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NC DENR
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).
- 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., PE, Inc. (Consultant)

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

Name: C. Tyrus Clayton, Jr., PE Phone: 910-897-7070

E-mail: tyrus@ctclayton.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Dunn/Erwin Landfill	SR1725 Dunn, NC	43-02	.1600	April 21 -22, 2009

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
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

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.

C. Tyrus Clayton, Jr., PE — Consultant — (910) 897-7070

Facility Representative Name (Print) — Title — (Area Code) Telephone Number

Digitally signed by C. Tyrus Clayton, Jr., PE
DN: cn=C. Tyrus Clayton, Jr., PE, o=C. T. Clayton, Sr., PE, Inc., ou=, email=tyrus@ctclayton.com, c=US
Date: 2009.09.03 09:04:08 -04'00'

09/03/09

Signature — Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA PROFESSIONAL SEAL 028909 09/03/09 ENGINEER C. TYRUS CLAYTON, JR.

PO Box 578, 46 West Washington St, Coats, NC 27521

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C-2570

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

August 25, 2009

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: APRIL 09
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 April 2009 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 will be considered by Harnett County for the assessment of the Harnett County's corrective action program 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, .1636, and .1637*

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., PE, Inc.

C. Tyrus Clayton, Jr., PE

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
APRIL 2009
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 12794
New Bern, NC 28561

Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

Submitted on behalf of:
Harnett County General Services
900 South 9th Street
Lillington, NC 27546

August 20, 2009

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EXECUTIVE SUMMARY

The April 2009 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 April 2009 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) were 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. Four of these wells (MW11 - MW14) were incorporated into the statistical analysis of Set 1 as Subset 1N after their background sampling was completed in October 2008. Because MW15 had not been sampled in October 2007 with MW11 - MW14, April 2009 was its fourth sampling event, so MW15 has been incorporated as of April 2009.

Within 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 2.32 feet below the average groundwater level based on all sampling events, for each respective well. This value also includes groundwater levels for the wells MW11 - MW15.

As of October 2008, the groundwater elevation map (Figure 1) was updated with average contours based on data collected from January 2007 to May 2008, including data from MW11 - MW15. In addition, Table 2, Groundwater Velocity Data, was updated to incorporate values for 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. The April 2009 results show that there were a similar number organics detected in concentrations greater than NCGS or GPS when compared to the number of organics detected above NCGS or GPS in October 2008. The April 2009 above NCGS or GPS organics include: benzene, 1,4-dichlorobenzene, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW6; benzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW7B; benzene, 1,4-dichlorobenzene, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW8; benzene, 1,4-dichlorobenzene, methylene chloride, tetrachloroethylene, trichloroethylene, and vinyl chloride in MW9; and acetone, benzene 1,4-dichlorobenzene, methylene chloride, and vinyl chloride in MW10.

The acetone detection is MW10 appears to be an anomaly. The result of 2,340 ug/L is significantly greater than previous detections. The source of the acetone detection is unclear. However, the magnitude of the detection suggests that acetone could have been introduced during the sampling process or at the laboratory. Acetone levels will be monitored in future sampling events to determine if this detection was indeed an anomaly.

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 (PIA) calculated based on background concentrations, the result is not considered SSIOBL.

Using this PIA methodology, the following were not SSIOBL: beryllium for MW2, MW3, and MW4; barium for MW5, MW7B, and MW23B; cobalt for MW7B; lead for MW7B; and zinc for MW12. The PIA indicated the following were SSIOBL: barium for MW6 and beryllium for MW12. Based on background sampling at MW12 and compared to similar beryllium results at MW2, MW3, and MW4, the beryllium at MW12 does not appear to be SSIOBL. This assessment will be reviewed using the prediction interval intra-well comparison as more data become available in future sampling events.

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 decrease in the number of inorganics exceeding NCGS or GPS compared to the October 2008 results: vanadium in MW6, MW9, MW10, MW11, MW12, MW4, and SWPT1; and lead in SWPT1. (The vanadium exceedances were estimated concentration values, except at SWPT1.) The vanadium detections appear to be background, as this inorganic was not SSIOBL for any well.

In Set 2, no organics or inorganics are statistically significant. No organics were detected in April 2009, consistent with the results from 2008. For inorganics, only barium was detected in Set 2. Barium was not detected over the NCGS, similar to the results from October 2008.

In Set 3, arsenic, barium, chromium, cobalt, copper, lead, vanadium, and zinc were detected, representing an increase in the number of inorganic detections compared to April 2008. No organics were detected. Toluene at SWPT3 continues to be statistically significant for Set 3. The following inorganics exceeded NCGS or GPS during this sampling event, representing a decrease compared to the October 2008 results: lead and vanadium in SWPT1.

Details of the statistical procedures employed are discussed in Section III of this report, entitled Methodology. The results of the April 2009 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 has begun the implementation of corrective action program according to North Carolina Solid Waste Management Rules *15A N.C.A.C. 13 B, .1637,* as per SWS review and approval.

- 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 will be considered by Harnett County for the assessment of corrective action for the groundwater contamination plume, downgradient of the existing landfill implemented by Harnett County in accordance with North Carolina Solid Waste Management Rules *15A N.C.A.C. 13 B, .1635, .1636, and .1637*

- 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 detections have increased over recent sampling events, and it now qualifies for the TOP. The prevalence of benzene detections will be observed in future sampling events. Tetrachloroethylene also qualifies for the TOP.

- 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 10 detections as of the October 2007 sampling event (including past events), vinyl chloride has qualified for inclusion into the contamination plume review starting October 2007. There were five additional vinyl chloride detections in April 2009. However, vinyl chloride results **are not** as prevalent as the other top organic contaminants, and because it has a **low 2L standard** the results show 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 are sampled for Appendix II constituents in October 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 October 2009. 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 October 2009.

- 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 October 2009.

- Background sampling of new wells MW11 - MW14 has been be completed as of October 2008. These wells have been incorporated into the statistical analysis of Set 1 as a

Subset 1N. Background sampling at MW15 has also been completed and this well has been incorporated into the statistical analysis (as part of Subset 1N with MW11-MW14) as of April 2009.

- The new reporting requirements have been incorporated for this sampling event. Reporting will be adjusted if required by the SWS. This 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 2008
  - (iii) A hard copy of the EXCEL sheets from the E1I 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 April 2009 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 April 2009 sampling event were approximately 2.32 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, previously calculated based on groundwater levels recorded in the October 1995 sampling event and updated to include average data from January 2007 to May 2008 for wells MW11 - MW15. This table also incorporates an 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, MW11, MW12, MW13, MW14, MW15, 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 2008 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 on 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-Wallace 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, MW11, MW12, MW13, MW14, MW15, 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 after it reached 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 April 2009 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 had been added to this list due to its NCGS revision from 700 to 70 ug/l. Vinyl chloride had been added 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 SSIOBL 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 concentrations 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 *estimated* results of 6.6, 20.7, 19.9, and 6.2 ug/l in October 2007, April 2008, October 2008, and April 2009. 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 ten 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, 0.06, 0.014, and 0.013 mg/l, in October and November 1994, January, March, and September 1995, April 1996, April and October 1997, October 1998, October 1999, April 2008, and October 2008, respectively.

vanadium: Vanadium was detected for nine sampling events for MW31 with concentrations of 0.045, 0.026, 0.032, 0.08, 041, 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 nine sampling events in MW31 with concentrations of 0.017, 0.01, 0.027, 0.037, 0.07, 0.05, 0.04, 0.01, 0.017, and 0.01 mg/l, in October and November 1994, January, March, and September 1995, April 1996, October 1997, October 1998, October 1999, May 2007, and April 2008, 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. Vanadium exceeded the 13B GPS with an *estimated* results of 3.6 ug/l in October 2008. 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 MW2 in April 2009:

beryllium: Beryllium resulted as not SSIOBL 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. Vanadium exceeded the 13B GPS with an *estimated*

results of 4.3 ug/l in October 2008. Carbon disulfide has been the only organic constituent detected in MW3/3R. Barium, beryllium and zinc were the only constituents detected during this latest sampling event.

The following results were obtained for the detected metals in MW3 in April 2009:

barium: Barium resulted as not SSIOBL for MW3 using the Test of Proportions.

beryllium: Beryllium resulted as not SSIOBL for MW3 using the Prediction Interval Analysis.

zinc: Zinc resulted as not SSIOBL for MW3 using the Test of Proportions.

MW4: MW4 has had a history of detections of inorganics barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. Beryllium exceeded the 13B GPS with a result of 6.0 ug/l in October 2008. 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 and zinc were the only constituents detected during this latest sampling event.

The following results were obtained for the detected metals in MW4 in April 2009:

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

zinc: Zinc resulted as not SSIOBL for MW4 using the Test of Proportions.

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. Vanadium exceeded the 13B GPS with an *estimated* results of 4.0 ug/l in October 2008. 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. Only barium, was during this latest sampling event.

The following results were obtained for the detected metal in MW5 in April 2009:

barium: Barium resulted as not SSIOBL for MW5 using the Prediction Interval Analysis.

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 *estimated* results of 7.3, 5.5, and 5.6 ug/l in October 2007, October 2008, and April 2009. Barium and cobalt 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-trichlroethane, trichloroethylene, vinyl chloride, and xylenes. Benzene has exceeded NCGS in seven sampling events with concentrations of 2.7, 3.4, 9.5, 6.1, 4.2, 4.9, and 2.4 ug/l in March and October 1999, April 2001, October 2007, April and October 2008, and April 2009, 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 seven sampling events with concentrations of 7.2, 6.9, 3.2, 7.7, 7.4, 5.0, and 4.7 ug/l in April 2001, October 2005, May 2007, October 2007, April and October 2008, and April 2009, 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 13B GPS in two sampling events with estimated concentrations of 0.6 and 0.4 ug/l in October 2007 and April 2008, respectively. Methylene chloride has exceeded NCGS in 13 sampling events with concentrations of 66, 109, 47, 37, 34.8, 28.2, 12.8, 64.5, 20.1, 12.9, 8.8, 33, and 9.0 ug/l in October 2000, April and October 2001, April and October 2002, October 2003, April 2004, October 2005, April and October 2006, May and October 2007, and October 2008, respectively. Tetrachloroethylene has exceeded NCGS in 13 sampling events with concentrations of 5.3, 3.8, 5.6, 1.9, 8.2, 7.1, 6.2, 8.0, 6.9, 9.3, 4.5, 3.8, and 1.8 ug/l in October 1994, January and March 1995, October 1999, April 2001, October 2005, April and October 2006, May and October 2007, April and October 2008, and April 2009, respectively. Trichloroethylene has exceeded NCGS in 20 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, 9.24, 5.9, 4.9, and 2.3 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, May and October 2007, April and October 2008, and April 2009 respectively. Vinyl chloride has exceeded NCGS in seven sampling events with concentrations of 22, 11.2, 8, 7.2, 6.3, 10.8, and 2.6 ug/l in April 2001, April 2006, May and October 2007, April and October 2008, and April 2009 respectively.

Benzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 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 April 2009:

barium: Barium resulted as SSIOBL for MW6 using the Prediction Interval Analysis.

cobalt: Cobalt resulted as SSIOBL for MW6 using the Test of Proportions.

The following results were obtained for the detected organics in April 2009:

benzene:	Benzene resulted as SSIOBL for MW6 using the Test of Proportions.
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 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 Test of Proportions.
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 20 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, 0.031, and 0.019 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, October 2007, and October 2008 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 *estimated* results of 0.5, 0.4, and 2.8 ug/l in October 2007, April 2008, and October 2008, respectively. Vanadium exceeded 13B GPS with an *estimated* result of 14.2 ug/l in October 2007.

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

Detected organics have included benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 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 six sampling events with concentrations of 1.1, 4.7, 4.1, 4.2, 5.8, and 4.6 ug/l in March 1999, May 2007, October 2007, April and October 2008, and April 2009, respectively. 1,4-dichlorobenzene has exceeded NCGS in one sampling event with a concentration of 1.7 ug/l in October 2008. 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 23 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, 129, and 114 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, May and October 2007, and April 2009, respectively. 1,2-dichloroethane has exceeded NCGS in two sampling events with a concentration of 8.7 ug/l in April 2003 and an *estimated* concentration of 0.4 ug/L in October 2008. 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 17 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, 45.5, 69, and 80.9 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, May and October 2007, October 2008, and April 2009, respectively. Tetrachloroethylene exceeded NCGS in five sampling events with concentrations of 9.0, 3.7, 3.2, 3.7, and 3.3 ug/l in October 2005, October 2007, April and October 2008, and April 2009, respectively. Trichloroethylene exceeded NCGS in 19 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, 9.2, 9.1, 8.8, and 7.8 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, May and October 2007, April and October 2008, and April 2009, respectively. Vinyl chloride has exceeded NCGS in five sampling events with concentrations of 5, 5, 3.9, 8.2, and 4.3 ug/l in May and October 2007, April and October 2008, and April 2009, respectively. 1,1,2,2-tetrachloroethane exceeded 13B GPS with an *estimated* result of 1.0 ug/l in October 2008.

During this latest sampling event, benzene, chlorobenzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, trichloroflouromethane, and vinyl chloride were detected at MW7B.

The following results were obtained for the detected inorganics in MW7/7B in April 2009:

barium: Barium resulted as not SSIOBL for MW7/7B using the Prediction Interval Analysis.

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

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

The following results were obtained for the detected organics in MW7/7B April 2009:

benzene: Benzene resulted as SSIOBL for MW7/7B using the Test of Proportions.

chlorobenzene: Chlorobenzene resulted as not SSIOBL for MW7/7B using the Qualitative Test.

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

1,4-dichlorobenzene: 1,4-dichlorobenzene resulted as not SSIOBL for MW7/7B using the Qualitative Test.

cis-1,2-dichloroethene: cis-1,2-Dichloroethene as not SSIOBL for MW7/7B using the Test of Proportions.

*1,1-dichloroethane:*1,1-dichloroethane resulted as SSIOBL for MW7/7B using the Test of Proportions.

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

tetrachloroethylene: Tetrachloroethylene resulted as SSIOBL for MW7/7B using the Test of Proportions.

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

trichloroflouromethane: Trichloroflouromethane resulted as SSIOBL for MW7/7B using the Qualitative Test.

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

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. Barium and zinc were the only detected metal at MW8 during this latest sampling event.

Detected organics at MW8 have included benzene, cis-1,2-dichloroethene, carbon disulfide, chloroethane, chloromethane, 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, dichlorodifluoromethane, vinyl chloride, and xylenes. Benzene exceeded NCGS in six sampling events, with concentrations of 2.1, 1.6, 2.6, 2.5, 2.9, and 2.6 ug/l in October 1997, March 1999, October 2007, April and October 2008, and April 2009, 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. 1,4-dichlorobenzene exceeded NCGS in two sampling events with concentrations of 1.5 and 1.7 ug/l in October 2008 and April 2009. 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 23 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, 35.9, 31, 48, and 32.5 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, May and October 2007, April and October 2008, and April 2009, respectively. Tetrachloroethylene exceeded NCGS in six sampling events, with concentrations of 5.2, 5, 6.5, 5.5, 4.7, and 5.7 ug/l in October 2006, May and October 2007, April and October 2008, and April 2009, respectively. Trichloroethylene exceeded NCGS in seven sampling events, with concentrations of 6.8, 5.3, 4, 4.4, 4.8, 4.8, and 41.1 ug/l in April and October 2001, May and October 2007, April and October 2008, and April 2009, respectively. Vinyl chloride exceeded NCGS with an *estimated* result of 0.9 ug/l in October 2007 and results of 1.0, 1.5, and 1.3 ug/L in April and October 2008 and April 2009, respectively.

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

The following result was obtained for the detected inorganic in MW8 in April 2009:

barium: Barium resulted as not SSIOBL for MW8 using the Test of Proportions.

zinc: Zinc resulted as not SSIOBL for MW8 using the Test of Proportions.

The following results were obtained for the detected organics in MW8 in April 2009:

benzene: Benzene resulted as SSIOBL for MW8 using the Test of Proportions.

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

cis-1,2-dichloroethene: cis-1,2-Dichloroethene resulted as SSIOBL for MW8 using the Test of Proportions.

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

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

tetrachloroethylene: Tetrachloroethylene resulted as SSIOBL for MW8 using the Test of Proportions.

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

vinyl chloride: Vinyl chloride resulted as not SSIOBL for MW8 using the Qualitative Test.

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 two sampling events with concentrations of 0.005 and 0.0015 mg/l in October 2007. Vanadium exceeded 13B GPS with an *estimated result* of 6.1 ug/l in April 2009. Barium was the only detected inorganic 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 13 sampling events, with concentrations of 8.6, 11, 7.8, 8.2, 8.1, 6.4, 5.6, 5.2, 5, 5.4, 11.5, 8, and 8.1 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2006, May and October 2007, April and October 2008, and April 2009, 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 four sampling events, with concentrations of 2.5, 6.6, 2.1, and 1.6 ug/l in October 2007, April and October 2008, and April 2009, respectively. 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 two sampling event, with concentrations of 11.8 and 0.8 (estimated) ug/l in April 2003 and April 2008, respectively. Methylene chloride exceeded NCGS in 15 sampling events, with concentrations of 195, 231, 272, 197, 166, 127, 67.9, 56.7, 75.7, 122, 96.4, 64.2, 49.6, 64.6, and 53.2 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, May and October 2007, October 2008, and April 2009, respectively. Tetrachloroethylene exceeded NCGS in seven sampling events, with concentrations of 5.3, 5.3, 5.1, 2.9, 4.4, 2.4, and 1.4 ug/l in October 2001, October 2002, April 2003, October 2007, April and October 2008, and April 2009, respectively. Trichloroethylene exceeded NCGS in 16 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, 3.9, 5.9, 4.2, and 2.9 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, May and October 2007, April and October 2008, and April 2009, respectively. Vinyl chloride exceeded NCGS in five sampling events, with concentrations of 9.1, 5.9, 6.5, 8.7, and 6.4 ug/l in May and October 2007, April and October 2008, and April 2009, respectively.

Benzene, chlorobenzene, 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 April 2009:

barium: Barium resulted as not SSIOBL for MW9 using the Test of Proportions.

The following results were obtained for the detected organics in MW9 in April 2009:

benzene: Benzene resulted as SSIOBL for MW9 using the Test of Proportions.

chlorobenzene: Chlorobenzene resulted as not SSIOBL for MW9 using the Qualitative Test.

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 SSIOBL for MW9 using the Test of Proportions.

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 SSIOBL for MW9 using the Test of Proportions.

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

vinyl chloride: Vinyl chloride resulted as SSIOBL 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 *estimated* results of 12.2, 3.7, and 5.2 ug/l in October 2007, April 2008, and April 2009. Arsenic, copper, and zinc were 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, toluene, trichloroethylene, vinyl chloride, and xylenes. Of these, acetone exceeded NCGS in one sampling event, with a concentration of 2,340 ug/l in April 2009 (apparent anamoly). Benzene exceeded NCGS in eight sampling events, with concentrations of 6.9, 7.3, 6.2, 4.6, 2.0, 4.5, 3.9, and 7.0 ug/l in April and October 2001, April 2002, May and October 2007, April and October 2008, and April 2009 respectively. 1,4-dichlorobenzene exceeded NCGS in one sampling event, with a concentration of 3 ug/l in April 2009. 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 12 sampling events, with concentrations of 120, 310, 132, 59.3, 19.7, 48.7, 48, 67.7, 51.6, 27.1, 14.4, 4.1, and 10 ug/l in April and October 2001, April and October 2002, April and October 2003, April and October 2004, April 2005, April 2006, April 2008, and April 2009, 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 five sampling events, with concentrations of 10, 1.4, 2, 3.3, and 3.9 ug/l in April 2001, October 2007, April and October 2008, and April 2009, respectively.

Acetone, benzene, chlorobenzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-dichloroethane, methylene chloride, toluene, trichloroethylene, and vinyl chloride were the detected organics at MW10 during this latest sampling event.

The following results were obtained for the detected inorganics in MW10 in April 2009:

arsenic: Arsenic resulted as not SSIOBL for MW10 using the Qualitative Test.

copper: Copper resulted as not SSIOBL for MW10 using the Test of Proportions.

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

The following results were obtained for the detected organics in MW10 in April 2009:

acetone: Acetone resulted as not SSIOBL for MW10 using the Test of Proportions.

benzene: Benzene resulted as SSIOBL for MW10 using the Test of Proportions.

chlorobenzene: Chlorobenzene resulted as not SSIOBL for MW10 using the Qualitative Test.

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

cis-1,2-dichloroethene: cis-1,2-dichloroethene resulted as SSIOBL for MW10 using the Test of Proportions.

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

methylene chloride: Methylene chloride resulted as SSIOBL for MW10 using the Test of Proportions.

toluene: Toluene resulted as SSIOBL for MW10 using the Qualitative Test.

trichloroethylene: Trichloroethylene resulted as SSIOBL for MW10 using the Test of Proportions.

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

MW11: Compliance well MW11 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW11 include zinc. Vanadium exceeded 13B GPS with *estimated* concentrations of 6.2 and 6.1 ug/l in October 2008 and April 2009, respectively. No organics have been detected in MW11. No inorganics were detected during this latest sampling event.

MW12: Compliance well MW12 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW12 include beryllium and zinc. Vanadium exceeded 13B GPS with *estimated* concentrations of 6.4 and 8.0 ug/l in October 2007 and April 2009, respectively. No other inorganics have exceeded NCGS or 13B GPS. No organics have been detected in MW12. Beryllium and zinc were detected during this latest sampling event.

The following results was obtained for the detected inorganics in MW12 in April 2009:

beryllium: Based on the Prediction Interval Analysis, beryllium is SSIOBL for MW12. However, because beryllium was detected in each background event and based on similar results at wells MW2, MW3, and MW4, beryllium appears to be background at MW12 and is not considered SSIOBL.

zinc: Zinc resulted as not SSIOBL for MW12 using the Prediction Interval Analysis.

MW13: Compliance well MW13 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW13 include zinc. No inorganics have exceeded NCGS or 13B GPS. No organics have been detected in MW13. No inorganics were detected during this latest sampling event.

MW14: Compliance well MW14 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. Detected metals in MW14 include zinc. Vanadium exceeded 13B GPS with an *estimated* concentration of 5.9 ug/l in April 2009. No other inorganics have exceeded NCGS or 13B GPS. No organics have been detected in MW14. Barium was the only detection during this latest sampling event.

The following result was obtained for the detected inorganic in MW14 in April 2009:

barium: Barium resulted as not SSIOBL for MW14 using the Test of Proportions.

MW15: Compliance well MW15 was installed in 2006 and was sampled for the first time in May 2007. The data are now included in the statistical analysis. No metals have been detected in MW15. Toluene is the only organics detected in MW11. No inorganics were detected during this latest sampling event. Toluene was the only organic detected during this latest sampling event.

The following result was obtained for the detected inorganic in MW15 in April 2009:

toluene: Toluene resulted as SSIOBL for MW15 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. Mercury also exceeded NCGS in one sampling event with a concentration of 0.0017 mg/l in March 1999. No organics have been detected in MW23B. No inorganics were detected during this latest sampling event.

DATA SET 2

In April 2009, 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 eight sampling events with concentrations of 0.09, 0.02, 0.064, 0.033, 0.063, 0.029, 0.021, and 0.024 mg/l in November 1994, March 1995, March and October 1999, April 2003, April 2005, April 2006, and April 2008, respectively. The only detected organic constituent for MW32 was MEK (2-butanone) with a concentration of 471 ug/l in January 1995. No constituents were detected during the latest sampling event.

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 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 April 2009:

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. Lead exceeded NCGS with a concentration of 0.029 mg/l in April 2009. Vanadium exceeded 13B GPS with concentrations of 40 and 39 ug/l in October 2008 and April 2009, respectively. The only organics detected at SWPT1 were toluene in October 1999 and chloromethane in October 2008. Arsenic, barium, chromium, cobalt, copper, lead, vanadium, and zinc were detected at SWPT1 during this sampling event.

