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SEMI-ANNUAL GROUNDWATER MONITORING REPORT
SEPTEMBER 2004 SAMPLING EVENT
BASE LANDFILL
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

CONTRACT N62470-03-D-4007
TASK ORDER 0019

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ACRONYMS AND ABBREVIATIONS

Baker	Baker Environmental, Inc.
CRQL	Contract Required Quantitation Limits
EPA	United States Environmental Protection Agency
ft/day	feet per day
ft/ft	feet per foot
LANTDIV	Naval Facilities Engineering Command, Atlantic Division
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
msl	mean sea level
NAPR	Naval Activity Puerto Rico
PREQB	Puerto Rico Environmental Quality Board
PVC	polyvinyl chloride
QA	Quality Assurance
RBC	Risk Based Concentration
SAP	Sampling and Analysis Plan
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This Semi-Annual Groundwater Monitoring Report has been prepared by Baker Environmental, Inc. (Baker) under Cape Environmental, Inc. Task Order 19 to contract N62470-03-D-4007, Indefinite Quantity Contract for Environmental Services for Naval Activities under the Atlantic Division, Naval Facilities Engineering Command (LANTDIV). This report has been prepared to present results of the September 2004 Semi-Annual Groundwater Monitoring Sampling at Naval Activity Puerto Rico (NAPR) Solid Waste Landfill.

At the present time, the LANTDIV is anticipating closure of the active areas of the landfill during 2005. A Closure Plan and Remedial Action Work Plan were submitted to the Puerto Rico Environmental Quality Board (PREQB) and the United States Environmental Protection Agency (EPA) in December 2004 (Shaw Environmental, 2004).

1.1 Purpose of Sampling

The Solid Waste Landfill Facility at NAPR has been in operation since the mid- 1960s on approximately 85 acres of land in the southeastern area of the base. The active landfill is approximately 30 acres and is located within the limits of the inactive 85-acre landfill. It is positioned on a peninsula bounded by Ensenada Honda to the west and Puerca Bay to the south and east. A site map is provided in Figure 1-1.

Continued use of this landfill required implementation of a Groundwater Sampling and Analysis Plan (SAP). Monitor wells were installed and background sampling at the facility was performed from June 1998 through August 2000 in nine wells. These results were presented in the Background Groundwater Monitoring Report submitted by Burns and McDonnell (2001).

Subsequent to the background sampling events, replacement of six wells was performed by Baker to restore the integrity of the wells for compliance sampling. Three existing wells were retained for compliance sampling including R7GW09, R7GW10, and R7GW11. Five rounds of semi-annual compliance sampling have been performed on these wells (new and existing) in March 2002, September 2002, March 2003, September 2003, and March 2004 with results presented in the Draft Semi-Annual Groundwater Monitoring Reports (Baker, 2002, 2003a, 2003b, 2004a, 2004b). The sixth round of semi-annual compliance sampling was performed on all nine monitor wells in September 2004 with results provided in this document.

1.2 Background Concentrations

Prior to the initiation of compliance round sampling, the background groundwater concentrations of parameters on the Appendix I volatile organic compounds (VOCs) and metals lists were to be established through the results of four sampling events. Although four sampling events occurred during background sampling, results for some analytes on the Appendix I lists were not obtained during these sampling events. At the completion of the September 2002 compliance sampling round, there were four concentration results for all Appendix I analytes, both volatile organic compounds and metals, at each well. Recommendations were made in previous reports to include subsequent compliance round results for those particular analytes in the background data set. In the March 2003 Monitoring Report, a final discussion of the background groundwater quality data and related statistics was included (Baker, 2003b). Appendix A contains the complete background groundwater quality statistics for the landfill facility. Comparison of current analytical results to background groundwater quality will be done in Section 3.0.

1.3 Report Organization

The report is organized into five sections including this introduction. Section 2 describes the monitoring activities while Section 3 provides the results of the groundwater monitoring event. This section also includes a discussion of the results relative to background data and other comparison criteria. Section 4 provides conclusions and recommendations. Lastly, Section 5 consists of the references.

2.0 MONITORING ACTIVITIES

2.1 Groundwater Sampling

The sampling event for the semi-annual groundwater monitoring at the Solid Waste Landfill Facility occurred September 30, 2004. Nine monitor wells were sampled, and the groundwater samples were sent to a fixed-base laboratory to be analyzed for Appendix I Compounds, including VOCs and metals compounds. A list of these compounds and the analytical methods used along with the contract required quantitation limits (CRQL) are presented in Table 2-1. Chain of custody records for this investigation are presented in Appendix B.

Field parameters were obtained and sampling occurred according to the procedures listed in the SAP (Burns and McDonnell, 1999). Specifically, measurements of temperature, pH, and specific conductivity, were obtained. Meters were calibrated twice daily, including prior to and following the day's sampling. The results of the field analyses are presented in Table 2-2. Flow rates used during stabilization were approximately 0.2 – 0.3 Liters/minute.

No deviations from the sampling plan were made. All field notes are given in Appendix C.

2.2 Groundwater Flow

The groundwater elevations at the Solid Waste Landfill Facility were collected on September 30, October 1, and October 6, 2004. Table 2-3 shows a summary of the groundwater elevation information from these three rounds. It should be noted that the datum used is the mean sea level (msl) + 100 feet.

Figures 2-1 and 2-2 depict the groundwater elevations from September 30 and October 6, 2004 in the form of contours on a site map. (The elevations from the October 1, 2004, readings were considered to be unreliable due to the removal of groundwater from the formation from the prior day's sampling activities.) The contours were developed numerically using the natural neighbor algorithm with a gradient nodal function interpolation scheme. Control points were not used. Some modifications of the contour lines were done manually.

The groundwater elevations from this sampling event were the highest recorded since the inception of the semi-annual sampling program. This phenomenon is likely a side effect of the 2004 hurricane season. As shown, the highest groundwater elevation is located at R7GW11. This is to be expected because this well is located the furthest inland. Consistent highs at this location have been seen throughout the background and compliance sampling events, although this is the highest groundwater elevation ever noted. Another local groundwater high is seen at R7GW01R, near the Forrestal Wastewater Treatment Plant. This well is also at an inland location. Radial groundwater flow occurs from this location toward the coasts in the west, south, and east directions. Another local high was seen at replacement well R2GW07R2. This groundwater elevation was approximately 3 to 4 feet above sea level even though the well is located close to Puerca Bay. The groundwater elevation at this replacement well continues to be higher than in the former well (R7GW07R). A potential reason for the newer well exhibiting higher groundwater levels is that it may be situated in a more conductive zone than the older well. Prior sampling at the older well resulted in the older well going dry several times. The newer well has not gone dry during sampling during the two sampling events. Because of this local high at R7GW07R2, there is a fairly large area of the landfill where the groundwater levels indicate little or no flow, including a slight flow from the coast inward in the area of this well. It is recommended that groundwater elevations be compared to these results in future semi-annual monitoring events to determine if these elevations continue to be high.

As shown in Figure 2-2, only one groundwater elevation was slightly below sea level during this sampling event. The tidal fluctuations on the coast have been masked by the influx of rainfall from the hurricane season. Only R7GW05R had groundwater elevation slightly below sea level.

Three groundwater gradients were calculated from the contour drawings of the piezometric surface. The locations where the gradients were calculated from are also shown on Figures 2-1 and 2-2. Table 2-4 shows the summary of gradients calculated from these drawings. Also shown is the calculated groundwater velocity for each gradient. The equation used to calculate the groundwater velocity is the Darcy equation:

$$V = Ki/n$$

Where: V = average linear groundwater velocity [feet per day (ft/day)]

K = average hydraulic conductivity (ft/day)

i = hydraulic gradient [feet per foot (ft/ft)]

n = effective porosity

The hydraulic conductivity was assumed to be 0.945 ft/day as determined from Burns and McDonnell hydraulic conductivity testing, and the porosity was assumed to be 0.3 (Burns and McDonnell, 2001). Based on these assumptions, the average groundwater velocities at the Solid Waste Landfill Facility ranged from 0.0079 to 0.0158 ft/day during the semi-annual monitoring investigation. The composite average groundwater velocity at this site was 0.0122 ft/day. The average groundwater velocity at the site was approximately 70 percent higher than during the March 2004 sampling event (Baker, 2004b).

2.3 Field Observations

Total depths of the wells varied slightly from the previous round as indicated in Appendix C. When the sampling effort was completed, the metal casing of each well was secured with plastic zip ties per directive from the NAPR Public Works Department. Well R7GW11 was not secured with a plastic zip tie because it is a flush mount well secured with bolts.

3.0 RESULTS OF GROUNDWATER MONITORING EVENT

The results of the Appendix I analyses are given in Table 3-1. Only compounds with positive detections are given in this table. Appendix D contains the complete set of validated Appendix I analyses results. Appendix E contains the certification from a Puerto Rican chemist, along with copies of the raw laboratory analytical summary results.

3.1 Volatile Organic Compounds

Four VOCs were detected at a total of three locations in the groundwater during September 2004. These were benzene, carbon disulfide (estimated concentration), chlorobenzene, and cis 1,2-dichloroethene (estimated concentration). Both benzene and chlorobenzene were found at well R7GW10.

3.2 Inorganic Compounds

Twelve metals on the Appendix I list were detected in this sampling event. These metals include arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, thallium, vanadium, and zinc. The analyses were done on both unfiltered and filtered samples to obtain total metals and dissolved metals. Beryllium was not detected in the filtered samples. In all cases, very low concentrations of metals were obtained, less than 0.6 milligrams per liter (mg/L). Well R7GW04R exhibited the most detected compounds (ten).

3.3 Data Quality Control and Validation

One duplicate sample was collected from R7GW02R. The results of those analyses are presented alongside the original sample in Table 3-1. Good correlation is shown between the results for the two samples for detections above the reporting limit. When the concentrations were estimated, slight discrepancies can be seen, as in the case of chromium and thallium. Both of these compounds were detected in the original sample, but not in the duplicate sample. The duplicate sample results will be used in the discussion when higher than the original sample.

Appendix E contains the complete set of analytical results for the quality control samples. Quality control samples included one trip blank sample, one field blank sample of lab grade

deionized water, and one equipment rinsate sample of the tubing used with the peristaltic pump. Also included were matrix spike and matrix spike duplicate samples. There were no positive detections of VOCs in any of the quality control samples obtained during this compliance round. Zinc was the only metal detected in both the field blank and the equipment rinsate, as shown in Table 3-2.

A detailed and independent data validation was performed by Cape Environmental, Inc. to verify the qualitative and quantitative reliability of the data presented and adherence to stated analytical protocols. This review included a detailed review and interpretation of all the data generated by the laboratory for data quality Level D deliverables. The primary tools that were utilized by the experienced data validation personnel included analytical method operating procedures, Statement of Work for CLP guidance documents, EPA Region II guidelines for data validation, established criteria, and professional judgement.

The data validation reports stated that the overall laboratory performance and overall data quality was acceptable with the required qualifications. The reported results are accepted as reported by the laboratory with the noted qualifications. Several metals compound results were qualified as estimated when found below the reporting limit but above the method detection limit. Data validation reports were prepared by the data validator that provided the back-up information accompanying the qualifying statements presented in the quality assurance (QA) review. The validation report narratives can be found in Appendix F.

