0	14	700	0	0
Chlorobenzene	122.9	14	50	9	8.778571
Chloroethane	285.4	14	2800	9	20.38571
Chloromethane	0	14	2.6	0	0
1,2-Dibromoethane	0	14	0.0004	0	0
1,4-Dichlorobenzene	1.3	14	1.4	1	0.092857
cis-1,2-Dichloroethene	156.7	14	70	13	11.19286
1,1-Dichloroethane	1314	14	70	13	93.85714
1,2-Dichloroethane	0	14	0.38	0	0
1,1-Dichloroethene	0	14	7	0	0
Methylene Chloride	898.5	14	4.6	11	64.17857
Tetrachloroethylene	57.2	14	0.7	6	4.085714
Toluene	0	14	1000	0	0
1,1,1-Trichloroethane	0	14	200	0	0
Trichloroethylene	36.8	14	2.8	4	2.628571
Trichlorofluoromethane	0	14	2100	0	0
Vinyl Chloride	11.4	14	0.015	2	0.814286
Xylenes	145.9	14	530	9	10.42143
Dichlorodifluoromethane*	0	1	1400	0	NA
Diethylphthalate*	0	1	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	1	NE	0	NA
NOTES					

**Table 5**  
**Groundwater Monitoring Well Data**  
**Monitoring Well 23B (MW23B)**  
**Downgradient Well - Set 1**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**

CONSTITUENT	MW23B Detects		NCGS (ug/l)	# Detects Averages	
	SUM	Events			
SAMPLING DATES					
ORGANICS (ug/l)					
Acetone	0	28	700	0	0
Benzene	0	28	1	0	0
Carbon Disulfide	0	28	700	0	0
Chlorobenzene	0	28	50	0	0
Chloroethane	0	28	2800	0	0
Chloromethane	0	28	2.6	0	0
1,2-Dibromoethane	0	28	0.0004	0	0
1,4-Dichlorobenzene	0	28	1.4	0	0
cis-1,2-Dichloroethene	0	28	70	0	0
1,1-Dichloroethane	0	28	70	0	0
1,2-Dichloroethane	0	28	0.38	0	0
1,1-Dichloroethene	0	28	7	0	0
Methylene Chloride	0	28	4.6	0	0
Tetrachloroethylene	0	28	0.7	0	0
Toluene	0	28	1000	0	0
1,1,1-Trichloroethane	0	28	200	0	0
Trichloroethylene	0	28	2.8	0	0
Trichlorofluoromethane	0	28	2100	0	0
Vinyl Chloride	0	28	0.015	0	0
Xylenes	0	28	530	0	0
Dichlorodifluoromethane*	0	2	1400	0	0
Diethylphthalate*	0	2	5000	0	0
bis(2-ethylhexyl)phthalate*	0	2	NE	0	0
NOTES					

**Table 5**  
**Total Downgradient Detects and Averages**  
**Set 1 Data**  
**Dunn-Erwin MSW Landfill**  
**Harnett County, NC**

CONSTITUENT	# Detects	Average Conc	NCGS	Avg/NCGS
			(ug/l)	
ORGANICS (ug/l)				
Acetone	5	7.27	700	1.04E-02
Benzene	25	0.83	1	<b>0.83</b>
Carbon Disulfide	7	0.55	700	7.90E-04
Chlorobenzene	30	2.66	50	0.05
Chloroethane	79	11.38	2800	4.06E-03
Chloromethane	6	2.13	2.6	0.82
1,2-Dibromoethane	1	0.10	0.0004	250
1,4-Dichlorobenzene	7	0.11	1.4	8.20E-02
cis-1,2-Dichloroethene	30	1.76	70	0.03
1,1-Dichloroethane	105	41.49	70	<b>0.59</b>
1,2-Dichloroethane	2	0.12	0.38	0.30
1,1-Dichloroethene	23	1.23	7	0.18
Methylene Chloride	89	32.12	4.6	<b>6.98</b>
Tetrachloroethylene	26	0.86	0.7	<b>1.23</b>
Toluene	7	0.27	1000	2.74E-04
1,1,1-Trichloroethane	26	2.46	200	0.01
Trichloroethylene	60	2.08	2.8	<b>0.74</b>
Trichlorofluoromethane	13	0.47	2100	2.24E-04
Vinyl Chloride	10	0.39	0.015	<b>25.7</b>
Xylenes	40	3.92	530	0.01
Dichlorodifluoromethane**	27	5.42	1400	3.87E-03
Diethylphthalate**	4	0.57	5000	1.15E-04
bis(2-ethylhexyl)phthalate**	2	0.20	NE	NE

**Table 5**  
**Average Concentrations in Plume Wells**  
**MW-6, MW-7B, MW-8, MW-9, and MW-10**  
**Dunn-Erwin MSW Landfill**  
**Harnett County, NC**

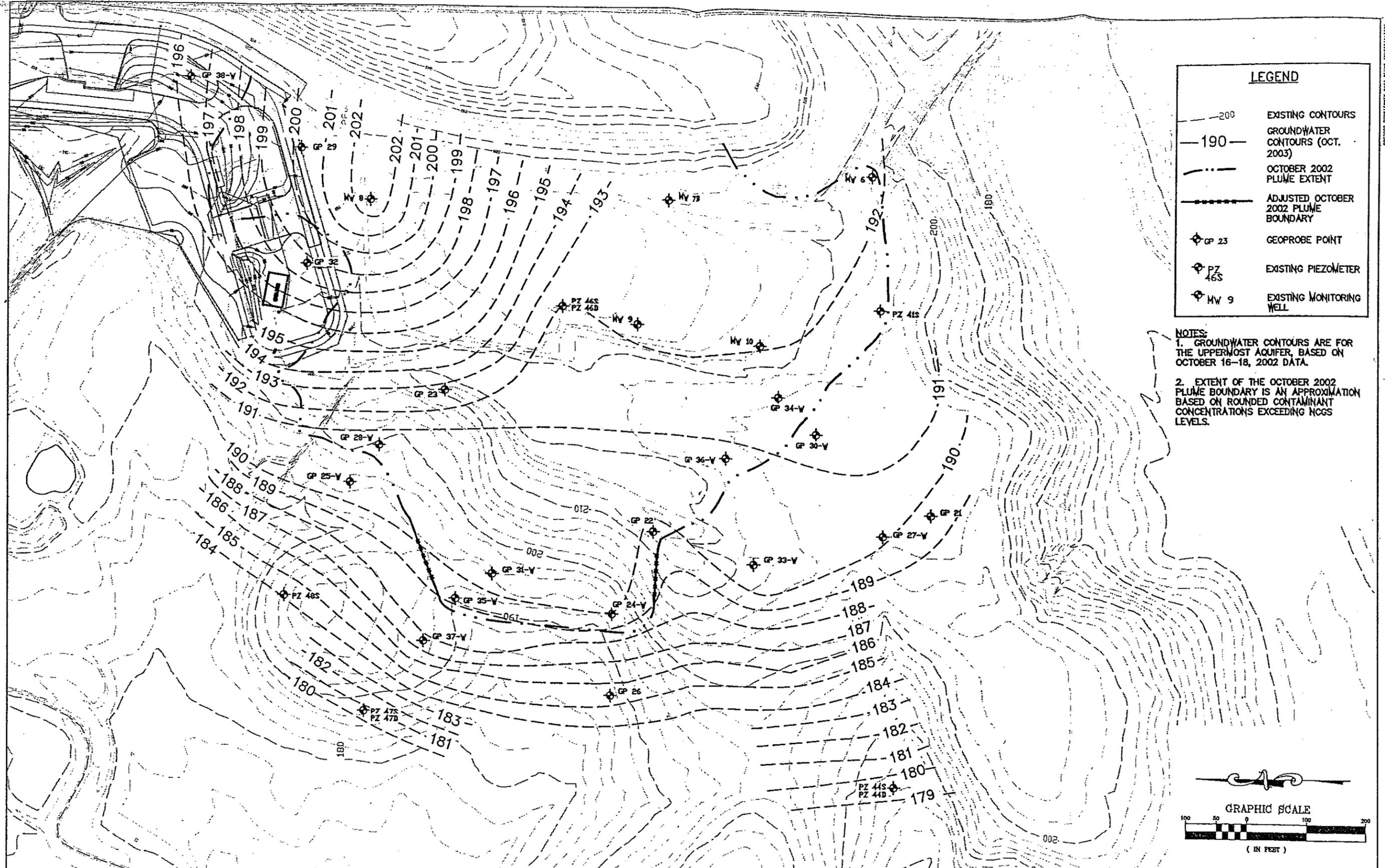
CONSTITUENT	# Detects	Average Conc	NCGS	Avg/NCGS
ORGANICS (ug/l)				
Acetone	5	14.55	700	2.08E-02
Benzene	25	1.66	1	<b>1.66</b>
Carbon Disulfide	1	0.05	700	7.52E-05
Chlorobenzene	30	5.32	50	0.11
Chloroethane	79	22.76	2800	0.01
Chloromethane	6	4.26	2.6	1.64
1,2-Dibromoethane	1	0.20	0.0004	500.00
1,4-Dichlorobenzene	7	0.23	1.4	1.64E-01
cis-1,2-Dichloroethene	30	3.52	70	0.05
1,1-Dichloroethane	105	82.99	70	<b>1.19</b>
1,2-Dichloroethane	2	0.23	0.38	0.61
1,1-Dichloroethene	23	2.45	7	0.35
Methylene Chloride	89	64.24	4.6	<b>13.97</b>
Tetrachloroethylene	26	1.72	0.7	<b>2.45</b>
Toluene	7	0.55	1000	5.49E-04
1,1,1-Trichloroethane	26	4.92	200	0.02
Trichloroethylene	60	4.17	2.8	<b>1.49</b>
Trichlorofluoromethane	13	0.94	2100	4.48E-04
Vinyl Chloride	10	0.77	0.015	<b>51.42</b>
Xylenes	40	7.85	530	0.01
Dichlorodifluoromethane**	27	14.46	1400	0.01
Diethylphthalate**	1	0.23	5000	4.56E-05
bis(2-ethylhexyl)phthalate**	2	0.54	NE	NE

**Table 6**  
**Comparison of Standards, SWSL, Current and Historic Detection Limits**  
**For selected Constituents**  
**Dunn-Erwin Landfill**  
**Harnett County, North Carolina**  
**October 2007**

Constituent	2L STD	13B STD	SWSL	2007 MDL	2006 DL
<b>Inorganics</b>					
Antimony	NE	1.4	6	0.05	30
Arsenic	50	--	10	0.47	10
Barium	2000	--	100	0.04	500
Beryllium	NE	4	1	0.08	2
Cadmium	1.75	--	1	0.06	1
Chromium	50	--	10	0.24	10
Cobalt	NE	70	10	0.41	10
Copper	1000	--	10	0.21	200
Lead	15	--	10	0.07	10
Nickel	100	--	50	0.66	50
Selenium	50	--	10	0.35	20
Silver	17.5	--	10	0.52	10
Thallium	NE	0.28	5.5	0.07	10
Vanadium	NE	3.5	25	0.42	40
Zinc	1050	--	10	0.2	50
Cyanide	70	--	10	5	50
Mercury	1.05	--	0.2	0.04	1
Tin	NE	NE	100	0.12	100
<b>Organics</b>					
Acetone	700	--	100	1.21	100
Benzene	1	--	1	0.16	5
Carbon disulfide	700	--	100	0.14	100
Chlorobenzene	50	--	3	0.13	5
Chloroethane	2800	--	10	0.29	10
Methyl chloride	2.6	--	1	0.18	10
1,2-Dibromoethane	0.0004	--	1	0.13	5
1,4-Dichlorobenzene	1.4	--	1	0.21	5
cis-1,2-Dichloroethene	70	--	5	0.14	5
1,1-Dichloroethane	70	--	5	0.16	5
1,2-Dichloroethane	0.38	--	1	0.12	5
1,1-Dichloroethene	7	--	5	0.14	5
Methylene chloride	4.6	--	1	0.14	10
Tetrachloroethylene	0.7	--	1	0.16	5
Toluene	1000	--	1	0.13	5
1,1,1-Trichloroethane	200	--	1	0.11	5
Trichloroethylene	2.8	--	1	0.13	5
Trichlorofluoromethane	2100	--	1	0.13	5
Vinyl chloride	0.015	--	1	0.34	10
Xylene (total)	530	--	5	0.48	5

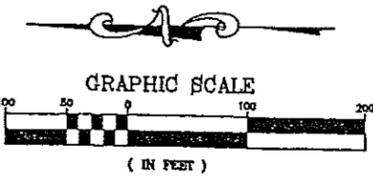
NE = Not Established  
All units are in (ug/L) unless noted.

## FIGURES



LEGEND	
— 200 —	EXISTING CONTOURS
— 190 —	GROUNDWATER CONTOURS (OCT. 2003)
- - - - -	OCTOBER 2002 PLUME EXTENT
—————	ADJUSTED OCTOBER 2002 PLUME BOUNDARY
⊕ GP 23	GEOPROBE POINT
⊕ PZ 46S	EXISTING PIEZOMETER
⊕ MW 9	EXISTING MONITORING WELL

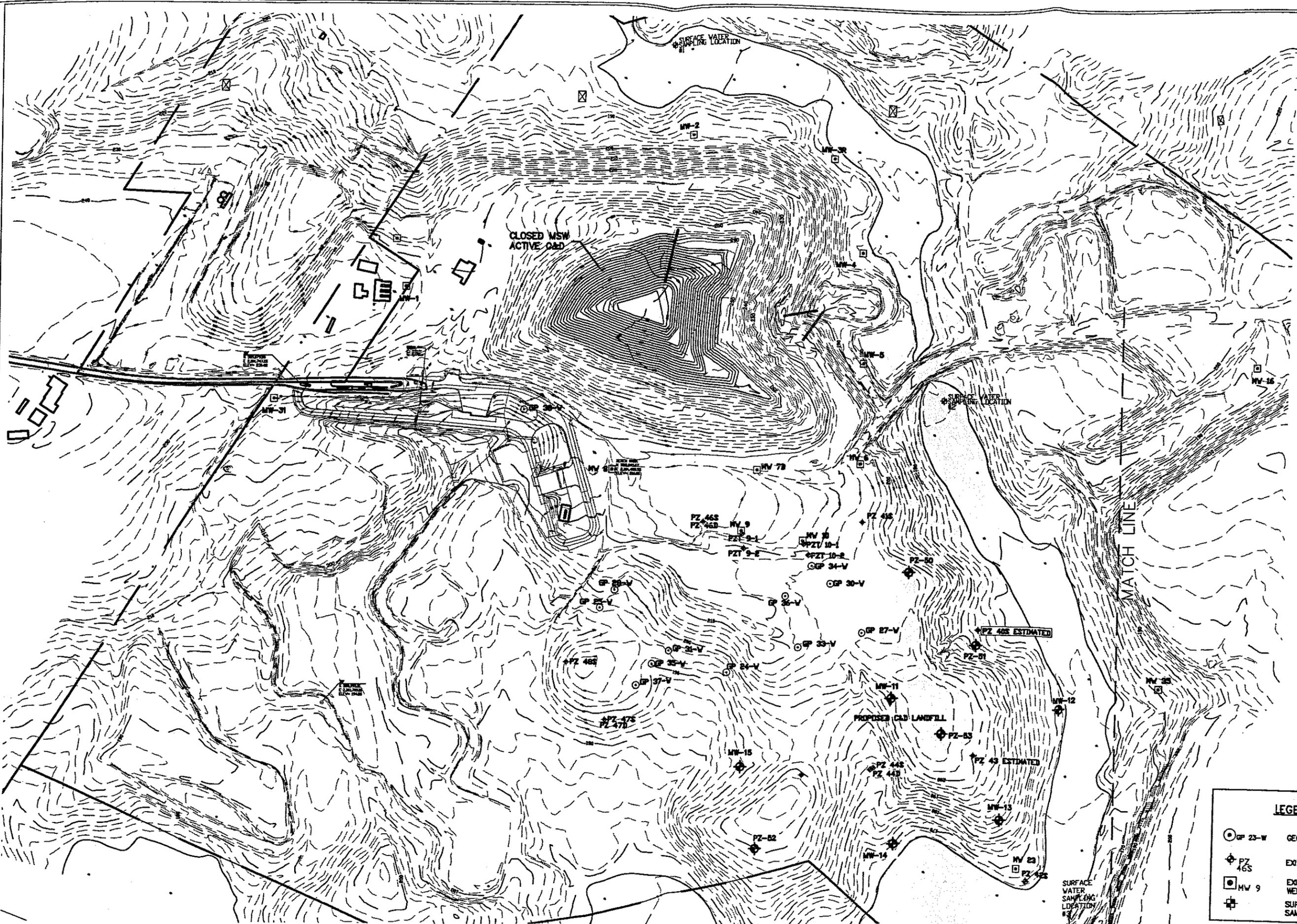
**NOTES:**  
 1. GROUNDWATER CONTOURS ARE FOR THE UPPERMOST AQUIFER, BASED ON OCTOBER 16-18, 2002 DATA.  
 2. EXTENT OF THE OCTOBER 2002 PLUME BOUNDARY IS AN APPROXIMATION BASED ON ROUNDED CONTAMINANT CONCENTRATIONS EXCEEDING NCGS LEVELS.



<p>ENSOL, Inc.          1513 WALNUT STREET, SUITE 250          CARY, NC 27511, USA          Tel: 919.380.7877          Fax: 919.467.9458          www.ensol.us</p>	<p><b>Clayton, Sr., P.E.</b>          C.T. Clayton, Sr., Professional Engineer          PO BOX 12794          NEW BEAN, NC 28561          Phone: 252.672.0304          Home Fax: 910.837.0660          Mobile: 252.671.6979          Fax: 252.672.8577          STATE:</p>	<p>PROJECT # : 0000202          PROJ. ENG. : CTC          DRAWN BY : CTC          CHECKED BY : CJP          CAD FILE : BSLF Plume 2002.dwg          SCALE : SEE GRAPHICAL SCALE          DATE : AUGUST 28, 2003          SHEET # : 1 OF 1          Email: ctc@cox.net</p>	<p><b>FIGURE 1</b>  <b>CONTAMINANT PLUME ASSESSMENT</b>          at  <b>DUNN/ERWIN LANDFILL</b>          HARRITT COUNTY          NORTH CAROLINA</p>
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000002 DUNN/ERWIN 2002 PLUME INVESTIGATION

P:\003\_Harnett County\030002\_Dunn\_Ewinlic AD\030002\dwg\030002\MAS.dwg, Nov 03, 2006, 5:54pm



PROJECT # : 0003002  
PROJ. ENG. : CTC  
DRAWN BY : CTC-JP  
FIELD FILE : CJP  
CAD FILE : DELV Plans 2004.dwg  
SCALE : 1" = 300'  
DATE : APRIL 4, 2006  
SHEET # : 1 OF 1

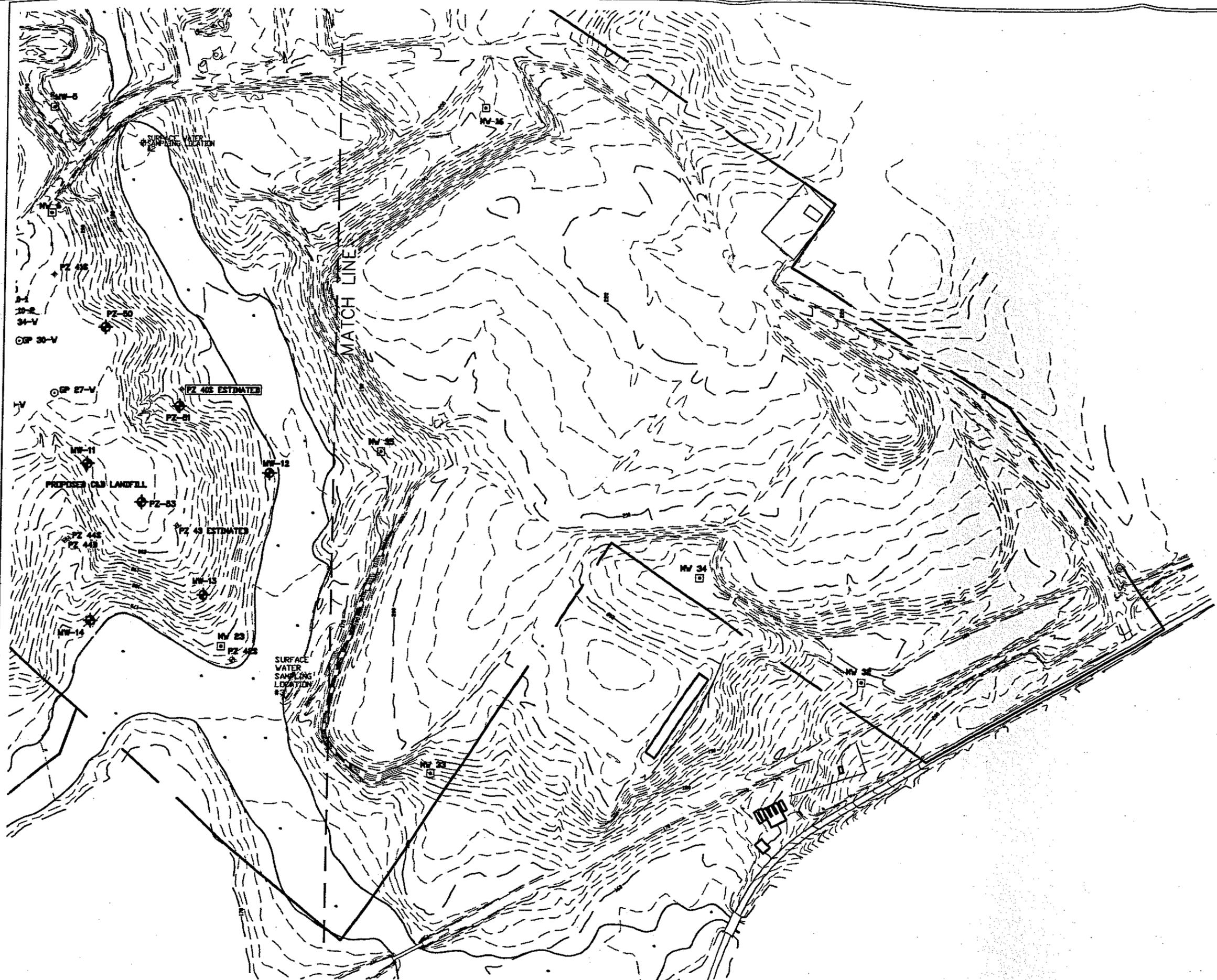
LAYOUT  
of  
**DUNN-ERWIN LANDFILL**  
FIGURE 2A  
HARNETT COUNTY  
NORTH CAROLINA

**Clayton, Sr., P.E., Inc.**  
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Fax: 252 672-8577  
DATE:

**LEGEND**

○ GP 23-W	GEOPROBE WELL
◆ PZ 46S	EXISTING PIEZOMETER
□ MW 9	EXISTING MONITORING WELL
⊕	SURFACE WATER SAMPLING LOCATION

D:\Sewer\Projects\03\_Harwell County\03902 Dunn\_Erwin\CAD\02\02.dwg, Oct 31, 2006, 4:33pm