The following summarizes the detection history at SWPT1:

arsenic: Arsenic was detected in four sampling events for SWPT1 with concentrations of 0.007, 0.013, 0.047, and 0.021 mg/l in October 1994, September 1995, October 2008, and April 2009, respectively.

barium: Barium was detected in six sampling events for SWPT1 with concentrations of 0.045, 0.033, 0.03, 0.029, 0.183, and 0.222 mg/l in October and November 1994, January and March 1995, October 2008, and April 2009, 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 two sampling event for SWPT1 with concentrations of 0.002 and 0.011 mg/l in October 1994 and April 2009.

cobalt: Cobalt was detected in three sampling events for SWPT1 with a concentration of 0.010, 0.031, and 0.037 mg/l in October 1999, October 2008, ands April 2009, respectively.

copper: Copper was detected in three sampling events for SWPT1 with concentrations of 0.006, 0.006, and 0.015 mg/l in October 1994, March 1995, and April 2009, respectively.

lead: Lead was detected in two sampling events for SWPT1 with concentrations of 0.01, and 0.029 mg/l in October 2008 and April 2009.

vanadium: Vanadium was detected in two sampling events for SWPT1 with concentrations of 0.04 and 0.039 mg/l in October 2008 and April 2009, respectively.

zinc: Zinc was detected in 10 sampling events for SWPT1 with concentrations of 0.011, 0.016, 0.021, 0.013, 0.22, 0.04, 0.011, 0.022, 0.033, and 0.073 mg/l in October and November 1994, January and March 1995, October 1997, October 1998, May 2007, April and October 2008, and April 2009, respectively.

chloromethane: Chloromethane was detected in one sampling event for SWPT1 with a concentration of 1.3 ug/l in October 2008.

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. Vanadium detected 13B GPS with a *estimated* concentration of 23.1 ug/l in October 2008. Detected organics include toluene. Zinc was the only detection at SWPT2 during this sampling event.

The following result was obtained for the detected inorganic in SWPT2 in April 2009:

zinc: Zinc resulted as not SSIOBL for SWPT2 using the Test of Proportions.

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. Vanadium exceeded 13B GPS with *estimated* values of 3.9 and 13.7 ug/l in April and October 2008, respectively. 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. No constituents were detected in SWPT3 during the latest sampling event.

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	28-Mar-95	27-Apr-95	03-Jun-95
MW1	235.67	234.27	no schematic		-	210.37	211.17	211.97	212.07	210.77	210.67	210.67
MW2	198.01	196.01	181.01	166.01	-	182.01	182.21	182.09	183.67	182.85	181.89	182.01
MW3	182.16	180.16	171.16	161.16	-	175.66	176.36	176.76	176.66	175.91	175.49	176.56
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	173.82	173.89	175.02
MW5	188.75	186.75	167.75	152.75	-	173.45	173.15	172.75	172.75	172.08	172.25	173.75
MW6	208.60	205.60	no schematic		-	192.20	192.10	192.25	194.65	193.70	193.60	192.60
MW7	218.52	216.12	202.12	192.12	-	193.52	193.22	193.06	195.24	193.27	193.02	-
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	201.21	201.70	-
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	190.61	190.61	191.11
MW23B	169.98	168.37	154.97	144.97	163.00	163.98	164.38	164.77	164.83	164.73	164.73	-
MW31	233.30	231.90	203.20	193.20	212.00	210.80	211.60	211.30	212.80	212.22	210.97	-
MW32	183.84	182.20	148.81	138.81	175.60	174.34	175.64	175.24	176.71	174.34	174.67	-
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	187.13	186.96	185.96

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											
	07-Jul-95	21-Aug-95	9/13/95**	20-Sep-95	18-Oct-95	09-Feb-96	03-Apr-96	07-Oct-96	15-Apr-97	29-Sep-97	07-Oct-98	23-Mar-99
MW1	215.67	209.92	211.07	209.87	211.37	213.25	212.10	211.10	210.12	210.42	210.56	212.21
MW2	184.01	181.81	181.82	181.91	181.51	183.89	183.07	182.52	182.01	183.71	182.36	183.91
MW3	178.16	175.96	176.05	176.16	175.96	177.25	177.22	177.80	176.03	176.77	176.62	176.91
MW3R	-	-	-	-	-	-	-	-	-	-	-	-
MW4	174.72	173.72	173.70	173.82	173.92	174.81	174.61	174.97	172.91	175.04	174.09	175.47
MW5	173.75	173.15	173.47	173.45	173.55	172.76	172.62	173.85	172.50	173.76	173.55	173.88
MW6	194.60	194.00	193.48	193.30	193.50	193.11	193.21	193.77	193.09	192.45	192.08	192.64
MW7	-	195.42	-	194.62	194.22	-	-	-	-	-	-	-
MW7B	-	-	197.08	194.93	194.53	194.71	195.25	195.64	195.11	193.55	193.78	192.86
MW8	201.31	201.91	201.46	201.36	201.11	201.39	201.68	201.36	201.31	200.97	201.67	202.79
MW9	-	-	-	-	-	-	-	-	-	-	-	-
MW10	-	-	-	-	-	-	-	-	-	-	-	-
MW11	-	-	-	-	-	-	-	-	-	-	-	-
MW12	-	-	-	-	-	-	-	-	-	-	-	-
MW13	-	-	-	-	-	-	-	-	-	-	-	-
MW14	-	-	-	-	-	-	-	-	-	-	-	-
MW15	-	-	-	-	-	-	-	-	-	-	-	-
MW16	191.31	193.01	193.26	183.51	191.61	-	189.96	193.29	190.70	192.79	192.96	190.01
MW23B	165.28	164.48	164.85	164.88	164.60	-	165.40	166.80	164.99	164.92	164.33	164.61
MW31	212.30	210.90	210.59	210.90	211.00	212.51	210.40	213.94	212.84	209.93	210.48	211.00
MW32	176.34	-	175.79	-	176.14	-	176.09	176.46	175.48	176.15	176.09	175.25
MW33	-	-	163.96	163.88	163.68	-	165.63	166.04	164.74	165.62	163.95	165.71
MW34**	-	-	-	-	-	-	-	190.88	188.76	190.93	190.90	189.20
MW35**	-	-	-	-	-	-	-	176.56	176.04	176.58	175.99	172.72
Averages	187.95	188.57	185.89	186.35	186.19	191.52	185.94	186.33	185.11	185.57	185.29	185.28

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											
	13-Oct-99	20-Apr-00	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
MW1	210.50	211.70	210.43	210.41	210.92	211.41	210.83	211.57	211.22	210.99	211.53	211.42
MW2	184.02	183.67	183.69	183.49	183.34	183.62	183.46	183.01	183.25	182.82	183.14	183.52
MW3	177.37	176.85	176.70	176.70	176.95	177.21	177.28	177.84	177.77	177.66	177.88	-
MW3R	-	-	-	-	-	-	-	-	-	-	-	-
MW4	175.78	174.67	174.66	174.54	174.73	175.19	175.57	175.68	175.78	176.98	176.58	174.35
MW5	174.40	172.67	173.90	172.66	174.10	173.14	174.40	173.55	175.15	175.61	176.26	173.18
MW6	193.21	193.05	192.74	192.62	192.70	192.68	192.15	194.11	192.75	192.81	192.95	193.12
MW7	-	-	-	-	-	-	-	-	-	-	-	-
MW7B	193.02	191.46	193.38	192.96	193.87	193.46	192.67	195.73	194.22	194.32	194.44	194.32
MW8	202.77	203.01	209.31	203.09	209.72	203.06	202.65	203.98	203.00	202.96	202.53	202.95
MW9	-	-	-	192.81	193.60	193.21	192.23	195.59	193.78	194.01	194.12	194.09
MW10	-	-	-	193.16	193.28	192.98	192.04	195.54	192.90	193.53	193.65	194.06
MW11	-	-	-	-	-	-	-	-	-	-	-	-
MW12	-	-	-	-	-	-	-	-	-	-	-	-
MW13	-	-	-	-	-	-	-	-	-	-	-	-
MW14	-	-	-	-	-	-	-	-	-	-	-	-
MW15	-	-	-	-	-	-	-	-	-	-	-	-
MW16	192.91	190.49	188.19	186.60	188.28	186.74	188.05	187.78	188.61	187.06	189.07	187.37
MW23B	164.84	164.14	164.67	164.06	164.39	164.46	164.58	164.35	164.18	164.23	163.67	163.94
MW31	211.60	209.98	210.96	210.27	211.21	210.12	210.40	211.03	210.55	209.86	211.30	211.02
MW32	176.75	175.63	181.16	178.28	181.16	178.21	181.12	178.80	181.02	178.31	181.06	180.40
MW33	167.33	165.59	165.59	165.63	164.43	165.20	164.68	166.21	164.08	164.53	164.45	165.65
MW34**	191.34	189.21	191.09	189.03	191.01	189.38	191.41	189.38	190.85	188.92	190.89	189.14
MW35**	176.67	175.84	176.47	175.35	176.35	175.46	176.81	175.67	176.36	176.16	176.42	175.49
Averages	186.17	185.20	186.20	185.98	187.06	186.21	186.49	187.05	186.79	186.52	187.06	187.13

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												
	18-Oct-05	19-Apr-06	10/23-24/06	02-May-07	24-Oct-07	23-Apr-08	16-Oct-08	22-Apr-09	Min	Max	Ave	Range	Std Dev
MW1	208.53	209.70	209.41	209.64	208.61	209.79	209.76	210.34	208.53	215.67	210.87	7.14	1.2
MW2	181.59	182.07	181.99	182.33	179.47	183.19	182.31	182.59	179.47	184.02	182.71	4.55	0.9
MW3	-	-	-	-	-	-	-	-	175.49	178.16	176.82	2.67	0.7
MW3R	177.12	175.64	176.43	175.72	171.57	176.30	176.78	176.92	171.57	177.12	175.81	5.55	1.8
MW4	174.45	174.33	174.88	174.39	171.22	174.97	176.16	177.07	171.22	177.07	174.68	5.85	1.1
MW5	174.19	172.64	173.98	172.81	171.05	173.29	176.16	175.86	171.05	176.26	173.58	5.21	1.1
MW6	191.99	192.50	192.17	191.75	191.84	193.61	192.48	193.59	191.75	194.65	192.95	2.90	0.7
MW7	-	-	-	-	-	-	-	-	193.02	195.42	193.95	2.40	0.9
MW7B	193.02	193.29	193.23	194.32	192.73	193.19	193.45	194.89	191.46	197.08	193.98	5.62	1.1
MW8	201.41	202.18	201.95	202.15	201.13	203.23	202.68	202.92	200.51	209.72	202.44	9.21	1.9
MW9	192.51	192.89	192.73	194.02	192.21	193.01	193.09	194.71	192.21	195.59	193.45	3.38	0.9
MW10	191.95	192.66	191.46	193.70	191.86	194.30	193.08	194.81	191.46	195.54	193.23	4.08	1.1
MW11	-	185.43	184.74	184.36	183.89	185.99	184.89	185.33	183.89	185.99	184.95		
MW12	-	166.16	165.65	166.23	163.37	166.25	166.59	167.80	163.37	167.80	166.01		
MW13	-	162.71	163.71	162.48	162.48	162.60	164.06	162.78	162.48	164.06	162.97		
MW14	-	161.61	164.44	163.61	160.85	163.61	164.77	163.42	160.85	164.77	163.19		
MW15	-	182.45	178.36	180.58	-	182.70	180.04	181.07	178.36	182.70	180.87		
MW16	186.87	186.75	188.36	187.21	187.62	188.23	188.67	187.28	183.51	193.29	189.49	9.78	2.4
MW23B	163.67	163.96	163.87	163.70	160.58	163.99	164.29	164.33	160.58	166.80	164.35	6.22	0.9
MW31	209.58	209.72	210.45	210.74	208.96	210.35	210.99	210.81	208.96	213.94	210.98	4.98	1.0
MW32	180.81	178.01	180.64	178.74	180.63	178.68	180.94	178.53	174.34	181.16	177.76	6.82	2.3
MW33	163.66	164.44	163.92	164.98	162.86	167.04	164.55	165.58	162.86	167.53	164.94	4.67	1.1
MW34**	190.85	189.13	190.96	189.29	190.97	189.81	191.55	189.54	188.76	191.55	190.18	2.79	1.0
MW35**	176.05	175.47	176.40	175.76	175.22	175.96	176.57	175.78	172.72	176.81	175.93	4.09	0.8
Averages	185.78	182.44	182.72	182.66	181.39	183.19	183.36	183.45	180.77	185.53	183.17	5.15	1.21

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. Upper	Screen Elev. Lower	Average Water Level	Date Sampled 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	*192.72*	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	*179.60*	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	*181.84*	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	*194.95*	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	*190.33*	ND	ND	ND	ND	ND	ND	ND	ND
GP-25-W	200.69	196.45	191.45	186.45	*191.64*	ND	ND	ND	ND	ND	ND	ND	ND
GP-27-W	207.41	203.01	195.01	185.01	*190.95*	ND	ND	ND	ND	ND	ND	ND	ND
GP-28-W	204.26	199.79	194.79	184.79	*191.99*	ND	ND	ND	ND	ND	ND	ND	ND
GP-30-W	208.76	204.44	198.44	188.44	*192.84*	ND	ND	ND	ND	ND	ND	ND	ND
GP-31-W	199.44	195.24	190.24	185.24	*190.79*	ND	ND	ND	ND	ND	ND	ND	ND
GP-33-W	212.15	207.94	195.94	185.94	*192.04*	ND	ND	ND	ND	ND	ND	ND	ND
GP-34-W	210.15	205.77	197.77	187.77	*192.60*	ND	ND	ND	ND	ND	ND	ND	ND
GP-35-W	193.87	189.65	187.65	182.65	*189.56*	ND	ND	ND	ND	ND	ND	ND	ND
GP-36-W	211.71	207.34	195.34	185.34	*192.33*	ND	ND	ND	ND	ND	ND	ND	ND
GP-37-W	197.28	193.08	188.08	183.08	*188.21*	ND	ND	ND	ND	ND	ND	ND	ND
GP-38-W	215.79	211.09	206.09	196.09	*199.69*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-50	205.53	204.00	195.53	185.53	*190.15*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-51	179.75	177.24	168.75	153.75	*169.13*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-52	198.49	197.00	185.49	175.49	*178.77*	ND	ND	ND	ND	ND	ND	ND	ND
PZ-53	201.27	198.96	186.27	181.27	*183.79*	ND	ND	ND	ND	ND	ND	ND	ND
Average Surficial	*NA*	*NA*	*NA*	*NA*	*185.77*	*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	*173.13*	173.13	171.86	171.17	170.30	170.16	170.18	ND	170.48
46D	221.38	218.20	179.20	169.20	*193.10*	ND	ND	ND	ND	193.71	192.88	195.88	194.78
47D	190.10	189.16	145.20	135.20	*162.78*	163.39	161.38	161.13	161.03	ND	165.30	165.50	160.8
Average Deep	*NA*	*NA*	*NA*	*NA*	*173.28*	*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 9/20/1995	10/19/1995	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
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
Average Surficial	*181.84*	*182.03*	*178.74*	*186.17*	*188.71*	*185.02*	*180.92*	*177.52*	*180.40*	*181.20*	*187.81*
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
Average Deep	*168.48*	*168.31*	*178.40*	*175.58*	*183.34*	*175.94*	*174.26*	*170.97*	*172.43*	*172.76*	*172.26*
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

	Date Sampled											
Piez. No.	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	5/1/2007	10/23/2007	4/22/2008
40S	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41S	ND	194.23	191.58	192.27	192.35	193.22	190.71	191.80	191.58	192.58	190.37	194.38
42S	164.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44S	179.82	ND	179.8	171.66	181.07	181.44	171.66	180.16	179.88	180.91	175.03	181.33
45S	179.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46S	192.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47S	180.63	ND	182.31	178.88	182.44	179.08	176.58	182.58	179.18	183.18	174.92	184.86
48S	195.52	193.46	195.75	185.53	196.17	193.49	194.46	193.06	195.33	193.24	193.72	193.59
GP-24-W	ND	ND	191.11	189.76	191.59	190.04	189.72	190.78	190.57	191.51	189.47	189.73
GP-25-W	ND	192.89	191.81	192.04	192.07	192.33	190.55	191.31	190.95	191.94	189.63	192.84
GP-27-W	ND	ND	190.17	190.89	191.02	192.04	189.33	190.57	190.38	191.38	189.15	193.59
GP-28-W	ND	ND	192.29	192.65	192.58	192.97	190.85	191.76	191.23	192.63	190.17	193.00
GP-30-W	ND	195.21	192.19	192.84	192.95	193.76	190.98	192.16	191.92	193.24	190.84	194.76
GP-31-W	ND	ND	191.33	191.06	191.66	190.32	190.24	191.00	190.60	191.73	189.09	190.21
GP-33-W	ND	194.45	191.75	192.16	192.39	192.81	190.45	191.54	191.18	192.54	190.15	193.15
GP-34-W	ND	ND	192.38	193.04	193.19	193.75	191.11	192.22	191.96	192.33	190.82	194.21
GP-35-W	ND	ND	189.91	189.84	189.90	189.87	189.28	189.65	189.48	189.83	188.17	189.66
GP-36-W	ND	ND	192.25	192.80	192.91	193.35	191.00	191.95	191.70	193.04	190.58	193.52
GP-37-W	ND	188.73	188.17	188.79	188.23	188.66	187.62	188.50	188.01	188.52	185.58	189.09
GP-38-W	ND	200.37	200.19	199.75	199.98	199.79	199.90	199.67	199.91	199.78	199.84	199.73
PZ-50	ND	ND	ND	ND	ND	ND	ND	190.22	189.24	ND	ND	190.77
PZ-51	ND	ND	ND	ND	ND	ND	ND	168.96	169.52	168.33	168.43	169.22
PZ-52	ND	ND	ND	ND	ND	ND	ND	179.22	177.92	178.77	177.47	180.08
PZ-53	ND	ND	ND	ND	ND	ND	ND	183.71	183.28	183.61	182.36	185.02
Average Surficial	*181.86*	*194.19*	*190.81*	*189.62*	*191.28*	*191.06*	*189.03*	*188.54*	*188.19*	*188.90*	*186.62*	*189.64*
42D	152.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44D	174.63	ND	174.82	172.87	175.47	173.57	173.75	173.05	174.63	173.21	172.90	173.19
46D	192.16	ND	193.54	192.82	193.72	192.95	192.19	192.03	192.45	193.07	192.05	192.16
47D	163.45	ND	163.65	163.06	164.16	163.49	163.15	163.22	163.80	163.25	162.13	162.99
Average Deep	*170.68*	*ND*	*177.34*	*176.25*	*177.78*	*176.67*	*176.36*	*176.10*	*176.96*	*176.51*	*175.69*	*176.11*
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.	10/15/2008	4/22/2009	RANGE	MIN	MAX
40S	ND	ND	14.96	156.72	171.68
41S	192.46	193.81	4.21	190.37	194.58
42S	ND	ND	13.85	154.20	168.05
44S	180.26	181.39	10.19	171.66	181.85
45S	ND	ND	3.52	179.11	182.63
46S	ND	ND	4.77	192.00	196.77
47S	179.75	183.91	10.47	174.92	185.39
48S	195.35	193.32	13.04	185.53	198.57
GP-24-W	189.91	189.97	2.12	189.47	191.59
GP-25-W	191.24	192.47	3.26	189.63	192.89
GP-27-W	191.11	192.60	4.44	189.15	193.59
GP-28-W	191.63	193.26	2.83	190.17	193.00
GP-30-W	192.79	194.50	4.37	190.84	195.21
GP-31-W	190.62	192.10	2.64	189.09	191.73
GP-33-W	191.69	193.50	4.30	190.15	194.45
GP-34-W	192.72	194.54	3.39	190.82	194.21
GP-35-W	189.43	189.86	1.74	188.17	189.91
GP-36-W	192.24	194.09	2.94	190.58	193.52
GP-37-W	188.29	188.71	3.51	185.58	189.09
GP-38-W	199.96	199.95	3.48	196.89	200.37
PZ-50	ND	190.38	1.53	189.24	190.77
PZ-51	170.40	169.08	2.07	168.33	170.40
PZ-52	178.12	179.79	2.61	177.47	180.08
PZ-53	183.94	184.59	2.66	182.36	185.02
Average Surficial	*188.52*	*189.59*			
42D	ND	ND	20.90	147.06	167.96
44D	174.67	173.49	9.41	170.16	179.57
46D	192.77	193.51	4.23	191.65	195.88
47D	163.64	163.55	4.90	160.60	165.50
Average Deep	*177.03*	*176.85*			
PB9	---	---	0.89	189.93	190.82

NOTE:

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

	Apr-09			
	Turbidity	Temp.	pH	Conductivity
	NTU	*°C*	*pH*	*uMhos*
MW1	9.4	16	5.4	57
MW2	38	16	4.4	87
MW3R	27	15	5.1	127
MW4	9	15	4.3	63
MW5	27	16	6.0	156
MW6	75	15	5.1	201
MW7	28	17	5.4	289
MW8	6.8	16	4.2	115
MW9	130	16	5.0	226
MW10	100	16	5.9	631
MW11	120	15	4.8	62
MW12	500	15	4.8	72
MW13	13	16	6.0	118
MW14	80	16	5.4	126
MW15	57	14	5.3	52
MW16	13	15	6.0	264
MW23B	21	14	5.0	40
MW31	150	18	4.9	25
MW32	950	15	5.5	45
MW33	11	15	4.6	73
MW34	13	15	5.3	78
MW35	100	14	5.3	302
SWPT1	600	20	5.9	96
SWPT2	18	19	6.1	95
SWPT3	19	20	5.9	93

Table 2
Harnett County Dunn-Erwin Landfill
Groundwater Velocity Data

Shallow Wells								Estimated Velocities* (cm/s)			
	K (cm/sec)*		n values*				i*, Oct. 95	=(1)*i/(3)	=(1)*i/(4)	=(2)*i/(5)	=(2)*i/(6)
MW	Note Ref. (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		0.25				4.8E-02	4.8E-06			
MW12	2.3E-05		0.25				4.4E-02	4.0E-06			
MW13	5.5E-06		0.25				6.1E-02	1.3E-06			
MW14	7.4E-07		0.25				6.5E-02	1.9E-07			
MW15	2.2E-05		0.25				2.6E-02	2.3E-06			
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.
n=0.25 used for MW11 - MW15, which is average of other values.
(7) Hydraulic gradient as estimated from groundwater contours based on groundwater data sampled in October 1995, except for wells MW11 - MW15, which were estimated from contours based on groundwater data from Jan 2007 - May 2008.

(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
April 2009

Constituent	Test Set 1[1]	Test Set 2[1]	Test Set 3	Monitoring Wells Indicating SSIOBL	Detected > MDL	Detected > SWSL
Arsenic	Qualitative	Qualitative	Qualitative	None	Yes	Yes
Barium	TOP[2], PIA[5]	TOP[2]	TOP[2]	MW6	Yes	Yes
Beryllium	TOP[2], PIA[5]	NA[3]	Qualitative	None	Yes	Yes
Cadmium	Qualitative	TOP[2]	Qualitative	None	Yes	No
Chromium	TOP[2]	TOP[2]	Qualitative	None	Yes	Yes
Cobalt	TOP[2], PIA[5]	NA[3]	Qualitative	MW6	Yes	Yes
Copper	TOP[2]	NA[3]	TOP[2]	None	Yes	Yes
Lead	TOP[2], PIA[5]	TOP[2]	Qualitative	None	Yes	Yes
Mercury	NA[4]	Qualitative	NA[4]	MW6, MW7	Yes	No
Nickel	Qualitative	NA[3]	Qualitative	None	Yes	No
Selenium	Qualitative	Qualitative	Qualitative	None	Yes	No
Silver	Qualitative	Qualitative	Qualitative	None	Yes	No
Thallium	NA[7]	NA[7]	NA[7]	NA[7]	Yes	No
Tin	Qualitative	NA[6]	NA[6]	None	NA[6]	NA[6]
Vanadium	TOP[2]	NA[3]	Qualitative	None	Yes	Yes
Zinc	TOP[2], PIA[5]	NA[3]	TOP[2]	MW12	Yes	Yes

Notes to Table 1:

1 MW23B, a Set 2 well, is statistically compared with Set 1 since it is located downgradient of the Set 1 wells.
2 Those constituents which were tested using the test of proportions were also reviewed qualitatively.
3 These constituents are not included in the 8 RCRA metals sampled for in data Set 2.
4 Mercury is included only in Data Set 2 and only annually in monitoring wells MW6, MW7,7B, and MW8 in Data Set 1.
5 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.
6 Tin was not included in this sampling event.
7 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
April 2009

Monitoring Well	Parameters Indicating SSIOBL	
	Inorganics	Organics
Set 1		
MW1 [1]	NA [1]	NA [1]
MW31 [1]	NA [1]	NA [1]
MW2	none	none
MW3	none	none
MW4	none	none
MW5	none	none
MW6	barium, cobalt, mercury	benzene, chlorobenzene, chloroethane, cis-1,2-dichloroethylene, 1,4-dichlorobenzene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene, vinyl chloride, xylenes, dichlorodifluoromethane
MW7B	mercury	benzene, chloroethane, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, toluene, 1,1,1-trichloroethane, trichloroethylene, trichlorofluoromethane, vinyl chloride, xylenes, dichlorodifluoromethane
MW8	none	benzene, chloroethane, chloromethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene
MW9	none	benzene, chloroethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, xylenes
MW10	none	benzene, chloroethane, cis-1,2-dichloroethylene, 1,1-dichloroethane, methylene chloride, tetrachloroethylene, toluene, trichloroethylene, xylenes
MW11	none	none
MW12	none[4]	none
MW13	none	none
MW14	none	none
MW15	none	toluene
MW23B [2]	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.
4. Refer to text for discussion on beryllium at MW12.