3.4 Criteria Comparison and Statistical Analyses

The compliance groundwater concentration data were compared to the Federal Maximum Contaminant Level (MCL) and the background concentrations for each compound. When a Federal MCL was not established for a particular compound or compounds, the tap water risk-based criteria (RBC) were used for comparison. The compliance groundwater concentration data were also compared to the established background groundwater quality data as given in Appendix A. Background groundwater quality data includes the upper limit of the mean and the upgradient concentrations as found during the background monitoring events, where significant. Background groundwater quality data was developed in Baker (2003b).

The last semi-annual groundwater monitoring report (Baker, 2004) provided the recommendation that the first four compliance round sample results (March 2002, September 2002; March 2003, and September 2003) be used to establish background comparison criteria for thallium and beryllium. This recommendation is implemented in this report, and the resulting background statistics for these two compounds were added to Table 3-3. This table was first published in Baker (2003b). Additionally, Appendix A has been updated to include the newly developed background data for these two compounds, and Appendix G contains the complete background data set used to establish the background statistics for beryllium and thallium.

Table 3-4 presents the compliance round concentrations for all detected compounds in the current compliance round sampling event and the corresponding criteria for comparison. These criteria include the Federal MCL, the overall background upper limit of the means, and the upgradient background concentrations. Also shown for comparison on Table 3-4 is the well-specific background average or maximum for intrawell comparison.

3.4.1 Volatile Organic Compounds

Chlorobenzene was detected at a level above background, where the background concentration is based on a single detection of 0.8 ug/L in June 1998. Benzene has never been detected at the landfill prior to the past event, and as such, may be assumed to be present above background concentrations as well. Neither benzene nor chlorobenzene, however, was quantified at a level exceeding the Federal MCL for that compound.

3.4.2 Inorganic Compounds

There were four exceedances of Federal MCLs for metals on the Appendix I list during the current compliance round. Thallium (R7GW02R), cadmium (R7GW04R), lead (R7GW04R), and arsenic (R7GW10) were found at levels exceeding Federal MCL criteria. Cadmium, lead, and arsenic exceeded the overall background upper limit of means. These three compounds all had a frequency of detection category of “C” (less than 50 percent) (see Table 3-3) in their background data set. Therefore, the background statistics are not absolutely quantified and comparison statistics are not valid (Baker, 2003b).

Three other compounds exceeded the overall background upper limit of means during this sampling event, all at well R7GW04R. Barium, copper, and vanadium exceeded the established background criteria for these compounds. Of these, only copper and vanadium have background data sets that allow valid statistical comparisons (see following paragraph). Barium again has a frequency of detection category of "C" in its background data set, and comparison statistics are not valid.

The results of the statistical comparison (Krustal-Wallis one-way, non-parametric analysis of variance test; see Burns and McDonnell, 1999) indicate that there is no contamination at the 5 percent level for either copper or vanadium as shown in Appendix H.

A qualitative analysis of arsenic, barium, cadmium, and lead concentrations would seem to indicate contamination only for cadmium and lead. Arsenic and barium concentrations would likely not indicate contamination at a significant level because their concentrations were fairly close to the upper limit of means for background concentration. Cadmium and lead concentrations were one order of magnitude greater (cadmium) and three times greater (lead) than the upper limit of the means for background concentrations, respectively, and higher than seen in compliance monitoring in the past.

The higher concentrations of inorganic compounds may also be a result of the higher groundwater elevations at the landfill. Leaching of inorganics from the soil at an elevation higher than in the past may have produced this phenomenon during the last sampling event.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The primary conclusion of this report is that there may be contamination resulting from the continued use of the Solid Waste Landfill Facility. However, the background concentrations for the suspected compounds, including cadmium, lead, arsenic, and barium have not been quantified to a degree that will allow valid statistical comparison of current concentrations to the background values. A qualitative analysis of these concentrations would indicate potential contamination of cadmium and lead only. Both of these compounds have exceeded both the Federal MCLs and their background upper limit of means.

The potential contamination seen at the landfill facility during this past event may have been a result of higher groundwater elevations due to the 2004 hurricane season (heavy rains). It is recommended that the semi-annual monitoring as developed be continued at this facility to determine if the inorganic compounds continue to be present at the current concentrations, or if they return to background concentrations when the groundwater elevations return to average levels, and the active portion of the landfill is closed.

The CRQL for some metals compounds are higher than the Federal MCL. It is recommended that the CRQL for these compounds be reduced, if possible, to match the Federal MCL.

5.0 REFERENCES

Baker Environmental, Inc. (Baker), 2002. *Draft Semi-Annual Groundwater Monitoring Report March 2002 Sampling Event*, Base Landfill, Naval Station Roosevelt Roads, Ceiba, Puerto Rico. September 11, 2002.

Baker Environmental, Inc. (Baker), 2003a. *Draft Semi-Annual Groundwater Monitoring Report September 2002 Sampling Event*, Base Landfill, Naval Station Roosevelt Roads, Ceiba, Puerto Rico. January 6, 2003.

Baker Environmental, Inc. (Baker), 2003b. *Draft Semi-Annual Groundwater Monitoring Report March 2003 Sampling Event*, Base Landfill, Naval Station Roosevelt Roads, Ceiba, Puerto Rico. June 26, 2003.

Baker Environmental, Inc. (Baker), 2004a. *Draft Semi-Annual Groundwater Monitoring Report September 2003 Sampling Event*, Base Landfill, Naval Station Roosevelt Roads, Ceiba, Puerto Rico. January 22, 2004.

Baker Environmental, Inc. (Baker), 2004b. *Draft Semi-Annual Groundwater Monitoring Report March 2004 Sampling Event*, Base Landfill, Naval Activity Puerto Rico, Ceiba, Puerto Rico. June 26, 2004.

Burns and McDonnell, *Groundwater Sampling and Analysis Plan*, Solid Waste Landfill Facility, NSRR, Puerto Rico, April 1999.

Burns and McDonnell, *Background Groundwater Monitoring Report*, Solid Waste Landfill Facility, NSRR, Puerto Rico, May 2001.

Shaw Environmental, Inc., *Draft Closure Plan and Remedial Action Work Plan*, Solid Waste Landfill Facility, NAPR, Puerto Rico, December 2004.

TABLES

TABLE 2-1

METHOD PERFORMANCE LIMITS
APPENDIX I COMPOUND LIST AND CONTRACT
REQUIRED QUANTITATION LIMITS (CRQL)

Volatiles	Quantitation Limits Water (ug/L)	Method Number
Acetone	50	8260
Acrylonitrile	100	8260
Benzene	5	8260
Bromochloromethane	5	8260
Bromodichloromethane	5	8260
Bromoform	5	8260
Carbon Disulfide	5	8260
Carbon tetrachloride	5	8260
Chlorobenzene	5	8260
Chloroethane	10	8260
Chloroform	5	8260
Dibromochloromethane	5	8260
1,2-Dibromo-3-chloropropane	5	8260
1,2-Dibromoethane (EDB)	5	8260
1,2-Dichlorobenzene	5	8260
1,4-Dichlorobenzene	5	8260
trans-1,4-Dichloro-2-butene	10	8260
1,1-Dichloroethane	5	8260
1,2-Dichloroethane	5	8260
1,1-Dichloroethene	5	8260
cis-1,2-Dichloroethene	5	8260
trans-1,2-Dichloroethene	5	8260
1,2-Dichloropropane	5	8260
cis-1,3-Dichloropropene	5	8260
trans-1,3-Dichloropropene	5	8260
Ethylbenzene	5	8260
2-Hexanone	25	8260
Bromomethane	10	8260
Chloromethane	10	8260
Dibromomethane	5	8260
Dichloromethane	5	8260
2-Butanone (MEK)	25	8260
Iodomethane	5	8260
4-Methyl-2-pentanone (MIBK)	25	8260
Styrene	5	8260
1,1,1,2-Tetrachloroethane	5	8260
1,1,2,2-Tetrachloroethane	5	8260
Tetrachloroethene	5	8260
Toluene	5	8260
1,1,1-Trichloroethane	5	8260
1,1,2-Trichloroethane	5	8260
Trichloroethene	5	8260
Trichlorofluoromethane	5	8260
1,2,3-Trichloropropane	5	8260
Vinyl acetate	10	8260
Vinyl chloride	10	8260
Xylenes, Total	10	8260

TABLE 2-1

METHOD PERFORMANCE LIMITS
APPENDIX I COMPOUND LIST AND CONTRACT
REQUIRED QUANTITATION LIMITS (CRQL)

Total and Dissolved Metals	Quantitation Limits Water (mg/L)	Method Number
Antimony	0.02	6010
Arsenic	0.01	6010
Barium	0.01	6010
Beryllium	0.004	6010
Cadmium	0.005	6010
Chromium	0.01	6010
Cobalt	0.01	6010
Copper	0.02	6010
Lead	0.005	6010
Nickel	0.04	6010
Selenium	0.01	6010
Silver	0.01	6010
Thallium	0.01	6010
Vanadium	0.01	6010
Zinc	0.02	6010

Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.

TABLE 2-2

SUMMARY OF GROUNDWATER FIELD PARAMETERS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Well ID/ Sample Date	Time Interval	Static Water Level (feet from top of PVC)	Temperature (^{O}F)	pH (S.U.)	Specific Conductance (uS/cm)	Sample Description
R7GW01R-10 9/30/04	1312					Sample contained some small black floating debris and contained a strong sulfur odor.
	1317	5.25	86.9	6.73	5,519	
	1322	5.30	86.6	6.55	5,266	
	1327	5.32	86.7	6.50	4,032	
	1332	5.32	86.8	6.55	3,235	
	1337	5.32	86.8	6.60	3,035	
R7GW02R-10 9/30/04	1146	4.16				Sample appeared slightly cloudy with a strong sulfur odor.
	1153	4.55	85.7	6.55	55,015	
	1158	4.58	85.5	6.70	48,415	
	1203	4.60	85.6	6.88	26,672	
	1208	4.62	85.8	6.94	20,814	
	1213	4.57	86.1	6.97	18,731	
	1218	4.56	86.0	6.96	16,612	
R7GW04R-10 9/30/04	1004	11.29				Sample appeared slightly cloudy with a slight sulfur odor.
	1010	13.75	85.8	6.46	53,644	
	1017	14.72	84.5	6.58	52,719	
	1023	15.10	84.8	6.56	53,093	
R7GW05R-10 9/30/04	1453	13.63				Sample appeared relatively clear with a strong sulfur odor.
	1458	13.89	83.0	6.70	22,473	
	1503	13.79	83.1	6.72	24,909	
	1508	13.79	82.7	6.79	19,431	
	1513	13.78	82.4	6.87	15,694	
	1518	13.76	82.4	6.87	16,001	
	1523	13.76	82.5	6.83	17,315	
R7GW07R2-10 9/30/04	1612	10.76				Sample appeared to be relatively clear, with a slight sulfur odor.
	1617	11.36	87.1	6.96	3,354	
	1622	11.61	87.0	6.88	3,324	
	1627	11.67	86.9	6.87	3,514	
	1632	11.71	86.7	6.79	3,618	
	1637	11.79	86.8	6.79	3,573	
R7GW08R-10 9/30/04	1652	9.16				Sample appeared to be slightly cloudy with no apparent odor.
	1657	9.31	81.0	6.87	5,627	
	1702	9.31	80.7	6.78	5,601	
	1707	9.31	80.5	6.81	5,462	
R7GW09-10 9/30/04						Sample appeared relatively clear with a strong sulfur odor.
	1053	8.73				
	1058	8.75	84.1	6.83	35,600	
	1103	8.77	83.8	6.95	34,371	
	1108	8.77	83.9	7.01	33,002	
	1113	8.78	83.3	7.04	31,600	
	1118	8.78	83.3	7.00	31,157	