**LEGEND**

⊙ GP 23-W	GEOPROBE WELL
⊕ PZ 46S	EXISTING PIEZOMETER
⊠ MW 9	EXISTING MONITORING WELL
⊕	SURFACE WATER SAMPLING LOCATION

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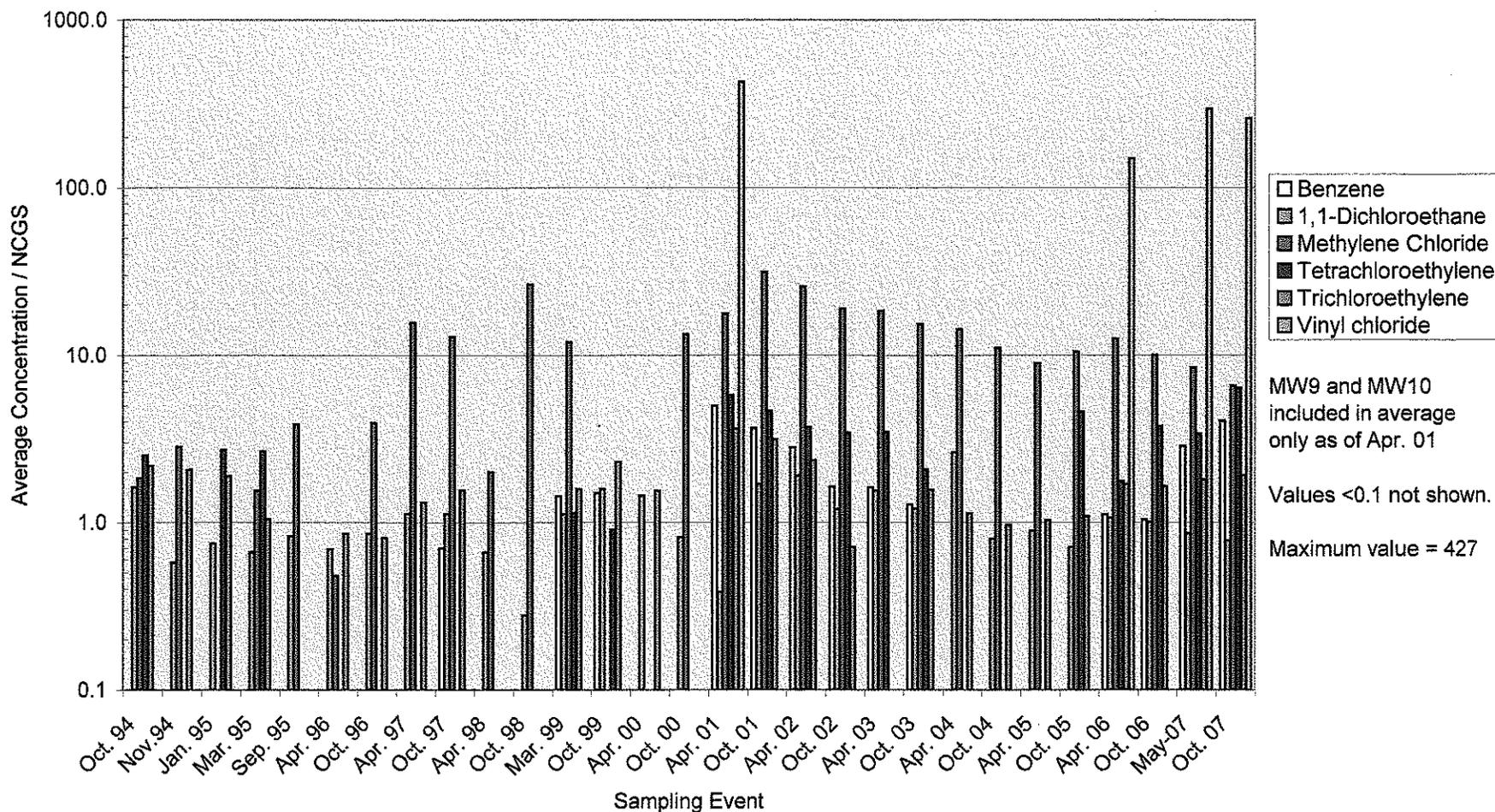
LAYOUT  
 of  
**DUNN-ERWIN LANDFILL**  
 FIGURE 2B

HARNETT COUNTY  
 NORTH CAROLINA

PROJECT # : 0003902  
 PROJ. ENR. : CTC  
 DRAWN BY : CTC JP.  
 FIELD FILE : CJP  
 CAD FILE : DLF Plans 2004.dwg  
 SCALE : 1" = 100'  
 DATE : APRIL 4, 2004  
 SHEET # : 1 OF 28

Figure 3

Top Six, NCGS-Normalized Average Organics Concentrations per Sampling Event  
 Averages for Select Downgradient Wells (Contaminant Plume Area)  
 MW6, MW7B, MW8, MW9, MW10  
 Dunn-Erwin Landfill, Harnett County



## **APPENDIX A**

### **DATA SET 1**

Groundwater Monitoring Well Data  
Monitoring Well 1 (MW1)  
Upgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW1																		
SAMPLING DATES	Oct. 94	Nov. 94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
<b>INORGANICS (mg/l)</b>																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.252	0.024	1.68	0.586								0.083		0.1					
Beryllium			0.024	0.006	0.002	NA	NA	0.002	NA	0.003	0.006	0.001	0.004	0.003		0.002			
Cadmium	0.0008	0.001	0.004	0.001		NA	NA		NA										
Chromium	0.005		0.018	0.011		NA	NA		NA		0.013		0.02						
Cobalt			0.016			NA	NA		NA										
Copper	0.017		0.078	0.018		NA	NA		NA			0.007							
Lead	0.005		0.104	0.104	0.02	NA	NA		NA		0.028	0.018							
Nickel			0.03			NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.02		0.083			NA	NA		NA										
Zinc	0.098	0.012	0.237	0.038	0.08	NA	NA		NA		0.0647								
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA	NA	NA								
Mercury*	NA	NA	NA	NA		NA	NA		NA	NA	NA								
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	0.1	NA		NA		NA	NA	NA
<b>ORGANICS (ug/l)</b>																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide		20.9				NA	NA		NA							7.4			
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichlorofluoromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethylphthalate*	NA	NA	NA	NA	5.3			5.3			9.8		NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA
			- indicates concentrations exceeding NCGS																
	"NE"	- not established																	
	"NA"	- not applicable																	
	*	-denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Well Data  
Monitoring Well 1 (MW1)  
Upgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	SAMPLING DATES														MW1 detects		NCGS
	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%		
<b>INORGANICS (mg/l)</b>																	(mg/l)
Antimony														0	0%	0.0014**	
Arsenic														0	0%	0.05	
Barium														6	21%	2	
Beryllium		0.002												11	38%	0.004**	
Cadmium														4	14%	0.00175	
Chromium														5	17%	0.05	
Cobalt														1	3%	0.07**	
Copper														4	14%	1	
Lead														6	21%	0.015	
Nickel														1	3%	0.1	
Selenium														0	0%	0.05	
Silver														0	0%	0.0175	
Vanadium														2	7%	0.0035**	
Zinc						0.08						0.011		8	28%	1.05	
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07	
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105	
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	NE	
<b>ORGANICS (ug/l)</b>																	(ug/l)
Acetone														0	0%	700	
Benzene														0	0%	1	
Carbon Disulfide														2	7%	700	
Chlorobenzene														0	0%	50	
Chloroethane														0	0%	2800	
Chloromethane														0	0%	2.6	
1,2-Dibromoethane														0	0%	0.0004	
1,4-Dichlorobenzene														0	0%	1.4	
cis-1,2-Dichloroethene														0	0%	70	
1,1-Dichloroethane														0	0%	70	
1,2-Dichloroethane														0	0%	0.38	
1,1-Dichloroethene														0	0%	7	
Methylene Chloride														0	0%	4.6	
Tetrachloroethylene														0	0%	0.7	
Toluene														0	0%	1000	
1,1,1-Trichloroethane														0	0%	200	
Trichloroethylene														0	0%	2.8	
Trichlorofluoromethane														0	0%	2100	
Vinyl Chloride														0	0%	0.015	
Xylenes														0	0%	530	
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400	
Diethylphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	30%	5000	
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE	
																	NCGS =
																	2L STD or
																	** 13B GWPS as of Oct 07







Groundwater Monitoring Well Data  
Monitoring Well 2 (MW2)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	SAMPLING DATES														MW2 Detects		NCGS
	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%		
<b>INORGANICS (mg/l)</b>																	(mg/l)
Antimony														0	0%	0.0014**	
Arsenic														2	7%	0.05	
Barium														7	24%	2	
Beryllium	0.002	0.002		0.004		0.002	0.003					0.002	0.0015	18	62%	0.004**	
Cadmium														4	14%	0.00175	
Chromium														6	21%	0.05	
Cobalt														3	10%	0.07**	
Copper														5	17%	1	
Lead														8	28%	0.015	
Nickel														2	7%	0.1	
Selenium														0	0%	0.05	
Silver														0	0%	0.0175	
Vanadium														4	14%	0.0035**	
Zinc												0.013		9	31%	1.05	
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07	
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	0.00105	
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	NE	
<b>ORGANICS (ug/l)</b>																	(ug/l)
Acetone														0	0%	700	
Benzene														0	0%	1	
Carbon Disulfide														0	0%	700	
Chlorobenzene														0	0%	50	
Chloroethane														0	0%	2800	
Chloromethane														0	0%	2.6	
1,2-Dibromoethane														0	0%	0.0004	
1,4-Dichlorobenzene														0	0%	1.4	
cis-1,2-Dichloroethene														0	0%	70	
1,1-Dichloroethane														0	0%	70	
1,2-Dichloroethane														0	0%	0.38	
1,1-Dichloroethene														0	0%	7	
Methylene Chloride														0	0%	4.6	
Tetrachloroethylene														0	0%	0.7	
Toluene														0	0%	1000	
1,1,1-Trichloroethane														0	0%	200	
Trichloroethylene														0	0%	2.8	
Trichlorofluoromethane														0	0%	2100	
Vinyl Chloride														0	0%	0.015	
Xylenes														0	0%	530	
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400	
Diethylphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	10%	5000	
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE	
NCGS = 2L STD or ** 13B GWPS as of Oct 07																	

Groundwater Monitoring Well Data  
Monitoring Well 3 (MW3)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW3																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
<b>INORGANICS (mg/l)</b>																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.095	0.174	0.083	0.061		NA	NA		NA			0.062			0.1				
Beryllium		0.004	0.08	0.007	0.007	NA	NA	0.007	NA	0.011	0.009	0.004	0.005	0.005	0.011	0.008	0.004	0.005	0.006
Cadmium		0.002	0.001	0.011		NA	NA		NA										
Chromium	0.005			0.003		NA	NA		NA							0.01			
Cobalt		0.005	0.012			NA	NA		NA										
Copper				0.006		NA	NA		NA			0.006							
Lead	0.006					NA	NA		NA			0.003				0.01			
Nickel						NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.009			0.07		NA	NA		NA										
Zinc	0.023	0.039	0.018	0.018	0.06	NA	NA		NA			0.03				0.05			
I-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA	NA	NA		NA	NA	NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	NA	NA		NA	NA	NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	NA	NA		NA	NA	NA	NA	NA
<b>ORGANICS (ug/l)</b>																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide		64.4				NA	NA		NA										
Chlorobenzene						NA	NA		NA										
Chloroethane						NA	NA		NA										
Chloromethane						NA	NA		NA										
1,2-Dibromoethane						NA	NA		NA										
1,4-Dichlorobenzene						NA	NA		NA										
cis-1,2-Dichloroethene						NA	NA		NA										
1,1-Dichloroethane						NA	NA		NA										
1,2-Dichloroethane						NA	NA		NA										
1,1-Dichloroethene						NA	NA		NA										
Methylene Chloride						NA	NA		NA										
Tetrachloroethylene						NA	NA		NA										
Toluene						NA	NA		NA										
1,1,1-Trichloroethane						NA	NA		NA										
Trichloroethylene						NA	NA		NA										
Trichlorofluoromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethylphthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA		NA		NA	NA	NA
		- indicates concentrations exceeding NCGS																	
		"NE" - not established																	
		"NA" - not applicable																	
		* denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Well Data  
Monitoring Well 3 (MW3)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW3R													MW3 Detects		NCGS
	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>SAMPLING DATES</b>																
<b>INORGANICS (mg/l)</b>																(mg/l)
Antimony								NA						0	0%	0.0014**
Arsenic								NA						0	0%	0.05
Barium								NA						6	21%	2
Beryllium	0.005	0.005	0.005	0.005	0.005	0.005	0.006	NA						22	79%	0.004**
Cadmium								NA						3	11%	0.00175
Chromium		0.014						NA						4	14%	0.05
Cobalt								NA						2	7%	0.07**
Copper								NA						2	7%	1
Lead								NA						3	11%	0.015
Nickel								NA						0	0%	0.1
Selenium								NA						0	0%	0.05
Silver								NA						0	0%	0.0175
Vanadium								NA						2	7%	0.0035**
Zinc								NA				0.015		8	29%	1.05
t-Cyanide*	NA	NA	NA	0	0%	0.07										
Mercury*	NA	NA	NA	0	0%	0.00105										
Tin*	NA	NA	NA	0	0%	NE										
<b>ORGANICS (ug/l)</b>																(ug/l)
Acetone								NA						0	0%	700
Benzene								NA						0	0%	1
Carbon Disulfide								NA						1	4%	700
Chlorobenzene								NA						0	0%	50
Chloroethane								NA						0	0%	2800
Chloromethane								NA						0	0%	2.6
1,2-Dibromoethane								NA						0	0%	0.0004
1,4-Dichlorobenzene								NA						0	0%	1.4
cis-1,2-Dichloroethene								NA						0	0%	70
1,1-Dichloroethane								NA						0	0%	70
1,2-Dichloroethane								NA						0	0%	0.38
1,1-Dichloroethene								NA						0	0%	7
Methylene Chloride								NA						0	0%	4.6
Tetrachloroethylene								NA						0	0%	0.7
Toluene								NA						0	0%	1000
1,1,1-Trichloroethane								NA						0	0%	200
Trichloroethylene								NA						0	0%	2.8
Trichlorofluoromethane								NA						0	0%	2100
Vinyl Chloride								NA						0	0%	0.015
Xylenes								NA						0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	0	0%	1400										
Diethylphthalate*	NA	NA	NA	0	0%	5000										
bis(2-ethylhexyl)phthalate*	NA	NA	NA	0	0%	NE										
																NCGS =
																2L STD or
																** 13B GWPS as of Oct 07



Groundwater Monitoring Well Data  
Monitoring Well 4 (MW4)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	SAMPLING DATES													MW4 Detects		NCGS
	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>INORGANICS (mg/l)</b>																(mg/l)
Antimony														0	0%	0.0014**
Arsenic														0	0%	0.05
Barium														6	21%	2
Beryllium	0.003	0.003	0.003	0.003		0.002	0.004		0.002	0.002	0.002	0.002	0.0026	25	86%	0.004**
Cadmium														2	7%	0.00175
Chromium														6	21%	0.05
Cobalt														2	7%	0.07**
Copper														5	17%	1
Lead														9	31%	0.015
Nickel														1	3%	0.1
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium														2	7%	0.0035**
Zinc												0.019		9	31%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
<b>ORGANICS (ug/l)</b>																(ug/l)
Acetone														0	0%	700
Benzene														0	0%	1
Carbon Disulfide														3	10%	700
Chlorobenzene														0	0%	50
Chloroethane														0	0%	2800
Chloromethane														0	0%	2.6
1,2-Dibromoethane														0	0%	0.0004
1,4-Dichlorobenzene														0	0%	1.4
cis-1,2-Dichloroethene														0	0%	70
1,1-Dichloroethane														0	0%	70
1,2-Dichloroethane														0	0%	0.38
1,1-Dichloroethene														0	0%	7
Methylene Chloride														0	0%	4.6
Tetrachloroethylene														0	0%	0.7
Toluene														0	0%	1000
1,1,1-Trichloroethane														0	0%	200
Trichloroethylene														0	0%	2.8
Trichlorofluoromethane														0	0%	2100
Vinyl Chloride														0	0%	0.015
Xylenes														0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethylphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	20%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
NCGS = 2L STD or ** 13B GWPS as of Oct 07																



Groundwater Monitoring Well Data  
Monitoring Well 5 (MW5)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	MW5 Detects		NCGS
														detect#	detect%	
<b>SAMPLING DATES</b>																
<b>INORGANICS (mg/l)</b>																(mg/l)
Antimony														0	0%	0.0014**
Arsenic														1	3%	0.05
Barium												0.112	0.103	10	34%	2
Beryllium														4	14%	0.004**
Cadmium														2	7%	0.00175
Chromium														1	3%	0.05
Cobalt														0	0%	0.07**
Copper														4	14%	1
Lead														4	14%	0.015
Nickel														1	3%	0.1
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium														1	3%	0.0035**
Zinc														5	17%	1.05
t-Cyanide*	NA	NA	NA	0	0%	0.07										
Mercury*	NA	NA	NA	0	0%	0.00105										
Tin*	NA	NA	NA	0	0%	NE										
<b>ORGANICS (ug/l)</b>																(ug/l)
Acetone														0	0%	700
Benzene														0	0%	1
Carbon Disulfide														2	7%	700
Chlorobenzene														0	0%	50
Chloroethane														0	0%	2800
Chloromethane														0	0%	2.6
1,2-Dibromoethane														0	0%	0.0004
1,4-Dichlorobenzene														0	0%	1.4
cis-1,2-Dichloroethene														0	0%	70
1,1-Dichloroethane														0	0%	70
1,2-Dichloroethane														0	0%	0.38
1,1-Dichloroethene														0	0%	7
Methylene Chloride														0	0%	4.6
Tetrachloroethylene														0	0%	0.7
Toluene														0	0%	1000
1,1,1-Trichloroethane														0	0%	200
Trichloroethylene														0	0%	2.8
Trichlorofluoromethane														0	0%	2100
Vinyl Chloride														0	0%	0.015
Xylenes														0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	0	0%	1400										
Diethylphthalate*	NA	NA	NA	0	0%	5000										
bis(2-ethylhexyl)phthalate*	NA	NA	NA	0	0%	NE										
																NCGS =
																2L STD or
																** 13B GWPS as of Oct 07



Groundwater Monitoring Well Data  
Monitoring Well 6 (MW6)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	SAMPLING DATES													MW6 Detects		NCGS
	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>INORGANICS (mg/l)</b>																(mg/l)
Antimony														0	0%	0.0014**
Arsenic														1	3%	0.05
Barium												0.148	0.103	9	31%	2
Beryllium														0	0%	0.004**
Cadmium														3	10%	0.00175
Chromium		0.017												6	21%	0.05
Cobalt	0.012	0.013		0.019	0.015	0.015	0.019	0.017	0.013	0.017	0.016	0.028	0.017	17	59%	0.07**
Copper														4	14%	1
Lead														8	28%	0.015
Nickel														1	3%	0.1
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium														4	14%	0.0035**
Zinc								91.6					0.015	7	24%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		0	0%	0.07
Mercury*		NA	0.00059	NA	0.0008	NA		NA		NA		NA	0.00036	7	47%	0.00105
Tin*		NA		NA		NA		NA		NA		NA		1	7%	NE
<b>ORGANICS (ug/l)</b>																(ug/l)
Acetone														1	3%	700
Benzene													6.1	4	13%	1
Carbon Disulfide														1	3%	700
Chlorobenzene														7	23%	50
Chloroethane	17	19					15.9			12.3				17	57%	2800
Chloromethane														1	3%	2.6
1,2-Dibromoethane														0	0%	0.0004
1,4-Dichlorobenzene									6.9			3.2	7.7	4	13%	1.4
cis-1,2-Dichloroethene		5.8							17.3	11.9	12.8	12.6	23.1	9	30%	70
1,1-Dichloroethane	27	28	27.7	6.6	18.4	13.1	7.4	8.9	33.2	18.6	18.4	13.9	22.7	28	93%	70
1,2-Dichloroethane														0	0%	0.38
1,1-Dichloroethene														2	7%	7
Methylene Chloride	47	37	34.8		28.2	12.8			64.5	20.1	12.9	8.8	33	24	80%	4.6
Tetrachloroethylene									7.1	6.2	8	6.9	9.3	11	37%	0.7
Toluene														0	0%	1000
1,1,1-Trichloroethane														9	30%	200
Trichloroethylene	6.4	5.2							8.8	7.1	9.1	7.7	9.24	19	63%	2.8
Trichlorofluoromethane														0	0%	2100
Vinyl Chloride										11.2		8	7.2	4	13%	0.015
Xylenes									9.8					13	43%	530
Dichlorodifluoromethane*		NA		NA		NA		NA		NA		NA		7	37%	1400
Diethylphthalate*		NA		NA		NA		NA		NA		NA		0	0%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		NA		NA		NA		NA		1	5%	NE
NCGS =																
2L STD or																
** 13B GWPS as of Oct 07																



Groundwater Monitoring Well Data  
Monitoring Well 7,7B (MW7,7B)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT														MW7,7B Detects		NCGS
SAMPLING DATES	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>INORGANICS (mg/l)</b>																(mg/l)
Antimony														0	0%	0.0014**
Arsenic														5	19%	0.05
Barium												0.341	0.345	8	31%	2
Beryllium														4	15%	0.004**
Cadmium														4	15%	0.00175
Chromium		0.013												12	46%	0.05
Cobalt	0.014		0.024	0.017	0.025	0.022	0.019	0.015	0.022	0.032	0.031	0.025	0.026	22	85%	0.07**
Copper														4	15%	1
Lead	0.017	0.020			0.035		0.018	0.027	0.019	0.010	0.015	0.014	0.031	22	85%	0.015
Nickel														1	4%	0.1
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium														7	27%	0.0035**
Zinc														6	23%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		0	0%	0.07
Mercury*	0.00099	NA	0.0027	NA	0.00142	NA	0.0011	NA	0.0015	NA	0.0046	NA	0.0026	9	69%	0.00105
Tin*		NA	0.179	NA		NA		NA		NA		NA		1	8%	NE
<b>ORGANICS (ug/l)</b>																(ug/l)
Acetone														0	0%	700
Benzene												4.7	4.1	3	11%	1
Carbon Disulfide														0	0%	700
Chlorobenzene				6			5.3							2	7%	50
Chloroethane	22	34	14.9	19.9	30.7	28.5	22.6	13.6	21.9	24.9	16.1	10.5	12.4	25	89%	2800
Chloromethane														1	4%	2.6
1,2-Dibromoethane														0	0%	0.0004
1,4-Dichlorobenzene														0	0%	1.4
cis-1,2-Dichloroethene												6		1	4%	70
1,1-Dichloroethane	176	230	87.1	220	141	137	113	147	22.5	176	174	153	129	27	96%	70
1,2-Dichloroethane				8.7										1	4%	0.38
1,1-Dichloroethene	5.3	7.4	6.5	8.1	6	5.9		5.4						20	74%	7
Methylene Chloride	138	154	26.4	174	70.3	93.3	101	75.1	59.6	79.9	74.1	74.5	45.5	21	75%	4.6
Tetrachloroethylene									9					2	7%	0.7
Toluene														7	25%	1000
1,1,1-Trichloroethane	5.6	6.9		5.1										17	61%	200
Trichloroethylene	7.3	8.8			6.8	7.6	7.7	7.5		10.5	9.9	8.6	9.2	17	61%	2.8
Trichlorofluoromethane		7	5.1										1.5	13	46%	2100
Vinyl Chloride												5	5	2	7%	0.015
Xylenes		9.3		6.3			5.6					4.8		8	29%	530
Dichlorodifluoromethane*		NA	24.7	NA	20.6	NA	10.7	NA	12.6	NA	9.5	NA	7	16	84%	1400
Diethylphthalate*		NA		NA		NA		NA		NA		NA		1	5%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		NA		NA		NA		NA		1	5%	NE
	NCGS =															
	2L STD or															
	** 13B GWPS as of Oct 07															