Table 4A cont.
Summary of Appendices I & II Statistical Analysis Results
April 2009

Monitoring Well	Parameters Indicating SSIOBL	
	Inorganics	Organics
Set 2 [3]		
MW16 [1]	NA [1]	NA [1]
MW32	none	none
MW33	none	none
MW34	none	none
MW35	none	none
Set 3 [3]		
SWPT1 [1]	NA [1]	NA [1]
SWPT2	none	none
SWPT3	none	toluene

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
April 2009

Constituent	2L STD	13B STD	SWSL	MW31	MW6	MW7B	MW8	MW9	MW10	MW11	MW12	MW14	SWPT1	Notes
Inorganics														
Lead	15	--	10										29	Not SSIOBL, background
Vanadium	NE	3.5	25	*6.2*	*5.6*			*6.1*	*5.2*	*6.1*	*8*	*5.9*	39	Not SSIOBL, background
Organics														
Acetone	700	--	100						2340					MW6 - MW10 are located within previously identified contaminant plume. This area is included in pending corrective action.
Benzene	1	--	1		2.4	4.6	2.6	8.1	7					
1,4-Dichlorobenzene	1.4	--	1		4.7		1.7	1.6	3					
1,1-Dichloroethane	70	--	5			114								
Methylene chloride	4.6	--	1			80.9	32.5	53.2	10					
Tetrachloroethylene	0.7	--	1		1.8	3.3	5.7	1.4						
Trichloroethylene	2.8	--	1		2.3	7.8	41.1	2.9						
Vinyl chloride	0.015	--	1		2.6	4.3	1.3	6.4	3.9					

NE = Not Established
All units are in (ug/L) unless noted.
Values in italics are estimated.
Only wells with exceedances shown.
Only values > 2L or 13B STD shown.

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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	32	700	0	0
Benzene	0	32	1	0	0
Carbon Disulfide	0	32	700	0	0
Chlorobenzene	0	32	50	0	0
Chloroethane	0	32	2800	0	0
Chloromethane	0	32	2.6	0	0
1,2-Dibromoethane	0	32	0.0004	0	0
1,4-Dichlorobenzene	0	32	1.4	0	0
cis-1,2-Dichloroethene	0	32	70	0	0
1,1-Dichloroethane	0	32	70	0	0
1,2-Dichloroethane	0	32	0.38	0	0
1,1-Dichloroethene	0	32	7	0	0
Methylene Chloride	0	32	4.6	0	0
Tetrachloroethylene	0	32	0.7	0	0
Toluene	0	32	1000	0	0
1,1,1-Trichloroethane	0	32	200	0	0
Trichloroethylene	0	32	2.8	0	0
Trichloroflouromethane	0	32	2100	0	0
Vinyl Chloride	0	32	0.015	0	0
Xylenes	0	32	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethyphthalate*	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	31	700	0	0
Benzene	0	31	1	0	0
Carbon Disulfide	64.4	31	700	1	2.08
Chlorobenzene	0	31	50	0	0
Chloroethane	0	31	2800	0	0
Chloromethane	0	31	2.6	0	0
1,2-Dibromoethane	0	31	0.0004	0	0
1,4-Dichlorobenzene	0	31	1.4	0	0
cis-1,2-Dichloroethene	0	31	70	0	0
1,1-Dichloroethane	0	31	70	0	0
1,2-Dichloroethane	0	31	0.38	0	0
1,1-Dichloroethene	0	31	7	0	0
Methylene Chloride	0	31	4.6	0	0
Tetrachloroethylene	0	31	0.7	0	0
Toluene	0	31	1000	0	0
1,1,1-Trichloroethane	0	31	200	0	0
Trichloroethylene	0	31	2.8	0	0
Trichloroflouromethane	0	31	2100	0	0
Vinyl Chloride	0	31	0.015	0	0
Xylenes	0	31	530	0	0
Dichlorodifluoromethane*	0	10	1400	0	0
Diethyphthalate*	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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	32	700	0	0
Benzene	0	32	1	0	0
Carbon Disulfide	48.8	32	700	3	1.53
Chlorobenzene	0	32	50	0	0
Chloroethane	0	32	2800	0	0
Chloromethane	0	32	2.6	0	0
1,2-Dibromoethane	0	32	0.0004	0	0
1,4-Dichlorobenzene	0	32	1.4	0	0
cis-1,2-Dichloroethene	0	32	70	0	0
1,1-Dichloroethane	0	32	70	0	0
1,2-Dichloroethane	0	32	0.38	0	0
1,1-Dichloroethene	0	32	7	0	0
Methylene Chloride	0	32	4.6	0	0
Tetrachloroethylene	0	32	0.7	0	0
Toluene	0	32	1000	0	0
1,1,1-Trichloroethane	0	32	200	0	0
Trichloroethylene	0	32	2.8	0	0
Trichloroflouromethane	0	32	2100	0	0
Vinyl Chloride	0	32	0.015	0	0
Xylenes	0	32	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
SAMPLING DATES	SUM	Events	(ug/l)
ORGANICS (ug/l)			
Acetone	0	32	700
Benzene	0	32	1
Carbon Disulfide	37.3	32	700
Chlorobenzene	0	32	50
Chloroethane	0	32	2800
Chloromethane	0	32	2.6
1,2-Dibromoethane	0	32	0.0004
1,4-Dichlorobenzene	0	32	1.4
cis-1,2-Dichloroethene	0	32	70
1,1-Dichloroethane	0	32	70
1,2-Dichloroethane	0	32	0.38
1,1-Dichloroethene	0	32	7
Methylene Chloride	0	32	4.6
Tetrachloroethylene	0	32	0.7
Toluene	0	32	1000
1,1,1-Trichloroethane	0	32	200
Trichloroethylene	0	32	2.8
Trichloroflouromethane	0	32	2100
Vinyl Chloride	0	32	0.015
Xylenes	0	32	530
Dichlorodifluoromethane*	0	10	1400
Diethyphthalate*	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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	170	33	700	1	5.15
Benzene	33.2	33	1	7	1.01
Carbon Disulfide	7.9	33	700	1	0.24
Chlorobenzene	135.6	33	50	7	4.11
Chloroethane	850.8	33	2800	17	25.78
Chloromethane	46	33	2.6	1	1.39
1,2-Dibromoethane	0	33	0.0004	0	0.00
1,4-Dichlorobenzene	42.1	33	1.4	7	1.28
cis-1,2-Dichloroethene	186.1	33	70	12	5.64
1,1-Dichloroethane	1412.3	33	70	30	42.80
1,2-Dichloroethane	0	33	0.38	0	0.00
1,1-Dichloroethene	84.6	33	7	2	2.56
Methylene Chloride	1353.4	33	4.6	27	41.01
Tetrachloroethylene	74.8	33	0.7	14	2.27
Toluene	0	33	1000	0	0.00
1,1,1-Trichloroethane	94.5	33	200	9	2.86
Trichloroethylene	174.64	33	2.8	22	5.29
Trichloroflouromethane	0	33	2100	0	0.00
Vinyl Chloride	68.1	33	0.015	7	2.06
Xylenes (total)	437	33	530	13	13.24
Dichlorodifluoromethane*	42.1	20	1400	7	2.11
Diethyphthalate*	0	20	5000	0	0.00
bis(2-ethylhexyl)phthalate*	6.8	20	NE	1	0.34
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	31	700	0	0
Benzene	24.5	31	1	6	0.790323
Carbon Disulfide	0	31	700	0	0
Chlorobenzene	22.2	31	50	5	0.716129
Chloroethane	783.2	31	2800	26	25.26452
Chloromethane	64	31	2.6	1	2.064516
1,2-Dibromoethane	0	31	0.0004	0	0
1,4-Dichlorobenzene	3.1	31	1.4	2	0.1
cis-1,2-Dichloroethene	30.1	31	70	3	0.970968
1,1-Dichloroethane	3553.3	31	70	29	114.6226
1,2-Dichloroethane	8.7	31	0.38	1	0.280645
1,1-Dichloroethene	188.6	31	7	20	6.083871
Methylene Chloride	1572.6	31	4.6	23	50.72903
Tetrachloroethylene	22.9	31	0.7	5	0.73871
Toluene	76.8	31	1000	7	2.477419
1,1,1-Trichloroethane	600.7	31	200	17	19.37742
Trichloroethylene	154.1	31	2.8	20	4.970968
Trichloroflouromethane	136.1	31	2100	16	4.390323
Vinyl Chloride	26.4	31	0.015	5	0.851613
Xylenes	63.9	31	530	9	2.06129
Dichlorodifluoromethane*	767.2	20	1400	17	38.36
Diethyphthalate*	13	20	5000	1	0.65
bis(2-ethylhexyl)phthalate*	24	20	NE	1	1.2
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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	33	700	0	0.00
Benzene	14.3	33	1	6	0.43
Carbon Disulfide	0	33	700	0	0.00
Chlorobenzene	0	33	50	0	0.00
Chloroethane	268.6	33	2800	14	8.14
Chloromethane	119.1	33	2.6	3	3.61
1,2-Dibromoethane	0	33	0.0004	0	0.00
1,4-Dichlorobenzene	5.7	33	1.4	4	0.17
cis-1,2-Dichloroethene	53.1	33	70	5	1.61
1,1-Dichloroethane	1311.3	33	70	26	39.74
1,2-Dichloroethane	0	33	0.38	0	0.00
1,1-Dichloroethene	81	33	7	1	2.45
Methylene Chloride	1272.2	33	4.6	23	38.55
Tetrachloroethylene	32.6	33	0.7	6	0.99
Toluene	0	33	1000	0	0.00
1,1,1-Trichloroethane	0	33	200	0	0.00
Trichloroethylene	78	33	2.8	10	2.36
Trichloroflouromethane	0	33	2100	0	0.00
Vinyl Chloride	3.8	33	0.015	3	0.12
Xylenes	5	33	530	1	0.15
Dichlorodifluoromethane*	20.4	20	1400	4	1.02
Diethyphthalate*	0	20	5000	0	0
bis(2-ethylhexyl)phthalate*	0	20	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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	17	700	0	0
Benzene	98.9	17	1	13	5.817647
Carbon Disulfide	0	17	700	0	0
Chlorobenzene	209.8	17	50	15	12.34118
Chloroethane	423.2	17	2800	16	24.89412
Chloromethane	189	17	2.6	1	11.11765
1,2-Dibromoethane	14	17	0.0004	1	0.823529
1,4-Dichlorobenzene	12.8	17	1.4	4	0.752941
cis-1,2-Dichloroethene	82.9	17	70	8	4.876471
1,1-Dichloroethane	1675.3	17	70	15	98.54706
1,2-Dichloroethane	11.8	17	0.38	1	0.694118
1,1-Dichloroethene	0	17	7	0	0
Methylene Chloride	1838.3	17	4.6	15	108.1353
Tetrachloroethylene	26.8	17	0.7	7	1.576471
Toluene	0	17	1000	0	0
1,1,1-Trichloroethane	0	17	200	0	0
Trichloroethylene	115.6	17	2.8	16	6.8
Trichloroflouromethane	0	17	2100	0	0
Vinyl Chloride	36.6	17	0.015	5	2.152941
Xylenes	174.8	17	530	10	10.28235
Dichlorodifluoromethane*	0	2	1400	0	NA
Diethyphthalate*	0	2	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	2	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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	3279	17	700	5	192.8824
Benzene	42.4	17	1	8	2.494118
Carbon Disulfide	0	17	700	0	0
Chlorobenzene	126.5	17	50	10	7.441176
Chloroethane	285.4	17	2800	9	16.78824
Chloromethane	0	17	2.6	0	0
1,2-Dibromoethane	0	17	0.0004	0	0
1,4-Dichlorobenzene	7	17	1.4	4	0.411765
cis-1,2-Dichloroethene	206.1	17	70	16	12.12353
1,1-Dichloroethane	1335	17	70	16	78.52941
1,2-Dichloroethane	0	17	0.38	0	0
1,1-Dichloroethene	0	17	7	0	0
Methylene Chloride	913.4	17	4.6	13	53.72941
Tetrachloroethylene	57.2	17	0.7	6	3.364706
Toluene	19.1	17	1000	2	1.123529
1,1,1-Trichloroethane	0	17	200	0	0
Trichloroethylene	39.2	17	2.8	6	2.305882
Trichloroflouromethane	0	17	2100	0	0
Vinyl Chloride	20.6	17	0.015	5	1.211765
Xylenes	145.9	17	530	9	8.582353
Dichlorodifluoromethane*	0	2	1400	0	NA
Diethyphthalate*	0	2	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	2	NE	0	NA
NOTES					

Table 5
Groundwater Monitoring Well Data
Monitoring Well 11 (MW11)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW11 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	5	700	0	0
Benzene	0	5	1	0	0
Carbon Disulfide	0	5	700	0	0
Chlorobenzene	0	5	50	0	0
Chloroethane	0	5	2800	0	0
Chloromethane	0	5	2.6	0	0
1,2-Dibromoethane	0	5	0.0004	0	0
1,4-Dichlorobenzene	0	5	1.4	0	0
cis-1,2-Dichloroethene	0	5	70	0	0
1,1-Dichloroethane	0	5	70	0	0
1,2-Dichloroethane	0	5	0.38	0	0
1,1-Dichloroethene	0	5	7	0	0
Methylene Chloride	0	5	4.6	0	0
Tetrachloroethylene	0	5	0.7	0	0
Toluene	0	5	1000	0	0
1,1,1-Trichloroethane	0	5	200	0	0
Trichloroethylene	0	5	2.8	0	0
Trichloroflouromethane	0	5	2100	0	0
Vinyl Chloride	0	5	0.015	0	0
Xylenes	0	5	530	0	0
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 12 (MW12)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW12 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	5	700	0	0
Benzene	0	5	1	0	0
Carbon Disulfide	0	5	700	0	0
Chlorobenzene	0	5	50	0	0
Chloroethane	0	5	2800	0	0
Chloromethane	0	5	2.6	0	0
1,2-Dibromoethane	0	5	0.0004	0	0
1,4-Dichlorobenzene	0	5	1.4	0	0
cis-1,2-Dichloroethene	0	5	70	0	0
1,1-Dichloroethane	0	5	70	0	0
1,2-Dichloroethane	0	5	0.38	0	0
1,1-Dichloroethene	0	5	7	0	0
Methylene Chloride	0	5	4.6	0	0
Tetrachloroethylene	0	5	0.7	0	0
Toluene	0	5	1000	0	0
1,1,1-Trichloroethane	0	5	200	0	0
Trichloroethylene	0	5	2.8	0	0
Trichloroflouromethane	0	5	2100	0	0
Vinyl Chloride	0	5	0.015	0	0
Xylenes	0	5	530	0	0
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 13 (MW13)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW13					MW13 Detects		NCGS	# Detects	Averages
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	SUM	Events	(ug/l)		
ORGANICS (ug/l)										
Acetone						0	5	700	0	0
Benzene						0	5	1	0	0
Carbon Disulfide						0	5	700	0	0
Chlorobenzene						0	5	50	0	0
Chloroethane						0	5	2800	0	0
Chloromethane						0	5	2.6	0	0
1,2-Dibromoethane						0	5	0.0004	0	0
1,4-Dichlorobenzene						0	5	1.4	0	0
cis-1,2-Dichloroethene						0	5	70	0	0
1,1-Dichloroethane						0	5	70	0	0
1,2-Dichloroethane						0	5	0.38	0	0
1,1-Dichloroethene						0	5	7	0	0
Methylene Chloride						0	5	4.6	0	0
Tetrachloroethylene						0	5	0.7	0	0
Toluene						0	5	1000	0	0
1,1,1-Trichloroethane						0	5	200	0	0
Trichloroethylene						0	5	2.8	0	0
Trichloroflouromethane						0	5	2100	0	0
Vinyl Chloride						0	5	0.015	0	0
Xylenes						0	5	530	0	0
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	0	1400	0	NA
Diethyphthalate*	NA	NA	NA	NA	NA	0	0	5000	0	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	0	0	NE	0	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								

Table 5
Groundwater Monitoring Well Data
Monitoring Well 14 (MW14)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW14					MW14 Detects		NCGS	# Detects	Averages
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	SUM	Events	(ug/l)		
ORGANICS (ug/l)										
Acetone						0	5	700	0	0
Benzene						0	5	1	0	0
Carbon Disulfide						0	5	700	0	0
Chlorobenzene						0	5	50	0	0
Chloroethane						0	5	2800	0	0
Chloromethane						0	5	2.6	0	0
1,2-Dibromoethane						0	5	0.0004	0	0
1,4-Dichlorobenzene						0	5	1.4	0	0
cis-1,2-Dichloroethene						0	5	70	0	0
1,1-Dichloroethane						0	5	70	0	0
1,2-Dichloroethane						0	5	0.38	0	0
1,1-Dichloroethene						0	5	7	0	0
Methylene Chloride						0	5	4.6	0	0
Tetrachloroethylene						0	5	0.7	0	0
Toluene						0	5	1000	0	0
1,1,1-Trichloroethane						0	5	200	0	0
Trichloroethylene						0	5	2.8	0	0
Trichloroflouromethane						0	5	2100	0	0
Vinyl Chloride						0	5	0.015	0	0
Xylenes						0	5	530	0	0
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	0	1400	0	NA
Diethyphthalate*	NA	NA	NA	NA	NA	0	0	5000	0	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	0	0	NE	0	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								

Table 5
Groundwater Monitoring Well Data
Monitoring Well 15 (MW15)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW15 Detects		NCGS	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	4	700	0	0
Benzene	0	4	1	0	0
Carbon Disulfide	0	4	700	0	0
Chlorobenzene	0	4	50	0	0
Chloroethane	0	4	2800	0	0
Chloromethane	0	4	2.6	0	0
1,2-Dibromoethane	0	4	0.0004	0	0
1,4-Dichlorobenzene	0	4	1.4	0	0
cis-1,2-Dichloroethene	0	4	70	0	0
1,1-Dichloroethane	0	4	70	0	0
1,2-Dichloroethane	0	4	0.38	0	0
1,1-Dichloroethene	0	4	7	0	0
Methylene Chloride	0	4	4.6	0	0
Tetrachloroethylene	0	4	0.7	0	0
Toluene	165.1	4	1000	3	41.275
1,1,1-Trichloroethane	0	4	200	0	0
Trichloroethylene	0	4	2.8	0	0
Trichloroflouromethane	0	4	2100	0	0
Vinyl Chloride	0	4	0.015	0	0
Xylenes	0	4	530	0	0
Dichlorodifluoromethane*	0	0	1400	0	NA
Diethyphthalate*	0	0	5000	0	NA
bis(2-ethylhexyl)phthalate*	0	0	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	# Detects	Averages
SAMPLING DATES	SUM	Events	(ug/l)		
ORGANICS (ug/l)					
Acetone	0	31	700	0	0
Benzene	0	31	1	0	0
Carbon Disulfide	0	31	700	0	0
Chlorobenzene	0	31	50	0	0
Chloroethane	0	31	2800	0	0
Chloromethane	0	31	2.6	0	0
1,2-Dibromoethane	0	31	0.0004	0	0
1,4-Dichlorobenzene	0	31	1.4	0	0
cis-1,2-Dichloroethene	0	31	70	0	0
1,1-Dichloroethane	0	31	70	0	0
1,2-Dichloroethane	0	31	0.38	0	0
1,1-Dichloroethene	0	31	7	0	0
Methylene Chloride	0	31	4.6	0	0
Tetrachloroethylene	0	31	0.7	0	0
Toluene	0	31	1000	0	0
1,1,1-Trichloroethane	0	31	200	0	0
Trichloroethylene	0	31	2.8	0	0
Trichloroflouromethane	0	31	2100	0	0
Vinyl Chloride	0	31	0.015	0	0
Xylenes	0	31	530	0	0
Dichlorodifluoromethane*	0	2	1400	0	0
Diethyphthalate*	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	6	13.20	700	1.89E-02
Benzene	40	0.70	1	**0.70**
Carbon Disulfide	7	0.33	700	4.77E-04
Chlorobenzene	37	1.64	50	0.03
Chloroethane	82	6.72	2800	2.40E-03
Chloromethane	6	1.21	2.6	0.47
1,2-Dibromoethane	1	0.05	0.0004	137
1,4-Dichlorobenzene	21	0.18	1.4	1.29E-01
cis-1,2-Dichloroethene	44	1.68	70	0.02
1,1-Dichloroethane	116	24.95	70	**0.36**
1,2-Dichloroethane	2	0.06	0.38	0.17
1,1-Dichloroethene	23	0.74	7	0.11
Methylene Chloride	101	19.48	4.6	**4.23**
Tetrachloroethylene	38	0.60	0.7	**0.85**
Toluene	12	2.99	1000	2.99E-03
1,1,1-Trichloroethane	26	1.48	200	0.01
Trichloroethylene	74	1.45	2.8	**0.52**
Trichlorofluoromethane	16	0.29	2100	1.39E-04
Vinyl Chloride	25	0.43	0.015	**28.4**
Xylenes	42	2.29	530	4.32E-03
Dichlorodifluoromethane**	28	5.19	1400	3.70E-03
Diethyphthalate**	4	0.57	5000	1.14E-04
bis(2-ethylhexyl)phthalate**	2	0.19	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	6	39.61	700	5.66E-02
Benzene	40	2.11	1	**2.11**
Carbon Disulfide	1	0.05	700	6.84E-05
Chlorobenzene	37	4.92	50	0.10
Chloroethane	82	20.17	2800	0.01
Chloromethane	6	3.64	2.6	1.40
1,2-Dibromoethane	1	0.16	0.0004	411.76
1,4-Dichlorobenzene	21	0.54	1.4	3.88E-01
cis-1,2-Dichloroethene	44	5.04	70	0.07
1,1-Dichloroethane	116	74.85	70	**1.07**
1,2-Dichloroethane	2	0.19	0.38	0.51
1,1-Dichloroethene	23	2.22	7	0.32
Methylene Chloride	101	58.43	4.6	**12.70**
Tetrachloroethylene	38	1.79	0.7	**2.55**
Toluene	9	0.72	1000	7.20E-04
1,1,1-Trichloroethane	26	4.45	200	0.02
Trichloroethylene	74	4.35	2.8	**1.55**
Trichlorofluoromethane	16	0.88	2100	4.18E-04
Vinyl Chloride	25	1.28	0.015	**85.27**
Xylenes	42	6.86	530	0.01
Dichlorodifluoromethane**	28	13.83	1400	0.01
Diethyphthalate**	1	0.22	5000	4.33E-05
bis(2-ethylhexyl)phthalate**	2	0.51	NE	NE

Table 6
Comparison of Standards, SWSL, Current and Historic Detection Limits
For selected Constituents
Dunn-Erwin Landfill
Harnett County, North Carolina
Apr-09