TABLE 2-2

SUMMARY OF GROUNDWATER FIELD PARAMETERS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Well ID/ Sample Date	Time Interval	Static Water Level (feet from top of PVC)	Temperature (^{O}F)	pH (S.U.)	Specific Conductance (uS/cm)	Sample Description
R7GW10-10 9/30/04	1541	11.48				Sample appeared to have a yellowish tint with no apparent odor.
	1546	11.55	86.0	6.65	3,229	
	1551	11.55	85.9	6.58	3,228	
	1556	11.55	85.9	6.58	3,225	
R7GW11-10 9/30/04	0901	3.36				Sample appeared slightly cloudy with no apparent odor.
	0907	3.43	85.4	7.13	880	
	0913	3.42	86.2	6.92	889	
	0918	3.41	86.1	6.89	932	
	0923	3.41	85.9	6.81	958	
	0928	3.41	85.8	6.79	950	

Notes:
PVC - Polyvinyl chloride.
^{o} F - Degrees Fahrenheit.
S.U. - Standard Unit.
uS/cm - micro semens per centimeter.

TABLE 2-3

GROUNDWATER ELEVATION SUMMARY
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Well No.	Date Sampled	Top of PVC Elevation (feet msl)	Depth to Water (feet from top of PVC)	Groundwater Elevation (feet msl)
R7GW01R	09/30/04	108.90	5.25	103.65
R7GW01R	10/01/04	108.90	5.32	103.58
R7GW01R	10/06/04	108.90	5.38	103.52
R7GW02R	09/30/04	105.11	4.16	100.95
R7GW02R	10/01/04	105.11	4.24	100.87
R7GW02R	10/06/04	105.11	4.31	100.80
R7GW04R	09/30/04	112.39	11.29	101.10
R7GW04R	10/01/04	112.39	14.74	97.65
R7GW04R	10/06/04	112.39	11.82	100.57
R7GW05R	09/30/04	113.73	13.63	100.10
R7GW05R	10/01/04	113.73	13.67	100.06
R7GW05R	10/06/04	113.73	13.75	99.98
R7GW07R2	09/30/04	114.78	10.76	104.02
R7GW07R2	10/01/04	114.78	11.92	102.86
R7GW07R2	10/06/04	114.78	11.51	103.27
R7GW08R	09/30/04	111.33	9.16	102.17
R7GW08R	10/01/04	111.33	9.24	102.09
R7GW08R	10/06/04	111.33	9.50	101.83
R7GW09	09/30/04	109.69	8.73	100.96
R7GW09	10/01/04	109.69	8.69	101.00
R7GW09	10/06/04	109.69	9.56	100.13
R7GW10	09/30/04	113.96	11.48	102.48
R7GW10	10/01/04	113.96	11.56	102.40
R7GW10	10/06/04	113.96	11.74	102.22
R7GW11	09/30/04	110.20	3.36	106.84
R7GW11	10/01/04	110.20	3.45	106.75
R7GW11	10/06/04	110.20	3.74	106.46

Notes:
msl - mean sea level + 100 feet.
PVC - Polyvinyl Chloride.

TABLE 2-4

GROUNDWATER VELOCITY CALCULATIONS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Event	Line Location	Line Length (ft)	Head Difference (ft)	Gradient (I)	Velocity (ft/day)
9/30/2004	1	600.00	3.00	0.00500	0.0158
9/30/2004	2	1050.00	4.00	0.00381	0.0120
9/30/2004	3	800.00	2.00	0.00250	0.0079
10/6/2004	1	845.00	4.00	0.00473	0.0149
10/6/2004	2	1820.00	5.00	0.00275	0.0087
10/6/2004	3	450.00	2.00	0.00444	0.0140

Assumption:	K =	0.945	ft/day
Assumption:	n =	0.3	
V = Ki/n			

SUMMARY		
average gradient =	0.00387	ft/ft
minimum groundwater velocity =	0.0079	ft/day
maximum groundwater velocity =	0.0158	ft/day
average groundwater velocity =	0.0122	ft/day

Notes:
K = hydraulic conductivity
n = porosity
ft/day = feet per day

TABLE 3-1

POSITIVE DETECTION SUMMARY
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW01R**	**R7GW02R**	**R7GW02R (Dup)**	**R7GW04R**	**R7GW05R**
Sample Description :	**R7GW01R-10**	**R7GW02R-10**	**R7GW02R-10D**	**R7GW04R-10**	**R7GW05R-10**
Sample Date/Time :	**09-30-2004/1349**	**09-30-2004/1221**	**09-30-2004/1221**	**09-30-2004/1026**	**09-30-2004/1525**
Appendix I Volatile Organics (ug/L)					
Benzene	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	0.86 J	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	0.44 J
Appendix I Metals (mg/L)					
Arsenic	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	0.046	0.033	0.033	0.6	0.015
Beryllium	0.004 U	0.004 U	0.004 U	0.00054 J	0.004 U
Cadmium	0.005 U	0.005 U	0.005 U	0.0073	0.005 U
Chromium	0.0011 J	0.0014 J	0.01 U	0.035	0.01 U
Cobalt	0.01 U	0.01 U	0.01 U	0.038	0.01 U
Copper	0.02 U	0.02 U	0.02 U	0.3	0.02 U
Lead	0.005 U	0.005 U	0.005 U	0.032	0.005 U
Nickel	0.0023 J	0.0039 J	0.0054 J	0.019 J	0.003 J
Thallium	0.01 U	0.0086 J	0.01 U	0.01 U	0.01 U
Vanadium	0.0054 J	0.0072 J	0.0068 J	0.18	0.0052 J
Zinc	0.0034 J	0.0038 J	0.0046 J	0.52	0.0048 J
Appendix I Metals (Dissolved) (mg/L)					
Arsenic, (Dissolved)	0.01 U	0.01 U	0.01 U	0.01 U	0.0069 J
Barium, (Dissolved)	0.041	0.028	0.029	0.16	0.014
Cadmium (Dissolved)	0.005 U	0.005 U	0.005 U	0.0013 J	0.005 U
Chromium, (Dissolved)	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt (Dissolved)	0.0061 J	0.01 U	0.01 U	0.022	0.0066 J
Copper, Dissolved)	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Lead, (Dissolved)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Nickel, (Dissolved)	0.04 U	0.0045 J	0.0036 J	0.0056 J	0.04 U
Thallium, (Dissolved)	0.0077 J	0.01 U	0.008 J	0.01 U	0.01 U
Vanadium (Dissolved)	0.0044 J	0.0058 J	0.0069 J	0.009 J	0.0044 J
Zinc, (Dissolved)	0.0015 J	0.0023 J	0.0018 J	0.013 J	0.0034 J

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter

TABLE 3-1

POSITIVE DETECTION SUMMARY
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW07R2**	**R7GW08R**	**R7GW09R**	**R7GW10R**	**R7GW11**
Sample Description :	**R7GW07R2-10**	**R7GW08R-10**	**R7GW09-10**	**R7GW10-10**	**R7GW11-10**
Sample Date/Time :	**09-30-2004/1639**	**09-30-2004/1710**	**09-30-2004/1126**	**09-30-2004/1558**	**09-30-2004/0935**
Appendix I Volatile Organics (ug/L)					
Benzene	1 U	1 U	1 U	1.6	1 U
Carbon Disulfide	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	5.7	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U
Appendix I Metals (mg/L)					
Arsenic	0.0059 J	0.01 U	0.0068 J	0.027	0.01 U
Barium	0.18	0.036	0.076	0.011	0.01
Beryllium	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium	0.01 U	0.01 U	0.01 U	0.0022 J	0.01 U
Cobalt	0.0029 J	0.0053 J	0.0054 J	0.0049 J	0.01 U
Copper	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Lead	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Nickel	0.0033 J	0.0028 J	0.04 U	0.0088 J	0.04 U
Thallium	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium	0.0013 J	0.0055 J	0.012	0.0069 J	0.0022 J
Zinc	0.0036 J	0.0026 J	0.0022 J	0.0018 J	0.004 J
Appendix I Metals (Dissolved) (mg/L)					
Arsenic, (Dissolved)	0.0052 J	0.01 U	0.0064 J	0.025	0.01 U
Barium, (Dissolved)	0.17	0.034	0.068	0.011	0.0098 J
Cadmium (Dissolved)	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium, (Dissolved)	0.01 U	0.01 U	0.01 U	0.0015 J	0.01 U
Cobalt (Dissolved)	0.012	0.01 U	0.011	0.015	0.0035 J
Copper, Dissolved)	0.02 U	0.0039 J	0.02 U	0.02 U	0.02 U
Lead, (Dissolved)	0.0039 J	0.005 U	0.005 U	0.0025 J	0.0034 J
Nickel, (Dissolved)	0.0039 J	0.004 J	0.0027 J	0.0083 J	0.04 U
Thallium, (Dissolved)	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium (Dissolved)	0.00083 J	0.0072 J	0.011	0.0057 J	0.0025 J
Zinc, (Dissolved)	0.0024 J	0.0042 J	0.0047 J	0.003 J	0.0032 J

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter

TABLE 3-2

POSITIVE DETECTION SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL SAMPLE ANALYSES
SEMI-ANNUAL LANDFILL MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

	Equipment Rinsate	Field Blank	Trip Blank
Site ID	**R7ER01**	**R7FB01**	**R7TB01**
Sample Description :	**R7ER01-10**	**R7FB01-10**	**RTB01-10**
Sample Date/Time :	**10-01-2004/0804**	**10-01-2004/0802**	**10-01-2004/0757**
Appendix I Volatile Organics (ug/L)			
(No Detections)			
Appendix I Metals (mg/L)			
Zinc	0.0013 J	0.0015 J	NA