Groundwater Monitoring Well Data  
Monitoring Well 8 (MW8)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW8																			
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	
<b>INORGANICS (mg/l)</b>																				
Antimony						NA	NA		NA											
Arsenic						NA	NA		NA		0.015									
Barium	0.043	0.05	0.025	0.032		NA	NA		NA			0.037					0.08			
Beryllium						NA	NA		NA		0.004					0.007				
Cadmium		0.002	0.001			NA	NA		NA		0.002									
Chromium		0.013				NA	NA		NA		0.111	0.009								
Cobalt						NA	NA		NA											
Copper	0.005	0.015	0.09	0.005		NA	NA		NA											
Lead		0.008			0.011	NA	NA		NA		0.073	0.008								
Nickel						NA	NA		NA											
Selenium						NA	NA		NA											
Silver						NA	NA		NA											
Vanadium		0.045				NA	NA		NA		0.410									
Zinc	0.02	0.035	0.019	0.009		NA	NA		NA		0.056	0.020		0.040						
I-Cyanide*	NA	NA	NA	NA		NA	NA		NA	0.127	NA		NA		NA		NA		NA	
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA		NA	0.002	NA		NA		NA	
Tin*	NA	NA	NA	NA		NA	NA		NA											
<b>ORGANICS (ug/l)</b>																				
Acetone						NA			NA											
Benzene						NA			NA			2.1			1.6					
Carbon Disulfide						NA			NA											
Chlorobenzene						NA			NA											
Chloroethane					16	NA	7.2		NA		31	22	12.2		14	21	41	16	19	
Chloromethane						NA			NA							6.1	88			
1,2-Dibromoethane						NA			NA											
1,4-Dichlorobenzene						NA			NA											
cis-1,2-Dichloroethene						NA			NA											
1,1-Dichloroethane					6.4	NA	11	7.8	NA		45	47	10.2	39	37	59	92	44	135	
1,2-Dichloroethane						NA			NA											
1,1-Dichloroethene						NA			NA											
Methylene Chloride						NA			NA		49	31	5.2	25	30			74	140	
Tetrachloroethylene						NA			NA											
Toluene						NA			NA											
1,1,1-Trichloroethane						NA			NA											
Trichloroethylene						NA			NA			2.2			1.8	2.8			6.60	
Trichlorofluoromethane						NA			NA											
Vinyl Chloride						NA			NA											
Xylenes						NA			NA										5.00	
Dichlorodifluoromethane*	NA	NA	NA	NA	7	6.8							NA		2.3	4.3	NA		NA	
Diethylphthalate*	NA	NA	NA	NA									NA				NA		NA	
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA									NA				NA		NA	
	"NE"	- indicates concentrations exceeding NCGS																		
	"NE"	- not established																		
	"NA"	- not applicable																		
	*	-denotes an Appendix II constituent not included in Appendix I																		

Groundwater Monitoring Well Data  
Monitoring Well 8 (MW8)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	SAMPLING DATES													MW8 Detects		NCGS
	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>INORGANICS (mg/l)</b>																(mg/l)
Antimony														0	0%	0.0014**
Arsenic														1	3%	0.05
Barium														6	21%	2
Beryllium														2	7%	0.004**
Cadmium														3	10%	0.00175
Chromium	0.022													4	14%	0.05
Cobalt														0	0%	0.07**
Copper														5	17%	1
Lead														4	14%	0.015
Nickel			0.053											1	3%	0.1
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium	0.063													3	10%	0.0035**
Zinc														7	24%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		1	7%	0.07
Mercury*		NA		NA		NA		NA		NA		NA		1	7%	0.00105
Tin*		NA		NA		NA		NA		NA		NA		0	0%	NE
<b>ORGANICS (ug/l)</b>																(ug/l)
Acetone														0	0%	700
Benzene												2.6		3	10%	1
Carbon Disulfide														0	0%	700
Chlorobenzene														0	0%	50
Chloroethane		28	15.3	12.7	13.2									14	47%	2800
Chloromethane	25													3	10%	2.6
1,2-Dibromoethane														0	0%	0.0004
1,4-Dichlorobenzene												1.3		1	3%	1.4
cis-1,2-Dichloroethene											7	5.4		2	7%	70
1,1-Dichloroethane		80	76.8	71.5	59.2	42.7	31	38.9	59	58.6	63	49.1	54.3	24	80%	70
1,2-Dichloroethane														0	0%	0.38
1,1-Dichloroethene	61													1	3%	7
Methylene Chloride	92	90	80.5	71.2	69	44.5	39.9	40.6	63.3	64	67.2	48.4	35.9	20	67%	4.6
Tetrachloroethylene											5.2	5	6.5	3	10%	0.7
Toluene														0	0%	1000
1,1,1-Trichloroethane														0	0%	200
Trichloroethylene	5.3											4	4.4	7	23%	2.8
Trichlorofluoromethane														0	0%	2100
Vinyl Chloride														0	0%	0.015
Xylenes														1	3%	530
Dichlorodifluoromethane*		NA		NA		NA		NA		NA		NA		4	21%	1400
Diethylphthalate*		NA		NA		NA		NA		NA		NA		0	0%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		NA		NA		NA		NA		0	0%	NE
NCGS = 2L STD or ** 13B GWPS as of Oct 07																

Groundwater Monitoring Well Data  
Monitoring Well 9 (MW9)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW9														MW9 Detects		NCGS
	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>INORGANICS (mg/l)</b>																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															0	0%	0.05
Barium													0.103	0.123	2	14%	2
Beryllium															0	0%	0.004**
Cadmium															0	0%	0.00175
Chromium		0.038	0.015	0.082											3	21%	0.05
Cobalt															0	0%	0.07**
Copper														0.013	1	7%	1
Lead				0.014											1	7%	0.015
Nickel															0	0%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium		0.078		0.189											2	14%	0.0035**
Zinc															0	0%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005	1	NA	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	NE
<b>ORGANICS (ug/l)</b>																	(ug/l)
Acetone															0	0%	700
Benzene	8.6	11	7.8	8.2	8.1	6.4					5.6	5.2	5	5.4	10	71%	1
Carbon Disulfide															0	0%	700
Chlorobenzene			18	23.6	19.8	18	16.2	10.3	10.1	12.1	18.2	11.7	11.1	11.8	12	86%	50
Chloroethane	65	51	39	35.7	27.4	36	21.4	16.5	15.7	22.4	23.5	20.3	13	12.4	14	100%	2800
Chloromethane	189														1	7%	2.6
1,2-Dibromoethane		14													1	7%	0.0004
1,4-Dichlorobenzene														2.5	1	7%	1.4
cis-1,2-Dichloroethene				6							6.5	7.9	5.7	8	5	36%	70
1,1-Dichloroethane		126	219	170	202	135	122	75.2	81.9	110	103	87	74.7	58.1	13	93%	70
1,2-Dichloroethane					11.8										1	7%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride		195	231	272	197	166	127	67.9	56.7	76.7	122	96.4	64.2	49.6	13	93%	4.6
Tetrachloroethylene		5.3		5.3	5.1									2.9	4	29%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene	11	15	9.8	10		9.5	8.2	5.8	7	6.5	6.2	5	4.7	3.9	13	93%	2.8
Trichlorofluoromethane															0	0%	2100
Vinyl Chloride													9.1	5.9	2	14%	0.015
Xylenes	26	39	25	24.5	19.6	15.6	7.3				7.1	5.6			9	64%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	1400
Diethylphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	NE
	- indicates concentrations exceeding NCGS																
	"NE" - not established																NCGS =
	"NA" - not applicable																2L STD or
	* - denotes an Appendix II constituent not included in Appendix I																** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data  
Monitoring Well 10 (MW10)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW10														MW10 Detects		NCGS
	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>SAMPLING DATES</b>																	
<b>INORGANICS (mg/l)</b>																	(mg/l)
Antimony															0	0%	0.0014**
Arsenic															0	0%	0.05
Barium															0	0%	2
Beryllium															0	0%	0.004**
Cadmium															0	0%	0.00175
Chromium	0.014		0.013	0.118						0.012					4	29%	0.05
Cobalt															0	0%	0.07**
Copper														0.018	1	7%	1
Lead				0.012											1	7%	0.015
Nickel															0	0%	0.1
Selenium															0	0%	0.05
Silver															0	0%	0.0175
Vanadium				0.246											1	7%	0.0035**
Zinc	0.052												0.019		2	14%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	NE
<b>ORGANICS (ug/l)</b>																	(ug/l)
Acetone					156				130	419	234				4	29%	700
Benzene	6.9	7.3	6.2										4.6	2	5	36%	1
Carbon Disulfide															0	0%	700
Chlorobenzene	25	33	21	9.2		6.8	5.7	6.7					3.4		8	57%	50
Chloroethane	72	47	51	16.7	11.6	18.8	19.1	19.8	12.2						9	64%	2800
Chloromethane															0	0%	2.6
1,2-Dibromoethane															0	0%	0.0004
1,4-Dichlorobenzene														1.3	1	7%	1.4
cis-1,2-Dichloroethene	17	17	20	6.9		6.8	11.7	12.6	10.7	6.5	15.8	7.9	16.9	6.9	13	93%	70
1,1-Dichloroethane		266	109	59.3	42.6	69.1	606	53.3	34.9	25.2	19.1	9.4	10.9	9.2	13	93%	70
1,2-Dichloroethane															0	0%	0.38
1,1-Dichloroethene															0	0%	7
Methylene Chloride	120	310	132	59.3	19.7	48.7	48	67.7	51.6		27.1		14.4		11	79%	4.6
Tetrachloroethylene	12	11	13	6.8	7.1	7.3									6	43%	0.7
Toluene															0	0%	1000
1,1,1-Trichloroethane															0	0%	200
Trichloroethylene	11	11	9.1			5.7									4	29%	2.8
Trichlorofluoromethane															0	0%	2100
Vinyl Chloride	10													1.4	2	14%	0.015
Xylenes	35	39	30	7.4	5	6.4		12.3	5.5		5.3				9	64%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	1400
Diethylphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	NE
	- indicates concentrations exceeding NCGS																
	"NE" - not established																NCGS =
	"NA" - not applicable																2L STD or
	* -denotes an Appendix II constituent not included in Appendix I																** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data  
Monitoring Well 23B (MW23B)  
Downgradient Well - Set 1  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW23B																			
SAMPLING DATES	Oct. 94	Nov. 94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	July 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
<b>INORGANICS (mg/l)</b>																				
Antimony						NA				NA	NA									
Arsenic						NA	NA	NA	NA	NA		0.064	NA	NA	0.006	0.015				
Barium	0.071	0.17	0.109	0.228		NA	0.076		NA	NA			0.029	0.077	0.26	1.64	0.084			
Beryllium		0.002		0.02	0.019	NA		NA		NA	NA									
Cadmium	0.0008	0.001				NA			NA	NA										
Chromium	0.009	0.025		0.012	0.01	NA	0.0105		NA	NA					0.025	0.104				
Cobalt						NA		NA		NA	NA									
Copper	0.015	0.034	0.02	0.037		NA		NA		NA	NA									
Lead	0.005	0.015	0.006	0.018	0.027	NA	0.0157		NA	NA		0.005	0.002	0.009	0.049	0.069				
Nickel						NA		NA		NA	NA									
Selenium						NA			NA	NA						0.002				
Silver			0.105			NA			NA	NA										
Vanadium	0.013	0.05	0.006	0.04		NA		NA		NA	NA									
Zinc	0.043	0.035	0.021	0.047	0.06	NA		NA		NA	NA									
t-Cyanide*	NA		NA	NA	NA	NA														
Mercury*	NA	0.0017	0.0003																	
Tin*	NA		NA	NA	NA	NA														
<b>ORGANICS (ug/l)</b>																				
Acetone						NA			NA	NA	NA									
Benzene						NA			NA	NA	NA									
Carbon Disulfide						NA			NA	NA	NA									
Chlorobenzene						NA			NA	NA	NA									
Chloroethane						NA			NA	NA	NA									
Chloromethane						NA			NA	NA	NA									
1,2-Dibromoethane						NA			NA	NA	NA									
1,4-Dichlorobenzene						NA			NA	NA	NA									
cis-1,2-Dichloroethene						NA			NA	NA	NA									
1,1-Dichloroethane						NA			NA	NA	NA									
1,2-Dichloroethane						NA			NA	NA	NA									
1,1-Dichloroethene						NA			NA	NA	NA									
Methylene Chloride						NA			NA	NA	NA									
Tetrachloroethylene						NA			NA	NA	NA									
Toluene						NA			NA	NA	NA									
1,1,1-Trichloroethane						NA			NA	NA	NA									
Trichloroethylene						NA			NA	NA	NA									
Trichlorofluoromethane						NA			NA	NA	NA									
Vinyl Chloride						NA			NA	NA	NA									
Xylenes						NA			NA	NA	NA									
Dichlorodifluoromethane*	NA																			
Diethylphthalate*	NA																			
bis(2-ethylhexyl)phthalate*	NA																			
MW23B, a Set 2 well, is statistically compared with Set 1 since it is downgradient of Set 1 wells.																				
- indicates concentrations exceeding NCGS																				
"NE" - not established																				
"NA" - not applicable																				
* -denotes an Appendix II constituent not included in Appendix I																				



Recommended Test Per Constituent  
Total Detects and Percentages  
Set 1 Data  
Dunn-Erwin MSW Landfill  
Harnett County, NC

CONSTITUENT	SET 1 DATA		RECOMMENDED TEST
	Detect #	Detect %	
<b>INORGANICS (mg/l)</b>			
Antimony	0	0%	QUALITATIVE
Arsenic	18	6%	QUALITATIVE
Barium	75	24%	TEST OF PROPORTIONS*
Beryllium	95	33%	TEST OF PROPORTIONS*
Cadmium	31	10%	QUALITATIVE
Chromium	69	22%	TEST OF PROPORTIONS*
Cobalt	49	17%	TEST OF PROPORTIONS*
Copper	48	16%	TEST OF PROPORTIONS*
Lead	88	28%	TEST OF PROPORTIONS*
Nickel	8	3%	QUALITATIVE
Selenium	1	0%	QUALITATIVE
Silver	1	0%	QUALITATIVE
Vanadium	42	14%	TEST OF PROPORTIONS*
Zinc	76	26%	TEST OF PROPORTIONS*
t-Cyanide**	1	1%	QUALITATIVE
Mercury**	21	21%	TEST OF PROPORTIONS*
Tin**	4	5%	QUALITATIVE
<b>ORGANICS (ug/l)</b>			
Acetone	5	2%	QUALITATIVE
Benzene	25	8%	QUALITATIVE
Carbon Disulfide	9	3%	QUALITATIVE
Chlorobenzene	29	9%	QUALITATIVE
Chloroethane	79	25%	TEST OF PROPORTIONS*
Chloromethane	6	2%	QUALITATIVE
1,2-Dibromoethane	1	0%	QUALITATIVE
1,4-Dichlorobenzene	7	2%	QUALITATIVE
cis-1,2-Dichloroethene	30	9%	QUALITATIVE
1,1-Dichloroethane	105	33%	TEST OF PROPORTIONS*
1,2-Dichloroethane	2	1%	QUALITATIVE
1,1-Dichloroethene	23	7%	QUALITATIVE
Methylene Chloride	89	28%	TEST OF PROPORTIONS*
Tetrachloroethylene	26	8%	QUALITATIVE
Toluene	7	2%	QUALITATIVE
1,1,1-Trichloroethane	26	8%	QUALITATIVE
Trichloroethylene	60	19%	TEST OF PROPORTIONS*
Trichlorofluoromethane	13	4%	QUALITATIVE
Vinyl Chloride	10	3%	QUALITATIVE
Xylenes	40	13%	TEST OF PROPORTIONS*
Dichlorodifluoromethane**	27	23%	TEST OF PROPORTIONS*
Diethylphthalate**	7	6%	QUALITATIVE
bis(2-ethylhexyl)phthalate**	2	2%	QUALITATIVE
<b>NOTES:</b>			
* The Test of Proportions may be performed jointly with a qualitative test to ensure more accurate results.			
** These constituents are Appendix II constituents which were analyzed for the first time in September 1995.			

Test of Proportions  
Data Set 1  
Dunn-Erwin MSW Landfill  
Harnett County, North Carolina

Parameter	Nt	Pd	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
<b>DATA SET 1</b>											
<b>MW2</b>											
<b>METALS</b>											
Barium	87	0.2069	18	69	58	0.1897	29	0.2414	0.0921	-0.56144	not SSI OBL
Beryllium	87	0.4023	35	52	58	0.2931	29	0.6207	0.1115	-2.9374	SSI OBL
Cadmium	87	0.1379	12	75	58	0.1379	29	0.1379	0.0784	0	not SSI OBL
Chromium	87	0.2529	22	65	58	0.2759	29	0.2069	0.0989	0.697648	not SSI OBL
Cobalt	87	0.069	6	81	58	0.0517	29	0.1034	0.0576	-0.89753	not SSI OBL
Copper	87	0.2069	18	69	58	0.2241	29	0.1724	0.0921	0.561442	not SSI OBL
Lead	87	0.2874	25	62	58	0.2931	29	0.2759	0.1029	0.167525	not SSI OBL
Vanadium	87	0.1839	16	71	58	0.2069	29	0.1379	0.0881	0.782736	not SSI OBL
Zinc	87	0.3103	27	60	58	0.3103	29	0.3103	0.1052	0	not SSI OBL
Mercury	18	0.0556	1	17	12	0	6	0.1667	0.1145	-1.45521	*
<b>ORGANICS</b>											
Chloroethane	87	0	0	87	58	0	29	0	0	NA	*
1,1 Dichloroethane	87	0	0	87	58	0	29	0	0	NA	*
Methylene Chloride	87	0	0	87	58	0	29	0	0	NA	*
Trichloroethylene	87	0	0	87	58	0	29	0	0	NA	*
Xylenes	87	0	0	87	58	0	29	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
<b>MW3</b>											
<b>METALS</b>											
Barium	86	0.1977	17	69	58	0.1897	28	0.2143	0.0916	-0.26876	not SSI OBL
Beryllium	86	0.4535	39	47	58	0.2931	28	0.7857	0.1146	-4.29997	SSI OBL
Chromium	86	0.2326	20	66	58	0.2759	28	0.1429	0.0972	1.368116	not SSI OBL
Cobalt	86	0.0581	5	81	58	0.0517	28	0.0714	0.0538	-0.36591	not SSI OBL
Copper	86	0.1744	15	71	58	0.2241	28	0.0714	0.0873	1.748772	not SSI OBL
Lead	86	0.2326	20	66	58	0.2931	28	0.1071	0.0972	1.912829	not SSI OBL
Vanadium	86	0.1628	14	72	58	0.2069	28	0.0714	0.085	1.594589	not SSI OBL
Zinc	86	0.3023	26	60	58	0.3103	28	0.2857	0.1057	0.233053	not SSI OBL
Mercury	18	0	0	18	12	0	6	0	0	NA	*
<b>ORGANICS</b>											
Chloroethane	86	0	0	86	58	0	28	0	0	NA	*
1,1 Dichloroethane	86	0	0	86	58	0	28	0	0	NA	*
Methylene Chloride	86	0	0	86	58	0	28	0	0	NA	*
Trichloroethylene	86	0	0	86	58	0	28	0	0	NA	*
Xylenes	86	0	0	86	58	0	28	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
<b>MW4</b>											
<b>METALS</b>											
Barium	87	0.1954	17	70	58	0.1897	29	0.2069	0.0902	-0.19119	not SSI OBL
Beryllium	87	0.4828	42	45	58	0.2931	29	0.8621	0.1136	-5.00642	SSI OBL
Chromium	87	0.2529	22	65	58	0.2759	29	0.2069	0.0989	0.697648	not SSI OBL
Cobalt	87	0.0575	5	82	58	0.0517	29	0.069	0.0529	-0.32573	not SSI OBL
Copper	87	0.2069	18	69	58	0.2241	29	0.1724	0.0921	0.561442	not SSI OBL
Lead	87	0.2989	26	61	58	0.2931	29	0.3103	0.1041	-0.16561	not SSI OBL
Vanadium	87	0.1609	14	73	58	0.2069	29	0.069	0.0836	1.650476	not SSI OBL

Test of Proportions  
Data Set 1  
Dunn-Erwin MSW Landfill  
Harnett County, North Carolina