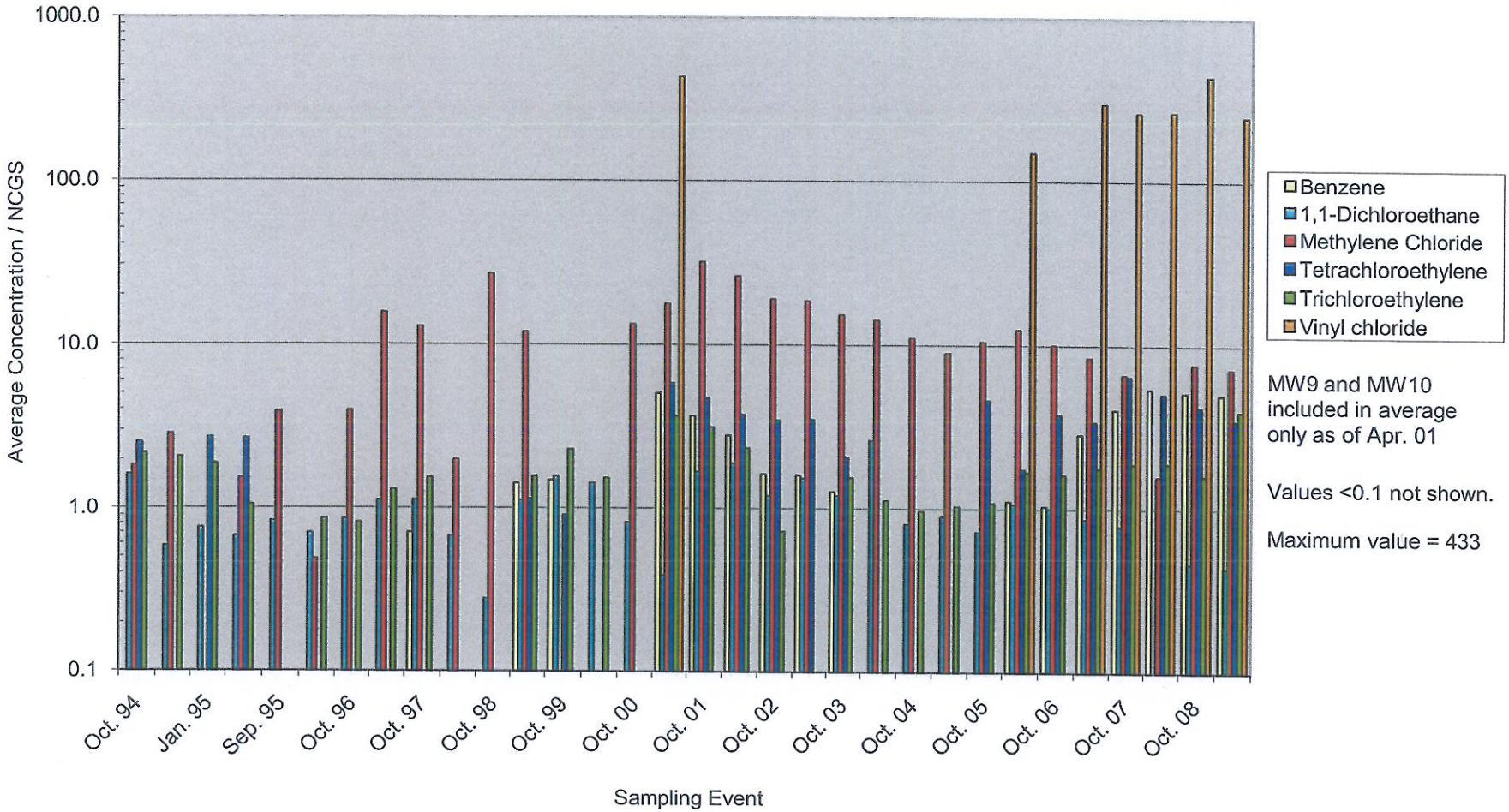
Constituent	2L STD	13B STD	SWSL	2008 MDL	2006 DL
Inorganics					
Antimony	NE	1.4	6	0.08	30
Arsenic	50	--	10	0.07	10
Barium	2000	--	100	0.11	500
Beryllium	NE	4	1	0.06	2
Cadmium	1.75	--	1	0.04	1
Chromium	50	--	10	0.11	10
Cobalt	NE	70	10	0.03	10
Copper	1000	--	10	0.05	200
Lead	15	--	10	0.04	10
Nickel	100	--	50	0.06	50
Selenium	50	--	10	0.14	20
Silver	17.5	--	10	0.04	10
Thallium	NE	0.28	5.5	0.04	10
Vanadium	NE	3.5	25	0.07	40
Zinc	1050	--	10	0.04	50
Cyanide	70	--	10	NA	50
Mercury	1.05	--	0.2	NA	1
Tin	NE	NE	100	NA	100
Organics					
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
Xylenes (total)	530	--	5	0.48	5

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

FIGURES

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
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.252	0.024	1.68	0.586		NA	NA		NA			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		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		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
ORGANICS (ug/l)																			
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										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	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																	MW1 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	0	0%	0.05
Barium																	6	19%	2
Beryllium		0.002															11	34%	0.004**
Cadmium																	4	13%	0.00175
Chromium																	5	16%	0.05
Cobalt																	1	3%	0.07**
Copper																	4	13%	1
Lead																	6	19%	0.015
Nickel																	1	3%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium																	2	6%	0.0035**
Zinc						0.08						0.011					8	25%	1.05
t-Cyanide*	NA	NA	NA	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	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone																	0	0%	700
Benzene																	0	0%	1
Carbon Disulfide																	2	6%	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
Trichloroflouromethane																	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	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	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	NA	NA	NA	0	0%	NE

NCGS =
2L STD or
** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 31 (MW31)
Upgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW31																		
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
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic				0.005	0.055	NA	NA	0.011	NA		0.032	0.005							
Barium	0.04		0.157	0.097		NA	NA		NA			0.098			0.1				
Beryllium		0.028			0.006	NA	NA		NA		0.003	0.001			0.002	0.005			
Cadmium			0.005	0.003	0.003	NA	NA		NA		0.0013								
Chromium	0.021	0.015	0.021		0.21	NA	NA	0.044	NA		0.124	0.060		0.04	0.08	0.1	0.01		
Cobalt			0.007		0.02	NA	NA		NA										
Copper	0.017	0.012	0.095	0.04	0.22	NA	NA	0.033	NA			0.043		0.06	0.07				
Lead	0.011	0.006	0.052	0.033	0.17	NA	NA	0.031	NA		0.088	0.045		0.03	0.05	0.06			
Nickel						NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.045	0.026	0.032	0.08	0.41	NA	NA	0.087	NA		0.235	0.11		0.04	0.13				
Zinc	0.017	0.01	0.027	0.037	0.07	NA	NA		NA			0.05		0.04	0.04	0.1			
t-Cyanide*	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
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide						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										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	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 31 (MW31)
Upgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT																	MW31 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	5	16%	0.05
Barium																	5	16%	2
Beryllium																	6	19%	0.004**
Cadmium																	4	13%	0.00175
Chromium																	11	34%	0.05
Cobalt																	2	6%	0.07**
Copper																	9	28%	1
Lead														0.014	0.013		13	41%	0.015
Nickel																	0	0%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium																	10	31%	0.0035**
Zinc												0.017		0.01			11	34%	1.05
t-Cyanide*	NA	NA	NA	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	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																			(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
Trichloroflouromethane																	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	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	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	MW2																		
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
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic				0.005	0.033	NA	NA		NA										
Barium	0.143	0.404	0.489	0.469	0.82	NA	NA		NA			0.05		0.1					
Beryllium			0.012	0.035		NA	NA	0.004	NA	0.005	0.005	0.002	0.004	0.003		0.008	0.002		0.002
Cadmium		0.001	0.001	0.003	0.004	NA	NA		NA										
Chromium	0.006	0.033		0.02	0.02	NA	NA		NA		0.0117					0.01			
Cobalt		0.009		0.01	0.07	NA	NA		NA										
Copper	0.027	0.046	0.037	0.041		NA	NA		NA			0.008							
Lead	0.006	0.025	0.025	0.041	0.025	NA	NA		NA		0.0148	0.004				0.01			
Nickel		0.02		0.01		NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.24		0.022	0.07	0.05	NA	NA		NA										
Zinc	0.037	0.026	0.096	0.104	0.05	NA	NA		NA	0.102		0.023				0.06			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	0.0008	NA		NA		NA	NA	NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	0.1	NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide						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										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA	13								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 2 (MW2)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT																	MW2 Detects	
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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%
INORGANICS (mg/l)																		
Antimony																	0	0%
Arsenic																	2	6%
Barium																	7	22%
Beryllium	0.002	0.002		0.004		0.002	0.003					0.002	0.0015	0.002	0.002	0.0019	21	66%
Cadmium																	4	13%
Chromium																	6	19%
Cobalt																	3	9%
Copper																	5	16%
Lead																	8	25%
Nickel																	2	6%
Selenium																	0	0%
Silver																	0	0%
Vanadium																	4	13%
Zinc												0.013		0.012			10	31%
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	17%
ORGANICS (ug/l)																		
Acetone																	0	0%
Benzene																	0	0%
Carbon Disulfide																	0	0%
Chlorobenzene																	0	0%
Chloroethane																	0	0%
Chloromethane																	0	0%
1,2-Dibromoethane																	0	0%
1,4-Dichlorobenzene																	0	0%
cis-1,2-Dichloroethene																	0	0%
1,1-Dichloroethane																	0	0%
1,2-Dichloroethane																	0	0%
1,1-Dichloroethene																	0	0%
Methylene Chloride																	0	0%
Tetrachloroethylene																	0	0%
Toluene																	0	0%
1,1,1-Trichloroethane																	0	0%
Trichloroethylene																	0	0%
Trichloroflouromethane																	0	0%
Vinyl Chloride																	0	0%
Xylenes																	0	0%
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	10%
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%

2
** 13B GWPS as

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

CONSTITUENT	NCGS
SAMPLING DATES	
INORGANICS (mg/l)	(mg/l)
Antimony	0.0014**
Arsenic	0.05
Barium	2
Beryllium	0.004**
Cadmium	0.00175
Chromium	0.05
Cobalt	0.07**
Copper	1
Lead	0.015
Nickel	0.1
Selenium	0.05
Silver	0.0175
Vanadium	0.0035**
Zinc	1.05
t-Cyanide*	0.07
Mercury*	0.00105
Tin*	NE
ORGANICS (ug/l)	(ug/l)
Acetone	700
Benzene	1
Carbon Disulfide	700
Chlorobenzene	50
Chloroethane	2800
Chloromethane	2.6
1,2-Dibromoethane	0.0004
1,4-Dichlorobenzene	1.4
cis-1,2-Dichloroethene	70
1,1-Dichloroethane	70
1,2-Dichloroethane	0.38
1,1-Dichloroethene	7
Methylene Chloride	4.6
Tetrachloroethylene	0.7
Toluene	1000
1,1,1-Trichloroethane	200
Trichloroethylene	2.8
Trichloroflouromethane	2100
Vinyl Chloride	0.015
Xylenes	530
Dichlorodifluoromethane*	1400
Diethyphthalate*	5000
bis(2-ethylhexyl)phthalate*	NE
	NCGS =
	:L STD or
	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
INORGANICS (mg/l)																			
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			
t-Cyanide*	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
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
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										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	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
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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony								NA									0	0%	0.0014**
Arsenic								NA									0	0%	0.05
Barium								NA							0.124	0.107	8	26%	2
Beryllium	0.005	0.005	0.005	0.005	0.005	0.005	0.006	NA						0.001	0.002	0.0027	25	81%	0.004**
Cadmium								NA									3	10%	0.00175
Chromium		0.014						NA									4	13%	0.05
Cobalt								NA									2	6%	0.07**
Copper								NA									2	6%	1
Lead								NA									3	10%	0.015
Nickel								NA									0	0%	0.1
Selenium								NA									0	0%	0.05
Silver								NA									0	0%	0.0175
Vanadium								NA									2	6%	0.0035**
Zinc								NA				0.015		0.014	0.022	0.016	11	35%	1.05
t-Cyanide*	NA	NA	NA	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	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone								NA									0	0%	700
Benzene								NA									0	0%	1
Carbon Disulfide								NA									1	3%	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
Trichloroflouromethane								NA									0	0%	2100
Vinyl Chloride								NA									0	0%	0.015
Xylenes								NA									0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	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 4 (MW4)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW4																		
SAMPLING DATES	Oct. 94	Nov.94	Jan. 95	Mar. 95	Sept. 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
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA										
Barium	0.106	0.47	0.07	0.041		NA	NA		NA			0.127			0.1				
Beryllium			0.003	0.003	0.006	NA	NA	0.006	NA	0.014	0.006	0.009	0.003	0.004	0.01	0.012	0.004	0.003	0.002
Cadmium		0.001		0.004		NA	NA		NA										
Chromium	0.003	0.024				NA	NA		NA	0.011		0.01			0.01	0.03			
Cobalt		0.011				NA	NA		NA							0.01			
Copper	0.01	0.033	0.005	0.006		NA	NA		NA			0.01							
Lead	0.004	0.018	0.002	0.002		NA	NA		NA	0.018	0.012	0.013			0.01	0.02			
Nickel						NA	NA		NA			0.01							
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium		0.034				NA	NA		NA							0.05			
Zinc	0.026	0.093	0.028	0.026		NA	NA		NA		0.052	0.042			0.04	0.12			
t-Cyanide*	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
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone																			
Benzene						NA	NA		NA										
Carbon Disulfide		21.3	21.3	6.2		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										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA		13			13				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 4 (MW4)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT																	MW4 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	0	0%	0.05
Barium																	6	19%	2
Beryllium	0.003	0.003	0.003	0.003		0.002	0.004		0.002	0.002	0.002	0.002	0.0026	0.003	0.006	0.0029	28	88%	0.004**
Cadmium																	2	6%	0.00175
Chromium																	6	19%	0.05
Cobalt																	2	6%	0.07**
Copper																	5	16%	1
Lead																	9	28%	0.015
Nickel																	1	3%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium																	2	6%	0.0035**
Zinc												0.019		0.017	0.013	0.016	12	38%	1.05
t-Cyanide*	NA	NA	NA	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	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone																	0	0%	700
Benzene																	0	0%	1
Carbon Disulfide																	3	9%	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
Trichloroflouromethane																	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	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	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	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	MW5																		
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
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic						NA	NA		NA								0.02		
Barium	0.208	0.142	0.243	0.104		NA	NA		NA			0.127	0.1	0.2	0.2				
Beryllium						NA	NA		NA	0.002				0.002	0.003	0.006			
Cadmium			0.001			NA	NA	0.001	NA										
Chromium	0.009					NA	NA		NA										
Cobalt						NA	NA		NA										
Copper	0.017	0.006	0.007	0.006		NA	NA		NA										
Lead	0.008	0.002	0.008			NA	NA		NA			0.002							
Nickel				0.08		NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.006					NA	NA		NA										
Zinc	0.027	0.019	0.026	0.01		NA	NA		NA			0.019							
t-Cyanide*	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
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA		NA		NA	NA	NA
ORGANICS (ug/l)																			
Acetone						NA	NA		NA										
Benzene						NA	NA		NA										
Carbon Disulfide		30.5				NA	NA		NA							6.8			
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										
Trichloroflouromethane						NA	NA		NA										
Vinyl Chloride						NA	NA		NA										
Xylenes						NA	NA		NA										
Dichlorodifluoromethane*	NA	NA	NA	NA									NA		NA		NA	NA	NA
Diethyphthalate*	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 5 (MW5)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT																	MW5 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	1	3%	0.05
Barium												0.112	0.103		0.197	0.129	12	38%	2
Beryllium															0.003		5	16%	0.004**
Cadmium																	2	6%	0.00175
Chromium																	1	3%	0.05
Cobalt																	0	0%	0.07**
Copper																	4	13%	1
Lead																	4	13%	0.015
Nickel																	1	3%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium																	1	3%	0.0035**
Zinc															0.014		6	19%	1.05
t-Cyanide*	NA	NA	NA	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	NA	NA	NA	0	0%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone																	0	0%	700
Benzene																	0	0%	1
Carbon Disulfide																	2	6%	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
Trichloroflouromethane																	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	NA	NA	NA	0	0%	1400
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	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 6 (MW6)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW6																		
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
INORGANICS (mg/l)																			
Antimony						NA	NA		NA										
Arsenic				0.005		NA	NA		NA										
Barium	0.068	0.096	0.141	0.062		NA	NA		NA			0.084	0.1	0.1					
Beryllium						NA	NA		NA										
Cadmium	0.005	0.009	0.004			NA	NA		NA										
Chromium	0.003	0.033		0.005		NA	NA	0.020	NA		0.012								
Cobalt						NA	NA		NA		0.011	0.009			0.01		0.01		0.011
Copper		0.019	0.01	0.008		NA	NA		NA			0.020							
Lead	0.009	0.019	0.033	0.007	0.037	NA	NA	0.019	NA		0.011	0.007							
Nickel	0.005					NA	NA		NA										
Selenium						NA	NA		NA										
Silver						NA	NA		NA										
Vanadium	0.008	0.074	0.026			NA	NA	0.055	NA										
Zinc	0.038	0.047	0.029	0.018		NA	NA		NA			0.017							
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA				NA		NA		NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	0.0004	0.0004	0.0004	NA	0.002	NA		NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA	0.1			NA		NA		NA
ORGANICS (ug/l)																			
Acetone						NA			NA								170		
Benzene						NA			NA						2.7	3.4			9.50
Carbon Disulfide		7.9				NA			NA										
Chlorobenzene		4	8.5			NA			NA		13	24		70	11	5.1			
Chloroethane					38	NA	40	40	NA	64	91	46	28.6	190	44	53	53	21	78
Chloromethane						NA			NA								46		
1,2-Dibromoethane						NA			NA										
1,4-Dichlorobenzene						NA			NA										7.20
cis-1,2-Dichloroethene						NA			NA						1.9	2.6			13
1,1-Dichloroethane	78.9	51.7	105	87.1	67	NA	66	61	NA	80	134	160	30.1		88	64	41	37	
1,2-Dichloroethane						NA			NA										
1,1-Dichloroethene			83.2			NA			NA						1.4				
Methylene Chloride	27.5	31.4		23.2	58	NA	7.2	7.2	NA	46	158	160	10.2	240	96			66	109
Tetrachloroethylene	5.3		3.8	5.6		NA			NA						2.4	1.9			8.20
Toluene						NA			NA										
1,1,1-Trichloroethane	15.4	16	15.1	8.3	10	NA	13	7.1	NA		7.2				2.4				
Trichloroethylene	8.4	6.7	10.6	8.8		NA	7.2		NA	6.8	11	9.9			7.9	8.7	7		17
Trichloroflouromethane						NA			NA										
Vinyl Chloride						NA			NA										22
Xylenes	46.7	83.8	68.9	74.8	24	NA	22	23	NA	24	32				11		6		11
Dichlorodifluoromethane*	NA	NA	NA	NA	6.4		5	6.8	10.9		7.9		NA		2.4	2.7	NA		NA
Diethyphthalate*	NA	NA	NA	NA									NA				NA		NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA					6.8				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 6 (MW6)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT																	MW6 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	1	3%	0.05
Barium												0.148	0.103	0.14	0.136	0.118	12	38%	2
Beryllium																	0	0%	0.004**
Cadmium																	3	9%	0.00175
Chromium		0.017															6	19%	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	0.03	0.027	0.02	20	63%	0.07**
Copper																	4	13%	1
Lead																	8	25%	0.015
Nickel																	1	3%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium																	4	13%	0.0035**
Zinc							91.5						0.015	0.016			8	25%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		NA		NA	0	0%	0.07
Mercury*		NA	0.0006	NA	0.0008	NA		NA		NA		NA	0.0004	NA		NA	7	44%	0.00105
Tin*		NA		NA		NA		NA		NA		NA		NA		NA	1	6%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone																	1	3%	700
Benzene													6.1	4.2	4.9	2.4	7	21%	1
Carbon Disulfide																	1	3%	700
Chlorobenzene																	7	21%	50
Chloroethane	17	19				15.9			12.3								17	52%	2800
Chloromethane																	1	3%	2.6
1,2-Dibromoethane																	0	0%	0.0004
1,4-Dichlorobenzene									6.9			3.2	7.7	7.4	5	4.7	7	21%	1.4
cis-1,2-Dichloroethene		5.8							17.3	11.9	12.8	12.6	23.1	31.4	41.2	12.5	12	36%	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	9.2	8.4		30	91%	70
1,2-Dichloroethane																	0	0%	0.38
1,1-Dichloroethene																	2	6%	7
Methylene Chloride	47	37	34.8		28.2	12.8			64.5	20.1	12.9	8.8	33	4.1	9	1.5	27	82%	4.6
Tetrachloroethylene									7.1	6.2	8	6.9	9.3	4.5	3.8	1.8	14	42%	0.7
Toluene																	0	0%	1000
1,1,1-Trichloroethane																	9	27%	200
Trichloroethylene	5.4	5.2							8.8	7.1	8.1	7.7	9.24	5.9	4.9	2.3	22	67%	2.8
Trichloroflouromethane																	0	0%	2100
Vinyl Chloride										11.2		8	7.2	6.3	10.8	2.6	7	21%	0.015
Xylenes									9.8								13	39%	530
Dichlorodifluoromethane*		NA		NA		NA		NA		NA		NA		NA		NA	7	35%	1400
Diethyphthalate*		NA		NA		NA		NA		NA		NA		NA		NA	0	0%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		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				MW7B														
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
INORGANICS (mg/l)																			
Antimony		NA	NA			NA	NA		NA					NT					
Arsenic		NA	NA		0.033	NA	NA	0.010	NA	0.01	0.032	0.279		NT					
Barium	0.892	NA	NA	0.2	0.55	NA	NA		NA				0.3	NT	0.9		0.5		
Beryllium		NA	NA	0.001	0.003	NA	NA		NA		0.003			NT	0.004				
Cadmium	0.0013	NA	NA	0.001	0.004	NA	NA		NA		0.004			NT					
Chromium	0.03	NA	NA	0.040	0.09	NA	NA	0.020	NA	0.021	0.071	0.011	0.010	NT	0.09	0.01		0.014	
Cobalt	0.146	NA	NA	0.013	0.04	NA	NA	0.012	NA		0.018	0.011		NT	0.07	0.02		0.019	0.020
Copper	0.034	NA	NA	0.036		NA	NA		NA			0.013		NT	0.08				
Lead	0.519	NA	NA	0.044	0.36	NA	NA	0.196	NA	0.087	0.264	0.062	0.070	NT	0.71	0.05	0.1	0.036	
Nickel	0.02	NA	NA			NA	NA		NA					NT					
Selenium		NA	NA			NA	NA		NA					NT					
Silver		NA	NA			NA	NA		NA					NT					
Vanadium	0.197	NA	NA	0.06	0.23	NA	NA	0.064	NA	0.054	0.169			NT	0.21				
Zinc	0.051	NA	NA	0.065	0.06	NA	NA		NA			0.026		NT	0.15	0.05			
t-Cyanide*	NA	NA	NA	NA		NA	NA		NA		NA		NA	NT	NA		NA		NA
Mercury*	NA	NA	NA	NA		NA	NA		NA		NA	0.0006	NA	NT	NA	0.001	NA		NA
Tin*	NA	NA	NA	NA		NA	NA		NA		NA		NA	NT	NA		NA		NA
ORGANICS (ug/l)																			
Acetone			NA			NA			NA										
Benzene			NA			NA			NA					NT	1.1				
Carbon Disulfide			NA			NA			NA					NT					
Chlorobenzene			NA			NA			NA					NT					
Chloroethane			NA	29.3	30	NA	13	14	NA	37		4.8	177	NT	31	68	44	21	31
Chloromethane			NA			NA			NA					NT			64		
1,2-Dibromoethane			NA			NA			NA					NT					
1,4-Dichlorobenzene			NA			NA			NA					NT					
cis-1,2-Dichloroethene			NA			NA			NA					NT					
1,1-Dichloroethane	262	69.7	NA	52.4	100	NA	92	77	NA	100	56	30	99.5	NT	110	210	170	90	
1,2-Dichloroethane			NA			NA			NA					NT					
1,1-Dichloroethene	8.6	8.1	NA	6.2	17	NA	15	8.8	NA	15	14	12	14.7	NT	7.2	7.4			10
Methylene Chloride		11.2	NA			NA			NA	13	28	2.2	14.6	NT	53			60	75
Tetrachloroethylene			NA			NA			NA					NT					
Toluene	31.4	13.2	NA	3.8	11	NA	9		NA					NT	3.4		5		
1,1,1-Trichloroethane	59.1	59.3	NA	29.1	78	NA	65	75	NA	65	49	27	33.4	NT	11	12	12		8.20
Trichloroethylene	9.9	10.7	NA			NA			NA			1		NT	3.6	7.8	6		5.30
Trichloroflouromethane			NA	11.7	14	NA	8.7	11	NA	22	11	13	9.4	NT	8.3				9.10
Vinyl Chloride			NA			NA			NA					NT					
Xylenes	6.5	5.4	NA			NA			NA					NT	4.8		12		
Dichlorodifluoromethane*	NA	NA	NA	NA	56	155	34	53	69.2	110	94		33.2	NT	31	41	NA		NA
Diethyphthalate*	NA	NA	NA	NA	13									NT			NA		NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	24									NT			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 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	5	17%	0.05
Barium												0.341	0.345	0.268	0.64	0.626	11	38%	2
Beryllium																	4	14%	0.004**
Cadmium																	4	14%	0.00175
Chromium		0.013															12	41%	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	0.031	0.036	0.024	25	86%	0.07**
Copper																	4	14%	1
Lead	0.017	0.020			0.035		0.018	0.027	0.019	0.010	0.015	0.014	0.031		0.019	0.015	24	83%	0.015
Nickel																	1	3%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium																	7	24%	0.0035**
Zinc																	6	21%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		NA		NA	0	0%	0.07
Mercury*	0.001	NA	0.0027	NA	0.0014	NA	0.0011	NA	0.0015	NA	0.0046	NA	0.0026	NA	0.00038	NA	10	71%	0.00105
Tin*		NA	0.179	NA		NA		NA		NA		NA		NA		NA	1	7%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone																	0	0%	700
Benzene												4.7	4.1	4.2	5.8	4.6	6	19%	1
Carbon Disulfide																	0	0%	700
Chlorobenzene				6			5.3							3	3.9	4	5	16%	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		11.1		26	84%	2800
Chloromethane																	1	3%	2.6
1,2-Dibromoethane																	0	0%	0.0004
1,4-Dichlorobenzene															1.7	1.4	2	6%	1.4
cis-1,2-Dichloroethene												6			16	8.1	3	10%	70
1,1-Dichloroethane	176	230	87.1	220	141	137	113	147	22.5	176	174	153	129		15.1	114	29	94%	70
1,2-Dichloroethane				8.7													1	3%	0.38
1,1-Dichloroethene	5.3	7.4	6.5	8.1	6	5.9		5.4									20	67%	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		69	80.9	23	74%	4.6
Tetrachloroethylene									9				3.7	3.2	3.7	3.3	5	16%	0.7
Toluene																	7	23%	1000
1,1,1-Trichloroethane	5.6	6.9		5.1													17	55%	200
Trichloroethylene	7.3	8.8			6.8	7.6	7.7	7.5		10.5	9.9	8.8	9.2	9.1	8.8	7.8	20	65%	2.8
Trichloroflouromethane		7	5.1										1.5	2.2	1	1.1	16	52%	2100
Vinyl Chloride												5	5	3.9	8.2	4.3	5	16%	0.015
Xylenes		9.3		6.3			5.6					4.8			9.2		9	29%	530
Dichlorodifluoromethane*		NA	24.7	NA	20.6	NA	10.7	NA	12.6	NA	9.5	NA	7	NA	5.7	NA	17	85%	1400
Diethyphthalate*		NA		NA		NA		NA		NA		NA		NA		NA	1	5%	5000
bis(2-ethylhexyl)phthalate*		NA		NA		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
INORGANICS (mg/l)																			
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			0.007							
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					
t-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		NA		NA		NA		NA		NA
ORGANICS (ug/l)																			
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			6.80
Trichloroflouromethane						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
Diethyphthalate*	NA	NA	NA	NA									NA				NA		NA
bis(2-ethylhexyl)phthalate*	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 8 (MW8)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT																	MW8 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																			(mg/l)
Antimony																	0	0%	0.0014**
Arsenic																	1	3%	0.05
Barium														0.115	0.108	0.123	9	28%	2
Beryllium																	2	6%	0.004**
Cadmium																	3	9%	0.00175
Chromium	0.022																4	13%	0.05
Cobalt																	0	0%	0.07**
Copper																	5	16%	1
Lead																	4	13%	0.015
Nickel			0.053														1	3%	0.1
Selenium																	0	0%	0.05
Silver																	0	0%	0.0175
Vanadium	0.063																3	9%	0.0035**
Zinc																0.019	8	25%	1.05
t-Cyanide*		NA		NA		NA		NA		NA		NA		NA		NA	1	7%	0.07
Mercury*		NA		NA		NA		NA		NA		NA		NA	0.0002	NA	2	13%	0.00105
Tin*		NA		NA		NA		NA		NA		NA		NA		NA	0	0%	NE
ORGANICS (ug/l)																			(ug/l)
Acetone																	0	0%	700
Benzene													2.6	2.5	2.9	2.6	6	18%	1
Carbon Disulfide																	0	0%	700
Chlorobenzene																	0	0%	50
Chloroethane		28	15.3	12.7	13.2												14	42%	2800
Chloromethane	25																3	9%	2.6
1,2-Dibromoethane																	0	0%	0.0004
1,4-Dichlorobenzene													1.3	1.2	1.5	1.7	4	12%	1.4
cis-1,2-Dichloroethene												7	5.4	10.2	13.2	17.3	5	15%	70
1,1-Dichloroethane		80	76.8	71.5	59.2	42.7	31	38.9	59	58.6	63	49.1	54.3		61.8	32	26	79%	70
1,2-Dichloroethane																	0	0%	0.38
1,1-Dichloroethene	81																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	31	48	32.5	23	70%	4.6
Tetrachloroethylene											5.2	5	6.5	5.5	4.7	5.7	6	18%	0.7
Toluene																	0	0%	1000
1,1,1-Trichloroethane																	0	0%	200
Trichloroethylene	5.3											4	4.4	4.8	4.8	41.1	10	30%	2.8
Trichloroflouromethane																	0	0%	2100
Vinyl Chloride														1	1.5	1.3	3	9%	0.015
Xylenes																	1	3%	530
Dichlorodifluoromethane*		NA		NA		NA		NA		NA		NA		NA		NA	4	20%	1400
Diethyphthalate*		NA		NA		NA		NA		NA		NA		NA		NA	0	0%	5000
bis(2-ethylhexyl)phthalate*		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 9 (MW9)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW9																	MW9 Detects	
SAMPLING DATES	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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%
INORGANICS (mg/l)																			
Antimony																		0	0%
Arsenic																		0	0%
Barium													0.103	0.123	0.129	0.140	0.105	5	29%
Beryllium																		0	0%
Cadmium																		0	0%
Chromium		0.038	0.015	0.082														3	18%
Cobalt																		0	0%
Copper														0.013				1	6%
Lead				0.014														1	6%
Nickel																		0	0%
Selenium																		0	0%
Silver																		0	0%
Vanadium		0.078		0.189														2	12%
Zinc																		0	0%
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.005	NA	0.0015	NA	2	NA
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
ORGANICS (ug/l)																			
Acetone																		0	0%
Benzene	8.6	11	7.8	8.2	8.1	6.4					5.6	5.2	5	5.4	11.5	8	8.1	13	76%
Carbon Disulfide																		0	0%
Chlorobenzene			18	23.6	19.8	18	16.2	10.3	10.1	12.1	18.2	11.7	11.1	11.8	8.1	9.6	11.2	15	88%
Chloroethane	65	51	39	35.7	27.4	36	21.4	16.5	15.7	22.4	23.5	20.3	13	12.4	11.6	12.3		16	94%
Chloromethane	189																	1	6%
1,2-Dibromoethane		14																1	6%
1,4-Dichlorobenzene														2.5	6.6	2.1	1.6	4	24%
cis-1,2-Dichloroethene				6							6.5	7.9	5.7	8	25	13.1	10.7	8	47%
1,1-Dichloroethane		126	219	170	202	135	122	75.2	81.9	110	103	87	74.7	58.1		68.1	43.3	15	88%
1,2-Dichloroethane					11.8													1	6%
1,1-Dichloroethene																		0	0%
Methylene Chloride		195	231	272	197	166	127	67.9	56.7	75.7	122	96.4	64.2	49.6		64.6	53.2	15	88%
Tetrachloroethylene		5.3		5.3	5.1									2.9	4.4	2.4	1.4	7	41%
Toluene																		0	0%
1,1,1-Trichloroethane																		0	0%
Trichloroethylene	11	15	9.8	10		9.5	8.2	5.8	7	6.5	6.2	5	4.7	3.9	5.9	4.2	2.9	16	94%
Trichloroflouromethane																		0	0%
Vinyl Chloride													9.1	5.9	6.5	8.7	6.4	5	29%
Xylenes	26	39	25	24.5	19.6	15.6	7.3				7.1	5.6			5.1			10	59%
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