Notes:
NA--not analyzed
ug/L - micrograms per liter
mg/L - milligrams per liter

TABLE 3-3

STATISTICAL SUMMARY OF BACKGROUND DETECTED COMPOUNDS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

VOCs Detected	FOD	FOD Category	Maximum Detected Concentration (mg/L)	Minimum Detected Concentration (mg/L)	Detected in Upgradient Wells?
1,1-Dichloroethane	1/36	B	0.001	0.001	no
1,1-Dichloroethylene	1/36	B	0.001	0.001	no
Acetone	2/36	C	0.005	0.002	yes +
Carbon Disulfide	2/36	C	0.0019	0.0016	no
Chlorobenzene	1/36	B	0.0008	0.0008	no
cis-1,2-Dichloroethylene	2/36	C	0.002	0.00068	no
Ethylbenzene	1/36	B	0.015	0.015	no
Methyl Chloride (chloromethane)	1/36	B	0.0007	0.0007	no
Methylene Bromide (dibromomethane)	1/36	B	0.0046	0.0046	no
Vinyl Chloride	1/36	B	0.001	0.001	no
Metals Detected					
Antimony	1/36	B	0.002	0.002	no
Arsenic	3/36	C	0.0169	0.0062	no
Barium	17/36	C	0.766	0.0105	yes
Beryllium ++	21/36	D	0.0042	0.00042	yes
Cadmium	2/36	C	0.00057	0.00054	no
Chromium	29/36	D	0.104	0.0013	yes
Cobalt	13/36	C	0.092	0.0004	yes
Copper	*19/36*	*D*	*0.272*	*0.0046*	*yes*
Lead	4/36	C	0.008	0.0026	yes
Nickel	9/36	C	0.03	0.0006	yes
Silver	2/36	C	0.01	0.01	yes
Thallium ++	11/36	C	0.053	0.0058	yes
Vanadium	28/36	D	0.116	0.0059	yes
Zinc	*31/36*	*D*	*11.9*	*0.0084*	*yes*

NM: Not Meaningful
FOD: Frequency of Detection
"+" Detected in upgradient well R7GW11
italics: outliers detected in data set
++ Background data set consists of first four compliance rounds; done for this report

TABLE 3-3

STATISTICAL SUMMARY OF BACKGROUND DETECTED COMPOUNDS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

VOCs Detected	**Arithmetic Mean (X) (mg/L)**	**Standard Deviation (S) (mg/L)**	**Coefficient of Variation (S/X)**	**Upper Limit of Means (X + 2S) (mg/L)**
1,1-Dichloroethane	NM	NM	NM	NM
1,1-Dichloroethylene	NM	NM	NM	NM
Acetone	0.0035	0.0021	0.6057	0.0077
Carbon Disulfide	0.0018	0.0002	0.1111	0.0022
Chlorobenzene	NM	NM	NM	NM
cis-1,2-Dichloroethylene	0.0013	0.0009	0.7177	0.0032
Ethylbenzene	NM	NM	NM	NM
Methyl Chloride (chloromethane)	NM	NM	NM	NM
Methylene Bromide (dibromomethane)	NM	NM	NM	NM
Vinyl Chloride	NM	NM	NM	NM
Metals Detected				
Antimony	NM	NM	NM	NM
Arsenic	0.0111	0.0054	0.4865	0.0219
Barium	0.1178	0.2097	1.7801	0.5372
Beryllium ++	0.0023	0.0011	0.4828	0.0046
Cadmium	0.0006	0.000021	0.0375	0.0006
Chromium	0.0274	0.0288	1.0511	0.0850
Cobalt	0.0191	0.0270	1.4136	0.0731
Copper	*0.0310*	*0.0562*	*1.8129*	*0.1434*
Lead	0.0048	0.0031	0.6458	0.0110
Nickel	0.0083	0.0115	1.3855	0.0313
Silver	0.0100	0.0000	NM	NM
Thallium ++	0.0181	0.0160	0.8809	0.0501
Vanadium	0.0309	0.0315	1.0194	0.0939
Zinc	*0.4851*	*1.9626*	*4.0458*	*4.4103*

NM: Not Meaningful
FOD: Frequency of Detection
"+" Detected in upgradient well R7GW11
italics: outliers detected in data set
++ Background data set consists of first four compliance rounds; done for this report

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW01 Background Intrawell (1)	R7GW01R Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	ND	1 U
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	ND	0.01 U
Barium	2	0.5372	0.1298	0.174	0.046
Beryllium	0.004	**0.0046**	0.003	0.00315	0.004 U
Cadmium	0.005	0.000602	ND	ND	0.005 U
Chromium	0.1	0.085	0.0259	0.028	0.0011 J
Cobalt	NE (0.73)	0.0731	0.0188	0.02445	0.0061 J+
Copper	1.3	0.1434	0.0456	0.0447	0.02 U
Lead	0.015	0.011	0.0018	ND	0.005 U
Nickel	NE (0.73)	0.0313	0.0161	0.0022	0.0023 J
Thallium	0.002	**0.01814**	**0.0066**	0.0066	**0.0077** J+
Vanadium	NE (0.26)	0.0939	0.0402	0.0498	0.0054 J
Zinc	NE (10.95)	4.4103	0.1494	4.066	0.0034 J

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW02 Background Intrawell (1)	R7GW02R Compliance (2) 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	ND	0.86 J
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	**0.0169**	0.01 U
Barium	2	0.5372	0.1298	0.014	0.033
Beryllium	0.004	**0.0046**	0.003	0.00250	0.004 U
Cadmium	0.005	0.000602	ND	ND	0.005 U
Chromium	0.1	0.085	0.0259	0.059	0.0014 J
Cobalt	NE (0.73)	0.0731	0.0188	0.0016	0.01 U
Copper	1.3	0.1434	0.0456	0.0217	0.02 U
Lead	0.015	0.011	0.0018	ND	0.005 U
Nickel	NE (0.73)	0.0313	0.0161	0.00064	0.0054 J
Thallium	0.002	**0.01814**	**0.0066**	0.00945	**0.008** J+
Vanadium	NE (0.26)	0.0939	0.0402	0.0149	0.0072 J
Zinc	NE (10.95)	4.4103	0.1494	0.1537	0.0038 J

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW04 Background Intrawell (1)	R7GW04R Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	ND	1 U
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	ND	0.01 U
Barium	2	0.5372	0.1298	0.343	*0.6*
Beryllium	0.004	**0.0046**	0.003	0.00159	0.00054 J
Cadmium	0.005	0.000602	ND	ND	***0.0073***
Chromium	0.1	0.085	0.0259	0.039	0.035
Cobalt	NE (0.73)	0.0731	0.0188	0.0042	0.038
Copper	1.3	0.1434	0.0456	0.0494	*0.3*
Lead	0.015	0.011	0.0018	ND	***0.032***
Nickel	NE (0.73)	0.0313	0.0161	0.0011	0.019 J
Thallium	0.002	**0.01814**	**0.0066**	0.0265	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.0239	*0.18*
Zinc	NE (10.95)	4.4103	0.1494	0.1864	0.52

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW05 Background Intrawell (1)	R7GW05R Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	1.9	1 U
Chlorobenzene	100	0.8	ND	0.8	1 U
cis-1,2-Dichloroethene	70	3.1	ND	1.3	0.44 J
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	0.0062	0.01 U
Barium	2	0.5372	0.1298	0.011	0.015
Beryllium	0.004	**0.0046**	0.003	0.0025	0.004 U
Cadmium	0.005	0.000602	ND	ND	0.005 U
Chromium	0.1	0.085	0.0259	0.04	0.01 U
Cobalt	NE (0.73)	0.0731	0.0188	0.0016	0.0066 J+
Copper	1.3	0.1434	0.0456	0.0194	0.02 U
Lead	0.015	0.011	0.0018	ND	0.005 U
Nickel	NE (0.73)	0.0313	0.0161	0.00083	0.003 J
Thallium	0.002	**0.01814**	**0.0066**	0.0095	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.0215	0.0052 J
Zinc	NE (10.95)	4.4103	0.1494	0.1432	0.0048 J

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW07 Background Intrawell (1)	R7GW07R2 Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	ND	1 U
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	ND	0.0059 J
Barium	2	0.5372	0.1298	0.01	0.18
Beryllium	0.004	**0.0046**	0.003	0.002345	0.004 U
Cadmium	0.005	0.000602	ND	ND	0.005 U
Chromium	0.1	0.085	0.0259	0.012	0.01 U
Cobalt	NE (0.73)	0.0731	0.0188	0.0005	0.012 +
Copper	1.3	0.1434	0.0456	0.0293	0.02 U
Lead	0.015	0.011	0.0018	0.0026	0.0039 J+
Nickel	NE (0.73)	0.0313	0.0161	ND	0.0039 J+
Thallium	0.002	**0.01814**	**0.0066**	ND	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.0496	0.0013 J
Zinc	NE (10.95)	4.4103	0.1494	0.1611	0.0036 J

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW08 Background Intrawell (1)	R7GW08R Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	ND	1 U
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	ND	0.01 U
Barium	2	0.5372	0.1298	0.035	0.036
Beryllium	0.004	**0.0046**	0.003	0.0033	0.004 U
Cadmium	0.005	0.000602	ND	ND	0.005 U
Chromium	0.1	0.085	0.0259	0.048	0.01 U
Cobalt	NE (0.73)	0.0731	0.0188	0.001	0.0053 J
Copper	1.3	0.1434	0.0456	0.0263	0.02 U
Lead	0.015	0.011	0.0018	0.008	0.005 U
Nickel	NE (0.73)	0.0313	0.0161	0.0006	0.0028 J
Thallium	0.002	**0.01814**	**0.0066**	0.0099	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.0337	0.0072 J+
Zinc	NE (10.95)	4.4103	0.1494	0.1948	0.0042 J+

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW09 Background Intrawell (1)	R7GW09 Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	1.6	1 U
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	ND	0.0068 J
Barium	2	0.5372	0.1298	0.146	0.076
Beryllium	0.004	**0.0046**	0.003	0.00245	0.004 U
Cadmium	0.005	0.000602	ND	0.00057	0.005 U
Chromium	0.1	0.085	0.0259	0.037	0.01 U
Cobalt	NE (0.73)	0.0731	0.0188	0.0518	0.011 +
Copper	1.3	0.1434	0.0456	0.1539	0.02 U
Lead	0.015	0.011	0.0018	ND	0.005 U
Nickel	NE (0.73)	0.0313	0.0161	0.0164	0.0027 J+
Thallium	0.002	**0.01814**	**0.0066**	0.045	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.0447	0.012
Zinc	NE (10.95)	4.4103	0.1494	0.1712	0.0047 J+

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW10 Background Intrawell (1)	R7GW10 Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	*1.6*
Carbon Disulfide	NE (1000)	2.2	ND	ND	1 U
Chlorobenzene	100	0.8	ND	ND	*5.7*
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	**0.0101**	***0.027***
Barium	2	0.5372	0.1298	0.174	0.011
Beryllium	0.004	**0.0046**	0.003	0.003	0.004 U
Cadmium	0.005	0.000602	ND	0.00054	0.005 U
Chromium	0.1	0.085	0.0259	0.015	0.0022 J
Cobalt	NE (0.73)	0.0731	0.0188	0.0081	0.015 +
Copper	1.3	0.1434	0.0456	0.0258	0.02 U
Lead	0.015	0.011	0.0018	0.0069	0.0025 J+
Nickel	NE (0.73)	0.0313	0.0161	0.0068	0.0088 J
Thallium	0.002	**0.01814**	**0.0066**	0.0058	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.052	0.0069 J
Zinc	NE (10.95)	4.4103	0.1494	0.1809	0.003 J+