Parameter	Nt	Pdt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
Zinc	87	0.3103	27	60	58	0.3103	29	0.3103	0.1052	0	not SSIobl
Mercury	18	0	0	18	12	0	6	0	0	NA	*
<b>ORGANICS</b>											
Chloroethane	87	0	0	87	58	0	29	0	0	NA	*
1,1 Dichloroethane	87	0	0	87	58	0	29	0	0	NA	*
Methylene Chloride	87	0	0	87	58	0	29	0	0	NA	*
Trichloroethylene	87	0	0	87	58	0	29	0	0	NA	*
Xylenes	87	0	0	87	58	0	29	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
<b>MW5</b>											
Barium	87	0.2414	21	66	58	0.1897	29	0.3448	0.0973	-1.59443	not SSIobl
Beryllium	87	0.2414	21	66	58	0.2931	29	0.1379	0.0973	1.59443	not SSIobl
Chromium	87	0.1954	17	70	58	0.2759	29	0.0345	0.0902	2.676697	not SSIobl
Cobalt	87	0.0345	3	84	58	0.0517	29	0	0.0415	1.246423	*
Copper	87	0.1954	17	70	58	0.2241	29	0.1379	0.0902	0.955963	not SSIobl
Lead	87	0.2414	21	66	58	0.2931	29	0.1379	0.0973	1.59443	not SSIobl
Vanadium	87	0.1494	13	74	58	0.2069	29	0.0345	0.0811	2.126459	not SSIobl
Zinc	87	0.2644	23	64	58	0.3103	29	0.1724	0.1003	1.375247	not SSIobl
Mercury	18	0	0	18	12	0	6	0	0	NA	*
<b>ORGANICS</b>											
Chloroethane	87	0	0	87	58	0	29	0	0	NA	*
1,1 Dichloroethane	87	0	0	87	58	0	29	0	0	NA	*
Methylene Chloride	87	0	0	87	58	0	29	0	0	NA	*
Trichloroethylene	87	0	0	87	58	0	29	0	0	NA	*
Xylenes	87	0	0	87	58	0	29	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
<b>MW6</b>											
<b>METALS</b>											
Barium	87	0.2299	20	67	58	0.1897	29	0.3103	0.0957	-1.26122	not SSIobl
Beryllium	87	0.1954	17	70	58	0.2931	29	0	0.0902	3.250275	not SSIobl
Chromium	87	0.2529	22	65	58	0.2759	29	0.2069	0.0989	0.697648	not SSIobl
Cobalt	87	0.2299	20	67	58	0.0517	29	0.5862	0.0957	-5.5854	SSIobl
Copper	87	0.1954	17	70	58	0.2241	29	0.1379	0.0902	0.955963	not SSIobl
Lead	87	0.2874	25	62	58	0.2931	29	0.2759	0.1029	0.167525	not SSIobl
Vanadium	87	0.1839	16	71	58	0.2069	29	0.1379	0.0881	0.782736	not SSIobl
Zinc	87	0.2874	25	62	58	0.3103	29	0.2414	0.1029	0.670099	not SSIobl
Mercury	27	0.2593	7	20	12	0	15	0.4667	0.1697	-2.74955	SSIobl
<b>ORGANICS</b>											
Chloroethane	88	0.1932	17	71	58	0	30	0.5667	0.0888	-6.38249	SSIobl
1,1 Dichloroethane	88	0.3182	28	60	58	0	30	0.9333	0.1047	-8.91042	SSIobl
Methylene Chloride	88	0.2727	24	64	58	0	30	0.8	0.1002	-7.98749	SSIobl
Trichloroethylene	88	0.2159	19	69	58	0	30	0.6333	0.0925	-6.84458	SSIobl
Xylenes	88	0.1477	13	75	58	0	30	0.4333	0.0798	-5.43045	SSIobl
Dichlorodifluoromethane	39	0.1795	7	32	20	0	19	0.3684	0.1229	-2.99671	SSIobl
<b>MW7,7B</b>											
<b>METALS</b>											

Test of Proportions  
Data Set 1  
Dunn-Erwin MSW Landfill  
Harnett County, North Carolina

Parameter	Nt	PDI	B'C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
Barium	84	0.2262	19	65	58	0.1897	26	0.3077	0.0987	-1.19543	not SSI OBL
Beryllium	84	0.25	21	63	58	0.2931	26	0.1538	0.1022	1.362631	not SSI OBL
Chromium	84	0.3333	28	56	58	0.2759	26	0.4615	0.1113	-1.66888	not SSI OBL
Cobalt	84	0.2976	25	59	58	0.0517	26	0.8462	0.1079	-7.36207	SSI OBL
Copper	84	0.2024	17	67	58	0.2241	26	0.1538	0.0948	0.741281	not SSI OBL
Lead	84	0.4643	39	45	58	0.2931	26	0.8462	0.1177	-4.69858	SSI OBL
Vanadium	84	0.2262	19	65	58	0.2069	26	0.2692	0.0987	-0.6313	not SSI OBL
Zinc	84	0.2857	24	60	58	0.3103	26	0.2308	0.1066	0.746344	not SSI OBL
Mercury	25	0.36	9	16	12	0	13	0.6923	0.1922	-3.60288	SSI OBL
<b>ORGANICS</b>											
Chloroethane	86	0.2907	25	61	58	0	28	0.8929	0.1045	-8.54455	SSI OBL
1,1 Dichloroethane	86	0.314	27	59	58	0	28	0.9643	0.1068	-9.02901	SSI OBL
Methylene Chloride	86	0.2442	21	65	58	0	28	0.75	0.0989	-7.58643	SSI OBL
Trichloroethylene	86	0.1977	17	69	58	0	28	0.6071	0.0916	-6.62497	SSI OBL
Xylenes	86	0.093	8	78	58	0	28	0.2857	0.0668	-4.27447	SSI OBL
Dichlorodifluoromethane	39	0.4103	16	23	20	0	19	0.8421	0.1576	-5.344	SSI OBL
<b>MW8</b>											
<b>METALS</b>											
Barium	87	0.1954	17	70	58	0.1897	29	0.2069	0.0902	-0.19119	not SSI OBL
Beryllium	87	0.2184	19	68	58	0.2931	29	0.069	0.094	2.385375	not SSI OBL
Chromium	87	0.2299	20	67	58	0.2759	29	0.1379	0.0957	1.441392	not SSI OBL
Cobalt	87	0.0345	3	84	58	0.0517	29	0	0.0415	1.246423	*
Copper	87	0.2069	18	69	58	0.2241	29	0.1724	0.0921	0.561442	not SSI OBL
Lead	87	0.2414	21	66	58	0.2931	29	0.1379	0.0973	1.59443	not SSI OBL
Vanadium	87	0.1724	15	72	58	0.2069	29	0.1034	0.0859	1.204159	not SSI OBL
Zinc	87	0.2874	25	62	58	0.3103	29	0.2414	0.1029	0.670099	not SSI OBL
Mercury	26	0.0385	1	25	12	0	14	0.0714	0.0757	-0.94415	*
<b>ORGANICS</b>											
Chloroethane	88	0.1591	14	74	58	0	30	0.4667	0.0823	-5.67339	SSI OBL
1,1 Dichloroethane	88	0.2727	24	64	58	0	30	0.8	0.1002	-7.98749	SSI OBL
Methylene Chloride	88	0.2273	20	68	58	0	30	0.6667	0.0942	-7.07384	SSI OBL
Trichloroethylene	88	0.0795	7	81	58	0	30	0.2333	0.0609	-3.83443	SSI OBL
Xylenes	88	0.0114	1	87	58	0	30	0.0333	0.0238	-1.39841	*
Dichlorodifluoromethane	39	0.1026	4	35	20	0	19	0.2105	0.0972	-2.16604	*
<b>MW9</b>											
<b>METALS</b>											
Barium	72	0.1806	13	59	58	0.1897	14	0.1429	0.1145	0.408577	not SSI OBL
Beryllium	72	0.2361	17	55	58	0.2931	14	0	0.1265	2.317712	not SSI OBL
Chromium	72	0.2639	19	53	58	0.2759	14	0.2143	0.1312	0.469184	not SSI OBL
Cobalt	72	0.0417	3	69	58	0.0517	14	0	0.0595	0.869265	*
Copper	72	0.1944	14	58	58	0.2241	14	0.0714	0.1179	1.295782	not SSI OBL
Lead	72	0.25	18	54	58	0.2931	14	0.0714	0.1289	1.719205	not SSI OBL
Vanadium	72	0.1944	14	58	58	0.2069	14	0.1429	0.1179	0.543392	not SSI OBL
Zinc	72	0.25	18	54	58	0.3103	14	0	0.1289	2.406887	not SSI OBL
Mercury	13	0.0769	1	12	12	0	1	1	0.2774	-3.60555	*
<b>ORGANICS</b>											
Chloroethane	72	0.1944	14	58	58	0	14	1	0.1179	-8.48528	SSI OBL

Test of Proportions  
Data Set 1  
Dunn-Erwin MSW Landfill  
Harnett County, North Carolina

Parameter	Nt	Pd	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
1,1 Dichloroethane	72	0.1806	13	59	58	0	14	0.9286	0.1145	-8.10703	SSIOBL
Methylene Chloride	72	0.1806	13	59	58	0	14	0.9286	0.1145	-8.10703	SSIOBL
Trichloroethylene	72	0.1806	13	59	58	0	14	0.9286	0.1145	-8.10703	SSIOBL
Xylenes	72	0.125	9	63	58	0	14	0.6429	0.0985	-6.52781	SSIOBL
Dichlorodifluoromethane	21	0	0	21	20	0	1	0	0	NA	*
<b>MW10</b>											
<b>METALS</b>											
Barium	72	0.1528	11	61	58	0.1897	14	0	0.1071	1.770303	not SSIOBL
Beryllium	72	0.2361	17	55	58	0.2931	14	0	0.1265	2.317712	not SSIOBL
Chromium	72	0.2778	20	52	58	0.2759	14	0.2857	0.1334	-0.07387	not SSIOBL
Cobalt	72	0.0417	3	69	58	0.0517	14	0	0.0595	0.869265	*
Copper	72	0.1944	14	58	58	0.2241	14	0.0714	0.1179	1.295782	not SSIOBL
Lead	72	0.25	18	54	58	0.2931	14	0.0714	0.1289	1.719205	not SSIOBL
Vanadium	72	0.1806	13	59	58	0.2069	14	0.0714	0.1145	1.182724	not SSIOBL
Zinc	72	0.2778	20	52	58	0.3103	14	0.1429	0.1334	1.255771	not SSIOBL
Mercury	13	0	0	13	12	0	1	0	0	NA	*
<b>ORGANICS</b>											
Chloroethane	72	0.125	9	63	58	0	14	0.6429	0.0985	-6.52781	SSIOBL
1,1 Dichloroethane	72	0.1806	13	59	58	0	14	0.9286	0.1145	-8.10703	SSIOBL
Methylene Chloride	72	0.1528	11	61	58	0	14	0.7857	0.1071	-7.33411	SSIOBL
Trichloroethylene	72	0.0556	4	68	58	0	14	0.2857	0.0682	-4.18882	*
Xylenes	72	0.125	9	63	58	0	14	0.6429	0.0985	-6.52781	SSIOBL
Dichlorodifluoromethane	21	0	0	21	20	0	1	0	0	NA	*
<b>MW23B</b>											
<b>METALS</b>											
Barium	87	0.2414	21	66	58	0.1897	29	0.3448	0.0973	-1.59443	not SSIOBL
Cadmium	87	0.1149	10	77	58	0.1379	29	0.069	0.0725	0.950735	not SSIOBL
Chromium	87	0.2644	23	64	58	0.2759	29	0.2414	0.1003	0.343812	not SSIOBL
Lead	87	0.3218	28	59	58	0.2931	29	0.3793	0.1063	-0.81135	not SSIOBL
Mercury	34	0.0588	2	32	12	0	22	0.0909	0.0844	-1.07661	*
<b>ORGANICS</b>											
Chloroethane	86	0	0	86	58	0	28	0	0	NA	*
1,1 Dichloroethane	86	0	0	86	58	0	28	0	0	NA	*
Methylene Chloride	86	0	0	86	58	0	28	0	0	NA	*
Trichloroethylene	86	0	0	86	58	0	28	0	0	NA	*
Xylenes	86	0	0	86	58	0	28	0	0	NA	*

Test of Proportions  
 Data Set 1  
 Dunn-Erwin MSW Landfill  
 Harnett County, North Carolina

Parameter	Nt	Pdt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
NOTES: Nt = total number of well samples analyzed (upgradient + particular downgradient analyzed) = m + n Pdt = total proportion of detects for Nt for parameter analyzed m = total number of compliance well samples analyzed = # of sampling events for particular well analyzed n = total number of upgradient well samples analyzed = # of sampling events X # of upgradient wells Pu = proportion of upgradient detects for parameter analyzed Pd = proportion of downgradient detects for parameter and individual well analyzed Sd = standard error of the difference in proportions (8-4, Interim Final Guidance Doc.) Z = If the absolute value of Z is greater than 1.96, then there is a statistically significant difference between the upgradient well detection for the given parameter and the particular downgradient well analyzed. * = Columns headed with B*C and B*(1-C) require values greater than or equal to 5 in order to perform the test of proportions. An asterisk denotes that the constituent did not qualify for the test of proportions for that particular well. NA = Not Applicable. There are no detects of the particular constituent in the particular well analyzed. Mercury and Dichlorodifluoromethane not included in sampling at MW9 and MW10. Dichlorodifluoromethane not included in sampling at MW23B.											

Predictive Interval Analysis  
 Monitoring Well 3 (MW3)  
 Downgradient Well - Set 1  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

**Prediction Intervals Worksheet for Intrawell Comparisons**

**Dunn-Erwin Data Set 1**

**Well: MW2**

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

Background Data				
Parameter	Background data, mg/l		Sample Mean	Sample Stan. Dev.
	Beryllium	0.012	0.035	0.024

**Variables**

n=	2	<b>Where</b>	n= Background population
n-1=	1		n-1=degrees of freedom
m=	29		m=Compliance well sample population
t=	3.75		t=95th percentile of the Bonferroni - Statistics

**Prediction Interval:  $K=[O, X_{ave}+S(1/m+1/n)^{1/2} t_{n-1,K,0.95}]$**

Where

$X_{ave}$  = the mean concentration of the baseline sampling data

S = standard deviation of the baseline sampling data

Note:

The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

RESULTS			
Well Number	Prediction Interval	Mean Concentration of Non-Baseline Sampling Data	Result
Beryllium	[0,0.0681]	0.0025	Not Significant

Predictive Interval Analysis  
 Monitoring Well 3 (MW3)  
 Downgradient Well - Set 1  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

**Prediction Intervals Worksheet for Intrawell Comparisons**  
**Dunn-Erwin Data Set 1**  
**Well: MW3**

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

Background Data						
Parameter	Background data, mg/l				Sample Mean	Sample Stan. Dev.
	Beryllium	0.001	0.004	0.08	0.007	0.023

Variables		Where
n=	2	n= Background population
n-1=	1	n-1=degrees of freedom
m=	28	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

**Prediction Interval:  $K=[O, X_{ave}+S(1/m+1/n)^{1/2} t_{n-1,K,0.95}]$**

Where

$X_{ave}$  = the mean concentration of the baseline sampling data  
 S = standard deviation of the baseline sampling data

Note:

The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

RESULTS			
Well Number	Prediction Interval	Mean Concentration of Non-Baseline Sampling Data	Result
Beryllium	[0,0.1275]	0.00507	Not Significant

Predictive Interval Analysis  
 Monitoring Well 4 (MW4)  
 Downgradient Well - Set 1  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

**Prediction Intervals Worksheet for Intrawell Comparisons**  
**Dunn-Erwin Data Set 1**  
**Well: MW4**

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

Background Data						
Parameter	Background data, mg/l				Sample Mean	Sample Stan. Dev.
	Beryllium	0.001	0.001	0.003	0.003	0.002

**Variables**

n= 2  
 n-1= 1  
 m= 29  
 t= 3.75

**Where**

n= Background population  
 n-1=degrees of freedom  
 m=Compliance well sample population  
 t=95th percentile of the Bonferroni - Statistics

**Prediction Interval:  $K=[0, X_{ave}+S(1/m+1/n)^{1/2} t_{n-1,K,0.95}]$**

Where

$X_{ave}$  = the mean concentration of the baseline sampling data

S = standard deviation of the baseline sampling data

Note:

The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

RESULTS			
Well Number	Prediction Interval	Mean Concentration of Non-Baseline Sampling Data	Result
Beryllium	[0,0.0052]	0.00428	Not Significant

Predictive Interval Analysis  
 Monitoring Well 7,7B (MW7,7B)  
 Downgradient Well - Set 1  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

**Prediction Intervals Worksheet for Intrawell Comparisons**  
**Dunn-Erwin Data Set 1**  
**Well: MW7,7B**

Location: Data Set 1 - Shallow Aquifer

This Test compares baseline sampling concentrations to observed concentrations after waste has been deposited.

Background Data						
Parameter	Background data, mg/l			Sample Mean	Sample Stan. Dev.	
Cobalt	0.146	NT	NT	0.013	0.080	0.0940
Lead	0.519	NA	NA	0.044	0.282	0.3359

**Variables**

n= 2  
 n-1= 1  
 m= 26  
 t= 3.75

**Where**

n= Background population  
 n-1=degrees of freedom  
 m=Compliance well sample population  
 t=95th percentile of the Bonferroni - Statistics

**Prediction Interval:  $K=[0, X_{ave}+S(1/m+1/n)^{1/2} t_{n-1,K.095}]$**

Where

$X_{ave}$  = the mean concentration of the baseline sampling data  
 S = standard deviation of the baseline sampling data

Note:

The Prediction Interval establishes the range for the mean concentration of all non-baseline sampling data. Quantifications below the detection limit are entered as one-half the detection limit.

RESULTS			
Well Number	Prediction Interval	Mean Concentration of Non-Baseline Sampling Data	Result
Cobalt	[0,0.3383]	0.02093	Not Significant
Lead	[0,1.2057]	0.09005	Not Significant

## **APPENDIX B**

### **DATA SET 2**

Groundwater Monitoring Well Data  
Monitoring Well 16 (MW16)  
Upgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW16																	
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01
<b>INORGANICS (mg/l)</b>																		
Antimony						NA	NA			NA								
Arsenic						NA	NA											
Barium	0.112	0.194	0.114	0.147		NA	NA				0.104	0.099	0.1	0.281	0.162	0.06		
Beryllium						NA	NA			NA								
Cadmium	0.0018	0.001	0.006	0.007	0.002	NA	NA		0.0075	0.0049				0.001				
Chromium	0.004	0.007		0.005	0.01	NA	NA			0.019		0.006	0.008	0.062	0.019			
Cobalt						NA	NA		0.011	NA								
Copper	0.008	0.009	0.018	0.014		NA	NA			NA								
Lead	0.002	0.003		0.004	0.013	NA	NA		0.012	0.020	0.002			0.005	0.039	0.011	0.002	
Mercury						NA	NA						0.0002					
Nickel						NA	NA			NA								
Selenium						NA	NA											
Silver						NA	NA											
Vanadium	0.005	0.012				NA	NA			NA								
Zinc	0.012	0.014	0.015	0.027		NA	NA		0.070	NA								
<b>ORGANICS (ug/l)</b>																		
cis-1,2-dichloroethene						NA	NA											
methylene chloride			29.4			NA	NA											
mek; 2-butanone						NA	NA											
<b>NOTES</b>																		
	"NE"																	
	"NT"																	
	"NA"																	
	*																	

Groundwater Monitoring Well Data  
Monitoring Well 16 (MW16)  
Upgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	MW16 Detects		NCGS
														detect#	detect%	
SAMPLE DATE																
INORGANICS (mg/l)																(mg/l)
Antimony	NA	NA	NA	0	0%	0.0014**										
Arsenic														0	0%	0.05
Barium														10	34%	2
Beryllium	NA	NA	NA	0	0%	0.004**										
Cadmium														8	28%	0.00175
Chromium														9	31%	0.05
Cobalt	NA	NA	NA	1	14%	0.07**										
Copper	NA	NA	NA	4	57%	1										
Lead														11	38%	0.015
Mercury														1	3%	0.00105
Nickel	NA	NA	NA	0	0%	0.1										
Selenium														0	0%	0.05
Silver														0	0%	0.0175
Vanadium	NA	NA	NA	2	29%	0.0035**										
Zinc	NA	NA	NA	5	71%	1.05										
ORGANICS (ug/l)																(ug/l)
cis-1,2-dichloroethene														0	0%	70
methylene chloride														1	3%	4.6
mek; 2-butanone														0	0%	4200
NOTES																NCGS =
																2L STD or
																** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data  
Monitoring Well 32 (MW32)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW32																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
<b>INORGANICS (mg/l)</b>																			
Antimony		0.004				NA	NA			NA									
Arsenic		0.015		0.007		NA	NA							0.006	0.005				
Barium	0.097	0.646	0.145	0.251		NA	NA					0.043	0.249	0.352	0.303	0.067			
Beryllium				0.004		NA	NA			NA									
Cadmium	0.0013	0.004				NA	NA						0.025	0.001	0.001				
Chromium	0.004	0.133	0.015	0.022		NA	NA							0.038	0.041				
Cobalt		0.039	0.013	0.009		NA	NA			NA									
Copper	0.006	0.094	0.017	0.026		NA	NA			NA									
Lead	0.002	0.09	0.01	0.02		NA	NA				0.004	0.002	0.012	0.084	0.033				
Mercury						NA	NA												
Nickel		0.05				NA	NA			NA									
Selenium		0.002				NA	NA												
Silver						NA	NA												
Vanadium	0.005	0.41	0.045	0.09		NA	NA			NA									
Zinc	0.008	0.189	0.029	0.051		NA	NA			NA									
<b>ORGANICS (ug/l)</b>																			
cis-1,2-dichloroethene						NA	NA												
methylene chloride						NA	NA												
mek; 2-butanone			471			NA	NA												
<b>NOTES</b>																			
		- indicates concentrations exceeding NCGS																	
	"NE"	- not established																	
	"NT"	- not tested																	
	"NA"	- not applicable																	
	*	-denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Well Data  
Monitoring Well 32 (MW32)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT													MW32 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
INORGANICS (mg/l)															(mg/l)
Antimony	NA	NA	NA	1	14%	0.0014**									
Arsenic													4	14%	0.05
Barium													9	31%	2
Beryllium	NA	NA	NA	1	14%	0.004**									
Cadmium													5	17%	0.00175
Chromium			0.094	0.012									8	28%	0.05
Cobalt	NA	NA	NA	3	43%	0.07**									
Copper	NA	NA	NA	4	57%	1									
Lead			0.063				0.029		0.021		0.011	0.011	14	48%	0.015
Mercury													0	0%	0.00105
Nickel	NA	NA	NA	1	14%	0.1									
Selenium													1	3%	0.05
Silver													0	0%	0.0175
Vanadium	NA	NA	NA	4	57%	0.0035**									
Zinc	NA	NA	NA	4	57%	1.05									
ORGANICS (ug/l)															(ug/l)
cis-1,2-dichloroethene													0	0%	70
methylene chloride													0	0%	4.6
mek; 2-butanone													1	3%	4200
NOTES															
															NCGS =
															2L STD or
															** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data  
Monitoring Well 33 (MW33)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW33																		
SAMPLE DATE	Oct. 94	Nov. 94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Apr. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
<b>INORGANICS (mg/l)</b>																			
Antimony						NA	NA			NA									
Arsenic						NA	NA												
Barium	0.1	0.332	0.184	0.12		NA	NA				0.135	0.005	0.185	0.107	0.121	0.06			
Beryllium				0.008	0.007	NA	NA		0.004	NA									
Cadmium	0.0021	0.003	0.005			NA	NA												
Chromium	0.005	0.012	0.014	0.006		NA	NA						0.012	0.007					
Cobalt		0.006	0.006			NA	NA			NA									
Copper	0.013	0.02	0.028	0.015		NA	NA			NA									
Lead	0.004	0.012	0.014	0.006		NA	NA				0.004		0.016	0.01	0.011				
Mercury						NA	NA				0.0004							0.0005	
Nickel						NA	NA			NA	NA		NA						
Selenium						NA	NA												
Silver						NA	NA												
Vanadium	0.008	0.02	0.02			NA	NA			NA									
Zinc	0.011	0.026	0.42	0.023		NA	NA			NA									
<b>ORGANICS (ug/l)</b>																			
cis-1,2-dichloroethene							NA	NA					1.8	1.2	1.8				
methylene chloride							NA	NA											
mek; 2-butanone							NA	NA											
<b>NOTES</b>																			
		- indicates concentrations exceeding NCGS																	
	"NE"	- not established																	
	"NT"	- not tested																	
	"NA"	- not applicable																	
	*	-denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Well Data  
Monitoring Well 33 (MW33)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT													MW33 Detects		NCGS
	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
SAMPLE DATE															
INORGANICS (mg/l)															(mg/l)
Antimony	NA	NA	NA	0	0%	0.0014**									
Arsenic													0	0%	0.05
Barium													10	34%	2
Beryllium	NA	NA	NA	3	43%	0.004**									
Cadmium													3	10%	0.00175
Chromium													6	21%	0.05
Cobalt	NA	NA	NA	2	29%	0.07**									
Copper	NA	NA	NA	4	57%	1									
Lead													8	28%	0.015
Mercury													2	7%	0.00105
Nickel	NA	NA	NA	0	0%	0.1									
Selenium													0	0%	0.05
Silver													0	0%	0.0175
Vanadium	NA	NA	NA	3	43%	0.0035**									
Zinc	NA	NA	NA	4	57%	1.05									
ORGANICS (ug/l)															(ug/l)
cis-1,2-dichloroethene													3	10%	70
methylene chloride													0	0%	4.6
mek; 2-butanone													0	0%	4200
NOTES															
															NCGS =
															2L STD or
															** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data  
Monitoring Well 34 (MW34)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW34																	
SAMPLE DATE	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05
<b>INORGANICS (mg/l)</b>																		
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic																		
Barium			0.112	0.005	0.201	0.246	0.221	0.062										
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium																		
Chromium					0.017	0.031	0.012											
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead			0.003	0.002	0.02	0.025	0.02											
Mercury					0.0003	0.0003												
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium																		
Silver																		
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>ORGANICS (ug/l)</b>																		
cis-1,2-dichloroethene																		
methylene chloride																		
mek; 2-butanone																		
<b>NOTES</b>	MW34 was installed in June 1996 therefore no data prior to this date are available.																	
	- indicates concentrations exceeding NCGS																	
"NE"	- not established																	
"NT"	- not tested																	
"NA"	- not applicable																	
*	-denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Well Data  
Monitoring Well 34 (MW34)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT						MW34 Detects		NCGS
	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
SAMPLE DATE	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	(mg/l)
INORGANICS (mg/l)								(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	0.0014**
Arsenic						0	0%	0.05
Barium						6	26%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	0.004**
Cadmium						0	0%	0.00175
Chromium						3	16%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	1
Lead						5	26%	0.015
Mercury						2	11%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	0.1
Selenium						0	0%	0.05
Silver						0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	1.05
ORGANICS (ug/l)								(ug/l)
cis-1,2-dichloroethene						0	0%	70
methylene chloride						0	0%	4.6
mek; 2-butanone						0	0%	4200
<b>NOTES</b>								
MW34 was installed in Ju								NCGS =
"NE"								2L STD or
"NT"								** 13B GWPS as of Oct 07
"NA"								
*								