2
** 13B GWPS as

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

CONSTITUENT	NCGS
SAMPLING DATES	
INORGANICS (mg/l)	(mg/l)
Antimony	0.0014**
Arsenic	0.05
Barium	2
Beryllium	0.004**
Cadmium	0.00175
Chromium	0.05
Cobalt	0.07**
Copper	1
Lead	0.015
Nickel	0.1
Selenium	0.05
Silver	0.0175
Vanadium	0.0035**
Zinc	1.05
t-Cyanide*	0.07
Mercury*	0.00105
Tin*	NE
ORGANICS (ug/l)	(ug/l)
Acetone	700
Benzene	1
Carbon Disulfide	700
Chlorobenzene	50
Chloroethane	2800
Chloromethane	2.6
1,2-Dibromoethane	0.0004
1,4-Dichlorobenzene	1.4
cis-1,2-Dichloroethene	70
1,1-Dichloroethane	70
1,2-Dichloroethane	0.38
1,1-Dichloroethene	7
Methylene Chloride	4.6
Tetrachloroethylene	0.7
Toluene	1000
1,1,1-Trichloroethane	200
Trichloroethylene	2.8
Trichloroflouromethane	2100
Vinyl Chloride	0.015
Xylenes	530
Dichlorodifluoromethane*	1400
Diethyphthalate*	5000
bis(2-ethylhexyl)phthalate*	NE
	NCGS =
	:L STD or
	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	
SAMPLING DATES	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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%
INORGANICS (mg/l)																			
Antimony																		0	0%
Arsenic																	0.016	1	6%
Barium																		0	0%
Beryllium																		0	0%
Cadmium																		0	0%
Chromium	0.014		0.013	0.118						0.012								4	24%
Cobalt																		0	0%
Copper														0.018	0.021		0.015	3	18%
Lead				0.012														1	6%
Nickel																		0	0%
Selenium																		0	0%
Silver																		0	0%
Vanadium				0.246														1	6%
Zinc	0.052												0.019		0.013		0.01	4	24%
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
Mercury*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
ORGANICS (ug/l)																			
Acetone					156				130	419	234						2340	5	29%
Benzene	6.9	7.3	6.2										4.6	2	4.5	3.9	7	8	47%
Carbon Disulfide																		0	0%
Chlorobenzene	25	33	21	9.2		6.8	5.7	6.7					3.4				3.6	9	53%
Chloroethane	72	47	51	16.7	11.6	18.8	19.1	19.8	12.2									9	53%
Chloromethane																		0	0%
1,2-Dibromoethane																		0	0%
1,4-Dichlorobenzene														1.3	1.3	1.4	3	4	24%
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	9	13	27.4	16	94%
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	7.5	7.7	5.8	16	94%
1,2-Dichloroethane																		0	0%
1,1-Dichloroethene																		0	0%
Methylene Chloride	120	310	132	59.3	19.7	48.7	48	67.7	51.6		27.1		14.4		4.9		10	13	76%
Tetrachloroethylene	12	11	13	6.8	7.1	7.3												6	35%
Toluene																13.1	6	2	12%
1,1,1-Trichloroethane																		0	0%
Trichloroethylene	11	11	9.1			5.7									1.3		1.1	6	35%
Trichloroflouromethane																		0	0%
Vinyl Chloride	10													1.4	2	3.3	3.9	5	29%
Xylenes	35	39	30	7.4	5	6.4		12.3	5.5		5.3							9	53%
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	0	NA

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

2

** 13B GWPS as

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

CONSTITUENT	NCGS
SAMPLING DATES	
INORGANICS (mg/l)	(mg/l)
Antimony	0.0014**
Arsenic	0.05
Barium	2
Beryllium	0.004**
Cadmium	0.00175
Chromium	0.05
Cobalt	0.07**
Copper	1
Lead	0.015
Nickel	0.1
Selenium	0.05
Silver	0.0175
Vanadium	0.0035**
Zinc	1.05
t-Cyanide*	0.07
Mercury*	0.00105
Tin*	NE
ORGANICS (ug/l)	(ug/l)
Acetone	700
Benzene	1
Carbon Disulfide	700
Chlorobenzene	50
Chloroethane	2800
Chloromethane	2.6
1,2-Dibromoethane	0.0004
1,4-Dichlorobenzene	1.4
cis-1,2-Dichloroethene	70
1,1-Dichloroethane	70
1,2-Dichloroethane	0.38
1,1-Dichloroethene	7
Methylene Chloride	4.6
Tetrachloroethylene	0.7
Toluene	1000
1,1,1-Trichloroethane	200
Trichloroethylene	2.8
Trichloroflouromethane	2100
Vinyl Chloride	0.015
Xylenes	530
Dichlorodifluoromethane*	1400
Diethyphthalate*	5000
bis(2-ethylhexyl)phthalate*	NE
	NCGS =
	L STD or
	of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 11 (MW11)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW11					MW11 Detects		NCGS
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)								(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	0%	0.05
Cobalt						0	0%	0.07**
Copper						0	0%	1
Lead						0	0%	0.015
Nickel						0	0%	0.1
Selenium						0	0%	0.05
Silver						0	0%	0.0175
Vanadium						0	0%	0.0035**
Zinc		0.013				1	20%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	0	NA	NE
ORGANICS (ug/l)								(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
Trichloroflouromethane						0	0%	2100
Vinyl Chloride						0	0%	0.015
Xylenes						0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	0	NA	NE

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 12 (MW12)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW12					MW12 Detects		NCGS
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)								(mg/l)
Antimony						0	0%	0.0014**
Arsenic						0	0%	0.05
Barium						0	0%	2
Beryllium	0.001	0.0019	0.0015	0.002	0.0035	5	100%	0.004**
Cadmium						0	0%	0.00175
Chromium						0	0%	0.05
Cobalt						0	0%	0.07**
Copper						0	0%	1
Lead						0	0%	0.015
Nickel						0	0%	0.1
Selenium						0	0%	0.05
Silver						0	0%	0.0175
Vanadium						0	0%	0.0035**
Zinc	0.013	0.017		0.012	0.015	4	80%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	0	NA	NE
ORGANICS (ug/l)								(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
Trichloroflouromethane						0	0%	2100
Vinyl Chloride						0	0%	0.015
Xylenes						0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	0	NA	NE

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 13 (MW13)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW13					MW13 Detects		NCGS
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)								(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	0%	0.05
Cobalt						0	0%	0.07**
Copper						0	0%	1
Lead						0	0%	0.015
Nickel						0	0%	0.1
Selenium						0	0%	0.05
Silver						0	0%	0.0175
Vanadium						0	0%	0.0035**
Zinc	0.012					1	20%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	0	NA	NE
ORGANICS (ug/l)								(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
Trichloroflouromethane						0	0%	2100
Vinyl Chloride						0	0%	0.015
Xylenes						0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	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 14 (MW14)
Downgradient Well - Set 1 (Subset 1N)
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW14					MW14 Detects		NCGS
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)								(mg/l)
Antimony						0	0%	0.0014**
Arsenic						0	0%	0.05
Barium						0	0%	2
Beryllium					0.001	1	20%	0.004**
Cadmium						0	0%	0.00175
Chromium						0	0%	0.05
Cobalt						0	0%	0.07**
Copper						0	0%	1
Lead						0	0%	0.015
Nickel						0	0%	0.1
Selenium						0	0%	0.05
Silver						0	0%	0.0175
Vanadium						0	0%	0.0035**
Zinc	0.012	0.018		0.012		3	60%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	0	NA	NE
ORGANICS (ug/l)								(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
Trichloroflouromethane						0	0%	2100
Vinyl Chloride						0	0%	0.015
Xylenes						0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	0	NA	NE

		- indicates concentrations exceeding NCGS
	"NE"	- not established
	"NA"	- not applicable
	*	-denotes an Appendix II constituent not included in Appendix I

NCGS = 2L STD or ** 13B GWPS as of Oct 07

Groundwater Monitoring Well Data
Monitoring Well 15 (MW15)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT	MW15					MW15 Detects		NCGS
SAMPLING DATES	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)								(mg/l)
Antimony		NA				0	0%	0.0014**
Arsenic		NA				0	0%	0.05
Barium		NA				0	0%	2
Beryllium		NA				0	0%	0.004**
Cadmium		NA				0	0%	0.00175
Chromium		NA				0	0%	0.05
Cobalt		NA				0	0%	0.07**
Copper		NA				0	0%	1
Lead		NA				0	0%	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				0	0%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	0	NA	0.07
Mercury*	NA	NA	NA	NA	NA	0	NA	0.00105
Tin*	NA	NA	NA	NA	NA	0	NA	NE
ORGANICS (ug/l)								(ug/l)
Acetone		NA				0	0%	700
Benzene		NA				0	0%	1
Carbon Disulfide		NA				0	0%	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	4.5	149	11.6	3	75%	1000
1,1,1-Trichloroethane		NA				0	0%	200
Trichloroethylene		NA				0	0%	2.8
Trichloroflouromethane		NA				0	0%	2100
Vinyl Chloride		NA				0	0%	0.015
Xylenes		NA				0	0%	530
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	0	NA	1400
Diethyphthalate*	NA	NA	NA	NA	NA	0	NA	5000
bis(2-ethylhexyl)phthalate*	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
INORGANICS (mg/l)																				
Antimony						NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
Arsenic						NA			NA	NA		0.064			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	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA		NA		NA	NA
Copper	0.015	0.034	0.02	0.037		NA	NA	NA	NA	NA	NA	NA	NA	NA	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	0.089				
Nickel						NA	NA	NA	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA		NA		NA	NA
Zinc	0.043	0.035	0.021	0.047	0.06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA
t-Cyanide*	NA	NA	NA	NA	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					0.0017	0.0003				
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
ORGANICS (ug/l)																				
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									
Trichloroflouromethane						NA			NA	NA	NA									
Vinyl Chloride						NA			NA	NA	NA									
Xylenes						NA			NA	NA	NA									
Dichlorodifluoromethane*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyphthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-ethylhexyl)phthalate*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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

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

CONSTITUENT																MW23B Detects		NCGS
SAMPLING DATES	Apr. 02	Oct. 02	Apr. 03	Oct. 03	Apr. 04	Oct. 04	Apr. 04	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																		(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.0014**
Arsenic																3	9%	0.05
Barium													0.101	0.101		12	38%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	43%	0.004**
Cadmium																2	6%	0.00175
Chromium																7	22%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07**
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	1
Lead																11	34%	0.015
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.1
Selenium																1	3%	0.05
Silver																1	3%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	57%	0.0035**
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5	71%	1.05
t-Cyanide*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	0.07
Mercury*																2	8%	0.00105
Tin*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0%	NE
ORGANICS (ug/l)																		(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
Trichloroflouromethane																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	NA	NA	0	NA	1400
Diethyphthalate*	NA	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	NA	0	NA	NE

NCGS =
2L STD or
** 13B GWPS as of Oct 07

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 %	
INORGANICS (mg/l)			
Antimony	0	0%	QUALITATIVE
Arsenic	19	5%	QUALITATIVE
Barium	93	25%	TEST OF PROPORTIONS*
Beryllium	111	32%	TEST OF PROPORTIONS*
Cadmium	31	8%	QUALATATIVE
Chromium	69	18%	TEST OF PROPORTIONS*
Cobalt	55	16%	TEST OF PROPORTIONS*
Copper	50	14%	TEST OF PROPORTIONS*
Lead	92	25%	TEST OF PROPORTIONS*
Nickel	8	2%	QUALITATIVE
Selenium	1	0%	QUALITATIVE
Silver	1	0%	QUALITATIVE
Vanadium	42	12%	TEST OF PROPORTIONS*
Zinc	98	28%	TEST OF PROPORTIONS*
t-Cyanide**	1	1%	QUALITATIVE
Mercury**	24	22%	TEST OF PROPORTIONS*
Tin**	4	5%	QUALITATIVE
ORGANICS (ug/l)			
Acetone	6	2%	QUALITATIVE
Benzene	40	11%	TEST OF PROPORTIONS*
Carbon Disulfide	9	2%	QUALITATIVE
Chlorobenzene	36	10%	QUALITATIVE
Chloroethane	82	22%	TEST OF PROPORTIONS*
Chloromethane	6	2%	QUALITATIVE
1,2-Dibromoethane	1	0%	QUALITATIVE
1,4-Dichlorobenzene	21	6%	QUALITATIVE
cis-1,2-Dichloroethene	44	12%	TEST OF PROPORTIONS*
1,1-Dichloroethane	116	31%	TEST OF PROPORTIONS*
1,2-Dichloroethane	2	1%	QUALITATIVE
1,1-Dichloroethene	23	6%	QUALITATIVE
Methylene Chloride	101	27%	TEST OF PROPORTIONS*
Tetrachloroethylene	38	10%	TEST OF PROPORTIONS*
Toluene	12	3%	QUALITATIVE
1,1,1-Trichloroethane	26	7%	QUALITATIVE
Trichloroethylene	74	20%	TEST OF PROPORTIONS*
Trichlorofluoromethane	16	4%	QUALITATIVE
Vinyl Chloride	25	7%	QUALITATIVE
Xylenes	42	11%	TEST OF PROPORTIONS*
Dichlorodifluoromethane**	28	23%	TEST OF PROPORTIONS*
Diethyphthalate**	7	6%	QUALITATIVE
bis(2-ethylhexyl)phthalate**	2	2%	QUALITATIVE

NOTES:

* 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	PDt	B*C	B*(1-C)	n	Pu	m	Pd	SD	Z	notes
DATA SET 1											
MW2											
METALS											
Barium	96	0.1875	18	78	64	0.1719	32	0.2188	0.0845	-0.5547	not SSIOBL
Beryllium	96	0.3958	38	58	64	0.2656	32	0.6563	0.1059	-3.68939	SSIOBL
Chromium	96	0.2292	22	74	64	0.25	32	0.1875	0.091	0.686837	not SSIOBL
Cobalt	96	0.0625	6	90	64	0.0469	32	0.0938	0.0524	-0.89443	not SSIOBL
Copper	96	0.1875	18	78	64	0.2031	32	0.1563	0.0845	0.5547	not SSIOBL
Lead	96	0.2813	27	69	64	0.2969	32	0.25	0.0973	0.481543	not SSIOBL
Vanadium	96	0.1667	16	80	64	0.1875	32	0.125	0.0807	0.774597	not SSIOBL
Zinc	96	0.3021	29	67	64	0.2969	32	0.3125	0.0994	-0.15718	not SSIOBL
ORGANICS											
Benzene	96	0	0	96	64	0	32	0	0	NA	*
Chloroethane	96	0	0	96	64	0	32	0	0	NA	*
cis-1,2-Dichloroethene	96	0	0	96	64	0	32	0	0	NA	*
1,1 Dichloroethane	96	0	0	96	64	0	32	0	0	NA	*
Methylene Chloride	96	0	0	96	64	0	32	0	0	NA	*
Tetrachloroethylene	96	0	0	96	64	0	32	0	0	NA	*
Trichloroethylene	96	0	0	96	64	0	32	0	0	NA	*
Xylenes	96	0	0	96	64	0	32	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
MW3											
METALS											
Barium	95	0.2	19	76	64	0.1719	31	0.2581	0.0875	-0.9847	not SSIOBL
Beryllium	95	0.4421	42	53	64	0.2656	31	0.8065	0.1087	-4.97655	SSIOBL
Chromium	95	0.2105	20	75	64	0.25	31	0.129	0.0892	1.35599	not SSIOBL
Cobalt	95	0.0526	5	90	64	0.0469	31	0.0645	0.0489	-0.36104	not SSIOBL
Copper	95	0.1579	15	80	64	0.2031	31	0.0645	0.0798	1.737133	not SSIOBL
Lead	95	0.2316	22	73	64	0.2969	31	0.0968	0.0923	2.167748	not SSIOBL
Vanadium	95	0.1474	14	81	64	0.1875	31	0.0645	0.0776	1.585529	not SSIOBL
Zinc	95	0.3158	30	65	64	0.2969	31	0.3548	0.1017	-0.56986	not SSIOBL
ORGANICS											
Benzene	95	0	0	95	64	0	31	0	0	NA	*
Chloroethane	95	0	0	95	64	0	31	0	0	NA	*
cis-1,2-Dichloroethene	95	0	0	95	64	0	31	0	0	NA	*
1,1 Dichloroethane	95	0	0	95	64	0	31	0	0	NA	*
Methylene Chloride	95	0	0	95	64	0	31	0	0	NA	*
Tetrachloroethylene	95	0	0	95	64	0	31	0	0	NA	*
Trichloroethylene	95	0	0	95	64	0	31	0	0	NA	*
Xylenes	95	0	0	95	64	0	31	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	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
MW4											
METALS											
Barium	96	0.1771	17	79	64	0.1719	32	0.1875	0.0826	-0.18905	not SSIOBL
Beryllium	96	0.4688	45	51	64	0.2656	32	0.875	0.108	-5.64019	SSIOBL
Chromium	96	0.2292	22	74	64	0.25	32	0.1875	0.091	0.686837	not SSIOBL
Cobalt	96	0.0521	5	91	64	0.0469	32	0.0625	0.0481	-0.3248	not SSIOBL
Copper	96	0.1875	18	78	64	0.2031	32	0.1563	0.0845	0.5547	not SSIOBL
Lead	96	0.2917	28	68	64	0.2969	32	0.2813	0.0984	0.158777	not SSIOBL
Vanadium	96	0.1458	14	82	64	0.1875	32	0.0625	0.0764	1.635836	not SSIOBL
Zinc	96	0.3229	31	65	64	0.2969	32	0.375	0.1012	-0.77171	not SSIOBL
ORGANICS											
Benzene	96	0	0	96	64	0	32	0	0	NA	*
Chloroethane	96	0	0	96	64	0	32	0	0	NA	*
cis-1,2-Dichloroethene	96	0	0	96	64	0	32	0	0	NA	*
1,1 Dichloroethane	96	0	0	96	64	0	32	0	0	NA	*
Methylene Chloride	96	0	0	96	64	0	32	0	0	NA	*
Tetrachloroethylene	96	0	0	96	64	0	32	0	0	NA	*
Trichloroethylene	96	0	0	96	64	0	32	0	0	NA	*
Xylenes	96	0	0	96	64	0	32	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	0	0	NA	*
MW5											
Barium	96	0.2396	23	73	64	0.1719	32	0.375	0.0924	-2.19806	SSIOBL
Beryllium	96	0.2292	22	74	64	0.2656	32	0.1563	0.091	1.201964	not SSIOBL
Chromium	96	0.1771	17	79	64	0.25	32	0.0313	0.0826	2.646736	not SSIOBL
Cobalt	96	0.0313	3	93	64	0.0469	32	0	0.0377	1.244342	*
Copper	96	0.1771	17	79	64	0.2031	32	0.125	0.0826	0.945263	not SSIOBL
Lead	96	0.2396	23	73	64	0.2969	32	0.125	0.0924	1.859893	not SSIOBL
Vanadium	96	0.1354	13	83	64	0.1875	32	0.0313	0.0741	2.109162	not SSIOBL
Zinc	96	0.2604	25	71	64	0.2969	32	0.1875	0.095	1.151117	not SSIOBL
ORGANICS											
Benzene	96	0	0	96	64	0	32	0	0	NA	*
Chloroethane	96	0	0	96	64	0	32	0	0	NA	*
cis-1,2-Dichloroethene	96	0	0	96	64	0	32	0	0	NA	*
1,1 Dichloroethane	96	0	0	96	64	0	32	0	0	NA	*
Methylene Chloride	96	0	0	96	64	0	32	0	0	NA	*
Tetrachloroethylene	96	0	0	96	64	0	32	0	0	NA	*
Trichloroethylene	96	0	0	96	64	0	32	0	0	NA	*
Xylenes	96	0	0	96	64	0	32	0	0	NA	*
Dichlorodifluoromethane	30	0	0	30	20	0	10	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
MW6											
METALS											
Barium	96	0.2396	23	73	64	0.1719	32	0.375	0.0924	-2.19806	SSIOBL
Beryllium	96	0.1771	17	79	64	0.2656	32	0	0.0826	3.213894	not SSIOBL
Chromium	96	0.2292	22	74	64	0.25	32	0.1875	0.091	0.686837	not SSIOBL
Cobalt	96	0.2396	23	73	64	0.0469	32	0.625	0.0924	-6.256	SSIOBL
Copper	96	0.1771	17	79	64	0.2031	32	0.125	0.0826	0.945263	not SSIOBL
Lead	96	0.2813	27	69	64	0.2969	32	0.25	0.0973	0.481543	not SSIOBL
Vanadium	96	0.1667	16	80	64	0.1875	32	0.125	0.0807	0.774597	not SSIOBL
Zinc	96	0.2813	27	69	64	0.2969	32	0.25	0.0973	0.481543	not SSIOBL
Mercury	28	0.25	7	21	12	0	16	0.4375	0.1654	-2.64575	SSIOBL
ORGANICS											
Benzene	97	0.0722	7	90	64	0	33	0.2121	0.0555	-3.82513	SSIOBL
Chloroethane	97	0.1753	17	80	64	0	33	0.5152	0.0815	-6.32264	SSIOBL
cis-1,2-Dichloroethene	97	0.1237	12	85	64	0	33	0.3636	0.0706	-5.15347	SSIOBL
1,1 Dichloroethane	97	0.3093	30	67	64	0	33	0.9091	0.0991	-9.17787	SSIOBL
Methylene Chloride	97	0.2784	27	70	64	0	33	0.8182	0.0961	-8.51828	SSIOBL
Tetrachloroethylene	97	0.1443	14	83	64	0	33	0.4242	0.0753	-5.63305	SSIOBL
Trichloroethylene	97	0.2268	22	75	64	0	33	0.6667	0.0897	-7.42847	SSIOBL
Xylenes	97	0.134	13	84	64	0	33	0.3939	0.073	-5.39574	SSIOBL
Dichlorodifluoromethane	40	0.175	7	33	20	0	20	0.35	0.1202	-2.91288	SSIOBL
MW7,7B											
METALS											
Barium	93	0.2366	22	71	64	0.1719	29	0.3793	0.0951	-2.18058	SSIOBL
Beryllium	93	0.2258	21	72	64	0.2656	29	0.1379	0.0936	1.364347	not SSIOBL
Chromium	93	0.3011	28	65	64	0.25	29	0.4138	0.1027	-1.59511	not SSIOBL
Cobalt	93	0.3011	28	65	64	0.0469	29	0.8621	0.1027	-7.93882	SSIOBL
Copper	93	0.1828	17	76	64	0.2031	29	0.1379	0.0865	0.753541	not SSIOBL
Lead	93	0.4624	43	50	64	0.2969	29	0.8276	0.1116	-4.75521	SSIOBL
Vanadium	93	0.2043	19	74	64	0.1875	29	0.2414	0.0903	-0.59698	not SSIOBL
Zinc	93	0.2688	25	68	64	0.2969	29	0.2069	0.0992	0.90666	not SSIOBL
Mercury	26	0.3846	10	16	12	0	14	0.7143	0.1914	-3.7321	SSIOBL
ORGANICS											
Benzene	95	0.0632	6	89	64	0	31	0.1935	0.0532	-3.63623	SSIOBL
Chloroethane	95	0.2737	26	69	64	0	31	0.8387	0.0976	-8.59673	SSIOBL
cis-1,2-Dichloroethene	95	0.0316	3	92	64	0	31	0.0968	0.0383	-2.52893	*
1,1 Dichloroethane	95	0.3053	29	66	64	0	31	0.9355	0.1008	-9.28321	SSIOBL
Methylene Chloride	95	0.2421	23	72	64	0	31	0.7419	0.0937	-7.91532	SSIOBL
Tetrachloroethylene	95	0.0526	5	90	64	0	31	0.1613	0.0489	-3.30092	SSIOBL
Trichloroethylene	95	0.2105	20	75	64	0	31	0.6452	0.0892	-7.23195	SSIOBL
Xylenes	95	0.0947	9	86	64	0	31	0.2903	0.0641	-4.53047	SSIOBL
Dichlorodifluoromethane	40	0.425	17	23	20	0	20	0.85	0.1563	-5.43739	SSIOBL

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
MW8											
METALS											
Barium	96	0.2083	20	76	64	0.1719	32	0.2813	0.0879	-1.24393	not SSIOBL
Beryllium	96	0.1979	19	77	64	0.2656	32	0.0625	0.0863	2.354734	not SSIOBL
Chromium	96	0.2083	20	76	64	0.25	32	0.125	0.0879	1.421637	not SSIOBL
Cobalt	96	0.0313	3	93	64	0.0469	32	0	0.0377	1.244342	*
Copper	96	0.1875	18	78	64	0.2031	32	0.1563	0.0845	0.5547	not SSIOBL
Lead	96	0.2396	23	73	64	0.2969	32	0.125	0.0924	1.859893	not SSIOBL
Vanadium	96	0.1563	15	81	64	0.1875	32	0.0938	0.0786	1.19257	not SSIOBL
Zinc	96	0.2813	27	69	64	0.2969	32	0.25	0.0973	0.481543	not SSIOBL
Mercury	27	0.0741	2	25	12	0	15	0.1333	0.1014	-1.31453	*
ORGANICS											
Benzene	97	0.0619	6	91	64	0	33	0.1818	0.0516	-3.52187	SSIOBL
Chloroethane	97	0.1443	14	83	64	0	33	0.4242	0.0753	-5.63305	SSIOBL
cis-1,2-Dichloroethene	97	0.0515	5	92	64	0	33	0.1515	0.0474	-3.1975	SSIOBL
1,1 Dichloroethane	97	0.268	26	71	64	0	33	0.7879	0.0949	-8.29997	SSIOBL
Methylene Chloride	97	0.2371	23	74	64	0	33	0.697	0.0911	-7.64657	SSIOBL
Tetrachloroethylene	97	0.0619	6	91	64	0	33	0.1818	0.0516	-3.52187	SSIOBL
Trichloroethylene	97	0.1031	10	87	64	0	33	0.303	0.0652	-4.65007	SSIOBL
Xylenes	97	0.0103	1	96	64	0	33	0.0303	0.0216	-1.39986	*
Dichlorodifluoromethane	40	0.1	4	36	20	0	20	0.2	0.0949	-2.10819	*
MW9											
METALS											
Barium	81	0.1975	16	65	64	0.1719	17	0.2941	0.1086	-1.12529	not SSIOBL
Beryllium	81	0.2099	17	64	64	0.2656	17	0	0.1111	2.390625	not SSIOBL
Chromium	81	0.2346	19	62	64	0.25	17	0.1765	0.1156	0.635983	not SSIOBL
Cobalt	81	0.037	3	78	64	0.0469	17	0	0.0515	0.909683	*
Copper	81	0.1728	14	67	64	0.2031	17	0.0588	0.1032	1.398706	not SSIOBL
Lead	81	0.2469	20	61	64	0.2969	17	0.0588	0.1177	2.023242	not SSIOBL
Vanadium	81	0.1728	14	67	64	0.1875	17	0.1176	0.1032	0.67708	not SSIOBL
Zinc	81	0.2346	19	62	64	0.2969	17	0	0.1156	2.567781	not SSIOBL
Mercury	14	0.1429	2	12	12	0	2	1	0.2673	-3.74166	*
ORGANICS											
Benzene	81	0.1605	13	68	64	0	17	0.7647	0.1002	-7.63529	SSIOBL
Chloroethane	81	0.1975	16	65	64	0	17	0.9412	0.1086	-8.66386	SSIOBL
cis-1,2-Dichloroethene	81	0.0988	8	73	64	0	17	0.4706	0.0814	-5.78085	SSIOBL
1,1 Dichloroethane	81	0.1852	15	66	64	0	17	0.8824	0.106	-8.32495	SSIOBL
Methylene Chloride	81	0.1852	15	66	64	0	17	0.8824	0.106	-8.32495	SSIOBL
Tetrachloroethylene	81	0.0864	7	74	64	0	17	0.4118	0.0767	-5.37083	SSIOBL
Trichloroethylene	81	0.1975	16	65	64	0	17	0.9412	0.1086	-8.66386	SSIOBL
Xylenes	81	0.1235	10	71	64	0	17	0.5882	0.0898	-6.55358	SSIOBL
Dichlorodifluoromethane	22	0	0	22	20	0	2	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
MW10											
METALS											
Barium	81	0.1358	11	70	64	0.1719	17	0	0.0935	1.838757	not SSIOBL
Beryllium	81	0.2099	17	64	64	0.2656	17	0	0.1111	2.390625	not SSIOBL
Chromium	81	0.2469	20	61	64	0.25	17	0.2353	0.1177	0.124988	not SSIOBL
Cobalt	81	0.037	3	78	64	0.0469	17	0	0.0515	0.909683	*
Copper	81	0.1975	16	65	64	0.2031	17	0.1765	0.1086	0.245363	not SSIOBL
Lead	81	0.2469	20	61	64	0.2969	17	0.0588	0.1177	2.023242	not SSIOBL
Vanadium	81	0.1605	13	68	64	0.1875	17	0.0588	0.1002	1.284784	not SSIOBL
Zinc	81	0.284	23	58	64	0.2969	17	0.2353	0.123	0.500524	not SSIOBL
Mercury	14	0	0	14	12	0	2	0	0	NA	*
ORGANICS											
Benzene	81	0.0988	8	73	64	0	17	0.4706	0.0814	-5.78085	SSIOBL
Chloroethane	81	0.1111	9	72	64	0	17	0.5294	0.0857	-6.17395	SSIOBL
cis-1,2-Dichloroethene	81	0.1975	16	65	64	0	17	0.9412	0.1086	-8.66386	SSIOBL
1,1 Dichloroethane	81	0.1975	16	65	64	0	17	0.9412	0.1086	-8.66386	SSIOBL
Methylene Chloride	81	0.1605	13	68	64	0	17	0.7647	0.1002	-7.63529	SSIOBL
Tetrachloroethylene	81	0.0741	6	75	64	0	17	0.3529	0.0715	-4.93916	SSIOBL
Trichloroethylene	81	0.0741	6	75	64	0	17	0.3529	0.0715	-4.93916	SSIOBL
Xylenes	81	0.1111	9	72	64	0	17	0.5294	0.0857	-6.17395	SSIOBL
Dichlorodifluoromethane	22	0	0	22	20	0	2	0	0	NA	*
MW11											
METALS											
Barium	69	0.1594	11	58	64	0.1719	5	0	0.17	1.011118	not SSIOBL
Beryllium	69	0.2464	17	52	64	0.2656	5	0	0.2001	1.327524	not SSIOBL
Chromium	69	0.2319	16	53	64	0.25	5	0	0.196	1.27568	not SSIOBL
Cobalt	69	0.0435	3	66	64	0.0469	5	0	0.0947	0.495003	*
Copper	69	0.1884	13	56	64	0.2031	5	0	0.1816	1.118658	not SSIOBL
Lead	69	0.2754	19	50	64	0.2969	5	0	0.2074	1.431236	not SSIOBL
Vanadium	69	0.1739	12	57	64	0.1875	5	0	0.176	1.065302	not SSIOBL
Zinc	69	0.2899	20	49	64	0.2969	5	0.2	0.2107	0.459831	not SSIOBL
ORGANICS											
Benzene	69	0	0	69	64	0	5	0	0	NA	*
Chloroethane	69	0	0	69	64	0	5	0	0	NA	*
cis-1,2-Dichloroethene	69	0	0	69	64	0	5	0	0	NA	*
1,1 Dichloroethane	69	0	0	69	64	0	5	0	0	NA	*
Methylene Chloride	69	0	0	69	64	0	5	0	0	NA	*
Tetrachloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Trichloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Xylenes	69	0	0	69	64	0	5	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
MW12											
METALS											
Barium	69	0.1594	11	58	64	0.1719	5	0	0.17	1.011118	not SSIOBL
Beryllium	69	0.3188	22	47	64	0.2656	5	1	0.2164	-3.39357	SSIOBL
Chromium	69	0.2319	16	53	64	0.25	5	0	0.196	1.27568	not SSIOBL
Cobalt	69	0.0435	3	66	64	0.0469	5	0	0.0947	0.495003	*
Copper	69	0.1884	13	56	64	0.2031	5	0	0.1816	1.118658	not SSIOBL
Lead	69	0.2754	19	50	64	0.2969	5	0	0.2074	1.431236	not SSIOBL
Vanadium	69	0.1739	12	57	64	0.1875	5	0	0.176	1.065302	not SSIOBL
Zinc	69	0.3333	23	46	64	0.2969	5	0.8	0.2189	-2.29844	SSIOBL
ORGANICS											
Benzene	69	0	0	69	64	0	5	0	0	NA	*
Chloroethane	69	0	0	69	64	0	5	0	0	NA	*
cis-1,2-Dichloroethene	69	0	0	69	64	0	5	0	0	NA	*
1,1 Dichloroethane	69	0	0	69	64	0	5	0	0	NA	*
Methylene Chloride	69	0	0	69	64	0	5	0	0	NA	*
Tetrachloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Trichloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Xylenes	69	0	0	69	64	0	5	0	0	NA	*
MW13											
METALS											
Barium	69	0.1594	11	58	64	0.1719	5	0	0.17	1.011118	not SSIOBL
Beryllium	69	0.2464	17	52	64	0.2656	5	0	0.2001	1.327524	not SSIOBL
Chromium	69	0.2319	16	53	64	0.25	5	0	0.196	1.27568	not SSIOBL
Cobalt	69	0.0435	3	66	64	0.0469	5	0	0.0947	0.495003	*
Copper	69	0.1884	13	56	64	0.2031	5	0	0.1816	1.118658	not SSIOBL
Lead	69	0.2754	19	50	64	0.2969	5	0	0.2074	1.431236	not SSIOBL
Vanadium	69	0.1739	12	57	64	0.1875	5	0	0.176	1.065302	not SSIOBL
Zinc	69	0.2899	20	49	64	0.2969	5	0.2	0.2107	0.459831	not SSIOBL
ORGANICS											
Benzene	69	0	0	69	64	0	5	0	0	NA	*
Chloroethane	69	0	0	69	64	0	5	0	0	NA	*
cis-1,2-Dichloroethene	69	0	0	69	64	0	5	0	0	NA	*
1,1 Dichloroethane	69	0	0	69	64	0	5	0	0	NA	*
Methylene Chloride	69	0	0	69	64	0	5	0	0	NA	*
Tetrachloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Trichloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Xylenes	69	0	0	69	64	0	5	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
MW14											
METALS											
Barium	69	0.1594	11	58	64	0.1719	5	0	0.17	1.011118	not SSIOBL
Beryllium	69	0.2609	18	51	64	0.2656	5	0.2	0.2039	0.321846	not SSIOBL
Chromium	69	0.2319	16	53	64	0.25	5	0	0.196	1.27568	not SSIOBL
Cobalt	69	0.0435	3	66	64	0.0469	5	0	0.0947	0.495003	*
Copper	69	0.1884	13	56	64	0.2031	5	0	0.1816	1.118658	not SSIOBL
Lead	69	0.2754	19	50	64	0.2969	5	0	0.2074	1.431236	not SSIOBL
Vanadium	69	0.1739	12	57	64	0.1875	5	0	0.176	1.065302	not SSIOBL
Zinc	69	0.3188	22	47	64	0.2969	5	0.6	0.2164	-1.40075	not SSIOBL
ORGANICS											
Benzene	69	0	0	69	64	0	5	0	0	NA	*
Chloroethane	69	0	0	69	64	0	5	0	0	NA	*
cis-1,2-Dichloroethene	69	0	0	69	64	0	5	0	0	NA	*
1,1 Dichloroethane	69	0	0	69	64	0	5	0	0	NA	*
Methylene Chloride	69	0	0	69	64	0	5	0	0	NA	*
Tetrachloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Trichloroethylene	69	0	0	69	64	0	5	0	0	NA	*
Xylenes	69	0	0	69	64	0	5	0	0	NA	*
MW15											
METALS											
Barium	68	0.1618	11	57	64	0.1719	4	0	0.1898	0.905635	not SSIOBL
Beryllium	68	0.25	17	51	64	0.2656	4	0	0.2232	1.190238	not SSIOBL
Chromium	68	0.2353	16	52	64	0.25	4	0	0.2186	1.143544	not SSIOBL
Cobalt	68	0.0441	3	65	64	0.0469	4	0	0.1058	0.442893	*
Copper	68	0.1912	13	55	64	0.2031	4	0	0.2027	1.00227	not SSIOBL
Lead	68	0.2794	19	49	64	0.2969	4	0	0.2313	1.283729	not SSIOBL
Vanadium	68	0.1765	12	56	64	0.1875	4	0	0.1965	0.954314	not SSIOBL
Zinc	68	0.2794	19	49	64	0.2969	4	0	0.2313	1.283729	not SSIOBL
ORGANICS											
Benzene	68	0	0	68	64	0	4	0	0	NA	*
Chloroethane	68	0	0	68	64	0	4	0	0	NA	*
cis-1,2-Dichloroethene	68	0	0	68	64	0	4	0	0	NA	*
1,1 Dichloroethane	68	0	0	68	64	0	4	0	0	NA	*
Methylene Chloride	68	0	0	68	64	0	4	0	0	NA	*
Tetrachloroethylene	68	0	0	68	64	0	4	0	0	NA	*
Trichloroethylene	68	0	0	68	64	0	4	0	0	NA	*
Xylenes	68	0	0	68	64	0	4	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
MW23B											
METALS											
Barium	96	0.2396	23	73	64	0.1719	32	0.375	0.0924	-2.19806	SSIOBL
Cadmium	96	0.1042	10	86	64	0.125	32	0.0625	0.0661	0.944999	not SSIOBL
Chromium	96	0.2396	23	73	64	0.25	32	0.2188	0.0924	0.338162	not SSIOBL
Lead	96	0.3125	30	66	64	0.2969	32	0.3438	0.1004	-0.4671	not SSIOBL
Mercury	37	0.0541	2	35	12	0	25	0.08	0.0794	-1.0074	*
ORGANICS											
Benzene	95	0	0	95	64	0	31	0	0	NA	*
Chloroethane	95	0	0	95	64	0	31	0	0	NA	*
cis-1,2-Dichloroethene	95	0	0	95	64	0	31	0	0	NA	*
1,1 Dichloroethane	95	0	0	95	64	0	31	0	0	NA	*
Methylene Chloride	95	0	0	95	64	0	31	0	0	NA	*
Tetrachloroethylene	95	0	0	95	64	0	31	0	0	NA	*
Trichloroethylene	95	0	0	95	64	0	31	0	0	NA	*
Xylenes	95	0	0	95	64	0	31	0	0	NA	*

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 dowgradient 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 included in sampling only at MW6, MW7, MW8 and MW23B.
Dichlorodifluoromethane included in sampling only at MW6 - MW10.

Predictive Interval Analysis
Monitoring Well 2 (MW2)
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	0.0163

Variables		Where
n=	2	n= Background population
n-1=	1	n-1=degrees of freedom
m=	32	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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	[0,0.0680]	0.0024	Not Significant

Sep. 95 Dec. 95 Feb. 96 Apr. 96 July 96 Oct. 96 Apr. 97 Oct. 97 Apr. 98 Oct. 98

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	0.0381

Variables		Where
n=	2	n= Background population
n-1=	1	n-1=degrees of freedom
m=	31	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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	[0,0.1272]	0.0047	Not Significant

Sep. 95 Dec. 95 Feb. 96 Apr. 96 July 96 Oct. 96 Apr. 97 Oct. 97 Apr. 98 Oct. 98

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	0.0012

Variables		Where
n=	2	n= Background population
n-1=	1	n-1=degrees of freedom
m=	32	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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]	0.0043	Not Significant

Sept. 95 Dec. 95 Feb. 96 Apr. 96 July 96 Oct. 96 Apr. 97 Oct. 97 Apr. 98 Oct. 98

Predictive Interval Analysis
Monitoring Well 5 (MW5)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

Prediction Intervals Worksheet for Intrawell Comparisons
Dunn-Erwin Data Set 1
Well: MW5

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.
Barium	0.208	0.142	0.243	0.104	0.174	0.0628

Variables		Where
n=	4	n= Background population
n-1=	3	n-1=degrees of freedom
m=	32	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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 as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

RESULTS			
Well Number	**Prediction Interval**	**Mean Concentration of Non-Baseline Sampling Data**	**Result**
Barium	[0,0.2992]	0.196	Not Significant

Predictive Interval Analysis
Monitoring Well 6 (MW6)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

Prediction Intervals Worksheet for Intrawell Comparisons
Dunn-Erwin Data Set 1
Well: MW6

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.
Barium	0.068	0.096	0.141	0.062	0.092	0.0360

Variables		Where
n=	4	n= Background population
n-1=	3	n-1=degrees of freedom
m=	32	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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 as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

RESULTS			
Well Number	**Prediction Interval**	**Mean Concentration of Non-Baseline Sampling Data**	**Result**
Barium	[0,0.163]	0.199	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.
Barium	0.892	NA	NA	0.2	0.546	0.4893
Cobalt	0.146	NA	NA	0.013	0.080	0.0940
Lead	0.519	NA	NA	0.044	0.282	0.3359

Variables		**Where**
n=	2	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: $K=[O, X_{ave}+S(1/m+1/n)^{1/2}\, t_{n-1.K.095)}]$

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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.
For barium, quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval for barium.