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

TABLE 3-4

CRITERIA COMPARISON TABLE
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID Sample Purpose				R7GW11 Background Intrawell (1)	R7GW11 Compliance 09/30/04
Volatiles (ug/l)	**Federal MCL (Tap Water RBC)**	*Overall Background Upper Limit of Means*	Upgradient Background Average/Max		
Benzene	5	ND	ND	ND	1 U
Carbon Disulfide	NE (1000)	2.2	ND	ND	1 U
Chlorobenzene	100	0.8	ND	ND	1 U
cis-1,2-Dichloroethene	70	3.1	ND	ND	1 U
Total Metals (mg/l)					
Arsenic	0.01	**0.0219**	ND	ND	0.01 U
Barium	2	0.5372	0.1298	0.044	0.01
Beryllium	0.004	**0.0046**	0.003	0.00285	0.004 U
Cadmium	0.005	0.000602	ND	ND	0.005 U
Chromium	0.1	0.085	0.0259	0.024	0.01 U
Cobalt	NE (0.73)	0.0731	0.0188	0.0004	0.0035 J+
Copper	1.3	0.1434	0.0456	0.0842	0.02 U
Lead	0.015	0.011	0.0018	0.0018	0.0034 J+
Nickel	NE (0.73)	0.0313	0.0161	0.03	0.04 U
Thallium	0.002	**0.01814**	**0.0066**	ND	0.01 U
Vanadium	NE (0.26)	0.0939	0.0402	0.0406	0.0025 J+
Zinc	NE (10.95)	4.4103	0.1494	0.3318	0.004 J

Background not absolutely quantified, too few detections

Notes:
(1) Intrawell averages determined from detections only,
maximum concentration shown if only one detection
(2) Duplicate concentrations used if higher than original sample
+ - concentrations from dissolved analyses, where higher than total
ND and U - Not Detected
NE - Not Established
J - Qualified as Estimated
Bold--indicates exceedance of Federal MCL or tap water RBC
italics - indicates exceedance of overall background upper limit of means
underline - indicates exceedance of upgradient background average/max

FIGURES

400 0 200 400 800

1 inch = 400 ft.

101780002

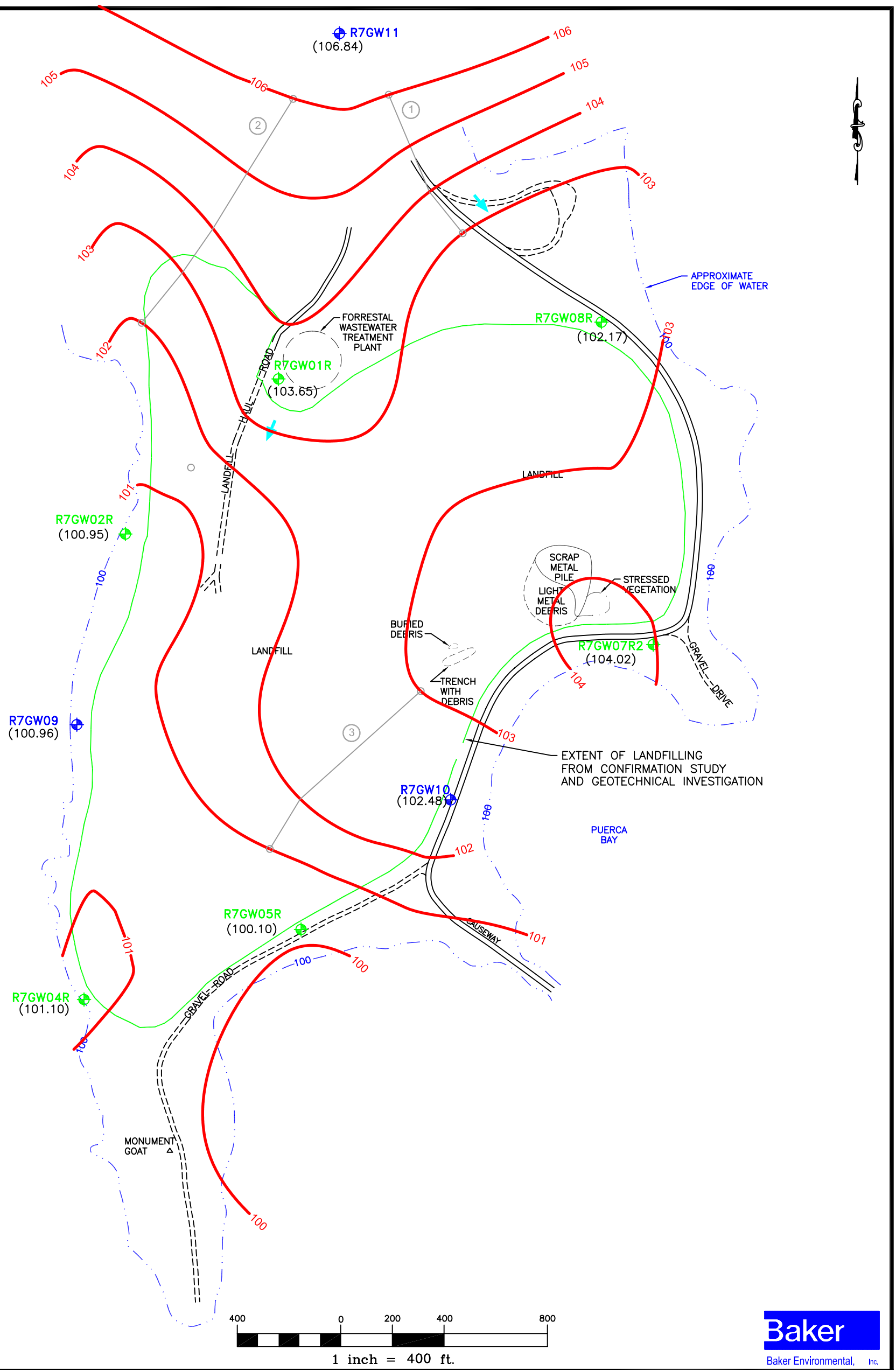
Baker

Baker Environmental, Inc.

FIGURE 1-1
SITE MAP
SOLID WASTE LANDFILL FACILITY

NAVAL STATION ROOSEVELT ROADS
PUERTO RICO

SOURCE: LANTDIV, FEB. 1992



LEGEND

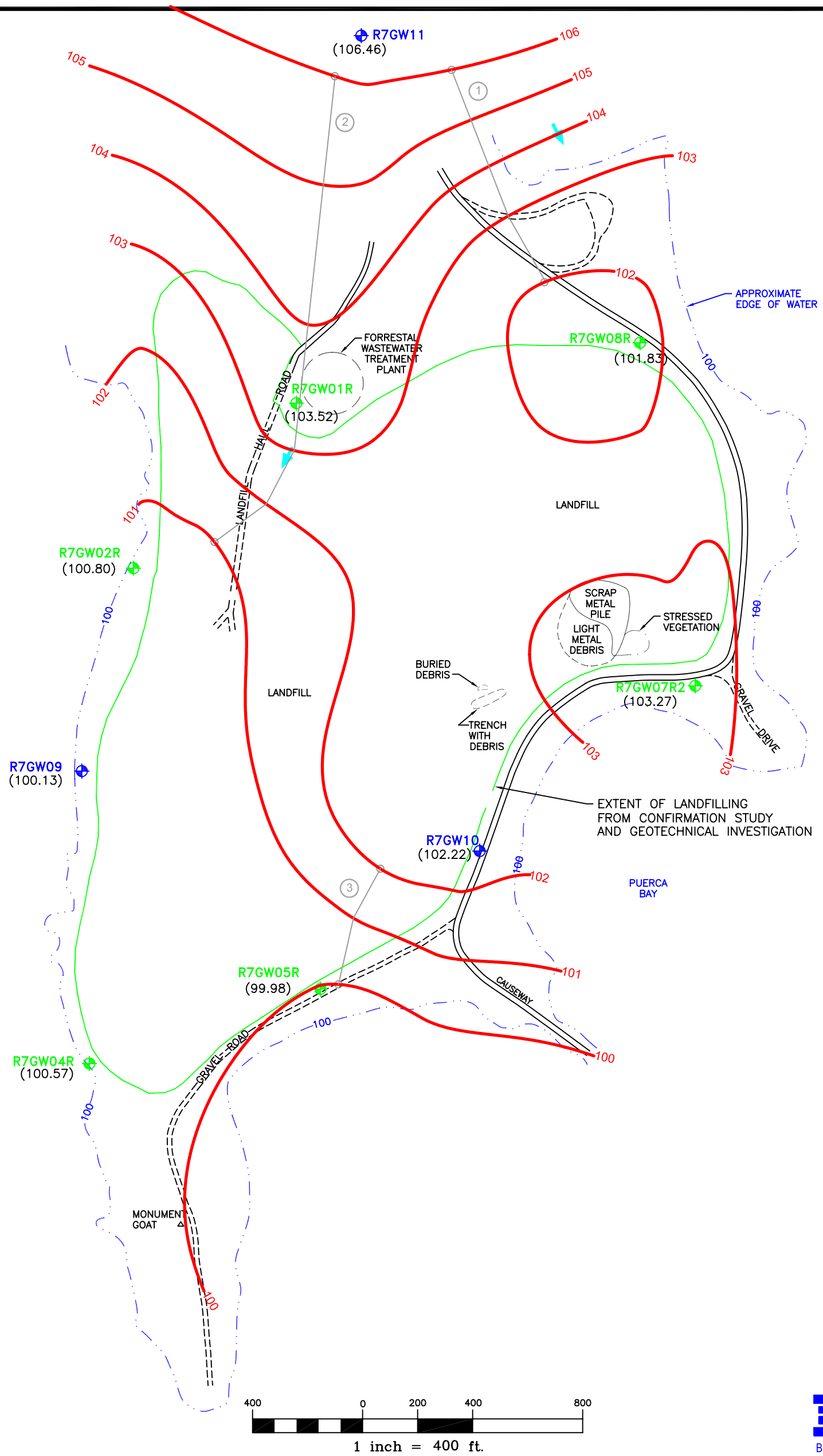
- MONITOR WELL LOCATION (INSTALLED JUNE 1998, BURNS AND McDONNELL)
- MONITOR WELL LOCATION (INSTALLED DECEMBER 2000, BAKER)
- GROUNDWATER CONTOUR LINE AND ELEVATION, DATUM = MEAN SEA LEVEL + 100 FEET
- GROUNDWATER FLOW DIRECTION
- LINE USED TO CALCULATE HYDRAULIC GRADIENT
- APPROXIMATE EXTENT OF LANDFILL BOUNDARY

NOTE: CONTOURS WERE GENERATED WITH GMS® USING A NATURAL NEIGHBOR INTERPOLATION ROUTINE. ALL CONTOURS ARE APPROXIMATE AND SUBJECT TO THE INTERPOLATION METHOD USED.

SOURCE: LANTDIV, FEB. 1992

FIGURE 2-1
GROUNDWATER CONTOUR MAP, SEPT. 30, 2004
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
SOLID WASTE LANDFILL FACILITY – SWMU 3

NAVAL ACTIVITY PUERTO RICO
CEIBA, PUERTO RICO



101780G08

Baker
Baker Environmental, Inc.