Groundwater Monitoring Well Data  
Monitoring Well 35 (MW35)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT	MW35																	
SAMPLE DATE	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05
<b>INORGANICS (mg/l)</b>																		
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic		0.0681	0.021		0.016	0.008	0.010											
Barium		2.06	0.877	0.005	0.489	0.848	0.512	0.132										
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		0.0119	0.206			0.001												
Chromium		0.406			0.077	0.148	0.035	0.006										
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead		0.355	0.105	0.002	0.055	0.110	0.043	0.003										
Mercury		0.002			0.0002	0.0004												
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium			0.004															
Silver																		
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>ORGANICS (ug/l)</b>																		
cis-1,2-dichloroethene																		
methylene chloride																		
mek; 2-butanone																		
<b>NOTES</b>																		
MW35 was installed in June 1996 therefore no data prior to this date are available.																		
- indicates concentrations exceeding NCGS																		
"NE"	- not established																	
"NT"	- not tested																	
"NA"	- not applicable																	
*	-denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Well Data  
Monitoring Well 35 (MW35)  
Downgradient Well - Set2  
Dunn-Erwin Landfill  
Harnett County, North Carolina

CONSTITUENT						MW35 Detects		NCGS
SAMPLE DATE	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
INORGANICS (mg/l)								(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	0.0014**
Arsenic						5	22%	0.05
Barium				0.132	0.318	7	39%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	0.004**
Cadmium						3	13%	0.00175
Chromium						5	26%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	1
Lead						7	37%	0.015
Mercury						3	16%	0.00105
Nickel	NA	NA	NA	NA	NA	NA	NA	0.1
Selenium						1	4%	0.05
Silver						0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	1.05
ORGANICS (ug/l)								(ug/l)
cis-1,2-dichloroethene						0	0%	70
methylene chloride						0	0%	4.6
mek; 2-butanone						0	0%	4200
NOTES								
MW35 was installed in Ju								NCGS =
								2L STD or
"NE"							** 13B GWPS as of Oct 07	
"NT"								
"NA"								
*								

Recommended Test Per Constituent  
 Total Detects and Percentages  
 Set 2 Data  
 Dunn-Erwin MSW Landfill  
 Harnett County, NC

CONSTITUENT	SET 2 DATA		RECOMMENDED TEST
	Detect #	Detect %	
<b>INORGANICS (mg/l)</b>			
Arsenic	9	7%	QUALITATIVE
Barium	42	32%	TEST OF PROPORTIONS*
Cadmium	19	14%	TEST OF PROPORTIONS*
Chromium	31	23%	TEST OF PROPORTIONS*
Lead	45	34%	TEST OF PROPORTIONS*
Mercury	8	6%	QUALITATIVE
Selenium	2	2%	QUALITATIVE
Silver	0	0%	QUALITATIVE
<b>ORGANICS (ug/l)</b>			
cis-1,2-dichloroethene	3	2%	QUALITATIVE
methylene chloride	1	1%	QUALITATIVE
mek; 2-butanone	1	1%	QUALITATIVE
<b>NOTES:</b>			
* The Test of Proportions may be performed jointly with a qualitative test to ensure more accurate results.			

Test of Proportions  
Data Set 2  
Dunn-Erwin MSW Landfill  
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
<b>DATA SET 2</b>											
<b>MW32</b>											
Barium	58	0.328	19	39	29	0.345	29	0.310	0.123	0.280	not SSI OBL
Cadmium	58	0.224	13	45	29	0.276	29	0.172	0.110	0.945	not SSI OBL
Chromium	58	0.293	17	41	29	0.310	29	0.276	0.120	0.288	not SSI OBL
Lead	58	0.431	25	33	29	0.379	29	0.483	0.130	-0.795	not SSI OBL
<b>MW33</b>											
Barium	58	0.345	20	38	29	0.345	29	0.345	0.125	0.000	not SSI OBL
Cadmium	58	0.190	11	47	29	0.276	29	0.103	0.103	1.675	not SSI OBL
Chromium	58	0.259	15	43	29	0.310	29	0.207	0.115	0.900	not SSI OBL
Lead	58	0.328	19	39	29	0.379	29	0.276	0.123	0.839	not SSI OBL
<b>MW34</b>											
Barium	52	0.308	16	36	29	0.345	23	0.261	0.129	0.652	not SSI OBL
Cadmium	52	0.154	8	44	29	0.276	23	0.000	0.101	2.738	not SSI OBL
Chromium	52	0.231	12	40	29	0.310	23	0.158	0.118	1.296	not SSI OBL
Lead	52	0.308	16	36	29	0.379	23	0.263	0.129	0.901	not SSI OBL
<b>MW35</b>											
Barium	52	0.327	17	35	29	0.345	23	0.391	0.131	-0.355	not SSI OBL
Cadmium	52	0.212	11	41	29	0.276	23	0.130	0.114	1.275	not SSI OBL
Chromium	52	0.269	14	38	29	0.310	23	0.263	0.124	0.381	not SSI OBL
Lead	52	0.346	18	34	29	0.38	23	0.368	0.133	0.082	not SSI OBL

NOTES:

Nt = total number of well samples analyzed (upgradient + particular downgradient analyzed) = m + n

PDt = total proportion of detects for Nt for parameter analyzed

m = total number of compliance well samples analyzed = # of sampling events for particular well analyzed

n = total number of upgradient well samples analyzed = # of sampling events X # of upgradient wells

Pu = proportion of upgradient detects for parameter analyzed

Pd = proportion of downgradient detects for parameter and individual well analyzed

Sd = standard error of the difference in proportions (8-4, Interim Final Guidance Doc.)

Z = If the absolute value of Z is greater than 1.96, then there is a statistically significant difference between the upgradient well detection for the given parameter and the particular downgradient well analyzed.

\* = Columns headed with B\*C and B\*(1-C) require values greater than or equal to 5 in order to perform the test of proportions. An asterisk denotes that the constituent did not qualify for the test of proportions for that particular well.

NA = Not Applicable. There are no detects of the particular constituent in the particular well analyzed.

## **APPENDIX C**

### **DATA SET 3**

Groundwater Monitoring Point Data  
 Surface Water Monitoring Point 1 (SWPT1)  
 Upgradient Point - Set 3  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

CONSTITUENT	SWPT1																		
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01
<b>INORGANICS (mg/l)</b>																			
Antimony						NA	NA												
Arsenic	0.007				0.013	NA	NA												
Barium	0.045	0.033	0.03	0.029		NA	NA												
Beryllium						NA	NA												
Cadmium					0.001	NA	NA												
Chromium	0.002					NA	NA												
Cobalt						NA	NA								0.010				
Copper	0.006			0.006		NA	NA												
Lead						NA	NA												
Nickel						NA	NA												
Selenium						NA	NA												
Silver						NA	NA												
Vanadium						NA	NA												
Zinc	0.011	0.016	0.021	0.013		NA	NA				0.022		0.04						
<b>ORGANICS (ug/l)</b>																			
Benzene						NA	NA												
cis-1,2 Dichloroethene						NA	NA												
Ethylbenzene						NA	NA												
Toluene						NA	NA								1.3				
Vinyl chloride						NA	NA												
Xylenes						NA	NA												
NOTES		- indicates concentrations exceeding NCGS																	
	"NE"	- not established																	
	"NT"	- not tested																	
	"NA"	- not applicable																	
	*	-denotes an Appendix II constituent not included in Appendix I																	

Groundwater Monitoring Point Data  
 Surface Water Monitoring Point 1 (SWPT1)  
 Upgradient Point - Set 3  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

CONSTITUENT													SWPT1 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
															(mg/l)
INORGANICS (mg/l)															
Antimony								NA				NA	0	0%	0.0014**
Arsenic								NA				NA	2	7%	0.05
Barium								NA				NA	4	15%	2
Beryllium								NA				NA	0	0%	0.004**
Cadmium				0.001				NA				NA	2	7%	0.00175
Chromium								NA				NA	1	4%	0.05
Cobalt								NA				NA	1	4%	0.07**
Copper								NA				NA	2	7%	1
Lead								NA				NA	0	0%	0.015
Nickel								NA				NA	0	0%	0.1
Selenium								NA				NA	0	0%	0.05
Silver								NA				NA	0	0%	0.0175
Vanadium								NA				NA	0	0%	0.0035**
Zinc								NA			0.011	NA	7	26%	1.05
															(ug/l)
ORGANICS (ug/l)															
Benzene								NA				NA	0	0%	1
cis-1,2 Dichloroethene								NA				NA	0	0%	70
Ethylbenzene								NA				NA	0	0%	550
Toluene								NA				NA	1	4%	1000
Vinyl chloride								NA				NA	0	0%	0.015
Xylenes								NA				NA	0	0%	530
NOTES															
															NCGS =
															2L STD of
															** 13B GWPS

Groundwater Monitoring Point Data  
 Surface Water Monitoring Point 2 (SWPT2)  
 Set 3 - Downgradient Point  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

CONSTITUENT	SWPT2																			
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01	
<b>INORGANICS (mg/l)</b>																				
Antimony						NA	NA													
Arsenic		0.005				NA	NA													
Barium	0.032	0.027	0.025	0.028		NA	NA				0.01									
Beryllium						NA	NA													
Cadmium		0.001				NA	NA													
Chromium				0.002		NA	NA													
Cobalt						NA	NA								0.01					
Copper	0.005		0.006	0.005		NA	NA													
Lead			0.002			NA	NA													
Nickel						NA	NA													
Selenium						NA	NA													
Silver						NA	NA													
Vanadium						NA	NA													
Zinc	0.007	0.005	0.01	0.016		NA	NA				0.007									
<b>ORGANICS (ug/l)</b>																				
Benzene						NA	NA													
cis-1,2 Dichloroethene						NA	NA													
Ethylbenzene						NA	NA													
Toluene						NA	NA													
Vinyl chloride						NA	NA													
Xylenes						NA	NA													
NOTES		- indicates concentrations exceeding NCGS																		
	"NE"	- not established																		
	"NT"	- not tested																		
	"NA"	- not applicable																		
	*	-denotes an Appendix II constituent not included in Appendix I																		

Groundwater Monitoring Point Data  
 Surface Water Monitoring Point 2 (SWPT2)  
 Set 3 - Downgradient Point  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

CONSTITUENT													SWPT2 Detects		NCGS
SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	detect#	detect%	
<b>INORGANICS (mg/l)</b>															(mg/l)
Antimony												NA	0	0%	0.0014**
Arsenic												NA	1	4%	0.05
Barium												NA	5	18%	2
Beryllium												NA	0	0%	0.004**
Cadmium												NA	1	4%	0.00175
Chromium												NA	1	4%	0.05
Cobalt												NA	1	4%	0.07**
Copper												NA	3	11%	1
Lead												NA	1	4%	0.015
Nickel												NA	0	0%	0.1
Selenium												NA	0	0%	0.05
Silver												NA	0	0%	0.0175
Vanadium												NA	0	0%	0.0035**
Zinc												NA	5	18%	1.05
<b>ORGANICS (ug/l)</b>															(ug/l)
Benzene												NA	0	0%	1
cis-1,2 Dichloroethene												NA	0	0%	70
Ethylbenzene												NA	0	0%	550
Toluene												NA	0	0%	1000
Vinyl chloride												NA	0	0%	0.015
Xylenes												NA	0	0%	530
NOTES															
															NCGS =
															2L STD or
															** 13B GWPS

Groundwater Monitoring Point Data  
 Surface Water Monitoring Point 3 (SWPT3)  
 Set 3 - Downgradient Point  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

CONSTITUENT	SWPT3																			
SAMPLE DATE	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sep. 95	Dec. 95	Feb. 96	Mar. 96	Oct. 96	Apr. 97	Oct. 97	Apr. 98	Oct. 98	Mar. 99	Oct. 99	Apr. 00	Oct. 00	Apr. 01	Oct. 01	
<b>INORGANICS (mg/l)</b>																				
Antimony						NA	NA													
Arsenic					0.023	NA	NA													
Barium	0.035	0.03	0.025	0.029		NA	NA				0.032		0.2		0.036					
Beryllium						NA	NA													
Cadmium	0.0045				0.006	NA	NA													
Chromium				0.002		NA	NA					0.02								
Cobalt	0.006					NA	NA													
Copper	0.009	0.005	0.007	0.005		NA	NA													
Lead	0.003					NA	NA						0.02							
Nickel						NA	NA													
Selenium						NA	NA													
Silver						NA	NA													
Vanadium						NA	NA													
Zinc	0.013	0.005	0.009	0.01		NA	NA				0.026		0.1							
<b>ORGANICS (ug/l)</b>																				
Benzene					9.1	NA	NA													
cis-1,2 Dichloroethene					11	NA	NA													
Ethylbenzene					14	NA	NA													
Toluene					14	NA	NA													
Vinyl chloride					13	NA	NA								5.6					
Xylenes					20	NA	NA													
NOTES		- indicates concentrations exceeding NCGS																		
	"NE"	- not established																		
	"NT"	- not tested																		
	"NA"	- not applicable																		
	*	-denotes an Appendix II constituent not included in Appendix I																		

Groundwater Monitoring Point Data  
 Surface Water Monitoring Point 3 (SWPT3)  
 Set 3 - Downgradient Point  
 Dunn-Erwin Landfill  
 Harnett County, North Carolina

CONSTITUENT	SAMPLE DATE	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 05	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	SWPT3 Detects		NCGS
														detect#	detect%	
INORGANICS (mg/l)																(mg/l)
Antimony													NA	0	0%	0.0014**
Arsenic													NA	1	4%	0.05
Barium													NA	7	25%	2
Beryllium													NA	0	0%	0.004**
Cadmium													NA	2	7%	0.00175
Chromium													NA	2	7%	0.05
Cobalt			0.002										NA	2	7%	0.07**
Copper													NA	4	14%	1
Lead													NA	2	7%	0.015
Nickel													NA	0	0%	0.1
Selenium													NA	0	0%	0.05
Silver													NA	0	0%	0.0175
Vanadium													NA	0	0%	0.0035**
Zinc						0.366							NA	7	25%	1.05
ORGANICS (ug/l)																(ug/l)
Benzene													NA	1	4%	1
cis-1,2 Dichloroethene													NA	1	4%	70
Ethylbenzene													NA	1	4%	550
Toluene													NA	2	7%	1000
Vinyl chloride													NA	1	4%	0.015
Xylenes													NA	1	4%	530
NOTES																
																NCGS =
																2L STD or
																** 13B GWPS

Recommended Test Per Constituent  
 Total Detects and Percentages  
 Set 3 Data  
 Dunn-Erwin MSW Landfill  
 Harnett County, NC

CONSTITUENT	SET 3 DATA		RECOMMENDED TEST
	Detect #	Detect %	
<b>INORGANICS (mg/l)</b>			
Antimony	0	0%	QUALITATIVE
Arsenic	4	5%	QUALITATIVE
Barium	16	19%	TEST OF PROPORTIONS*
Beryllium	0	0%	QUALITATIVE
Cadmium	5	6%	QUALITATIVE
Chromium	4	5%	QUALITATIVE
Cobalt	4	5%	QUALITATIVE
Copper	9	11%	TEST OF PROPORTIONS*
Lead	3	4%	QUALITATIVE
Nickel	0	0%	QUALITATIVE
Selenium	0	0%	QUALITATIVE
Silver	0	0%	QUALITATIVE
Vanadium	0	0%	QUALITATIVE
Zinc	19	23%	TEST OF PROPORTIONS*
<b>ORGANICS (ug/l)</b>			
Benzene	1	1%	QUALITATIVE
cis-1,2 Dichloroethene	1	1%	QUALITATIVE
Ethylbenzene	1	1%	QUALITATIVE
Toluene	3	4%	QUALITATIVE
Vinyl chloride	1	1%	QUALITATIVE
Xylenes	1	1%	QUALITATIVE
<b>NOTES:</b>			
* The Test of Proportions may be performed jointly with a qualatative test to ensure more accurate results.			

Test of Proportions  
Data Set 3  
Dunn-Erwin MSW Landfill  
Harnett County, North Carolina

Parameter	Nt	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
<b>DATA SET 3</b>											
<b>SWPT2</b>											
Barium	55	0.164	9	46	27	0.148	28	0.179	0.100	-0.305	not SSIOBL
Copper	55	0.091	5	50	27	0.074	28	0.107	0.078	-0.426	not SSIOBL
Zinc	55	0.218	12	43	27	0.259	28	0.179	0.111	0.724	not SSIOBL
<b>SWPT3</b>											
Barium	55	0.200	11	44	27	0.148	28	0.250	0.108	-0.944	not SSIOBL
Copper	55	0.109	6	49	27	0.074	28	0.143	0.084	-0.818	not SSIOBL
Zinc	55	0.255	14	41	27	0.259	28	0.250	0.117	0.079	not SSIOBL

**NOTES:**

Nt = total number of well samples analyzed (upgradient + particular downgradient analyzed) = m + n  
 PDt = total proportion of detects for Nt for parameter analyzed  
 m = total number of compliance well samples analyzed = # of sampling events for particular well analyzed  
 n = total number of upgradient well samples analyzed = # of sampling events X # of upgradient wells  
 Pu = proportion of upgradient detects for parameter analyzed  
 Pd = proportion of downgradient detects for parameter and individual well analyzed  
 Sd = standard error of the difference in proportions (8-4, Interim Final Guidance Doc.)  
 Z = If the absolute value of Z is greater than 1.96, then there is a statistically significant difference between the upgradient well detection for the given parameter and the particular downgradient well analyzed.  
 \* = Columns headed with B\*C and B\*(1-C) require values greater than or equal to 5 in order to perform the test of proportions. An asterisk denotes that the constituent did not qualify for the test of proportions for that particular well.  
 NA = Not Applicable. There are no detects of the particular constituent in the particular well analyzed.