RESULTS			
Well Number	**Prediction Interval**	**Mean Concentration of Non-Baseline Sampling Data**	**Result**
Barium	[0,1.888]	0.35091	Not Significant
Cobalt	[0,0.3373]	0.0220	Not Significant
Lead	[0,1.2023]	0.0817	Not Significant

Prediction Intervals Worksheet for Intrawell Comparisons
Dunn-Erwin Data Set 1
Well: MW12

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	0.0019	0.0015	0.002	0.002	0.0005
Zinc	0.013	0.017	0.0085	0.012	0.013	0.0035

Variables		**Where**
n=	4	n= Background population
n-1=	3	n-1=degrees of freedom
m=	5	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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.
For barium, quantifications below the detection limit are entered as one-half the detection limit as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval for barium.

RESULTS			
Well Number	**Prediction Interval**	**Mean Concentration of Non-Baseline Sampling Data**	**Result**
Beryllium	[0,0.0027]	0.0035	Significant
Zinc	[0,0.0214]	0.015	Not Significant

Predictive Interval Analysis
Monitoring Well 23B (MW23B)
Downgradient Well - Set 1
Dunn-Erwin Landfill
Harnett County, North Carolina

Prediction Intervals Worksheet for Intrawell Comparisons
Dunn-Erwin Data Set 1
Well: MW23B

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.
Barium	0.071	0.17	0.109	0.228	0.145	0.0690

Variables		Where
n=	4	n= Background population
n-1=	3	n-1=degrees of freedom
m=	32	m=Compliance well sample population
t=	3.75	t=95th percentile of the Bonferroni - Statistics

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

Where
X_{ave} = the mean concentration of the baseline sampling data
S = standard devation 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 as of October 2000, due to varying detection limits before this date. Non-detects prior to Oct 2000 are not used to compute the prediction interval.

RESULTS			
Well Number	**Prediction Interval**	**Mean Concentration of Non-Baseline Sampling Data**	**Result**
Barium	[0,0.282]	0.242	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
INORGANICS (mg/l)																		
Antimony						NA	NA			NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.008	0.009	0.018	0.014		NA	NA			NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Selenium						NA	NA											
Silver						NA	NA											
Vanadium	0.005	0.012				NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.012	0.014	0.015	0.027		NA	NA		0.070	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																		
cis-1,2-dichloroethene						NA	NA											
methylene chloride			29.4			NA	NA											
mek; 2-butanone						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 Well Data
Monitoring Well 16 (MW16)
Upgradient Well - Set2
Dunn-Erwin Landfill
Harnett County, North Carolina

CONSTITUENT															
SAMPLE DATE	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	Apr. 08	Oct. 08
INORGANICS (mg/l)															
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic															
Barium															
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium															
Chromium															
Cobalt	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
Lead															
Mercury															
Nickel	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
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)															
cis-1,2-dichloroethene															
methylene chloride															
mek; 2-butanone															
NOTES															

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

CONSTITUENT		MW16 Detects		NCGS
SAMPLE DATE	Apr. 09	detect#	detect%	
INORGANICS (mg/l)				(mg/l)
Antimony	NA	0	0%	0.0014**
Arsenic		0	0%	0.05
Barium		10	31%	2
Beryllium	NA	0	0%	0.004**
Cadmium		8	25%	0.00175
Chromium		9	28%	0.05
Cobalt	NA	1	14%	0.07**
Copper	NA	4	57%	1
Lead		11	34%	0.015
Mercury		1	3%	0.00105
Nickel	NA	0	0%	0.1
Selenium		0	0%	0.05
Silver		0	0%	0.0175
Vanadium	NA	2	29%	0.0035**
Zinc	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
INORGANICS (mg/l)																			
Antimony		0.004				NA	NA			NA	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.006	0.094	0.017	0.026		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.002	0.09	0.01	0.02		NA	NA				0.004	0.002	0.012	0.064	0.033				
Mercury						NA	NA												
Nickel		0.05				NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium		0.002				NA	NA												
Silver						NA	NA												
Vanadium	0.005	0.41	0.045	0.09		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.008	0.189	0.029	0.051		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																			
cis-1,2-dichloroethene						NA	NA												
methylene chloride						NA	NA												
mek; 2-butanone			471			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 Well Data
Monitoring Well 32 (MW32)
Downgradient Well - Set2
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	Apr. 08	Oct. 08
INORGANICS (mg/l)														
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic														
Barium													0.105	
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium													0.001	
Chromium			0.094	0.012										
Cobalt	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
Lead			0.063				0.029		0.021		0.011	0.011	0.024	
Mercury														
Nickel	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
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)														
cis-1,2-dichloroethene														
methylene chloride														
mek; 2-butanone														
NOTES														

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. 09	detect#	detect%	
INORGANICS (mg/l)				(mg/l)
Antimony	NA	1	14%	0.0014**
Arsenic		4	13%	0.05
Barium		10	31%	2
Beryllium	NA	1	14%	0.004**
Cadmium		6	19%	0.00175
Chromium		8	25%	0.05
Cobalt	NA	3	43%	0.07**
Copper	NA	4	57%	1
Lead		15	47%	0.015
Mercury		0	0%	0.00105
Nickel	NA	1	14%	0.1
Selenium		1	3%	0.05
Silver		0	0%	0.0175
Vanadium	NA	4	57%	0.0035**
Zinc	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
INORGANICS (mg/l)																			
Antimony						NA	NA			NA	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.013	0.02	0.028	0.015		NA	NA			NA	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	NA
Selenium						NA	NA												
Silver						NA	NA												
Vanadium	0.008	0.02	0.02			NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.011	0.026	0.42	0.023		NA	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)																			
cis-1,2-dichloroethene						NA	NA						1.8	1.2	1.8				
methylene chloride						NA	NA												
mek; 2-butanone						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 Well Data
Monitoring Well 33 (MW33)
Downgradient Well - Set2
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	Apr. 08	Oct. 08
INORGANICS (mg/l)														
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic														
Barium														
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium														
Chromium														
Cobalt	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
Lead														
Mercury														
Nickel	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
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ORGANICS (ug/l)														
cis-1,2-dichloroethene														
methylene chloride														
mek; 2-butanone														
NOTES														

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

CONSTITUENT		MW33 Detects		NCGS
SAMPLE DATE	Apr. 09	detect#	detect%	
INORGANICS (mg/l)				(mg/l)
Antimony	NA	0	0%	0.0014**
Arsenic		0	0%	0.05
Barium		10	31%	2
Beryllium	NA	3	43%	0.004**
Cadmium		3	9%	0.00175
Chromium		6	19%	0.05
Cobalt	NA	2	29%	0.07**
Copper	NA	4	57%	1
Lead		8	25%	0.015
Mercury		2	6%	0.00105
Nickel	NA	0	0%	0.1
Selenium		0	0%	0.05
Silver		0	0%	0.0175
Vanadium	NA	3	43%	0.0035**
Zinc	NA	4	57%	1.05
ORGANICS (ug/l)				(ug/l)
cis-1,2-dichloroethene		3	9%	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
INORGANICS (mg/l)																		
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
ORGANICS (ug/l)																		
cis-1,2-dichloroethene																		
methylene chloride																		
mek; 2-butanone																		

NOTES

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
SAMPLE DATE	Oct. 05	Apr. 06	Oct. 06	May 07	Oct. 07	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)											(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0014**
Arsenic									0	0%	0.05
Barium									6	23%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.004**
Cadmium						0.001	0.001		0	8%	0.00175
Chromium									3	16%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07**
Copper	NA	NA	NA	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	NA	NA	NA	0.1
Selenium									0	0%	0.05
Silver									0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0035**
Zinc	NA	NA	NA	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											
MW34 was installed in Ju											NCGS =
											2L STD or
"NE"									** 13B GWPS as of Oct 07		
"NT"											
"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
INORGANICS (mg/l)																		
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	0.208			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
ORGANICS (ug/l)																		
cis-1,2-dichloroethene																		
methylene chloride																		
mek; 2-butanone																		

NOTES

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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)											(mg/l)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0014**
Arsenic									5	19%	0.05
Barium				0.132	0.318	0.225	0.25	0.179	7	46%	2
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.004**
Cadmium									3	12%	0.00175
Chromium									5	26%	0.05
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07**
Copper	NA	NA	NA	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	NA	NA	NA	0.1
Selenium									1	4%	0.05
Silver									0	0%	0.0175
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0035**
Zinc	NA	NA	NA	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 %	
INORGANICS (mg/l)			
Arsenic	9	6%	QUALITATIVE
Barium	43	29%	TEST OF PROPORTIONS*
Cadmium	20	14%	TEST OF PROPORTIONS*
Chromium	31	21%	TEST OF PROPORTIONS*
Lead	46	31%	TEST OF PROPORTIONS*
Mercury	8	5%	QUALITATIVE
Selenium	2	1%	QUALITATIVE
Silver	0	0%	QUALITATIVE
ORGANICS (ug/l)			
cis-1,2-dichloroethene	3	2%	QUALITATIVE
methylene chloride	1	1%	QUALITATIVE
mek; 2-butanone	1	1%	QUALITATIVE
NOTES:			
* 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
DATA SET 2											
MW32											
Barium	64	0.313	20	44	32	0.313	32	0.313	0.116	0.000	not SSIOBL
Cadmium	64	0.219	14	50	32	0.250	32	0.188	0.103	0.605	not SSIOBL
Chromium	64	0.266	17	47	32	0.281	32	0.250	0.110	0.283	not SSIOBL
Lead	64	0.406	26	38	32	0.344	32	0.469	0.123	-1.018	not SSIOBL
MW33											
Barium	64	0.313	20	44	32	0.313	32	0.313	0.116	0.000	not SSIOBL
Cadmium	64	0.172	11	53	32	0.250	32	0.094	0.094	1.657	not SSIOBL
Chromium	64	0.234	15	49	32	0.281	32	0.188	0.106	0.885	not SSIOBL
Lead	64	0.297	19	45	32	0.344	32	0.250	0.114	0.821	not SSIOBL
MW34											
Barium	58	0.276	16	42	32	0.313	26	0.231	0.118	0.693	not SSIOBL
Cadmium	58	0.138	8	50	32	0.250	26	0.077	0.091	1.901	not SSIOBL
Chromium	58	0.207	12	46	32	0.281	26	0.158	0.107	1.153	not SSIOBL
Lead	58	0.276	16	42	32	0.344	26	0.263	0.118	0.683	not SSIOBL
MW35											
Barium	58	0.293	17	41	32	0.313	26	0.462	0.120	-1.240	not SSIOBL
Cadmium	58	0.190	11	47	32	0.250	26	0.115	0.104	1.301	not SSIOBL
Chromium	58	0.241	14	44	32	0.281	26	0.263	0.113	0.160	not SSIOBL
Lead	58	0.310	18	40	32	0.34	26	0.368	0.122	-0.202	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 dowgradient 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
INORGANICS (mg/l)																			
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						
ORGANICS (ug/l)																			
Benzene						NA	NA												
Chloromethane						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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																		(mg/l)
Antimony								NA				NA				0	0%	0.0014**
Arsenic								NA				NA		0.047	0.021	4	13%	0.05
Barium								NA				NA		0.183	0.222	6	20%	2
Beryllium								NA				NA				0	0%	0.004**
Cadmium				0.001				NA				NA				2	7%	0.00175
Chromium								NA				NA			0.011	2	7%	0.05
Cobalt								NA				NA		0.031	0.037	3	10%	0.07**
Copper								NA				NA			0.015	3	10%	1
Lead								NA				NA		0.01	0.029	2	7%	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		0.04	0.039	2	7%	0.0035**
Zinc								NA			0.011	NA	0.022	0.033	0.073	10	33%	1.05
ORGANICS (ug/l)																		(ug/l)
Benzene								NA				NA				0	0%	1
Chloromethane								NA				NA		1.3		1	3%	2.6
cis-1,2 Dichloroethene								NA				NA				0	0%	70
Ethylbenzene								NA				NA				0	0%	550
Toluene								NA				NA				1	3%	1000
Vinyl chloride								NA				NA				0	0%	0.015
Xylenes								NA				NA				0	0%	530

NOTES

NCGS = 2L STD or ** 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
INORGANICS (mg/l)																			
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								
ORGANICS (ug/l)																			
Benzene						NA	NA												
Chloromethane						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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																		(mg/l)
Antimony												NA				0	0%	0.0014**
Arsenic												NA		0.012		2	6%	0.05
Barium												NA				5	16%	2
Beryllium												NA				0	0%	0.004**
Cadmium												NA				1	3%	0.00175
Chromium												NA				1	3%	0.05
Cobalt												NA				1	3%	0.07**
Copper												NA				3	10%	1
Lead												NA				1	3%	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	0.02	0.014	0.01	8	26%	1.05
ORGANICS (ug/l)																		(ug/l)
Benzene												NA				0	0%	1
Chloromethane												NA				0	0%	2.6
cis-1,2 Dichloroethene												NA				0	0%	70
Ethylbenzene												NA				0	0%	550
Toluene												NA		2.3		1	3%	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
INORGANICS (mg/l)																			
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						
ORGANICS (ug/l)																			
Benzene					9.1	NA	NA												
Chloromethane						NA	NA												
cis-1,2 Dichloroethene					11	NA	NA												
Ethylbenzene					14	NA	NA												
Toluene					14	NA	NA								5.6				
Vinyl chloride					15	NA	NA												
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																SWPT3 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	Apr. 08	Oct. 08	Apr. 09	detect#	detect%	
INORGANICS (mg/l)																		(mg/l)
Antimony												NA				0	0%	0.0014**
Arsenic												NA		0.011		2	6%	0.05
Barium												NA		0.118		8	26%	2
Beryllium												NA				0	0%	0.004**
Cadmium												NA				2	6%	0.00175
Chromium												NA				2	6%	0.05
Cobalt		0.002										NA				2	6%	0.07**
Copper												NA				4	13%	1
Lead												NA				2	6%	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	0.016	0.028		9	29%	1.05
ORGANICS (ug/l)																		(ug/l)
Benzene												NA				1	3%	1
Chloromethane												NA				0	0%	2.6
cis-1,2 Dichloroethene												NA				1	3%	70
Ethylbenzene												NA				1	3%	550
Toluene												NA		3.5		3	10%	1000
Vinyl chloride												NA				1	3%	0.015
Xylenes												NA				1	3%	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 %	
INORGANICS (mg/l)			
Antimony	0	0%	QUALITATIVE
Arsenic	8	9%	QUALITATIVE
Barium	19	21%	TEST OF PROPORTIONS*
Beryllium	0	0%	QUALITATIVE
Cadmium	5	5%	QUALITATIVE
Chromium	5	5%	QUALITATIVE
Cobalt	6	7%	QUALITATIVE
Copper	10	11%	TEST OF PROPORTIONS*
Lead	5	5%	QUALITATIVE
Nickel	0	0%	QUALITATIVE
Selenium	0	0%	QUALITATIVE
Silver	0	0%	QUALITATIVE
Vanadium	2	2%	QUALITATIVE
Zinc	27	29%	TEST OF PROPORTIONS*
ORGANICS (ug/l)			
Benzene	1	1%	QUALITATIVE
Chloromethane	1	1%	QUALITATIVE
cis-1,2 Dichloroethene	1	1%	QUALITATIVE
Ethylbenzene	1	1%	QUALITATIVE
Toluene	5	5%	QUALITATIVE
Vinyl chloride	1	1%	QUALITATIVE
Xylenes	1	1%	QUALITATIVE
NOTES:			
* 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
DATA SET 3											
SWPT2											
Barium	61	0.180	11	50	30	0.200	31	0.161	0.098	0.393	not SSIOBL
Copper	61	0.098	6	55	30	0.100	31	0.097	0.076	0.042	not SSIOBL
Zinc	61	0.295	18	43	30	0.333	31	0.258	0.117	0.644	not SSIOBL
SWPT3											
Barium	61	0.230	14	47	30	0.200	31	0.258	0.108	-0.539	not SSIOBL
Copper	61	0.115	7	54	30	0.100	31	0.129	0.082	-0.356	not SSIOBL
Zinc	61	0.311	19	42	30	0.333	31	0.290	0.119	0.363	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 dowgradient 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 A

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

DATE COLLECTED: 04/21/09
DATE REPORTED : 05/11/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	SW-1	SW-2	SW-3	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.9	6.1	5.9	04/21/09	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	0.2 J	--- U	--- U	04/28/09	CMF	EPA200.8
Arsenic, ug/l	0.17	10.0	21	1.5 J	2.1 J	04/28/09	CMF	EPA200.8
Barium, ug/l	0.04	100.0	222	28.3 J	36.0 J	04/28/09	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.5 J	--- U	--- U	04/28/09	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.7 J	0.2 J	--- U	04/28/09	CMF	EPA200.8
Cobalt, ug/l	0.02	10.0	37	0.4 J	1.0 J	04/28/09	CMF	EPA200.8
Copper, ug/l	0.04	10.0	15	4.5 J	2.9 J	04/28/09	CMF	EPA200.8
Total Chromium, ug/l	0.10	10.0	11	0.6 J	0.6 J	04/28/09	CMF	EPA200.8
Lead, ug/l	0.04	10.0	29	0.6 J	0.6 J	04/28/09	CMF	EPA200.8
Nickel, ug/l	0.04	50.0	5.3 J	1.0 J	1.2 J	04/28/09	CMF	EPA200.8
Selenium, ug/l	0.12	10.0	1.4 J	0.2 J	0.3 J	04/28/09	CMF	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.1 J	--- U	04/28/09	CMF	EPA200.8
Thallium, ug/l	0.03	5.0	0.2 J	--- U	--- U	04/28/09	CMF	EPA200.8
Vanadium, ug/l	0.28	25.0	39	2.5 J	2.3 J	04/28/09	CMF	EPA200.8
Zinc, ug/l	0.14	10.0	73	10	8.0 J	04/28/09	CMF	EPA200.8
Turbidity, NTU	1.0	1.0	600	18	19	04/21/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	96	95	93	04/21/09	RJH	SM2510B
Temperature, °C			20	19	20	04/21/09	RJH	SM2550B

J = Between MDL and SWSL, U = Below ALL Quanititation 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

REVIEWED BY:

CLIENT ID: 6040 A

ANALYST: MAO
DATE COLLECTED: 04/21/09
DATE ANALYZED: 04/29/09
DATE REPORTED: 05/11/09

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	SW-1	SW-2	SW-3
1. Chloromethane	0.18	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.80 J	1.80 J	2.40 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	1.70 J	1.20 J	1.50 J
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	0.50 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 A **Week:** 18

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION													
pH CHECK (LAB)							L2				L2	L2	L2	L2
CONTAINER TYPE, P/G						P	P	P	P	P	G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A	E	E	E
SW-1	04/21/09	1220		20	6	☐	☐	☐	☐	☐	☐	☐	☐
SW-2	04/21/09	1105		19	5	☐	☐	☐	☐	☐	☐	☐	
SW-3	04/21/09	1020		20	5	☐	☐	☐	☐	☐	☐	☐	

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY: (Please Print) B Cage / Fox

SAMPLES RECEIVED IN LAB AT 0.6 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Cage	04/21/09 3:05	B Jeff	4/21/09 3:05
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 179613

FORM #5

Environment 1, Incorporated

Drinking Water ID: 37016
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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	Piezometer SWSL #41S	Piezometer #44S	Piezometer #44D	Piezometer #46D	Piezometer #47S	Analysis Date	Analyst	Method Code
Static Water Level, feet		14.77	2.81	10.79	27.87	5.98	04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	Piezometer #47D	Piezometer #48S	Pizeometer #50	Piezometer #51	Piezometer #52	Analysis Date	Analyst	Method Code
Static Water Level, feet			26.55	14.95	15.15	10.67	18.70	04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	Piezometer #53	GP-24-W	GP-25-W	GP-27-W	GP-28-W	Analysis Date	Analyst	Method Code
Static Water Level, feet			16.68	8.30	8.22	14.81	11.00	04/22/09	RJH	

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

Environment 1, Incorporated

Drinking Water ID: 27715
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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	GP-30-W	GP-31-W	GP-33-W	GP-34-W	GP-35-W	Analysis Date	Analyst	Method Code
Static Water Level, feet			14.26	7.34	18.65	15.61	4.01	04/22/09	RJH	

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

Environment 1, Incorporated

Drinking Water ID: 37215
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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	GP-36-W	GP-37-W	GP-38-W	Analysis Date	Analyst	Method Code
Static Water Level, feet			17.62	8.57	15.84	04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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 E

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE REPORTED: 05/18/09

Page: 1

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Date Analyzed: 05/06/09 Piezometer #41S	05/05/09 GP-25-W	05/06/09 GP-30-W	05/06/09 GP-37-W	05/06/09 GP-38-W
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	1.30	0.40 J	--- U	--- U	1.70
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	0.50 J	--- U	--- U	1.10 J
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	5.10 J	3.10 J	--- U	1.30 J	1.30 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	0.30 J
10. Methylene Chloride	0.14	1.0	1.80	1.40	--- U	0.20 J	0.50 J
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	1.10 J	2.90 J	--- U	4.60 J	1.50 J
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	0.80 J	0.20 J	--- U	--- U	18.10
15. 2-Butanone	0.85	100.0	--- U	1.70 J	--- U	1.10 J	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	0.60 J	--- U	--- U	--- U	3.40
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	0.40 J	0.40 J	--- U	--- U	2.60
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	0.60 J	0.60 J	--- U	0.40 J	1.00
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	0.50 J
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 E **Week: 18**

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
							L2	L2	L2
						G	G	G	G
						E	E	E	E
Piezometer #41S	04 22 09	0940			4	G	G	G	G
Piezometer #44S	04 22 09				1	G			
Piezometer #44D	04 22 09				1	G			
Piezometer #46D	04 22 09				1	G			
Piezometer #47S	04 22 09				1	G			
Piezometer #47D	04 22 09				1	G			
Piezometer #48S	04 22 09				1	G			
Pizeometer #50	04 22 09				1	G			
Piezometer #51	04 22 09				1	G			
Piezometer #52	04 22 09				1	G			
Piezometer #53	04 22 09				1	G			

PARAMETERS	CHLORINE NEUTRALIZED AT COLLECTION	pH CHECK (LAB)	CONTAINER TYPE, P/G	CHEMICAL PRESERVATION

A - NONE, B - HNO_3, C - H_2SO_4, D - NAOH, E - HCL, F - ZINC ACETATE, G - NA THIOSULFATE

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Lopez / Fat

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Lopez	04 22 09 1:54	B Fat	4/22 1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

FORM #5

№ 179609

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 E **Week: 18**

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																				
pH CHECK (LAB)				L2	L2	L2														
CONTAINER TYPE, P/G				G	G	G														
CHEMICAL PRESERVATION				E	E	E														
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2											
GP-24-W	04 22 09				1	G														
GP-25-W	04 22 09	0850			3	C	C	C												
GP-27-W	04 22 09				1	C														
GP-28-W	04 22 09				1	C														
GP-30-W	04 22 09	0935			3	C	C	C												
GP-31-W	04 22 09				1	C														
GP-33-W	04 22 09				1	C														
GP-34-W	04 22 09				1	C														
GP-35-W	04 22 09				1	C														
GP-36-W	04 22 09				1	C														
GP-37-W	04 22 09	0855			3	C	C	C												

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Hagoe for

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob Hagoe	04 22 09 1:54	[signature]	4/22 1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 179608

FORM #5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 E **Week: 18**

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

(919) 233-0407

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
							1	2	2
							G	G	G
							E	E	E
GP-38-W	04/22/09	0840			3	G	G	G	

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

A - NONE
B - HNO_3
C - H_2SO_4
D - NAOH
E - HCL
F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [X] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY:
(Please Print)
W. Lopez / Bob

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob W. Lopez	04/22/09 1:54	[signature]	4/22/1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 179607