LEGEND

- MONITOR WELL LOCATION (INSTALLED JUNE 1998, BURNS AND McDONNELL)
- MONITOR WELL LOCATION (INSTALLED DECEMBER 2000, BAKER)
- GROUNDWATER CONTOUR LINE AND ELEVATION, DATUM = MEAN SEA LEVEL + 100 FEET
- GROUNDWATER FLOW DIRECTION
- LINE USED TO CALCULATE HYDRAULIC GRADIENT
- APPROXIMATE EXTENT OF LANDFILL BOUNDARY

NOTE: CONTOURS WERE GENERATED WITH GMS® USING A NATURAL NEIGHBOR INTERPOLATION ROUTINE. ALL CONTOURS ARE APPROXIMATE AND SUBJECT TO THE INTERPOLATION METHOD USED.

SOURCE: LANTDIV, FEB. 1992

FIGURE 2-2
GROUNDWATER CONTOUR MAP, OCTOBER 6, 2004
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
SOLID WASTE LANDFILL FACILITY – SWMU 3

NAVAL ACTIVITY PUERTO RICO
CEIBA, PUERTO RICO

APPENDIX A
Background Groundwater Quality

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW01 Intrawell Average/Max, Upgradient
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW02 Intrawell Average/Max
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW04 Intrawell Average/Max
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	5
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	0.7
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW05 Intrawell Average/Max
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	1
1,1-Dichloroethene	7	1	ND	1
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	1.9
Chlorobenzene	100	0.8	ND	0.8
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	1.3
Dibromomethane	NE (608)	4.6	ND	4.6
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	1
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW07 Intrawell Average/Max (1)
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW08 Intrawell Average/Max (1)
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW09 Intrawell Average/Max (1)
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	1.6
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW10 Intrawell Average/Max (1)
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	ND
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	15
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW11 Intrawell Average/Max (1), Upgradient
Detected Volatiles (ug/l)				
1,1-Dichloroethane	NE (798)	1	ND	ND
1,1-Dichloroethene	7	1	ND	ND
Acetone	NE (610)	7.74	2	2
Carbon Disulfide	NE (1000)	2.2	ND	ND
Chlorobenzene	100	0.8	ND	ND
Chloromethane	NE (190)	0.7	ND	ND
cis-1,2-Dichloroethene	70	3.1	ND	ND
Dibromomethane	NE (608)	4.6	ND	ND
Ethylbenzene	700	15	ND	ND
Vinyl chloride	2	1	ND	ND
Non-Detected Volatiles (ug/l)				
Acrylonitrile	NE (0.037)	ND	ND	ND
Benzene	5	ND	ND	ND
Bromochloromethane	NE	ND	ND	ND
Bromodichloromethane	NE (1.7)	ND	ND	ND
Bromoform	NE (84)	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND
Chloroethane	NE (36)	ND	ND	ND
Chloroform	NE (1.5)	ND	ND	ND
Dibromochloromethane	NE (1.2)	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2	ND	ND	ND
1,2-Dibromoethane (EDB)	NE (0.0075)	ND	ND	ND
1,2-Dichlorobenzene	600	ND	ND	ND
1,4-Dichlorobenzene	75	ND	ND	ND
trans-1,4-Dichloro-2-butene	NE	ND	ND	ND
1,2-Dichloroethane	5	ND	ND	ND
trans-1,2-Dichloroethene	100	ND	ND	ND
1,2-Dichloropropane	5	ND	ND	ND
cis-1,3-Dichloropropene	NE	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND
2-Hexanone	NE (1460)	ND	ND	ND
Bromomethane	NE (8.52)	ND	ND	ND
Dichloromethane	5	ND	ND	ND
2-Butanone (MEK)	NE (1910)	ND	ND	ND
Iodomethane	NE	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	NE (2000)	ND	ND	ND
Styrene	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	NE (4.1)	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE (0.53)	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND
Toluene	1000	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND
Trichlorofluoromethane	NE (1300)	ND	ND	ND
1,2,3-Trichloropropane	NE (0.05)	ND	ND	ND
Vinyl acetate	NE (410)	ND	ND	ND
Xylenes, Total	10000	ND	ND	ND

(see notes on last page)

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW01 Intrawell Average/Max, Upgradient
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	ND
Barium	2	0.5372	0.1298	0.174
Beryllium	0.004	**0.0046**	0.003	0.00315
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.028
Cobalt	NE (0.73)	0.0731	0.0188	0.02445
Copper	1.3	0.1434	0.0456	0.0447
Lead	0.015	0.011	0.0018	ND
Nickel	NE (0.73)	0.0313	0.0161	0.0022
Silver	NE (0.18)	0.01	0.01	0.01
Thallium	0.002	**0.01814**	**0.0066**	0.0066
Vanadium	NE (0.26)	0.0939	0.0402	0.0498
Zinc	NE (10.95)	4.4103	0.1494	4.066
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW02 Intrawell Average/Max
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	**0.0169**
Barium	2	0.5372	0.1298	0.014
Beryllium	0.004	**0.0046**	0.003	0.00250
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.059
Cobalt	NE (0.73)	0.0731	0.0188	0.0016
Copper	1.3	0.1434	0.0456	0.0217
Lead	0.015	0.011	0.0018	ND
Nickel	NE (0.73)	0.0313	0.0161	0.00064
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	0.00945
Vanadium	NE (0.26)	0.0939	0.0402	0.0149
Zinc	NE (10.95)	4.4103	0.1494	0.1537
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW04 Intrawell Average/Max
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	ND
Barium	2	0.5372	0.1298	0.343
Beryllium	0.004	**0.0046**	0.003	0.00159
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.039
Cobalt	NE (0.73)	0.0731	0.0188	0.0042
Copper	1.3	0.1434	0.0456	0.0494
Lead	0.015	0.011	0.0018	ND
Nickel	NE (0.73)	0.0313	0.0161	0.0011
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	0.0265
Vanadium	NE (0.26)	0.0939	0.0402	0.0239
Zinc	NE (10.95)	4.4103	0.1494	0.1864
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW05 Intrawell Average/Max
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	0.0062
Barium	2	0.5372	0.1298	0.011
Beryllium	0.004	**0.0046**	0.003	0.0025
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.04
Cobalt	NE (0.73)	0.0731	0.0188	0.0016
Copper	1.3	0.1434	0.0456	0.0194
Lead	0.015	0.011	0.0018	ND
Nickel	NE (0.73)	0.0313	0.0161	0.00083
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	0.0095
Vanadium	NE (0.26)	0.0939	0.0402	0.0215
Zinc	NE (10.95)	4.4103	0.1494	0.1432
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW07 Intrawell Average/Max (1)
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	ND
Barium	2	0.5372	0.1298	0.01
Beryllium	0.004	**0.0046**	0.003	0.002345
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.012
Cobalt	NE (0.73)	0.0731	0.0188	0.0005
Copper	1.3	0.1434	0.0456	0.0293
Lead	0.015	0.011	0.0018	0.0026
Nickel	NE (0.73)	0.0313	0.0161	ND
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	ND
Vanadium	NE (0.26)	0.0939	0.0402	0.0496
Zinc	NE (10.95)	4.4103	0.1494	0.1611
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW08 Intrawell Average/Max (1)
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	ND
Barium	2	0.5372	0.1298	0.035
Beryllium	0.004	**0.0046**	0.003	0.0033
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.048
Cobalt	NE (0.73)	0.0731	0.0188	0.001
Copper	1.3	0.1434	0.0456	0.0263
Lead	0.015	0.011	0.0018	0.008
Nickel	NE (0.73)	0.0313	0.0161	0.0006
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	0.0099
Vanadium	NE (0.26)	0.0939	0.0402	0.0337
Zinc	NE (10.95)	4.4103	0.1494	0.1948
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW09 Intrawell Average/Max (1)
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	ND
Barium	2	0.5372	0.1298	0.146
Beryllium	0.004	**0.0046**	0.003	0.00245
Cadmium	0.005	0.000602	ND	0.00057
Chromium	0.1	0.085	0.0259	0.037
Cobalt	NE (0.73)	0.0731	0.0188	0.0518
Copper	1.3	0.1434	0.0456	0.1539
Lead	0.015	0.011	0.0018	ND
Nickel	NE (0.73)	0.0313	0.0161	0.0164
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	0.045
Vanadium	NE (0.26)	0.0939	0.0402	0.0447
Zinc	NE (10.95)	4.4103	0.1494	0.1712
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW10 Intrawell Average/Max (1)
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	0.002
Arsenic	0.01	**0.0219**	ND	**0.0101**
Barium	2	0.5372	0.1298	0.174
Beryllium	0.004	**0.0046**	0.003	0.003
Cadmium	0.005	0.000602	ND	0.00054
Chromium	0.1	0.085	0.0259	0.015
Cobalt	NE (0.73)	0.0731	0.0188	0.0081
Copper	1.3	0.1434	0.0456	0.0258
Lead	0.015	0.011	0.0018	0.0069
Nickel	NE (0.73)	0.0313	0.0161	0.0068
Silver	NE (0.18)	0.01	0.01	0.01
Thallium	0.002	**0.01814**	**0.0066**	0.0058
Vanadium	NE (0.26)	0.0939	0.0402	0.052
Zinc	NE (10.95)	4.4103	0.1494	0.1809
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX A

BACKGROUND GROUNDWATER QUALITY

SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Appendix I Parameters	Federal MCL (Tap Water RBC)	Overall Background Upper Limit of Means	Upgradient Background Average/ Max (1)	R7GW11 Intrawell Average/Max (1), Upgradient
Detected Total Metals (mg/l)				
Antimony	0.006	0.002	ND	ND
Arsenic	0.01	**0.0219**	ND	ND
Barium	2	0.5372	0.1298	0.044
Beryllium	0.004	**0.0046**	0.003	0.00285
Cadmium	0.005	0.000602	ND	ND
Chromium	0.1	0.085	0.0259	0.024
Cobalt	NE (0.73)	0.0731	0.0188	0.0004
Copper	1.3	0.1434	0.0456	0.0842
Lead	0.015	0.011	0.0018	0.0018
Nickel	NE (0.73)	0.0313	0.0161	0.03
Silver	NE (0.18)	0.01	0.01	ND
Thallium	0.002	**0.01814**	**0.0066**	ND
Vanadium	NE (0.26)	0.0939	0.0402	0.0406
Zinc	NE (10.95)	4.4103	0.1494	0.3318
Non-Detected Total Metals (mg/l)				
Selenium	0.05	ND	ND	ND

Notes:
(1) Average determined on detections only, unless frequency of detection is above 50%.
ND - Not Detected
NE - Not Established
Bold--indicates exceedance of Federal MCL or tap water RBC
Background not absolutely quantified, too few detections

APPENDIX B
Chain of Custody Records

Serial Number 39160

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

FED EX AIR BILL NO: 8480 3122 5211

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

LANDFILL 9/04 001

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
Base Landfill	T.O. 19	PR
STL (LAB) PROJECT MANAGER: Angie Weimerskirk	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Mark Kimes	CLIENT PHONE: (412) 269-2009	CLIENT FAX: (412) 373-3995
CLIENT NAME: Baker Environmental, Inc.	CLIENT E-MAIL: mkimes@mbakercorp.com	
CLIENT ADDRESS: 100 Airside Drive, Moon Twp., PA 15108		
COMPANY CONTRACTING THIS WORK (if applicable): Baker Environmental, Inc.		