## **APPENDIX D**

### **LABORATORY RESULTS AND CHAIN OF CUSTODY FORMS**

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/09/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10	Analysis		Method Code
								Date	Analyst	
PH (field measurement), Units			4.6	4.6	4.5	4.6	5.8	10/24/07	RJH	SM4500B
Cyanide, ug/l	5.0	10.0	---	---	---	---	---	10/30/07	SEJ	SM4500 CN-
Antimony, ug/l	0.05	6.0	0.5 J	0.2 J	---	---	0.1 J	11/01/07	LFJ	EPA200.8
Arsenic, ug/l	0.47	10.0	1.4 J	2.2 J	---	---	0.8 J	11/01/07	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	103	345	97.7 J	123	84.6 J	11/01/07	LFJ	EPA200.8
Beryllium, ug/l	0.08	1.0	0.3 J	0.5 J	0.8 J	0.2 J	0.2 J	11/01/07	LFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	0.2 J	0.1 J	0.1 J	0.1 J	0.1 J	11/01/07	LFJ	EPA200.8
Cobalt, ug/l	0.41	10.0	17	26	1.5 J	1.3 J	1.3 J	11/01/07	LFJ	EPA200.8
Copper, ug/l	0.20	10.0	3.9 J	5.3 J	1.6 J	13	18	11/01/07	LFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	1.5 J	4.3 J	---	0.5 J	6.7 J	11/01/07	LFJ	EPA200.8
Lead, ug/l	0.07	10.0	3.3 J	31	0.9 J	1.2 J	4.6 J	11/01/07	LFJ	EPA200.8
Mercury, ug/l	0.04	0.20	0.36	2.6	---	5.0	---	11/09/07	ADD	EPA245.1
Mercury, ug/l	0.04	0.20	---	---	0.13 J	---	0.17 J	11/01/07	LFJ	EPA200.8
Nickel, ug/l	0.66	50.0	1.8 J	2.3 J	1.8 J	1.3 J	2.4 J	10/18/07	LFJ	EPA200.8
Selenium, ug/l	0.35	10.0	1.3 J	1.3 J	---	1.1 J	0.4 J	11/01/07	LFJ	EPA200.8
Silver, ug/l	0.52	10.0	---	---	---	---	---	11/01/07	LFJ	EPA200.8
Thallium, ug/l	0.07	5.0	0.1 J	0.5 J	---	0.2 J	0.1 J	11/01/07	LFJ	EPA200.8
Tin, ug/l	0.12	100.0	1.2 J	1.2 J	1.1 J	0.7 J	1.1 J	11/01/07	LFJ	EPA200.8
Vanadium, ug/l	0.42	25.0	7.3 J	14.2 J	0.6 J	1.8 J	12.2 J	11/01/07	LFJ	EPA200.8
Zinc, ug/l	0.20	10.0	15	7.4 J	8.5 J	5.5 J	8.7 J	11/01/07	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	65	120	1.9	50	140	10/24/07	MDM	SM2130B
Sulfide, ug/l	100	1000	---	---	---	---	---	10/25/07	LFJ	SM4500-S2D
Conductivity (at 25c), uMhos	1.0	1.0	144	180	119	117	198	10/24/07	RJH	SM2510B
Temperature, °C			21	19	20	19	20	10/24/07	RJH	SM2550B
Static Water Level, feet			15.76	26.60	17.58	27.22	22.68	10/24/07	RJH	
Well Depth, feet			19.34	30.23	25.24	32.74	26.30	10/24/07	RJH	
Water Bailed, Gals.			1.2	1.5	3.6	2.4	1.5	10/24/07	RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/09/07

REVIEWED BY: 

PARAMETERS	MDL	Equipment		Trip Blank	Analysis Date	Method Analyst Code
		SWSL	Blank			
Cyanide, ug/l	5.0	10.0	---	U	10/30/07 SEJ	SM4500 CN-E
Antimony, ug/l	0.05	6.0	---	U	11/01/07 LFFJ	EPA200.8
Arsenic, ug/l	0.47	10.0	---	U	11/01/07 LFFJ	EPA200.8
Barium, ug/l	0.04	100.0	0.1	J	11/01/07 LFFJ	EPA200.8
Beryllium, ug/l	0.08	1.0	---	U	11/01/07 LFFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	---	U	11/01/07 LFFJ	EPA200.8
Cobalt, ug/l	0.41	10.0	---	U	11/01/07 LFFJ	EPA200.8
Copper, ug/l	0.20	10.0	0.7	J	11/01/07 LFFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	---	U	11/01/07 LFFJ	EPA200.8
Lead, ug/l	0.07	10.0	---	U	11/01/07 LFFJ	EPA200.8
Mercury, ug/l	0.04	0.20	---	U	11/01/07 LFFJ	EPA200.8
Nickel, ug/l	0.66	50.0	0.7	J	10/18/07 LFFJ	EPA200.8
Selenium, ug/l	0.35	10.0	---	U	11/01/07 LFFJ	EPA200.8
Silver, ug/l	0.52	10.0	---	U	11/01/07 LFFJ	EPA200.8
Thallium, ug/l	0.07	5.0	---	U	11/01/07 LFFJ	EPA200.8
Tin, ug/l	0.12	100.0	0.8	J	11/01/07 LFFJ	EPA200.8
Vanadium, ug/l	0.42	25.0	---	U	11/01/07 LFFJ	EPA200.8
Zinc, ug/l	0.20	10.0	2.5	J	11/01/07 LFFJ	EPA200.8
Sulfide, ug/l	100	1000	---	U	10/25/07 LFFJ	SM4500-SZD

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
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CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040  
ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/25/07  
DATE ANALYZED: 10/27/07  
DATE REPORTED: 11/09/07

REVIEWED BY: 

## PESTICIDES AND PCB'S EPA METHOD 8081A

PARAMETERS, ug/l	MDL	SWSL	MW-7B	MW-8	MW-9	MW-10	Equipment Blank	
1. Aldrin	0.029	0.05	---	U	---	U	---	U
2. Alpha-BHC	0.032	0.05	---	U	---	U	---	U
3. Beta-BHC	0.031	0.05	---	U	---	U	---	U
4. Delta-BHC	0.030	0.05	---	U	---	U	---	U
5. Gamma-BHC (Lindane)	0.032	0.05	---	U	---	U	---	U
6. Chlordane	0.320	0.50	---	U	---	U	---	U
7. 4,4-DDD	0.051	0.10	---	U	---	U	---	U
8. 4,4-DDE	0.049	0.10	---	U	---	U	---	U
9. 4,4-DDT	0.052	0.10	---	U	---	U	---	U
10. Dieldrin	0.042	0.07	---	U	---	U	---	U
11. Endosulfan I	0.056	0.10	---	U	---	U	---	U
12. Endosulfan II	0.046	0.10	---	U	---	U	---	U
13. Endosulfan Sulfate	0.072	0.10	---	U	---	U	---	U
14. Endrin	0.053	0.10	---	U	---	U	---	U
15. Endrin Aldehyde	0.068	0.10	---	U	---	U	---	U
16. Heptachlor	0.039	0.05	---	U	---	U	---	U
17. Heptachlor Epoxide	0.042	0.07	---	U	---	U	---	U
18. Methoxychlor	0.530	1.00	---	U	---	U	---	U
19. Pcb's (Aroclors)	0.500	2.00	---	U	---	U	---	U
20. Toxaphene	0.690	1.00	---	U	---	U	---	U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

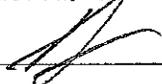
Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040  
ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/31/07  
DATE ANALYZED: 11/02/07  
DATE REPORTED: 11/09/07

REVIEWED BY: 

## LANDFILL APPENDIX II EPA METHOD 8151A

PARAMETERS, ug/l	MDL	SWSL	MW-7B	MW-8	MW-9	MW-10	Equipment Blank
1. 2,4-D	0.36	2.0	--- U				
2. Dinoseb	0.54	1.0	--- U				
3. 2,4,5-TP	0.42	2.0	--- U				
4. 2,4,5-T	0.47	2.0	--- U				

NOTE: Surrogate recovery for Well 10 outside control limits due to matrix interference

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37115  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/25/07  
DATE ANALYZED: 10/26/07  
DATE REPORTED: 11/09/07

Page: 1

REVIEWED BY: 

## SEMI-VOLATILE ORGANICS EPA METHOD 8270C

PARAMETERS, ug/l	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10	
1. Acenaphthene	2.66	10.0	---	U	---	U	---	U
2. Acenaphthylene	2.50	10.0	---	U	---	U	---	U
3. Anthracene	2.97	10.0	---	U	---	U	---	U
4. Benzo[a]anthracene	4.16	10.0	---	U	---	U	---	U
5. Benzo[b]fluoranthene	3.32	10.0	---	U	---	U	---	U
6. Benzo[k]fluoranthene	4.23	10.0	---	U	---	U	---	U
7. Benzo[g,h,i]perylene	2.61	10.0	---	U	---	U	---	U
8. Benzo[a]pyrene	3.27	10.0	---	U	---	U	---	U
9. 4-Bromophenyl Phenyl Ether	2.63	10.0	---	U	---	U	---	U
10. Butyl Benzyl Phthalate	5.78	10.0	---	U	---	U	---	U
11. Bis-(2-Chloroethoxy) Methane	3.14	10.0	---	U	---	U	---	U
12. Bis-(2-Chloroethyl) Ether	2.58	10.0	---	U	---	U	---	U
13. Bis-(2-Chloroisopropyl) Ether	2.58	10.0	---	U	---	U	---	U
14. 2-Chloronaphthalene	2.17	10.0	---	U	---	U	---	U
15. 4-Chlorophenyl Phenyl Ether	2.42	10.0	---	U	---	U	---	U
16. Chrysene	4.04	10.0	---	U	---	U	---	U
17. Dibenzo[a,h]anthracene	2.78	10.0	---	U	---	U	---	U
18. Di-N-Butyl Phthalate	3.09	10.0	---	U	---	U	---	U
19. Dimethyl Phthalate	3.78	10.0	---	U	---	U	---	U
20. Diethyl Phthalate	3.92	10.0	---	U	---	U	---	U
21. 2,4-Dinitrotoluene	3.95	10.0	---	U	---	U	---	U
22. 2,6-Dinitrotoluene	3.98	10.0	---	U	---	U	---	U
23. Di-N-Octyl Phthalate	2.81	10.0	---	U	---	U	---	U
24. Bis-(2-Ethylhexyl) Phthalate	9.97	15.0	---	U	---	U	---	U
25. Fluoranthene	3.92	10.0	---	U	---	U	---	U
26. Fluorene	2.95	10.0	---	U	---	U	---	U
27. Hexachlorobenzene	2.61	10.0	---	U	---	U	---	U
28. Hexachlorocyclopentadiene	4.16	10.0	---	U	---	U	---	U
29. Indeno[1,2,3-Cd]pyrene	2.91	10.0	---	U	---	U	---	U
30. Isophorone	3.74	10.0	---	U	---	U	---	U
31. Nitrobenzene	2.85	10.0	---	U	---	U	---	U
32. N-Nitrosodimethylamine	4.25	10.0	---	U	---	U	---	U
33. N-Nitrosodiphenylamine	3.95	10.0	---	U	---	U	---	U
34. N-Nitrosodi-N-Propylamine	4.06	10.0	---	U	---	U	---	U
35. Phenanthrene	3.24	10.0	---	U	---	U	---	U
36. Pyrene	3.63	10.0	---	U	---	U	---	U
37. 4-Chloro-3-Methylphenol	3.79	20.0	---	U	---	U	---	U
38. 2-Chlorophenol	2.75	10.0	---	U	---	U	---	U
39. o-Cresol	3.68	10.0	---	U	---	U	---	U
40. p-Cresol	4.12	10.0	---	U	---	U	---	U
41. 2,4-Dichlorophenol	5.19	10.0	---	U	---	U	---	U
42. 2,6-Dichlorophenol	4.89	10.0	---	U	---	U	---	U
43. 2,4-Dimethylphenol	3.21	10.0	---	U	---	U	---	U
44. 4,6-Dinitro-2-Methylphenol	4.77	50.0	---	U	---	U	---	U
45. 2,4-Dinitrophenol	4.37	50.0	---	U	---	U	---	U
46. Ethyl Methanesulfonate	5.26	10.0	---	U	---	U	---	U
47. Methyl Methanesulfonate	4.92	10.0	---	U	---	U	---	U
48. 2-Nitrophenol	3.64	10.0	---	U	---	U	---	U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

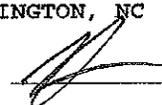
PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/25/07  
DATE ANALYZED: 10/26/07  
DATE REPORTED: 11/09/07

Page: 2

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## SEMI-VOLATILE ORGANICS EPA METHOD 8270C

PARAMETERS, ug/l	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10	
49. 4-Nitrophenol	3.17	50.0	---	U	---	U	---	U
50. Pentachlorophenol	5.33	25.0	---	U	---	U	---	U
51. Phenol	1.86	10.0	---	U	---	U	---	U
52. 2,3,4,6-Tetrachlorophenol	3.12	10.0	---	U	---	U	---	U
53. 2,4,5-Trichlorophenol	4.17	10.0	---	U	---	U	---	U
54. 2,4,6-Trichlorophenol	3.84	10.0	---	U	---	U	---	U
55. Acetophenone	2.89	10.0	---	U	---	U	---	U
56. 2-Acetylaminofluorene	3.98	20.0	---	U	---	U	---	U
57. 4-Aminobiphenyl	4.12	20.0	---	U	---	U	---	U
58. Benzyl Alcohol	4.47	20.0	---	U	---	U	---	U
59. 4-Chloroaniline	3.36	20.0	---	U	---	U	---	U
60. Chlorobenzilate	5.12	10.0	---	U	---	U	---	U
61. Diallate	2.98	10.0	---	U	---	U	---	U
62. Dibenzofuran	4.28	10.0	---	U	---	U	---	U
63. 3,3-Dichlorobenzidine	4.22	20.0	---	U	---	U	---	U
64. Dimethoate	3.98	20.0	---	U	---	U	---	U
65. P-Dimethylaminoazobenzene	2.89	10.0	---	U	---	U	---	U
66. 7,12-Dimethylbenz[a]anthracene	5.26	10.0	---	U	---	U	---	U
67. 3,3-Dimethylbenzadine	3.21	10.0	---	U	---	U	---	U
68. 1,3-Dinitrobenzene	2.89	20.0	---	U	---	U	---	U
69. Diphenylamine	5.10	10.0	---	U	---	U	---	U
70. Disulfoton	4.28	10.0	---	U	---	U	---	U
71. Pamphur	3.98	20.0	---	U	---	U	---	U
72. Hexachloropropene	4.31	10.0	---	U	---	U	---	U
73. Isosafrole	2.88	10.0	---	U	---	U	---	U
74. Kepone	2.78	20.0	---	U	---	U	---	U
75. Methapyrilene	3.54	100.0	---	U	---	U	---	U
76. 3-Methylchloroanthrene	4.21	10.0	---	U	---	U	---	U
77. 2-Methylnaphthalene	3.79	10.0	---	U	---	U	---	U
78. Methyl Parathion	4.32	10.0	---	U	---	U	---	U
79. m-Cresol	3.81	10.0	---	U	---	U	---	U
80. 1,4-Naphthoquinone	4.00	10.0	---	U	---	U	---	U
81. 1-Naphthylamine	5.51	10.0	---	U	---	U	---	U
82. 2-Naphthylamine	4.62	10.0	---	U	---	U	---	U
83. 2-Nitroaniline	3.61	50.0	---	U	---	U	---	U
84. 3-Nitroaniline	4.81	50.0	---	U	---	U	---	U
85. 4-Nitroaniline	4.22	20.0	---	U	---	U	---	U
86. 5-Nitro-O-Toluidine	4.01	10.0	---	U	---	U	---	U
87. N-Nitrosodi-n-butylamine	3.63	10.0	---	U	---	U	---	U
88. N-Nitrosodiethylamine	3.83	20.0	---	U	---	U	---	U
89. N-Nitrosomethylethylamine	3.83	10.0	---	U	---	U	---	U
90. N-Nitrosopiperidine	5.19	20.0	---	U	---	U	---	U
91. N-Nitrosopyrrolidine	2.89	10.0	---	U	---	U	---	U
92. Parathion	3.12	10.0	---	U	---	U	---	U
93. Pentachlorobenzene	3.92	10.0	---	U	---	U	---	U
94. Pentachloronitrobenzene	3.71	20.0	---	U	---	U	---	U
95. Phenacetin	4.41	20.0	---	U	---	U	---	U
96. 1,4 Benzenediamine	2.99	10.0	---	U	---	U	---	U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 3712  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/25/07  
DATE ANALYZED: 10/26/07  
DATE REPORTED: 11/09/07

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## SEMI-VOLATILE ORGANICS EPA METHOD 8270C

PARAMETERS, ug/l	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10
97. Phorate	3.86	10.0	--- U				
98. Pronamide	3.69	10.0	--- U				
99. Safrole	4.12	10.0	--- U				
100. 1,2,4,5-Tetrachlorobenzene	5.01	10.0	--- U				
101. Thionazin	4.62	20.0	--- U				
102. O-Toluidine	4.11	10.0	--- U				
103. 1,3,5-Trinitrobenzene	3.98	10.0	--- U				
104. 0,0,0-Triethyl Phosphorothioate	3.61	10.0	--- U				
105. Hexachloroethane	1.49	10.0	--- U				
106. Isodrin	3.11	20.0	--- U				

NOTE: Surrogate recovery for Wells 6,10 outside control limits

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

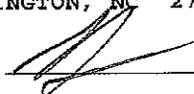
PHONE (252) 756-6208  
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GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

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Page: 4

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## SEMI-VOLATILE ORGANICS EPA METHOD 8270C

PARAMETERS, ug/l	MDL	SWSL	Equipment Blank
1. Acenaphthene	2.66	10.0	--- U
2. Acenaphthylene	2.60	10.0	--- U
3. Anthracene	2.97	10.0	--- U
4. Benzo[a]anthracene	4.16	10.0	--- U
5. Benzo[b]fluoranthene	3.32	10.0	--- U
6. Benzo[k]fluoranthene	4.23	10.0	--- U
7. Benzo[g,h,i]perylene	2.61	10.0	--- U
8. Benzo[a]pyrene	3.27	10.0	--- U
9. 4-Bromophenyl Phenyl Ether	2.63	10.0	--- U
10. Butyl Benzyl Phthalate	5.78	10.0	--- U
11. Bis-(2-Chloroethoxy) Methane	3.14	10.0	--- U
12. Bis-(2-Chloroethyl) Ether	2.58	10.0	--- U
13. Bis-(2-Chloroisopropyl) Ether	2.58	10.0	--- U
14. 2-Chloronaphthalene	2.17	10.0	--- U
15. 4-Chlorophenyl Phenyl Ether	2.42	10.0	--- U
16. Chrysene	4.04	10.0	--- U
17. Dibenzo[a,h]anthracene	2.78	10.0	--- U
18. Di-N-Butyl Phthalate	3.09	10.0	--- U
19. Dimethyl Phthalate	3.78	10.0	--- U
20. Diethyl Phthalate	3.92	10.0	--- U
21. 2,4-Dinitrotoluene	3.95	10.0	--- U
22. 2,6-Dinitrotoluene	3.88	10.0	--- U
23. Di-N-Octyl Phthalate	2.81	10.0	--- U
24. Bis-(2-Ethylhexyl) Phthalate	9.97	15.0	--- U
25. Fluoranthene	3.92	10.0	--- U
26. Fluorene	2.95	10.0	--- U
27. Hexachlorobenzene	2.61	10.0	--- U
28. Hexachlorocyclopentadiene	4.16	10.0	--- U
29. Indeno[1,2,3-Cd]pyrene	2.91	10.0	--- U
30. Isophorone	3.74	10.0	--- U
31. Nitrobenzene	2.85	10.0	--- U
32. N-Nitrosodimethylamine	4.25	10.0	--- U
33. N-Nitrosodiphenylamine	3.95	10.0	--- U
34. N-Nitrosodi-N-Propylamine	4.06	10.0	--- U
35. Phenanthrene	3.24	10.0	--- U
36. Pyrene	3.63	10.0	--- U
37. 4-Chloro-3-Methylphenol	3.79	20.0	--- U
38. 2-Chlorophenol	2.75	10.0	--- U
39. O-Cresol	3.68	10.0	--- U
40. P-Cresol	4.12	10.0	--- U
41. 2,4-Dichlorophenol	6.19	10.0	--- U
42. 2,6-Dichlorophenol	4.89	10.0	--- U
43. 2,4-Dimethylphenol	3.21	10.0	--- U
44. 4,6-Dinitro-2-Methylphenol	4.77	50.0	--- U
45. 2,4-Dinitrophenol	4.37	50.0	--- U
46. Ethyl Methanesulfonate	5.26	10.0	--- U
47. Methyl Methanesulfonate	4.92	10.0	--- U
48. 2-Nitrophenol	3.64	10.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

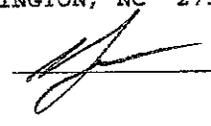
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040  
ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/25/07  
DATE ANALYZED: 10/26/07  
DATE REPORTED: 11/09/07

Page: 5

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## SEMI-VOLATILE ORGANICS EPA METHOD 8270C

PARAMETERS, ug/l	MDL	SWSL	Equipment Blank
49. 4-Nitrophenol	3.17	50.0	--- U
50. Pentachlorophenol	5.33	25.0	--- U
51. Phenol	1.86	10.0	--- U
52. 2,3,4,6-Tetrachlorophenol	3.12	10.0	--- U
53. 2,4,5-Trichlorophenol	4.17	10.0	--- U
54. 2,4,6-Trichlorophenol	3.84	10.0	--- U
55. Acetophenone	2.89	10.0	--- U
56. 2-Acetylaminofluorene	3.98	20.0	--- U
57. 4-Aminobiphenyl	4.12	20.0	--- U
58. Benzyl Alcohol	4.47	20.0	--- U
59. 4-Chloroaniline	3.36	20.0	--- U
60. Chlorobenzilate	5.12	10.0	--- U
61. Diallyate	2.98	10.0	--- U
62. Dibenzofuran	4.28	10.0	--- U
63. 3,3-Dichlorobenzidine	4.22	20.0	--- U
64. Dimethoate	3.98	20.0	--- U
65. P-Dimethylaminoazobenzene	2.89	10.0	--- U
66. 7,12-Dimethylbenz[a]anthracene	5.26	10.0	--- U
67. 3,3-Dimethylbenzadine	3.21	10.0	--- U
68. 1,3-Dinitrobenzene	2.89	20.0	--- U
69. Diphenylamine	5.10	10.0	--- U
70. Disulfoton	4.28	10.0	--- U
71. Pamphur	3.98	20.0	--- U
72. Hexachloropropene	4.31	10.0	--- U
73. Isosafrole	2.88	10.0	--- U
74. Kepone	2.78	20.0	--- U
75. Methapyrilene	3.54	100.0	--- U
76. 3-Methylchloroanthrene	4.21	10.0	--- U
77. 2-Methylnaphthalene	3.79	10.0	--- U
78. Methyl Parathion	4.32	10.0	--- U
79. m-Cresol	3.81	10.0	--- U
80. 1,4-Naphthoquinone	4.00	10.0	--- U
81. 1-Naphthylamine	5.61	10.0	--- U
82. 2-Naphthylamine	4.62	10.0	--- U
83. 2-Nitroaniline	3.61	50.0	--- U
84. 3-Nitroaniline	4.81	50.0	--- U
85. 4-Nitroaniline	4.22	20.0	--- U
86. 5-Nitro-O-Toluidine	4.01	10.0	--- U
87. N-Nitrosodi-n-butylamine	3.63	10.0	--- U
88. N-Nitrosodiethylamine	3.83	20.0	--- U
89. N-Nitrosomethylethylamine	3.83	10.0	--- U
90. N-Nitrosopiperidine	5.19	20.0	--- U
91. N-Nitrosopyrrolidine	2.89	10.0	--- U
92. Parathion	3.12	10.0	--- U
93. Pentachlorobenzene	3.92	10.0	--- U
94. Pentachloronitrobenzene	3.71	20.0	--- U
95. Phenacetin	4.41	20.0	--- U
96. 1,4 Benzenediamine	2.99	10.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

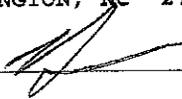
PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: CHS  
DATE COLLECTED: 10/24/07  
DATE EXTRACTED: 10/25/07  
DATE ANALYZED: 10/26/07  
DATE REPORTED: 11/09/07

Page: 6

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## SEMI-VOLATILE ORGANICS EPA METHOD 8270C

PARAMETERS, ug/l	MDL	SWSL	Equipment Blank
97. Phorate	3.86	10.0	--- U
98. Pronamide	3.69	10.0	--- U
99. Safrole	4.12	10.0	--- U
100. 1,2,4,5-Tetrachlorobenzene	5.01	10.0	--- U
101. Thionazin	4.62	20.0	--- U
102. O-Toluidine	4.11	10.0	--- U
103. 1,3,5-Trinitrobenzene	3.98	10.0	--- U
104. 0,0,0-Triethyl Phosphorothioate	3.61	10.0	--- U
105. Hexachloroethane	1.49	10.0	--- U
106. Isodrin	3.11	20.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

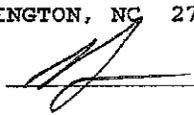
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0638