FORM #5

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 B

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

DATE COLLECTED: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY: _____

PARAMETERS	MDL	SWSL	MW-1	MW-2	MW-3R	MW-4	MW-5	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.4	4.4	5.1	4.3	6.0	04/22/09	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	0.2 J	0.1 J	0.1 J	0.4 J	0.1 J	04/30/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	0.2 J	0.2 J	0.3 J	0.4 J	--- U	04/30/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	32.3 J	57.9 J	107	76.8 J	129	04/30/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.8 J	1.9	2.7	2.9	0.2 J	04/30/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.2 J	0.1 J	0.3 J	0.3 J	04/30/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.6 J	1.4 J	3 J	2.3 J	1.9 J	04/30/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	0.5 J	1.3 J	1.2 J	1.5 J	1.1 J	04/30/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	--- U	--- U	0.5 J	--- U	--- U	04/30/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.1 J	0.8 J	0.8 J	0.4 J	0.2 J	04/30/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	0.6 J	1.6 J	3.2 J	2.4 J	2.1 J	04/30/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U	0.3 J	--- U	0.7 J	--- U	04/30/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.1 J	--- U	0.1 J	--- U	04/30/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	0.1 J	0.1 J	--- U	0.1 J	--- U	04/30/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	0.8 J	1.8 J	2.2 J	0.7 J	1 J	04/30/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	2.3 J	9.6 J	16	16	7.7 J	04/30/09	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	9.4	38	27	8.9	27	04/22/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	57	87	127	63	156	04/22/09	RJH	SM2510B
Temperature, °C			16	16	15	15	16	04/22/09	RJH	SM2550B
Static Water Level, feet			25.33	15.42	4.60	1.65	12.89	04/22/09	RJH	
Well Depth, feet			65.18	30.21	25.12	20.21	40.14	04/22/09	RJH	
Water Bailed, Gals.			19.2	6.9	9.6	8.7	12.9	04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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 B

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

DATE COLLECTED: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-6	MW-7B	MW-8	MW-9	MW-10	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.1	5.4	4.2	5.0	5.9	04/22/09	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	0.1 J	0.1 J	--- U	0.1 J	0.3 J	04/30/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	1.6 J	2.9 J	0.2 J	5.4 J	16	04/30/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	118	626	123	105	83.9 J	04/30/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.2 J	0.1 J	0.8 J	0.2 J	--- U	04/30/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.4 J	0.1 J	0.2 J	0.3 J	0.1 J	04/30/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	20	24	2 J	1.5 J	3.7 J	04/30/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	3.2 J	4.1 J	1.9 J	4.9 J	15	04/30/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	1.2 J	--- U	--- U	3 J	1.1 J	04/30/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	9.3 J	15	1.3 J	1.5 J	2.1 J	04/30/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	1.9 J	2 J	2.4 J	2.5 J	4.4 J	04/30/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	1.3 J	0.3 J	0.7 J	1 J	1.3 J	04/30/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.1 J	0.1 J	--- U	0.1 J	04/30/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	0.2 J	2.2 J	--- U	0.1 J	--- U	04/30/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	5.6 J	1.4 J	0.9 J	6.1 J	5.2 J	04/30/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	9.7 J	4.4 J	19	9 J	10	04/30/09	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	75	28	6.8	130	100	04/22/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	201	289	115	226	631	04/22/09	RJH	SM2510B
Temperature, °C			15	17	16	16	16	04/22/09	RJH	SM2550B
Static Water Level, feet			15.01	24.44	15.79	24.72	19.73	04/22/09	RJH	
Well Depth, feet			19.34	30.23	25.22	32.74	26.30	04/22/09	RJH	
Water Bailed, Gals.			2.1	2.4	4.5	3.9	3.0	04/22/09	RJH	

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

Environment 1, Incorporated

Drinking Water ID: 37915
Wastewater ID: 10

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

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FAX (252) 756-0633

ID#: 6040 B

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

DATE COLLECTED: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-31	Trip Blank	Equipment Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.9			04/22/09	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	--- U		--- U	04/30/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	0.9 J		--- U	04/30/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	10 J		0.1 J	04/30/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J		--- U	04/30/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J		--- U	04/30/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.2 J		--- U	04/30/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	2 J		0.6 J	04/30/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	2.4 J		--- U	04/30/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	2.3 J		--- U	04/30/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	0.4 J		0.7 J	04/30/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U		--- U	04/30/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U		0.1 J	04/30/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	--- U		--- U	04/30/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	6.2 J		0.9 J	04/30/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	3.3 J		1.3 J	04/30/09	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	150			04/22/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	25			04/22/09	RJH	SM2510B
Temperature, °C			18			04/22/09	RJH	SM2550B
Static Water Level, feet			22.49			04/22/09	RJH	
Well Depth, feet			39.33			04/22/09	RJH	
Water Bailed, Gals.			7.8			04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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 B

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE REPORTED: 05/18/09

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	04/29/09 MW-1	04/29/09 MW-2	04/29/09 MW-3R	04/29/09 MW-4	04/29/09 MW-5
Date Analyzed:							
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	--- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	0.30 J	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	0.20 J	--- U	--- U	--- U	0.30 J
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37728
Wastewater ID: 10

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

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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 B

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE REPORTED: 05/18/09

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	04/29/09 MW-6	04/29/09 MW-7B	04/29/09 MW-8	04/29/09 MW-9	04/29/09 MW-10
Date Analyzed:			04/29/09	04/29/09	04/29/09	04/29/09	04/29/09
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	2.60	4.30	1.30	6.40	3.90
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	6.70 J	2.10 J	6.00 J	2.30 J
5. Trichlorofluoromethane	0.13	1.0	--- U	1.10	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	2.90 J	0.30 J	--- U	--- U
7. Acetone	1.21	100.0	1.80 J	30.40 J	2.20 J	67.60 J	2340.00
8. Iodomethane	0.12	10.0	0.40 J	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	1.50	80.90	32.50	53.20	10.00
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	0.20 J	--- U
12. 1,1-Dichloroethane	0.16	5.0	2.50 J	114.00	32.00	43.30	5.80
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	12.50	8.10	17.30	10.70	27.40
15. 2-Butanone	0.85	100.0	1.00 J	1.40 J	--- U	1.50 J	91.80 J
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	0.20 J	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	0.40 J	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	2.40	4.60	2.60	8.10	7.00
21. 1,2-Dichloroethane	0.12	1.0	--- U	0.20 J	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	2.30	7.80	41.10	2.90	1.10
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	1.20 J
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	6.00
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	1.80	3.30	5.70	1.40	0.50 J
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	1.90 J
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	0.20 J	4.00	0.30 J	11.20	3.60
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	0.70 J	3.50 J	--- U	2.80 J	4.50 J
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	4.70	1.40	1.70	1.60	3.00
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	0.30 J	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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MR. JERRY BLANCHARD, MANAGER
900 SOUTH 9TH STREET
LILLINGTON, NC 27546

CLIENT ID: 6040 B

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE REPORTED: 05/18/09

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	04/29/09 MW-31	05/05/09 Trip Blank	05/05/09 Equipment Blank
	Date Analyzed:				
1. Chloromethane	0.18	1.0	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.40 J	--- U	1.30 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	1.40 J	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 B **Week:** 18

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

																						CHLORINE NEUTRALIZED AT COLLECTION
												12			12	12	12					pH CHECK (LAB)
												P	P	P	P	P		G	G	G		CONTAINER TYPE, P/G
												A	A	A	A	A		E	E	E		CHEMICAL PRESERVATION
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2								PARAMETERS
MW-1	04 22 09	1010		16	6	G	G	G	G	G	G	G	G	G								
MW-2	04 22 09	1015		16	5	G	G	G	G	G	G	G	G									
MW-3R	04 22 09	1025		15	5	G	G	G	G	G	G	G	G									
MW-4	04 22 09	1030		15	5	G	G	G	G	G	G	G	G									
MW-5	04 22 09	1035		16	5	G	G	G	G	G	G	G	G									
MW-6	04 22 09	1000		15	5	G	G	G	G	G	G	G	G									
MW-7B	04 22 09	0955		17	5	G	G	G	G	G	G	G	G									
MW-8	04 22 09	0845		16	5	G	G	G	G	G	G	G	G									
MW-9	04 22 09	0950		16	5	G	G	G	G	G	G	G	G									
MW-10	04 22 09	0945		16	5	G	G	G	G	G	G	G	G									
MW-31	04 22 09	1130		18	6	G	G	G	G	G	G	G	G	G								

A - NONE, B - HNO_3, C - H_2SO_4, D - NAOH, E - HCL, F - ZINC ACETATE, G - NA THIOSULFATE

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) N Hogue / Fox

SAMPLES RECEIVED IN LAB AT 0 2°C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob Hogue	04 22 09 1:54	B	4/22 1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 179612

FORM #5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 B Week: 18

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE mg/l AT COLLECTION	TEMPERATURE °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							12					12	12	
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
Trip Blank					2							■	■	
Equipment Blank	04 22 09				3		■					■	■	

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: ✓ Y N

SAMPLES COLLECTED BY: (Please Print) H Page / FOT

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob Hagge	042209 1:54	B	4/22 1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

FORM #5

№ 179611

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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-16	MW23-B	MW-32	MW-33	MW-34	Analysis Date	Analyst	Method Code
PH (field measurement), Units			6.0	5.0	5.5	4.6	5.3	04/22/09	RJH	SM4500HB
Arsenic, ug/l	0.17	10.0	--- U	--- U	1 J	0.3 J	--- U	04/30/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	80.5 J	75.4 J	59.2 J	70 J	48.1 J	04/30/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	0.1 J	0.2 J	0.2 J	0.3 J	04/30/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	--- U	--- U	5 J	--- U	--- U	04/30/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.3 J	0.4 J	8.2 J	0.4 J	0.1 J	04/30/09	LFJ	EPA200.8
Mercury, ug/l	0.03	0.20	0.05 J	--- U	--- U	--- U	--- U	04/30/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	0.3 J	--- U	0.4 J	--- U	0.2 J	04/30/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	--- U	0.1 J	--- U	--- U	04/30/09	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	13	21	950	11	13	04/22/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	264	40	45	73	78	04/22/09	RJH	SM2510B
Temperature, °C			15	14	15	15	15	04/22/09	RJH	SM2550B
Static Water Level, feet			8.33	5.65	5.31	8.30	4.52	04/22/09	RJH	
Well Depth, feet			45.23	24.55	24.55	26.43	40.23	04/22/09	RJH	
Water Bailed, Gals.			17.7	8.7	9.3	8.7	17.4	04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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

ID#: 6040 C

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

DATE COLLECTED: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-35	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.3	04/22/09	RJH	SM4500HB
Arsenic, ug/l	0.17	10.0	0.8 J	04/30/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	179	04/30/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.2 J	04/30/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	1.2 J	04/30/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	1.3 J	04/30/09	LFJ	EPA200.8
Mercury, ug/l	0.03	0.20	--- U	04/30/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	0.8 J	04/30/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	04/30/09	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	100	04/22/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	302	04/22/09	RJH	SM2510B
Temperature, °C			14	04/22/09	RJH	SM2550B
Static Water Level, feet			5.99	04/22/09	RJH	
Well Depth, feet			22.15	04/22/09	RJH	
Water Bailed, Gals.			7.8	04/22/09	RJH	

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

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

REVIEWED BY:

CLIENT ID: 6040 C

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE ANALYZED: 05/05/09
DATE REPORTED: 05/18/09

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-16	MW23-B	MW-32	MW-33	MW-34
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	7.10 J	--- U	--- U	--- U	--- U
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	0.30 J	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	0.50 J	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	1.20 J	--- U
15. 2-Butanone	0.85	100.0	--- U	1.00 J	0.90 J	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation 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 C

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE ANALYZED: 05/05/09
DATE REPORTED: 05/18/09

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-35
1. Chloromethane	0.18	1.0	--- U
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	--- U
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	50.0	--- U
14. Cis-1,2-Dichloroethene	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 Quanititation Limits.

Environment 1, Inc.
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Greenville, NC 27858

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 C **Week: 18**

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							<2					<2	<2	<2
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
MW-16	04 22 09	1055		15	6	G	G	G	G	G	G	G	G	G
MW23-B	04 22 09	0920		14	5	G	G	G	G	G	G	G	G	
MW-32	04 22 09	1045		15	5	G	G	G	G	G	G	G	G	
MW-33	04 22 09	1110		15	5	G	G	G	G	G	G	G	G	
MW-34	04 22 09	1115		15	5	G	G	G	G	G	G	G	G	
MW-35	04 22 09	1100		14	5	G	G	G	G	G	G	G	G	

PARAMETERS: A - NONE; B - HNO_3; C - H_2SO_4; D - NAOH; E - HCL; F - ZINC ACETATE; G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Rogoe / Fox

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Rogoe	04 22 09 1:54	B	4/22 1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 179610

FORM #5

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: 04/22/09
DATE REPORTED : 05/18/09

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-11	MW-12	MW-13	MW-14	MW-15	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.8	4.8	6.0	5.4	5.3	04/22/09	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	--- U	--- U				04/30/09	LFJ	EPA200.8
Antimony, ug/l	0.06	6.0			0.1 J	--- U	--- U	05/08/09	CMF	EPA200.8
Arsenic, ug/l	0.17	10.0	0.3 J	0.6 J				04/30/09	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0			0.5 J	0.4 J	0.58 J	05/08/09	CMF	EPA200.8
Barium, ug/l	0.04	100.0	49.4 J	69 J				04/30/09	LFJ	EPA200.8
Barium, ug/l	0.04	100.0			66.6 J	53.4 J	23.5 J	05/08/09	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.3 J	3.5				04/30/09	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0			0.2 J	1	--- U	05/08/09	CMF	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.2 J				04/30/09	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0			0.1 J	0.1 J	0.2 J	05/08/09	CMF	EPA200.8
Cobalt, ug/l	0.02	10.0	0.6 J	1.2 J				04/30/09	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0			1.0 J	0.8 J	0.5 J	05/08/09	CMF	EPA200.8
Copper, ug/l	0.04	10.0	2.7 J	6.9 J				04/30/09	LFJ	EPA200.8
Copper, ug/l	0.04	10.0			0.5 J	3.2 J	1.0 J	05/08/09	CMF	EPA200.8
Total Chromium, ug/l	0.10	10.0	2.7 J	2 J				04/30/09	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0			--- U	0.7 J	--- U	05/08/09	CMF	EPA200.8
Lead, ug/l	0.04	10.0	3.8 J	6.6 J				04/30/09	LFJ	EPA200.8
Lead, ug/l	0.04	10.0			--- U	1.8 J	0.1 J	05/08/09	CMF	EPA200.8
Nickel, ug/l	0.04	50.0	1.4 J	1.9 J				04/30/09	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0			1.0 J	1.6 J	0.5 J	05/08/09	CMF	EPA200.8
Selenium, ug/l	0.12	10.0	0.5 J	0.2 J				04/30/09	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0			0.3 J	0.2 J	--- U	05/08/09	CMF	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.1 J				04/30/09	LFJ	EPA200.8
Silver, ug/l	0.04	10.0			--- U	--- U	--- U	05/08/09	CMF	EPA200.8
Thallium, ug/l	0.03	5.0	0.1 J	--- U				04/30/09	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0			0.1 J	0.1 J	0.1 J	05/08/09	CMF	EPA200.8
Vanadium, ug/l	0.28	25.0	6.1 J	8 J				04/30/09	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0			1.9 J	5.9 J	2.2 J	05/08/09	CMF	EPA200.8
Zinc, ug/l	0.14	10.0	9.1 J	15				04/30/09	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0			4.0 J	8.5 J	3.8 J	05/08/09	CMF	EPA200.8
Turbidity, NTU	1.0	1.0	120	500	13	80	57	04/22/09	MJN	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	62	72	118	126	52	04/22/09	RJH	SM2510B
Temperature, °C			15	15	16	16	14	04/22/09	RJH	SM2550B
Static Water Level, feet			18.08	4.68	24.61	7.49	9.11	04/22/09	RJH	
Well Depth, feet			27.60	22.25	50.51	29.92	14.24	04/22/09	RJH	
Water Bailed, Gals.			4.5	8.4	12.6	10.5	2.4	04/22/09	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation 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

REVIEWED BY:

CLIENT ID: 6040 F

ANALYST: MAO
DATE COLLECTED: 04/22/09
DATE ANALYZED: 05/05/09
DATE REPORTED: 05/18/09

Page: 1

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	MW-11	MW-12	MW-13	MW-14	MW-15
1. Chloromethane	0.18	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	1.40 J	--- U	--- U	--- U	1.70 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	1.20 J	--- U	--- U	--- U	1.00 J
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	--- U	--- U	--- U	11.60
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U	--- U	--- U

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

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6040 F **Week: 18**

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

(919) 233-0407

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
CHLORINE NEUTRALIZED AT COLLECTION														
pH CHECK (LAB)							12					12	12	12
CONTAINER TYPE, P/G						P	P	P	P	P		G	G	G
CHEMICAL PRESERVATION						A	A	A	A	A		E	E	E
MW-11	04/22/09	0930		15	6	G	G	G	G	G	G	G	G	G
MW-12	04/22/09	0915		15	5	G	G	G	G	G	G	G	G	
MW-13	04/22/09	0925		16	5	G	G	G	G	G	G	G	G	
MW-14	04/22/09	0905		16	5	G	G	G	G	G	G	G	G	
MW-15	04/22/09	0900		14	5	G	G	G	G	G	G	G	G	

PARAMETERS

A - NONE
B - HNO_3
C - H_2SO_4
D - NAOH
E - HCL
F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: (Y) N

SAMPLES COLLECTED BY: (Please Print) H Hage / Fat

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Hage	04/22/09 1:54	[illegible]	4/22 1:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 179606

FORM #5

SURFACE WATER SAMPLING LOCATION #1

MW-2

MW-3R

MW-4

MW-5

MW-1

FACILITY BOUNDARY

MAINTENANCE BUILDING

SCALE HOUSE

MW-31

GP 36-W

GP 29

MW 8

MW 7B

GP 38

MSW TRANSFER STATION

PZ 46S

PZ 46D

MW 9

MW 10

PZ 41S

GP 34-W

GP 30-W

GP 36-W

GP 21

GP 27-W

GP 33-W

PZ-50

PZ 40S ESTIMATED (DESTROYED)

PZ-51

GP 23

GP 25-W

GP 25-W

GP 31-W

GP 24-W

PZ 48S

GP 37-W

PZ 47S

PZ 47D

MW-11

MW-12

MW 35

PZ-53

PZ 43 ESTIMATED (DESTROYED)

PZ 44S

PZ 44D

MW-15

MW-13

PZ-52

MW-14

MW 23

PZ 42S

MW 16

SAMPLING LOCATION SURFACE WATER

MATCH LINE

TRACT 1

LEGEND

GP 26 — GEOPROBE BORING (NO WELL INSTALLED)

PZ 46S — EXISTING PIEZOMETER

MW 9 — EXISTING MONITORING WELL

GRAPHIC SCALE

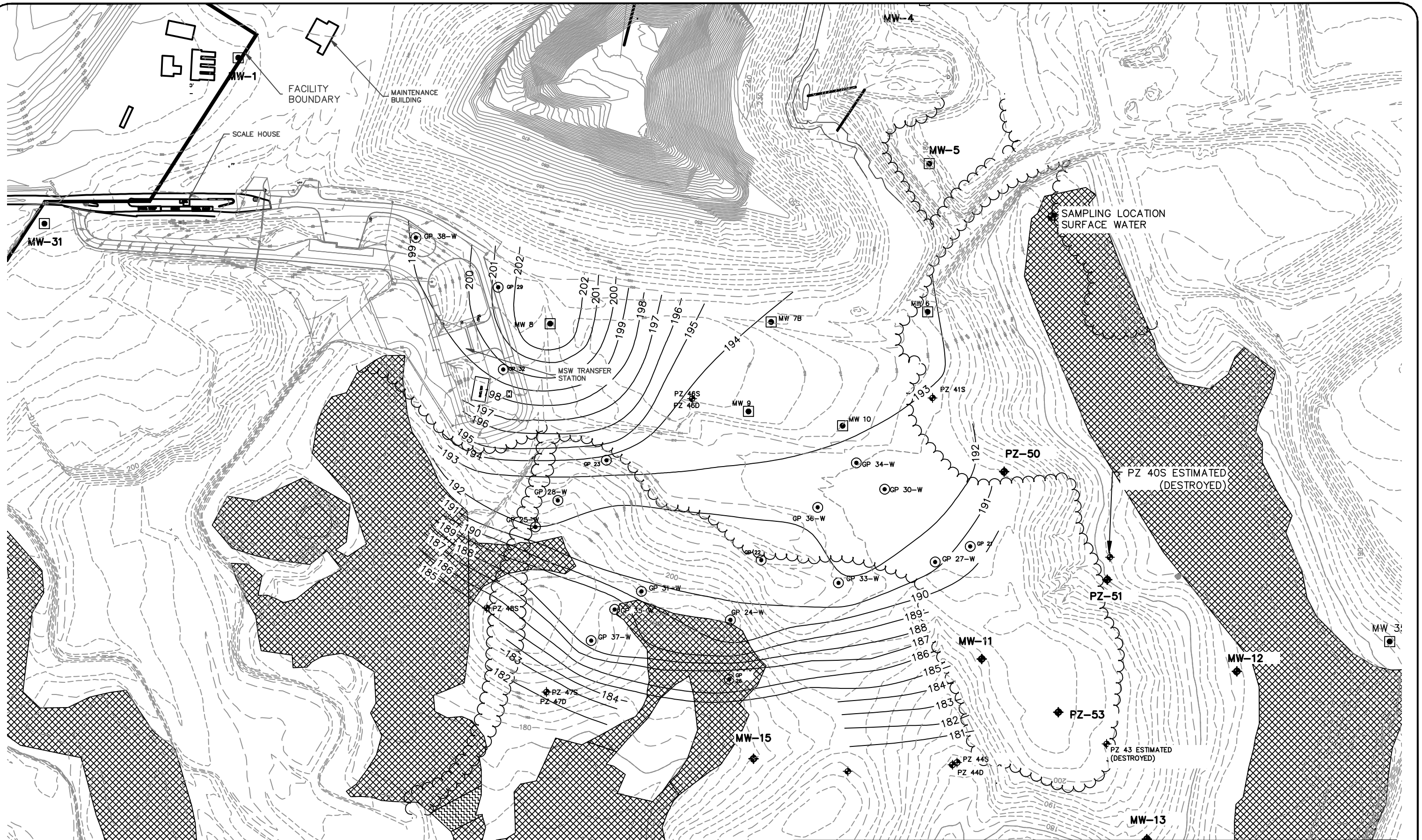
300 150 0 300

(300 IN FEET)

Clayton, Sr., P.E., Inc.
CIVIL & ENVIRONMENTAL ENGINEERING
POST OFFICE BOX 579
COATS, NORTH CAROLINA 27521
PHONE 910-897-7870 FAX: 910-897-5757
MOBILE: 919 795-5302 (Tyree) Email: tyree@claytonsr.com

DUNN-ERWIN LANDFILL
HARNETT COUNTY, NC.

Date: 9/03/2009		Sheet Title: LANDFILL LAYOUT	
Project #: 03002			
Drawn By: SBK	Scale: 1" = 300'		Sheet 2A
Designed By: RS	Proj. Eng.: RS		
Checked By: RS	File Name: 03002B.Mas		



LEGEND

GP 26	GEOPROBE BORING (NO WELL INSTALLED)	MW 9	EXISTING MONITORING WELL
PZ 46S	EXISTING PIEZOMETER	190	AVERAGE GRONDWATER CONTOURS

Clayton, Sr., P.E., Inc.
CIVIL & ENVIRONMENTAL ENGINEERING
POST OFFICE BOX 579
COATS, NORTH CAROLINA 27521
PHONE 919-897-7070 FAX: 919-897-5757
MOBILE: 919 795-5352 (Tyron) Email: tyron@claytonpe.com

DUNN-ERWIN LANDFILL
HARNETT COUNTY, NC.

Date: 9/03/2009		Sheet Title: LANDFILL LAYOUT GROUNDWATER CONTOURS	
Project # 03002			
Drawn By: SBK		Scale: 1" = 200'	Sheet 1
Designed By: RS		Proj. Eng.: RS	
Checked By: RS		File Name: 03002B.Map	

LEGEND

GP 26	GEOPROBE BORING (NO WELL INSTALLED)
PZ 46S	EXISTING PIEZOMETER
MW 9	EXISTING MONITORING WELL

GRAPHIC SCALE

300 150 0 300

(300 IN FEET)

Clayton, Sr., P.E., Inc.
CIVIL & ENVIRONMENTAL ENGINEERING
POST OFFICE BOX 578
COATS, NORTH CAROLINA 27521
PHONE 910-897-7070 FAX: 910-897-5757
MOBILE: 919 795-5352 (Tyson) Email: tyson@claytonpe.com

DUNN-ERWIN LANDFILL
HARNETT COUNTY, NC.

Date: 9/03/2009		Sheet Title: LANDFILL LAYOUT	
Project #: 03002			
Drawn By: SBK		Scale: 1" = 300'	Sheet: 2B
Designed By: RS		Proj. Eng.: RS	
Checked By: RS		File Name: 03002B Map	