PAGE 1 OF 2

STANDARD REPORT DELIVERY ●
DATE DUE 28 day TAT
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	MATRIX TYPE: AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	App. I VOCs SW-846/8260	App. I Metals SW-846/6010	App. I Diss. Metals SW-846/6010								REMARKS
								HCl	HNO_3	HNO_3								
9/30/04	1349	R7GW01R-10		X				4	1	1								
	1221	R7GW02R-10		X				4	1	1								
	1221	R7GW02R-10D		X				4	1	1								
	1221	R7GW02R-10MS		X				4	1	1								
	1221	R7GW02R-10MSD		X				4	1	1								
	1026	R7GW04R-10		X				4	1	1								
	1525	R7GW05R-10		X				4	1	1								
	1639	R7GW07R2-10		X				4	1	1								
	1710	R7GW08R-10		X				4	1	1								
	1126	R7GW09-10		X				4	1	1								
	1558	R7GW10-10		X				4	1	1								
	0935	R7GW11-10		X				4	1	1								

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
			Mark E. Kimes	10/1/04	1300			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
Mark E. Kimes	9/30/04	0800						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS
Jim Howard	10/2/04	0930	YES ○ NO ○		S449419	TEMP. 7.8/3.9/3.7/5.7 7.7/4.2/2.0/1.8

STL8240-680 (12/02)

Serial Number 39212

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT STL

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

LANDFILL 9/04 001

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
Base Landfill	T.O. 19	PR
STL (LAB) PROJECT MANAGER: Angie Weimerskirk	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Mark Kimes	CLIENT PHONE: (412) 269-2009	CLIENT FAX: (412) 375-3995
CLIENT NAME: Baker Environmental, Inc.	CLIENT E-MAIL: mkimes@mbakercorp.com	
CLIENT ADDRESS: 100 Airside Drive, Moon Twp. PA 15108		
COMPANY CONTRACTING THIS WORK (if applicable): Baker Environmental, Inc.		

PAGE 2 OF 2

STANDARD REPORT DELIVERY ●
DATE DUE 28 day TAT
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	App. I VOCs SW-846/8260 (HCl)	App. I Metals SW-846/6010 (HNO_3)	App. I Diss. Metals SW-846/6010 (HNO_3)								REMARKS
10/1/04	0757	R7TB01-10		X				4										Trip
10/1/04	0804	R7ER01-10		X				4	1									Equip
10/1/04	0802	R7FB01-10		X				4	1									Field Blank

PRESERVATIVE

NUMBER OF CONTAINERS SUBMITTED

TEMP. 2.4/3.9/3.7/5.7 2.7/4.2/2.0/1.8

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
			Mark E. Kimes	10/1/04	1300			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
Mark E. Kimes	9/30/04	0800						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL SAVANNAH LOG NO.	LABORATORY REMARKS
[illegible]	10/2/04	0930	YES ○ NO ○		5449419	

STL8240-680 (12/02)

APPENDIX C
Field Notebooks

Wednesday September 29, 2004

0550 Arrive at Pittsburgh Intl. Airport.
0745 Leaving Pittsburgh in route to Philadelphia Airport.
0940 Leaving Philadelphia Airport in route to San Juan, PR.
1315 Arrive in San Juan.
1415 Leaving Airport with Mark Kimes (MEK) to go get rental car then off to hotel.

Sampling team is:
Mark Kimes (MEK)
Jon EDEL (JCE)

Jon C. Edell Jr.

Thursday September 30, 2004

0645 MEK and I arrive at front gate to get vehicle pass.

0655 Arrive at PWD BLDG. with MEK to speak with Madeline Rivera (PWD-Env.) and pick up our supplies.

0835 Leaving PWD to go to Landfill to start sampling.

0840 Arrive at R7GW11 to collect groundwater. Also ~~calibrating~~ JCE c/o calibrating YSI meter.

PH Standard:

4.00	4.25	Calibrated to 4.0
7.00	6.66	Calibrated to 7.0
10.00	10.45	Calibrated to 10.07

Conductivity 1 ms/cm 1.14 ms/cm
↳ Calibrated to 1 ms/cm.

0949 Leaving R7GW11 to go inside the landfill.

0955 Arrive at Gate at Landfill. Went into gate office to tell Maria Mercado (Landfill Manager) that we would be inside the gate.

0959 Arrive at R7GW04R to collect groundwater samples.

1046 Leaving R7GW04R to go to R7GW09.

 Jon C. Edell Jr

Thursday September 30, 2004

R26W11-10

TD= 15'3" (below top PVC)
Ø= 2"
SWL= 3.36' (below top PVC)

Start pump 0901
Bottom of tubing within well screen.

Time	SWL	pH	Cond. (µmS/cm²)	Temp.	Comments
0903	3.43	7.13	880	30.23°C 86.41°F	No odor. SL Cloudy
0913	3.42	6.92	889	30.12°C 86.22°F	No odor. Slighly Cloudy
0918	3.41	6.89	932	30.06°C 86.11°F	No odor. SL. Cloudy
0923	3.41	6.81	958	29.92°C 85.86°F	No odor. SL. Cloudy
0928	3.41	6.79	950	29.88°C 85.78°F	No odor SL. Cloudy

 Jon C. Edel J.

Thursday September 30, 2004

* MEK sampled well.
* Sample time is 0935. Sampled for full App. I parameters including Beta-BHC and 1,4-Dioxane.
* Sampled appeared slighly cloudy with no apparent odor.
* Flow rate was between 0.2 to 0.3 L/min.
* Weather is warm, sunny with some cloudy, moderate wind.
* An interface probe was used to collect initial SWL. No product observed. Groundwater level meter was used during each round of purging.
* Full App. I list:
  (4) 40 mL VOAs - HCl preserved
  (2) 250 mL Poly - HNO_3 preserved
* Beta-BHC (2) 1-Liter ambers - None preserved
* 1,4-Dioxane (2) 1-Liter ambers - None preserved
* Peristaltic was used to purge and sample.
* The final SWL is 3.41' below top of PVC.
* A YSI meter was used for field parameters.
* The SWL was slighly less than 3 feet below top of PVC ~~at~~ JCE 9/30 ~~Highest~~ Shallower than JCE 9/30 during the final round of water levels

 Jon C. Edel J.

collected during the March 2004 Monitoring.

* The TD was slightly shallower than during the March 2004 sampling event, by approx. 1".

Jon C. Edel Jr

1049 Arrive at R7GW09-10 to collect groundwater samples.

1139 Leaving R7GW09 to go to R7GW02R to collected groundwater samples.

1141 Arrive at R7GW03R to collect groundwater samples.

1303 Leaving R7GW02R to go to R7GW01R.

1306 Arrive at R7GW01R to collect groundwater samples.

1400 Leaving R7GW01R to go get ice at the Marina.

1425 Arrive back at PWD to drop off samples and pick up more sample containers.

1440 Leaving PWA to go to R7GW06R to collect groundwater samples.

1442 Arrive at R7GW06R to collect groundwater samples.

1530 Leaving R7GW05R to go to R7GW10.

1536 Arrive at R7GW10 to collect groundwater samples.

1605 Leaving R7GW10 to go to R7GW07R2.

1609 Arrive at R7GW07R2 to collect groundwater samples.

1648 Leaving R7GW07R2 to go to R7GW08R.

Thursday September 30, 2004

RJGW04R-10

TD = 29'8" (below top PVC)
Ø = 2"
SWL = 11.29' (below top PVC)

Start pump 1004
Bottom of tubing within well screen

Time	SWL.	pH	Cond.	Temp.	Comments
1010	13.75	6.46	53,644	29.87°C 85.77°F	Cloudy. No apparent odor
1017	14.72	6.58	52,719	29.19°C 84.54°F	Cloudy with a sl. sulfur odor
1023	15.10	6.56	53,093	29.34°C 84.81°F	sl. Cloudy sl. sulfur odor

* MGK sampled well.
* Sample time is 1026. Sampled for full App. I parameters, including 1,4-Dioxane and Beta-BHC.
* Sampled appeared slightly cloudy with a slight sulfur odor.
* Flow rate was at minimum capacity.

Thursday September 30, 2004

* Weather is warm, humid, and partly sunny. ↳ Some wind present.
* An interface probe was used to collect initial SWL. No product observed. Groundwater level meter was used for each round of purging.
* Full App. I list:
  (4) 40 mL VOAs - HCL preserved
  (2) 250 mL Poly - HNO_3 preserved
* Beta-BHC (2) 1-Liter Ambers
* 1,4-Dioxane (2) 1-Liter Ambers
* The peristaltic pump was used to purge and sample.
* Final SWL is 16.73' below top of PVC.
* A YSI multimeter was used to measure field parameters.
* The SWL was approximately 1' below top PVC shallower than the SWL collected during the final round of the March 2004 Monitoring.
* The TD was slightly shallower than during the March 2004 sampling event, by approx. 1.5".

Jon C. Edel Jr.

Thursday September 30, 2004

R7GW09-10

TD = 20' 1" (below top PVC)
Ø = 2"
SWL = 8.73' below top PVC

Start pump 1053
Bottom of tubing within well screen.

Time	SWL	pH	Cond.	Temp.	Comments
1058	8.75	6.83	35,600	28.93°C 84.07°F	small black floating debris strong sulfur odor
1103	8.77	6.95	34,371	28.79°C 83.82°F	Same as above
1108	8.77	7.01	33,002	28.82°C 83.88°F	Same as above
1113	8.78	7.04	31,600	28.49°C 83.28°F	Same as above
1118	8.78	7.00	31,157	28.49°C 83.28°F	Same as above

Thursday September 30, 2004

Time	SWL	pH	Cond.	Temp	Comments
1123	8.78	6.98	30,969	28.29°C 82.92°F	Same as on other page

* MEK sampled well.
* Sample time is 1126. Sampled for full App. II Parameters, including 1,4-Dioxane and beta-BHC.
* Sample appeared relatively clear with a strong sulfur odor.
* Flow rate was between 0.2 to 0.3 L/min.
* Weather is warm, humid, partly sunny, with some wind.
* An interface probe was used to collect initial SWL. No product observed. Groundwater level meter was used for each round of purging.
* Full App I.:
  (4) 40 mL VOAs - HCL preserved
  (2) 250 mL Poly - HNO_3 preserved
* Beta-BHC (2) 1-Liter ambers - Not preserved
* 1,4-Dioxane (2) 1-Liter ambers - Not preserved
* A peristaltic pump was used to purge and sample.
* A YSI multimeter was used for field

Thursday September 30, 2004

parameters.

* The SWL was approximately 1' below top pvc shallower than during the final round of sampling in March 2004 Semi-Annual Monitoring.
* The TD was shallower than during the March 2004 sampling went, by approx. .5".

Jon C. Edell Jr.