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/09/07

Page: 1

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## LANDFILL APPENDIX II EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		11/05/07	11/05/07	11/07/07	11/07/07	11/07/07
	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10
1. Chloromethane	0.18	1.0	0.30 J	0.30 J	0.20 J	0.20 J	0.40 J
2. Vinyl Chloride	0.34	1.0	7.20	5.00	0.90 J	5.90	1.40
3. Bromomethane	0.26	10.0	---	---	---	---	---
4. Chloroethane	0.29	10.0	6.20 J	12.40	3.70 J	12.40	1.10 J
5. Trichlorofluoromethane	0.13	1.0	---	1.50	---	---	---
6. 1,1-Dichloroethene	0.14	5.0	0.30 J	3.60 J	0.30 J	0.30 J	---
7. Acetone	1.21	100.0	7.20 J	21.10 J	---	1.50 J	9.00 J
8. Iodomethane	0.12	10.0	---	---	---	---	---
9. Carbon Disulfide	0.14	100.0	---	---	---	---	---
10. Methylene Chloride	0.14	1.0	33.00	45.50	35.90	49.60	0.30 J
11. trans-1,2-Dichloroethene	0.13	5.0	0.30 J	---	---	---	---
12. 1,1-Dichloroethane	0.16	5.0	22.70	129.00	54.30	58.10	9.20
13. Vinyl Acetate	0.20	5.0	---	---	---	---	---
14. Cis-1,2-Dichloroethene	0.14	5.0	33.10	3.00 J	5.40	8.00	6.90
15. 2-Butanone	0.85	100.0	---	---	---	---	0.90 J
16. Bromochloromethane	0.11	3.0	---	---	---	---	---
17. Chloroform	0.13	5.0	---	0.20 J	---	---	---
18. 1,1,1-Trichloroethane	0.11	1.0	---	0.80 J	---	0.50 J	---
19. Carbon Tetrachloride	0.13	1.0	---	---	---	---	---
20. Benzene	0.15	1.0	6.10	4.10	2.60	5.40	2.00
21. 1,2-Dichloroethane	0.12	1.0	0.60 J	---	0.20 J	0.20 J	---
22. Trichloroethene	0.13	1.0	9.24	9.20	4.40	3.90	0.50 J
23. 1,2-Dichloropropane	0.17	1.0	0.20 J	---	---	---	---
24. Bromodichloromethane	0.13	1.0	---	---	---	---	---
25. Cis-1,3-Dichloropropene	0.17	1.0	---	---	---	---	---
26. 4-Methyl-2-Pentanone	0.68	100.0	---	---	---	---	---
27. Toluene	0.13	1.0	---	---	---	---	---
28. trans-1,3-Dichloropropene	0.14	1.0	---	---	---	---	---
29. 1,1,2-Trichloroethane	0.20	1.0	---	---	---	---	---
30. Tetrachloroethene	0.15	1.0	9.30	3.70	6.50	2.90	0.50 J
31. 2-Hexanone	1.00	50.0	---	---	---	---	---
32. Dibromochloromethane	0.14	3.0	---	---	---	---	---
33. 1,2-Dibromoethane	0.13	1.0	---	---	---	---	---
34. Chlorobenzene	0.13	3.0	1.60 J	1.40 J	0.30 J	11.80	2.60 J
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	---	---	---	---	---
36. Ethylbenzene	0.16	1.0	---	---	---	---	---
37. Xylenes	0.48	5.0	4.30 J	2.90 J	---	4.30 J	1.90 J
38. Dibromomethane	0.17	10.0	---	---	---	---	---
39. Styrene	0.16	1.0	---	---	---	---	---
40. Bromoform	0.11	3.0	---	---	---	---	---
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	---	---	---	---	---
42. 1,2,3-Trichloropropane	0.06	1.0	---	---	---	---	---
43. 1,4-Dichlorobenzene	0.21	1.0	7.70	0.80 J	1.30	2.50	1.30
44. 1,2-Dichlorobenzene	0.13	5.0	---	---	0.20 J	---	---
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	---	---	---	---	---
46. Acrylonitrile	1.49	200.0	---	---	---	---	---
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	---	---	---	---	---

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37713  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

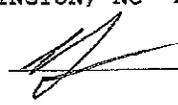
PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/09/07

Page: 2

REVIEWED BY: 

## LANDFILL APPENDIX II EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		11/05/07	11/05/07	11/07/07	11/07/07	11/07/07	
	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10	
48. Acrolein	5.46	50.0	---	U	---	U	---	U
49. Allyl Chloride	0.17	10.0	---	U	---	U	---	U
50. Chloroprene	0.16	20.0	---	U	---	U	---	U
51. 1,3-Dichlorobenzene	0.13	5.0	---	U	---	U	---	U
52. Dichlorodifluoromethane	0.16	5.0	1.00	J	7.00	J	1.10	J
53. 1,3-Dichloropropane	0.12	1.0	---	U	---	U	---	U
54. 2,2-Dichloropropane	0.18	15.0	---	U	---	U	---	U
55. 1,1-Dichloropropene	0.13	5.0	---	U	---	U	---	U
56. Ethyl Methacrylate	0.14	10.0	---	U	---	U	---	U
57. Hexachlorobutadiene	0.22	10.0	---	U	---	U	---	U
58. Isobutyl Alcohol	5.23	100.0	---	U	---	U	---	U
59. Methacrylonitrile	1.64	100.0	---	U	---	U	---	U
60. Methyl Methacrylate	0.10	30.0	---	U	---	U	---	U
61. Naphthalene	0.13	10.0	1.50	J	---	U	---	U
62. Propionitrile	1.60	150.0	---	U	---	U	---	U
63. 1,2,4-Trichlorobenzene	0.11	10.0	---	U	---	U	---	U
64. Acetonitrile	5.96	50.0	---	U	---	U	---	U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

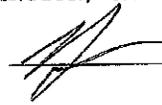
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/09/07

Page: 3

REVIEWED BY: 

## LANDFILL APPENDIX II EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		11/07/07	11/07/07
	MDL	SWSL	Equipment Blank	Trip Blank
1. Chloromethane	0.18	1.0	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U
10. Methylene Chloride	0.14	1.0	0.20 J	0.20 J
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U
13. Vinyl Acetate	0.20	5.0	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U
25. Cis-1,3-Dichloropropane	0.17	1.0	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U
28. trans-1,3-Dichloropropane	0.14	1.0	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040

ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/09/07

Page: 4

REVIEWED BY: 

## LANDFILL APPENDIX II EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		11/07/07	11/07/07
	MDL	SWSL	Equipment Blank	Trip Blank
48. Acrolein	5.46	50.0	--- U	--- U
49. Allyl Chloride	0.17	10.0	--- U	--- U
50. Chloroprene	0.16	20.0	--- U	--- U
51. 1,3-Dichlorobenzene	0.13	5.0	--- U	--- U
52. Dichlorodifluoromethane	0.16	5.0	--- U	--- U
53. 1,3-Dichloropropane	0.12	1.0	--- U	--- U
54. 2,2-Dichloropropane	0.18	15.0	--- U	--- U
55. 1,1-Dichloropropene	0.13	5.0	--- U	--- U
56. Ethyl Methacrylate	0.14	10.0	--- U	--- U
57. Hexachlorobutadiene	0.22	10.0	--- U	--- U
58. Isobutyl Alcohol	5.23	100.0	--- U	--- U
59. Methacrylonitrile	1.64	100.0	--- U	--- U
60. Methyl Methacrylate	0.10	30.0	--- U	--- U
61. Naphthalene	0.13	10.0	--- U	--- U
62. Propionitrile	1.60	150.0	--- U	--- U
63. 1,2,4-Trichlorobenzene	0.11	10.0	--- U	--- U
64. Acetonitrile	5.96	50.0	10.70 J	6.90 J

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.





# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 A

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/23/07  
DATE REPORTED : 11/06/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	SW-1	SW-2	SW-3	Analysis		Method
						Date	Analyst	Code
PH (field measurement), Units			Missing	Missing	Missing	/	/	
Antimony, ug/l			Missing	Missing	Missing	/	/	
Arsenic, ug/l			Missing	Missing	Missing	/	/	
Barium, ug/l			Missing	Missing	Missing	/	/	
Beryllium, ug/l			Missing	Missing	Missing	/	/	
Cadmium, ug/l			Missing	Missing	Missing	/	/	
Cobalt, ug/l			Missing	Missing	Missing	/	/	
Copper, ug/l			Missing	Missing	Missing	/	/	
Total Chromium, ug/l			Missing	Missing	Missing	/	/	
Lead, ug/l			Missing	Missing	Missing	/	/	
Nickel, ug/l			Missing	Missing	Missing	/	/	
Selenium, ug/l			Missing	Missing	Missing	/	/	
Silver, ug/l			Missing	Missing	Missing	/	/	
Thallium, ug/l			Missing	Missing	Missing	/	/	
Vanadium, ug/l			Missing	Missing	Missing	/	/	
Zinc, ug/l			Missing	Missing	Missing	/	/	
Turbidity, NTU			Missing	Missing	Missing	/	/	
Conductivity (at 25c), uMhos			Missing	Missing	Missing	/	/	
Temperature, °C			Missing	Missing	Missing	/	/	
8260 (duplicate)			Missing	Missing	Missing	/	/	
8260 (duplicate)			Missing	Missing	Missing	/	/	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

Environment 1, Inc.  
 P.O. Box 7095, 114 Oakmont Dr.  
 Greenville, NC 27858

# CHAIN OF CUSTODY RECORD

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: **6040 A**      Week: **42**

**HARNETT CO. (DUNN/ERWIN)**  
**GENERAL SERVICES HARNETT CO.**  
**MR. JERRY BLANCHARD, MANAGER**  
**900 SOUTH 9TH STREET**  
**LILLINGTON NC 27546**

(919) 233-0407

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			Field pH	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS
	DATE	TIME				<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	<input type="checkbox"/> NONE									
SW-1					6	P	P	P	P	P	G	G	G				A - NONE    D - NAOH B - HNO <sub>3</sub> E - HCL C - H <sub>2</sub> SO <sub>4</sub> F - ZINC ACETATE G - NA THIOSULFATE
SW-2					5	A	A	A	A	A	E	E	E				
SW-3					5	A	A	A	A	A	E	E	E				
																	CLASSIFICATION: <input type="checkbox"/> WASTEWATER (NPDES) <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> DWO/GW <input checked="" type="checkbox"/> SOLID WASTE SECTION
																	CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY Y    N
																	SAMPLES COLLECTED BY: (Please Print) <i>Ngape Fox</i>
																	SAMPLES RECEIVED IN LAB AT _____ °C
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:													
<i>Ngape</i>	10/23/07	<i>Walter Ladd</i>	10/23/07 3:00	ALL SURFACE WATER DRY													
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME														
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME														

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 C

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/13/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-16	MW23-B	MW-32	MW-33	MW-34	Analysis		Method Code
								Date	Analyst	
PH (field measurement), Units			6.1	5.6	5.9	5.0	5.7	10/24/07	RJH	SM4500HB
Arsenic, ug/l	0.47	10.0	0.8 J		1.3 J			11/01/07	LFJ	EPA200.8
Arsenic, ug/l	0.47	10.0		---		0.5 J	---	11/08/07	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	65.3 J		64.9 J			11/01/07	LFJ	EPA200.8
Barium, ug/l	0.04	100.0		67.4 J		67.5 J	67.6 J	11/08/07	LFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	0.3 J		0.1 J			11/01/07	LFJ	EPA200.8
Cadmium, ug/l	0.06	1.0		0.2 J		0.2 J	0.4 J	11/08/07	LFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	0.6 J		5.9 J			11/01/07	LFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0		---		---	---	11/08/07	LFJ	EPA200.8
Lead, ug/l	0.07	10.0	1.0 J		11			11/01/07	LFJ	EPA200.8
Lead, ug/l	0.07	10.0		0.4 J		0.3 J	0.1 J	11/08/07	LFJ	EPA200.8
Mercury, ug/l	0.04	0.20	---		---	---	---	11/01/07	LFJ	EPA200.8
Mercury, ug/l	0.04	0.20		---		---	---	11/08/07	LFJ	EPA200.8
Selenium, ug/l	0.35	10.0	---		---	---	---	11/01/07	LFJ	EPA200.8
Selenium, ug/l	0.35	10.0		---		0.7 J	---	11/08/07	LFJ	EPA200.8
Silver, ug/l	0.52	10.0	---		---	---	---	11/01/07	LFJ	EPA200.8
Silver, ug/l	0.52	10.0		---		---	---	11/08/07	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	40	19	700	15	13	10/24/07	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	136	46	54	76	83	10/24/07	RJH	SM2510B
Temperature, °C			18	19	18	20	20	10/24/07	RJH	SM2550B
Static Water Level, feet			7.99	9.40	3.21	11.02	3.09	10/24/07	RJH	
Well Depth, feet			45.23	24.55	24.55	26.43	40.23	10/24/07	RJH	
Water Bailed, Gals.			18.3	7.2	10.2	7.2	18.3	10/24/07	RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37713  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 C

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED : 11/13/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-35 Analysis		Method Code
			Date	Analyst	
PH (field measurement), Units			5.5	10/24/07 RJH	SM4500HB
Arsenic, ug/l	0.47	10.0	0.9 J	11/08/07 LFJ	EPA200.8
Barium, ug/l	0.04	100.0	318	11/08/07 LFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	0.2 J	11/08/07 LFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	0.6 J	11/08/07 LFJ	EPA200.8
Lead, ug/l	0.07	10.0	0.9 J	11/08/07 LFJ	EPA200.8
Mercury, ug/l	0.04	0.20	---	U 11/08/07 LFJ	EPA200.8
Selenium, ug/l	0.35	10.0	0.8 J	11/08/07 LFJ	EPA200.8
Silver, ug/l	0.52	10.0	---	U 11/08/07 LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	55	10/24/07 MDM	SM2130B
Conductivity (at 25c), umhos	1.0	1.0	485	10/24/07 RJH	SM2510B
Temperature, °C			20	10/24/07 RJH	SM2550B
Static Water Level, feet			6.55	10/24/07 RJH	
Well Depth, feet			22.15	10/24/07 RJH	
Water Bailed, Gals.			7.2	10/24/07 RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

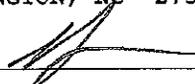
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040 C  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE ANALYZED: 11/03/07  
DATE REPORTED: 11/13/07

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-15	MW23-B	MW-32	MW-33	MW-34
1. Chloromethane	0.18	1.0	0.40 J	0.40 J	0.40 J	0.80 J	0.30 J
2. Vinyl Chloride	0.34	1.0	--- U				
3. Bromomethane	0.26	10.0	--- U				
4. Chloroethane	0.29	10.0	--- U				
5. Trichlorofluoromethane	0.13	1.0	--- U				
6. 1,1-Dichloroethane	0.14	5.0	--- U				
7. Acetone	1.21	100.0	1.30 J	--- U	--- U	1.70 J	--- U
8. Iodomethane	0.12	10.0	--- U				
9. Carbon Disulfide	0.14	100.0	--- U				
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	0.20 J	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U				
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	0.50 J	--- U
13. Vinyl Acetate	0.20	5.0	--- U				
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	1.50 J	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	1.20 J	--- U
16. Bromochloromethane	0.11	3.0	--- U				
17. Chloroform	0.13	5.0	--- U				
18. 1,1,1-Trichloroethane	0.11	1.0	--- U				
19. Carbon Tetrachloride	0.13	1.0	--- U				
20. Benzene	0.16	1.0	--- U				
21. 1,2-Dichloroethane	0.12	1.0	--- U				
22. Trichloroethane	0.13	1.0	--- U				
23. 1,2-Dichloropropane	0.17	1.0	--- U				
24. Bromodichloromethane	0.13	1.0	--- U				
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U				
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U				
27. Toluene	0.13	1.0	--- U				
28. trans-1,3-Dichloropropene	0.14	1.0	--- U				
29. 1,1,2-Trichloroethane	0.20	1.0	--- U				
30. Tetrachloroethene	0.15	1.0	--- U				
31. 2-Hexanone	1.00	50.0	--- U				
32. Dibromochloromethane	0.14	3.0	--- U				
33. 1,2-Dibromoethane	0.13	1.0	--- U				
34. Chlorobenzene	0.13	3.0	--- U				
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U				
36. Ethylbenzene	0.16	1.0	--- U				
37. Xylenes	0.48	5.0	--- U				
38. Dibromomethane	0.17	10.0	--- U				
39. Styrene	0.16	1.0	--- U				
40. Bromoform	0.11	3.0	--- U				
41. 1,1,1,2,2-Tetrachloroethane	0.16	3.0	--- U				
42. 1,2,3-Trichloropropane	0.06	1.0	--- U				
43. 1,4-Dichlorobenzene	0.21	1.0	--- U				
44. 1,2-Dichlorobenzene	0.13	5.0	--- U				
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U				
46. Acrylonitrile	1.49	200.0	--- U				
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U				

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37115  
Wastewater ID: 10

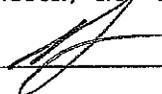
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040 C  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE ANALYZED: 11/03/07  
DATE REPORTED: 11/13/07

Page: 2

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-35
1. Chloromethane	0.18	1.0	0.30 J
2. Vinyl Chloride	0.34	1.0	--- U
3. Bromomethane	0.26	10.0	--- U
4. Chloroethane	0.29	10.0	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U
7. Acetone	1.21	100.0	1.40 J
8. Iodomethane	0.12	10.0	--- U
9. Carbon Disulfide	0.14	100.0	--- U
10. Methylene Chloride	0.14	1.0	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U
13. Vinyl Acetate	0.20	5.0	--- U
14. Cis-1,2-Dichloroethane	0.14	5.0	--- U
15. 2-Butanone	0.85	100.0	--- U
16. Bromochloromethane	0.11	3.0	--- U
17. Chloroform	0.13	5.0	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U
20. Benzene	0.16	1.0	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U
22. Trichloroethene	0.13	1.0	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U
24. Bromodichloromethane	0.13	1.0	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U
27. Toluene	0.13	1.0	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U
30. Tetrachloroethene	0.16	1.0	--- U
31. 2-Hexanone	1.00	50.0	--- U
32. Dibromochloromethane	0.14	3.0	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U
34. Chlorobenzene	0.13	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U
36. Ethylbenzene	0.16	1.0	--- U
37. Xylenes	0.48	5.0	--- U
38. Dibromomethane	0.17	10.0	--- U
39. Styrene	0.16	1.0	--- U
40. Bromoform	0.11	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U
46. Acrylonitrile	1.49	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.



# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 D

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED : 11/13/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3R	MW-4	MW-5	Analysis		Method Code
								Date	Analyst	
PH (field measurement), Units			5.4	4.5	5.6	4.6	6.4	10/24/07	RJH	SM4500NB
Antimony, ug/l	0.05	6.0	0.4 J	---	---	---	0.3 J	11/08/07	LFJ	EPA200.8
Arsenic, ug/l	0.47	10.0	---	---	---	---	---	11/08/07	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	27.7 J	53.2 J	75 J	59.7 J	103	11/08/07	LFJ	EPA200.8
Beryllium, ug/l	0.08	1.0	0.7 J	1.5	0.4 J	2.6		11/08/07	LFJ	EPA200.8
Beryllium, ug/l	0.08	1.0					0.2 J	11/09/07	LFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	0.3 J	0.2 J	0.1 J	---	0.2 J	11/08/07	LFJ	EPA200.8
Cobalt, ug/l	0.41	10.0	---	1.5 J	3.6 J	1.8 J	1.9 J	11/08/07	LFJ	EPA200.8
Copper, ug/l	0.20	10.0	3.1 J	1.4 J	0.7 J	1.3 J	1.3 J	11/08/07	LFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	---	---	---	---	---	11/08/07	LFJ	EPA200.8
Lead, ug/l	0.07	10.0	0.3 J	0.6 J	0.3 J	0.5 J	0.3 J	11/08/07	LFJ	EPA200.8
Nickel, ug/l	0.66	50.0	1.0 J	1.9 J	3.0 J	1.9 J	1.9 J	11/08/07	LFJ	EPA200.8
Selenium, ug/l	0.35	10.0	---	---	---	---	---	11/08/07	LFJ	EPA200.8
Silver, ug/l	0.52	10.0	---	---	---	---	---	11/08/07	LFJ	EPA200.8
Thallium, ug/l	0.07	5.0	---	---	---	---	---	11/08/07	LFJ	EPA200.8
Vanadium, ug/l	0.42	25.0	---	0.9 J	0.9 J	0.7 J	0.7 J	11/08/07	LFJ	EPA200.8
Zinc, ug/l	0.20	10.0	13	15	22	9.9 J	5.6 J	11/08/07	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	16	14	28	19	32	10/24/07	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	60	99	127	70	169	10/24/07	RJH	SM2510B
Temperature, °C			18	18	18	20	19	10/24/07	RJH	SM2550B
Static Water Level, feet			27.06	18.54	9.95	7.50	17.70	10/24/07	RJH	
Well Depth, feet			65.18	30.21	25.21	20.21	40.14	10/24/07	RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 D

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED : 11/13/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-31	Equipment Blank	Trip Blank	Analysis Date	Method Analyst Code
PH (field measurement), Units			5.0			10/24/07 RJH	SM4500HB
Antimony, ug/l	0.05	6.0	---	U	---	11/08/07 LFFJ	EPA200.8
Arsenic, ug/l	0.47	10.0	0.8 J	---	U	11/08/07 LFFJ	EPA200.8
Barium, ug/l	0.04	100.0	11.3 J	---	U	11/08/07 LFFJ	EPA200.8
Beryllium, ug/l	0.08	1.0	0.1 J	---	U	11/09/07 LFFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	0.1 J	0.2 J	---	11/08/07 LFFJ	EPA200.8
Cobalt, ug/l	0.41	10.0	---	U	---	11/08/07 LFFJ	EPA200.8
Copper, ug/l	0.20	10.0	2.7 J	1.2 J	---	11/08/07 LFFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	3.5 J	---	U	11/08/07 LFFJ	EPA200.8
Lead, ug/l	0.07	10.0	2.8 J	---	U	11/08/07 LFFJ	EPA200.8
Nickel, ug/l	0.66	50.0	---	U	---	11/08/07 LFFJ	EPA200.8
Selenium, ug/l	0.35	10.0	---	U	---	11/08/07 LFFJ	EPA200.8
Silver, ug/l	0.52	10.0	---	U	---	11/08/07 LFFJ	EPA200.8
Thallium, ug/l	0.07	5.0	---	U	---	11/08/07 LFFJ	EPA200.8
Vanadium, ug/l	0.42	25.0	6.6 J	---	U	11/08/07 LFFJ	EPA200.8
Zinc, ug/l	0.20	10.0	9.9 J	6.4 J	---	11/08/07 LFFJ	EPA200.8
Turbidity, NTU	1.0	1.0	380			10/24/07 MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	32			10/24/07 RJH	SM2510B
Temperature, °C			19			10/24/07 RJH	SM2550B
Static Water Level, feet			24.34			10/24/07 RJH	
Well Depth, feet			39.33			10/24/07 RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040 D  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/13/07

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		11/03/07	11/05/07	11/05/07	11/05/07	11/05/07
	MDL	SWSL	MW-1	MW-2	MW-3R	MW-4	MW-5
1. Chloromethane	0.18	1.0	0.40 J	0.40 J	0.50 J	0.40 J	0.30 J
2. Vinyl Chloride	0.34	1.0	---	---	---	---	---
3. Bromomethane	0.26	10.0	---	---	---	---	---
4. Chloroethane	0.29	10.0	---	---	---	---	---
5. Trichlorofluoromethane	0.13	1.0	---	---	---	---	---
6. 1,1-Dichloroethene	0.14	5.0	---	---	---	---	---
7. Acetone	1.21	100.0	---	1.30 J	1.60 J	---	---
8. Iodomethane	0.12	10.0	---	---	---	---	---
9. Carbon Disulfide	0.14	100.0	---	---	---	---	---
10. Methylene Chloride	0.14	1.0	---	---	---	---	---
11. trans-1,2-Dichloroethene	0.13	5.0	---	---	---	---	---
12. 1,1-Dichloroethane	0.16	5.0	---	---	---	---	---
13. Vinyl Acetate	0.20	5.0	---	---	---	---	---
14. Cis-1,2-Dichloroethene	0.14	5.0	---	---	---	---	---
15. 2-Butanone	0.95	100.0	---	---	---	---	---
16. Bromochloromethane	0.11	3.0	---	---	---	---	---
17. Chloroform	0.13	5.0	---	---	---	---	---
18. 1,1,1-Trichloroethane	0.11	1.0	---	---	---	---	---
19. Carbon Tetrachloride	0.13	1.0	---	---	---	---	---
20. Benzene	0.16	1.0	---	---	---	---	---
21. 1,2-Dichloroethane	0.12	1.0	---	---	---	---	---
22. Trichloroethene	0.13	1.0	---	---	---	---	---
23. 1,2-Dichloropropane	0.17	1.0	---	---	---	---	---
24. Bromodichloromethane	0.13	1.0	---	---	---	---	---
25. Cis-1,3-Dichloropropene	0.17	1.0	---	---	---	---	---
26. 4-Methyl-2-Pentanone	0.68	100.0	---	---	---	---	---
27. Toluene	0.13	1.0	---	---	---	---	---
28. trans-1,3-Dichloropropene	0.14	1.0	---	---	---	---	---
29. 1,1,2-Trichloroethane	0.20	1.0	---	---	---	---	---
30. Tetrachloroethene	0.16	1.0	---	---	---	---	---
31. 2-Hexanone	1.00	50.0	---	---	---	---	---
32. Dibromochloromethane	0.14	3.0	---	---	---	---	---
33. 1,2-Dibromoethane	0.13	1.0	---	---	---	---	---
34. Chlorobenzene	0.13	3.0	---	---	---	---	---
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	---	---	---	---	---
36. Ethylbenzene	0.16	1.0	---	---	---	---	---
37. Xylenes	0.48	5.0	---	---	---	---	---
38. Dibromomethane	0.17	10.0	---	---	---	---	---
39. Styrene	0.16	1.0	---	---	---	---	---
40. Bromoform	0.11	3.0	---	---	---	---	---
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	---	---	---	---	---
42. 1,2,3-Trichloropropane	0.06	1.0	---	---	---	---	---
43. 1,4-Dichlorobenzene	0.21	1.0	---	---	---	---	---
44. 1,2-Dichlorobenzene	0.13	5.0	---	---	---	---	---
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	---	---	---	---	---
46. Acrylonitrile	1.49	200.0	---	---	---	---	---
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	---	---	---	---	---

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

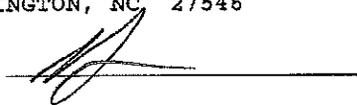
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040 D  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE REPORTED: 11/13/07

Page: 2

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		11/05/07	11/05/07	11/05/07
	MDL	SWSL	MW-31	Equipment Blank	Trip Blank
1. Chloromethane	0.18	1.0	0.40 J	---	---
2. Vinyl Chloride	0.34	1.0	---	---	---
3. Bromomethane	0.26	10.0	---	---	---
4. Chloroethane	0.29	10.0	---	---	---
5. Trichlorofluoromethane	0.13	1.0	---	---	---
6. 1,1-Dichloroethene	0.14	5.0	---	---	---
7. Acetone	1.21	100.0	---	---	---
8. Iodomethane	0.12	10.0	---	---	---
9. Carbon Disulfide	0.14	100.0	---	---	---
10. Methylene Chloride	0.14	1.0	---	0.30 J	0.20 J
11. trans-1,2-Dichloroethene	0.13	5.0	---	---	---
12. 1,1-Dichloroethane	0.16	5.0	---	---	---
13. Vinyl Acetate	0.20	5.0	---	---	---
14. Cis-1,2-Dichloroethene	0.14	5.0	---	---	---
15. 2-Butanone	0.85	100.0	---	---	---
16. Bromochloromethane	0.11	3.0	---	---	---
17. Chloroform	0.13	5.0	---	---	---
18. 1,1,1-Trichloroethane	0.11	1.0	---	---	---
19. Carbon Tetrachloride	0.13	1.0	---	---	---
20. Benzene	0.16	1.0	---	---	---
21. 1,2-Dichloroethane	0.12	1.0	---	---	---
22. Trichloroethene	0.13	1.0	---	---	---
23. 1,2-Dichloropropane	0.17	1.0	---	---	---
24. Bromodichloromethane	0.13	1.0	---	---	---
25. Cis-1,3-Dichloropropane	0.17	1.0	---	---	---
26. 4-Methyl-2-Pentanone	0.68	100.0	---	---	---
27. Toluene	0.13	1.0	---	---	---
28. trans-1,3-Dichloropropane	0.14	1.0	---	---	---
29. 1,1,2-Trichloroethane	0.20	1.0	---	---	---
30. Tetrachloroethene	0.16	1.0	---	---	---
31. 2-Hexanone	1.00	50.0	---	---	---
32. Dibromochloromethane	0.14	3.0	---	---	---
33. 1,2-Dibromoethane	0.13	1.0	---	---	---
34. Chlorobenzene	0.13	3.0	---	---	---
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	---	---	---
36. Ethylbenzene	0.16	1.0	---	---	---
37. Xylenes	0.48	5.0	---	---	---
38. Dibromomethane	0.17	10.0	---	---	---
39. Styrene	0.16	1.0	---	---	---
40. Bromoform	0.12	3.0	---	---	---
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	---	---	---
42. 1,2,3-Trichloropropane	0.06	1.0	---	---	---
43. 1,4-Dichlorobenzene	0.21	1.0	---	---	---
44. 1,2-Dichlorobenzene	0.13	5.0	---	---	---
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	---	---	---
46. Acrylonitrile	1.49	200.0	---	---	---
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	---	---	---

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

### CHAIN OF CUSTODY RECORD

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: 6040 D      Week: 42

**HARNETT CO. (DUNN/ERWIN)  
 GENERAL SERVICES HARNETT CO.  
 MR. JERRY BLANCHARD, MANAGER  
 900 SOUTH 9TH STREET  
 LILLINGTON NC 27546**

(919) 233-0407

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	DISINFECTION			PARAMETERS			CHLORINE NEUTRALIZED AT COLLECTION	pH CHECK (LAB)	CONTAINER TYPE, P/G	CHEMICAL PRESERVATION	
	DATE	TIME				CHLORINE	UV	NONE	Field pH	Metals	Turbidity					Conductivity
MW-1	10/24/07	1105		18	6	<input checked="" type="checkbox"/>										
MW-2	10/24/07	1050		18	5	<input checked="" type="checkbox"/>										
MW-3R	10/24/07	1045		18	5	<input checked="" type="checkbox"/>										
MW-4	10/24/07	1040		20	5	<input checked="" type="checkbox"/>										
MW-5	10/24/07	1030		19	5	<input checked="" type="checkbox"/>										
MW-31	10/24/07	1120		19	5	<input checked="" type="checkbox"/>										
Equipment Blank	10/24/07				3		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Trip Blank					2							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:												
<i>Bob N. Jace</i>	10/24/07 2:00	<i>[Signature]</i>	10/24/07 2:00													
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME													
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME													

- CLASSIFICATION:
- WASTEWATER (NPDES)
  - DRINKING WATER
  - DWO/GW
  - SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY

Y      N

SAMPLES COLLECTED BY:  
 (Please Print)  
*[Signature]*

SAMPLES RECEIVED IN LAB AT 10 °C

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.      No 157301

# Environment 1, Incorporated

Drinking Water ID: 30715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/23/07  
DATE REPORTED : 11/06/07

REVIEWED BY: 

PARAMETERS	MDL	Piezometer SWSL #41S	Piezometer #44S	Piezometer #44D	Piezometer #46D	Piezometer #47S	Analysis Date	Analyst	Method Code
Static Water Level, feet		18.21	9.17	11.38	29.33	14.97	10/23/07	RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 17712  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/23/07  
DATE REPORTED : 11/06/07

REVIEWED BY: 

PARAMETERS	MDL	Piezometer SWSL #47D	Piezometer #48S	Piezometer #50	Piezometer #51	Piezometer #52	Analysis Date	Analyst	Method Code
Static Water Level, feet		27.97	14.55	Dry	11.32	21.02	10/23/07	RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37115  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/23/07  
DATE REPORTED : 11/06/07

REVIEWED BY: 

PARAMETERS	MDL	Piezometer		GP-24-W	GP-25-W	GP-27-W	GP-28-W	Analysis		Method
		SWSL	#53					Date	Analyst	
Static Water Level, feet		18.91		8.80	11.06	18.26	14.09	10/23/07	RJH	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/23/07

DATE REPORTED : 11/06/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	GP-30-W	GP-31-W	GP-33-W	GP-34-W	GP-35-W	Analysis		Method
								Date	Analyst	Code
Static Water Level, feet			17.92	10.35	22.00	19.33	5.70	10/23/07	RJM	

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 17715  
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
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ID#: 6040 E

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

DATE COLLECTED: 10/23/07  
DATE REPORTED : 11/06/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	GP-36-W	GP-37-W	GP-38-W	Analysis		Method	
						Date	Analyst	Date	Code
Static Water Level, feet			21.13	11.70	15.95	10/23/07	RJH		

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

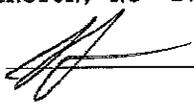
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040 E  
ANALYST: MAO  
DATE COLLECTED: 10/23/07  
DATE REPORTED: 11/06/07

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:		10/30/07	10/31/07	10/31/07	10/31/07
	MDL	SWSL	Piezometer #41s	GP-25-W	GP-30-W	GP-37-W
1. Chloromethane	0.18	1.0	0.50 J	0.70 J	0.40 J	0.60 J
2. Vinyl Chloride	0.34	1.0	2.60	1.90	---	---
3. Bromomethane	0.26	10.0	---	---	---	---
4. Chloroethane	0.29	10.0	2.50 J	3.70 J	---	---
5. Trichlorofluoromethane	0.13	1.0	---	---	---	---
6. 1,1-Dichloroethene	0.14	5.0	---	0.20 J	---	---
7. Acetone	1.21	100.0	---	1.30 J	---	---
8. Iodomethane	0.12	10.0	---	---	---	---
9. Carbon Disulfide	0.14	100.0	---	---	---	---
10. Methylene Chloride	0.14	1.0	4.00	6.00	0.20 J	0.70 J
11. trans-1,2-Dichloroethene	0.13	5.0	---	---	---	---
12. 1,1-Dichloroethane	0.16	5.0	5.10	21.50	0.50 J	9.30
13. Vinyl Acetate	0.20	5.0	---	---	---	---
14. Cis-1,2-Dichloroethene	0.14	5.0	1.80 J	0.60 J	---	---
15. 2-Butanone	0.85	100.0	---	---	---	---
16. Bromochloromethane	0.11	3.0	---	---	---	---
17. Chloroform	0.13	5.0	---	---	---	---
18. 1,1,1-Trichloroethane	0.11	1.0	---	---	---	---
19. Carbon Tetrachloride	0.13	1.0	---	---	---	---
20. Benzene	0.16	1.0	1.70	1.10	---	---
21. 1,2-Dichloroethane	0.12	1.0	---	---	---	---
22. Trichloroethene	0.13	1.0	1.20	3.20	---	0.40 J
23. 1,2-Dichloropropane	0.17	1.0	---	---	---	---
24. Bromodichloromethane	0.13	1.0	---	---	---	---
25. Cis-1,3-Dichloropropene	0.17	1.0	---	---	---	---
26. 4-Methyl-2-Pentanone	0.68	100.0	---	---	---	---
27. Toluene	0.13	1.0	---	---	---	---
28. trans-1,3-Dichloropropene	0.14	1.0	---	---	---	---
29. 1,1,2-Trichloroethane	0.20	1.0	---	---	---	---
30. Tetrachloroethane	0.16	1.0	1.10	6.00	---	0.60 J
31. 2-Hexanone	1.00	50.0	---	---	---	---
32. Dibromochloromethane	0.14	3.0	---	---	---	---
33. 1,2-Dibromoethane	0.13	1.0	---	---	---	---
34. Chlorobenzene	0.13	3.0	0.50 J	---	---	---
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	---	---	---	---
36. Ethylbenzene	0.16	1.0	---	---	---	---
37. Xylenes	0.48	5.0	0.90 J	---	---	---
38. Dibromomethane	0.17	10.0	---	---	---	---
39. Styrene	0.16	1.0	---	---	---	---
40. Bromoform	0.11	3.0	---	---	---	---
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	---	---	---	---
42. 1,2,3-Trichloropropane	0.06	1.0	---	---	---	---
43. 1,4-Dichlorobenzene	0.21	1.0	0.50 J	---	---	---
44. 1,2-Dichlorobenzene	0.13	5.0	---	---	---	---
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	---	---	---	---
46. Acrylonitrile	1.49	200.0	---	---	---	---
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	---	---	---	---

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

### CHAIN OF CUSTODY RECORD

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: **6040 E**      Week: **42**

**HARNETT CO. (DUNN/ERWIN)  
 GENERAL SERVICES HARNETT CO.  
 MR. JERRY BLANCHARD, MANAGER  
 900 SOUTH 9TH STREET  
 LILLINGTON NC 27546**

(919) 233-0407

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	CLASSIFICATION:
	DATE	TIME									
Piezometer #41S	10/23/07	0855			4						<input type="checkbox"/> WASTEWATER (NPDES)
Piezometer #44S	10/23/07				1						<input type="checkbox"/> DRINKING WATER
Piezometer #44D	10/23/07				1						<input type="checkbox"/> DWQ/GW
Piezometer #46D	10/23/07				1						<input checked="" type="checkbox"/> SOLID WASTE SECTION
Piezometer #47S	10/23/07				1						CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Piezometer #47D	10/23/07				1						
Piezometer #48S	10/23/07				1						N
<del>Piezometer #50</del>	<del>10/23/07</del>				<del>1</del>						SAMPLES COLLECTED BY: (Please Print) H. Lopez / J. For
Piezometer #51	10/23/07				1						SAMPLES RECEIVED IN LAB AT <u>6:00</u> C
Piezometer #52	10/23/07				1						
Piezometer #53	10/23/07				1						
RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:							
<i>H. Lopez</i>	10/23/07	<i>Matthew Pugh</i>	10/23/07 3:10	PIEZOMETER #50 WAS DRY							
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME								
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME								

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

# CHAIN OF CUSTODY RECORD

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: **6040 E**      Week: **42**

**HARNETT CO. (DUNN/ERWIN)  
 GENERAL SERVICES HARNETT CO.  
 MR. JERRY BLANCHARD, MANAGER  
 900 SOUTH 9TH STREET  
 LILLINGTON NC 27546**

(919) 233-0407

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	DISINFECTION			CHLORINE NEUTRALIZED AT COLLECTION
	DATE	TIME					CHLORINE	UV	NONE	
GP-24-W	10	2307			1	G				
GP-25-W	10	2307 0740			3	G	G	G		
GP-27-W	10	2307			1	G				
GP-28-W	10	2307			1	G				
GP-30-W	10	2307 0920			3	G	G	G		
GP-31-W	10	2307			1	G				
GP-33-W	10	2307			1	G				
GP-34-W	10	2307			1	G				
GP-35-W	10	2307			1	G				
GP-36-W	10	2307			1	G				
GP-37-W	10	2307 1235			3	G	G	G		
RELINQUISHED BY (SIG.) (SAMPLER)		DATE/TIME	RECEIVED BY (SIG.)		DATE/TIME	COMMENTS:				
Bob Hope		10 2307	D. Mether		10/23/17 13:00					
RELINQUISHED BY (SIG.)		DATE/TIME	RECEIVED BY (SIG.)		DATE/TIME					
RELINQUISHED BY (SIG.)		DATE/TIME	RECEIVED BY (SIG.)		DATE/TIME					

PARAMETERS

A - NONE    D - NaOH  
 B - HNO<sub>3</sub>    E - HCL  
 C - H<sub>2</sub>SO<sub>4</sub>    F - ZINC ACETATE  
 G - NaTHIOSULFATE

CLASSIFICATION:

WASTEWATER (NPDES)  
 DRINKING WATER  
 DWQ/GW  
 SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY

Y    N

SAMPLES COLLECTED BY:  
 (Please Print)  
 Hope / For

SAMPLES RECEIVED IN LAB AT 4.0 °C

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

Environment 1, Inc.  
 P.O. Box 7085, 114 Oakmont Dr.  
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT: 6040 E Week: 42

HARNETT CO. (DUNN/ERWIN)  
 GENERAL SERVICES HARNETT CO.  
 MR. JERRY BLANCHARD, MANAGER  
 900 SOUTH 9TH STREET  
 LILLINGTON NC 27546

(919) 233-0407

# CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE, mg/ AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	PARAMETERS	DISINFECTION		CHLORINE NEUTRALIZED AT COLLECTION
	DATE	TIME									<input type="checkbox"/> CHLORINE	<input type="checkbox"/> UV	
GP-38-W											<input type="checkbox"/>	<input type="checkbox"/>	
													pH CHECK (LAB)
													CONTAINER TYPE, P/G
													CHEMICAL PRESERVATION
													A - NONE D - NAOH B - HNO <sub>3</sub> E - HCL C - H <sub>2</sub> SO <sub>4</sub> F - ZINC ACETATE G - NA THIOSULFATE
													CLASSIFICATION:
													<input type="checkbox"/> WASTEWATER (NPDES)
													<input type="checkbox"/> DRINKING WATER
													<input type="checkbox"/> DWQ/GW
													<input checked="" type="checkbox"/> SOLID WASTE SECTION
													CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
													Y N
													SAMPLES COLLECTED BY: (Please Print) N. Hoel Fox
													SAMPLES RECEIVED IN LAB AT 60 °C
RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:									
Bob Hoel Fox	10/23/07	Mr. Jerry Blanchard	10/23/07 3:00	GP-38-W CONTAINING WASTEWATER TO SAMPLE									
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME										
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME										

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

# Environment 1, Incorporated

Drinking Water ID: 37715  
Wastewater ID: 10

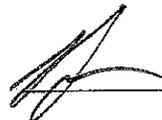
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6040 F

HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON ,NC 27546

DATE COLLECTED: 10/24/07  
DATE REPORTED : 11/13/07

REVIEWED BY: 

PARAMETERS	MDL	SWSL	MW-11	MW-12	MW-13	MW-14	MW-15	Analysis		Method Code
								Date	Analyst	
PH (field measurement), Units			5.2	5.6	6.5	5.8	Missing	10/24/07	RJH	SM4500H
Antimony, ug/l	0.05	6.0	--- U	--- U	--- U	--- U	Missing	11/08/07	LFJ	EPA200.8
Arsenic, ug/l	0.47	10.0	--- U	0.5 J	--- U	--- U	Missing	11/08/07	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	16.6 J	53.3 J	51.9 J	36.5 J	Missing	11/08/07	LFJ	EPA200.8
Beryllium, ug/l	0.08	1.0	--- U	1.9	0.2 J	0.2 J	Missing	11/09/07	LFJ	EPA200.8
Cadmium, ug/l	0.06	1.0	0.1 J	0.4 J	0.2 J	0.3 J	Missing	11/08/07	LFJ	EPA200.8
Cobalt, ug/l	0.41	10.0	--- U	1.2 J	0.8 J	1.2 J	Missing	11/08/07	LFJ	EPA200.8
Copper, ug/l	0.20	10.0	1.7 J	6.8 J	1.3 J	1.7 J	Missing	11/08/07	LFJ	EPA200.8
Total Chromium, ug/l	0.24	10.0	2.3 J	2.0 J	--- U	0.5 J	Missing	11/08/07	LFJ	EPA200.8
Lead, ug/l	0.07	10.0	1.5 J	4.9 J	0.4 J	0.9 J	Missing	11/08/07	LFJ	EPA200.8
Nickel, ug/l	0.66	50.0	0.9 J	2.0 J	1.0 J	2.3 J	Missing	11/08/07	LFJ	EPA200.8
Selenium, ug/l	0.35	10.0	--- U	--- U	--- U	--- U	Missing	11/08/07	LFJ	EPA200.8
Silver, ug/l	0.52	10.0	--- U	--- U	--- U	--- U	Missing	11/08/07	LFJ	EPA200.8
Thallium, ug/l	0.07	5.0	--- U	--- U	--- U	--- U	Missing	11/08/07	LFJ	EPA200.8
Vanadium, ug/l	0.42	25.0	3.1 J	6.4 J	1.6 J	1.6 J	Missing	11/08/07	LFJ	EPA200.8
Zinc, ug/l	0.20	10.0	13	17	7.7 J	18	Missing	11/08/07	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	40	300	21	24	Missing	10/24/07	MDM	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	31	68	146	99	Missing	10/24/07	RJH	SM2510B
Temperature, °C			20	19	17	19	Missing	10/24/07	RJH	SM2550B
Static Water Level, feet			19.52	9.11	24.91	10.05	Missing	10/24/07	RJH	
Well Depth, feet			27.68	22.59	50.61	29.97	Missing	10/24/07	RJH	
Water Bailed, Gals.			3.9	6.3	12.0	9.3	Missing	10/24/07	RJH	
8250 (duplicate)							Missing	/ /		

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

Laboratory Analyses — Environmental Consultants

# Environment 1, Incorporated

Drinking Water ID: 37718  
Wastewater ID: 10

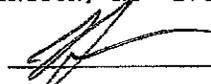
P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: HARNETT CO. (DUNN/ERWIN)  
GENERAL SERVICES HARNETT CO.  
MR. JERRY BLANCHARD, MANAGER  
900 SOUTH 9TH STREET  
LILLINGTON, NC 27546

CLIENT ID: 6040 F  
ANALYST: MAO  
DATE COLLECTED: 10/24/07  
DATE ANALYZED: 11/05/07  
DATE REPORTED: 11/13/07

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-11	MW-12	MW-13	MW-14
1. Chloromethane	0.18	1.0	0.40 J	0.40 J	0.60 J	0.30 J
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethane	0.14	5.0	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U	1.50 J	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethane	0.13	5.0	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	5.0	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethane	0.14	5.0	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U
22. Trichloroethane	0.13	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U
30. Tetrachloroethane	0.16	1.0	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