Thursday September 30, 2004

R76W02R-10

TD = 13' 8.5" (below top PVC)
Ø = 2"
SWL = 4.16' below top PVC

Start Pump 1146
Bottom of tubing within well screen

Time	SWL	pH	Cond.	Temp	Comments
1153	4.55	6.55	55,015	29.85°C 85.73°F	Cloudy with Strong sulfur odor
1158	4.58	6.70	48,415	29.71°C 85.48°F	Same as above
* JCE 9/30					
1203	4.60	6.88	26,672	29.80°C 85.64°F	SL. Cloudy Strong sulfur odor
1208	4.62	6.94	20,814	29.91°C 85.84°F	SL. Cloudy Strong sulfur odor
1213	4.57	6.97	18,731	30.08°C 86.14°F	SL. Cloudy Strong sulfur odor
1218	4.56	6.96	16,612	29.99°C 85.98°F	SL. Cloudy Strong sulfur odor

* MEK Sampled well.
* Sample time is 1221. Sampled for full App. I parameters including 1,4-Dioxane and beta-BHC.

 Jon C. Edell Jr.

* Sample appeared slightly cloudy with a strong Sulfur odor.
* Flow rate was at minimum capacity of pump.
* Weather is hot, humid, and sunny. No wind at this location.
* An interface probe was used to JCE 9/30 collect initial water level. No product observed. Groundwater level meter was used JCE 9/30 for each round of purging.
* Full App. I List:
  (4) 40 mL VOAs - HCL preserved
  (2) 250mL Poly. HNO_3 preserved
* Beta-BHC (2) 1-Liter ambers - Not preserved.
* 1,4-Dioxane (2) 1-Liter ambers - Not preserved.
* A peristaltic pump was used to purge and sample.
* The duplicate, MS, and MSD were collected from this location. All were the same analysis as the environment sample.

* The final SWL was 4.57' below top PVC.
* A YSI multimeter was used for field parameters.
* The SWL is approximately 1' below top of PVC shallower than the SWL collected during the final round of the March 2004 Semi-Annual monitoring.
* The TD was shallower than during the March 2004 sampling event by approx. 3".

Jon C. Edell Jr.

Thursday September 30, 2004

R7GW01R-10

TD = 16' 4" (below top PVC)
ID = 2"
SWL = 5.25' below top p.c.

Start pump 1312
Bottom of tubing within well screen

Time	SWL	pH	Cond.	Temp.	Comments
1317	5.30	6.73	5,519	30.48°C 86.86°F	small black floating debris Strong sulfur odor
1322	5.32	6.55	5,266	30.35°C 86.63°F	Same as above
1327	5.32	6.50	4,032	30.41°C 86.74°F	Same as above
1332	5.32	6.55	3,235	30.43°C 86.77°F	Same as above
1337	5.32 [redacted] JCE 9/30	6.60	3,035	30.46°C 86.83°F	Same as above

Thursday September 30, 2004

Time	SWL	pH	Cond.	Temp.	Comments
1342	5.33	6.65	2,914	30.51°C 86.92°F	small black floating debris sulfur odor
1347	5.32	6.66	2,796	30.49°C 86.88°F	Same as above

* MEK sampled well.
* [redacted] JCE 9/30 Sample time is 1349. Sampled for full App. I parameters including 1,4-Dioxane and beta-BHC.
* Sample contained some small black floating debris and contained a strong sulfur odor.
* Flow rate was at minimum capacity of the pump.
* Weather is hot, humid, and sunny. Some wind present.
* An interface probe was used to collect initial water level. No product observed. Groundwater level meter was used for each round of purging.
* Full App. I List:
  (4) 40 ml VOAs - HCL preserved
  (2) 250 ml Poly - HNO_3 preserved

Thursday September 30, 2004

* Beta-BHC (2) 1-liter ambers - not preserved.

* 1,4-Dioxane (2) 1-liter ambers - not preserved.

* A peristaltic pump was used to purge and sample.

* The final SWL is 5.32' below top of PVC.

* A YSI multimeter was used for field parameters.

* The SWL is approximately 2' below top of PVC shallower than the SWL measured during the March 2004 Monitoring.

* The TD was shallower than during the March 2004 Sampling event by approx. 1".

Thursday September 30, 2004

R7GW05R-10

TD = 26'8" (below top PVC)
Ø = 2"
SWL = 13.63' below top PVC.

Start pumping 1453
Bottom of tubing within well screen

Time	SWL	pH	Cond.	Temp.	Comments
1458	13.89	6.70	22,473	28.34°C 83.01°F	Relatively clear strong sulfur odor.
1503	13.79	6.72	24,909	28.40°C 83.12°F	Same as above
1508	13.79	6.79	19,481	28.19°C 82.74°F	Same as above
1513	13.78	6.87	15,694	28.01°C 82.42°F	Same as above
1518	13.76	6.87	16,001	27.97°C 82.35°F	Same as above
1523	13.76	6.83	17,315	28.03°C 82.45°F	Same as above

* MEK sampled well.

* Sample time is 1525. Sampled for full App. I parameters including 1,4-Dioxane and Beta-BHC.

* Sample is relatively clear with a strong sulfur odor.

Thursday September 30, 2004

* Flow Rate was at minimum capacity of pump.

* Weather is hot, humid, and cloudy with some wind.

* An interface probe was used to collect initial SWL. No product observed. Groundwater level meter was used for each round of purging.

* Full App. I List:

(4) 40 mL VOAs - HCL preserved
(2) 250 mL Polys - HNO_3 preserved

* Beta-BHC (2) 1-liter ambers - not preserved.

* 1,4-Dioxane (2) 1-liter amber - not preserved.

* A peristaltic pump was used (See new logbook)

Jon C. Edel Jr.

CURVE TABLES

HOW TO USE CURVE TABLES

Table I. contains Tangents and Externals to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20′ to the R. at Station 542+72.

Ext. in Tab. I opposite 23° 20′ = 120.87
120.87 ÷ 12 = 10.07. Say a 10° Curve.

Tan. in Tab. I opp. 23° 20′ = 1183.1
1183.1 ÷ 10 = 118.31.

Correction for A. 23° 20′ for a 10° Cur. = 0.16
118.31 + 0.16 = 118.47 = corrected Tangent.

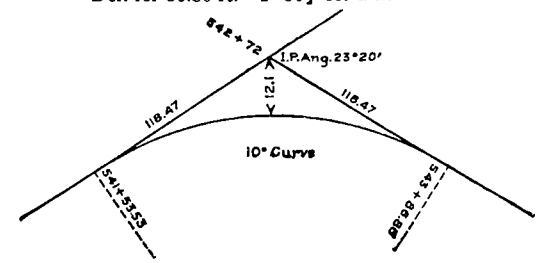
(If corrected Ext. is required find in same way)
Ang. 23° 20′ = 23.33° ÷ 10 = 2.3333 = L. C.

2° 19½′ = def. for sta.	542	I. P. = sta.	542+72
4° 49½′ = " " "	+50	Tan. =	1 .18.47
7° 19½′ = " " "	543	B. C. = sta.	541+53.53
9° 49½′ = " " "	+50	L. C. =	2 .33.33
11° 40′ = " " "	543+ 86.86	E. C. = Sta.	543+86.86

100 − 53.53 = 46.47 × 3′ (def. for 1 ft. of 10° Cur.) = 139.41′ = 2° 19½′ = def. for sta. 542.

Def. for 50 ft. = 2° 30′ for a 10° Curve.

Def. for 36.86 ft. = 1° 50½′ for a 10° Curve.



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Thursday September 30, 2004

purge and sample.

* The final SWL was 13.78' below top of PVC.

* A YSI Multimeter was used for field parameters.

* The SWL is approximately 1' below top of PVC shallower than the SWL measured during the March 2004 monitoring.

* The TD was shallower than during the March 2004 sampling event by approx. 1".

Jon C. Edel Jr.

Thursday September 30, 2004

R7GW10-10

TD: 20'6" (below top PVC)
Ø=2"
SWL= 11.48' below top PVC

Start pump 1541
Bottom of tubing within well screen

Time	SWL	pH	Cond.	Temp	Comments.
1546 5 gpm SEE	11.55	6.65	3,229	29.97°C 85.95°F	Yellowish tint No odor
1551	11.55	6.58	3,228	29.96°C 85.93°F	Same as above
1556	11.55	6.58	3,225	29.93°C 85.87°F	Same as above

* MEK sampled well.
* Sample time is 1558. Sampled for full App. I parameters including 1,4-Dioxane and beta-bhc.
* Water reacting with HCL acid in VOA Vials.
* Sample had a yellowish tint with no apparent odor.

② Jon C. Edell Jr.

Thursday September 30, 2004

* Flow rate was at minimum capacity of the pump.
* Weather is hot, humid, and cloudy. No wind at this location.
* An interface probe was used to collect initial water. No product observed. Ground water level meter was used for each round of purging.
* For App. I List:

  (4) 40 mL VOAs - HCL preserved
  (2) 250 mL Poly - HNO_3 preserved

* Beta-bhc (2) 1-liter ambers - not preserved.
* 1,4-Dioxane (2) 1-liter ambers - not preserved.
* A peristaltic pump was used to

③ Jon C. Edell Jr.

Thursday September 30, 2004

purge and sample.

* The final SWL is 11.58' below top of pvc.

* A YSI multimeter was used for field parameters.

* The SWL is approximately 2' below top of pvc shallower than the SWL measured during the March 2004 monitoring.

* The TD was shallower than during the March 2004 sampling event by approx. 1".

Jon C. Edel Jr.

Thursday September 30, 2004

R7GW07R2-10

TD = 25' 2.5" (below top pvc)
Ø = 2"
SWL = 10.76' below top pvc

Start pump 1612
Bottom of tubing within well screen

Time	SWL	pH	Cond.	Temp.	Comments
1617	11.36	6.96	3,354	30.59°C 87.06°F	Rel. clear No odor
1622	11.61	6.88	3,324	30.56°C 87.01°F	Same as above
1627	11.67	6.87	3,514	30.50°C 86.90°F	Rel. clear Sl. sulfur odor
1632	11.71	6.79	3,618	30.38°C 86.68°F	Same as above
1637	11.79	6.79	3,573	30.45°C 86.81°F	Same as above

Thursday September 30, 2004

* MEK sampled well.
* Sample time is 1639. Sampled for full App. I parameters including 1,4-Dioxane and Beta-BHC.
* Sample is relatively clear with a slight sulfur odor.
* Flow rate was at minimum capacity of pump.
* Weather is hot, humid, and cloudy with some wind.
* An interface probe was used to collect initial SWL. No product observed. Groundwater level meter was used for each round of purging.
* Full App. I list:
  (4) 40 ml VOAs - HCL preserved
  (2) 250 ml Polys - HNO_3 preserved
* Beta-BHC (2) 1-liter ambers - not preserved.
* 1,4-Dioxane (2) 1-liter amber - not preserved
* A peristaltic pump was used to purge and sample.

 Jon C. Edel Jr.

Thursday September 30, 2004

* The final SWL is 11.82' below top of PVC.
* A YSI multimeter was used for field parameters.
* The SWL is approximately 2" below top of PVC shallower than the SWL measured during the March 2004 monitoring.
* The TD was shallower during this round than during the March 2004 sampling event by approx. .5".

Jon C. Edel Jr.

Thursday September 30, 2004

R7GW08R-10

TD= 19' 6.5" (below top PVC)
Ø= 2"
SWL= 9.16' below top PVC

Start pump 1652
Bottom of tubing within well screen

Time	SWL	pH	Cond.	Temp.	Comments
1657	9.31	6.87	5,627	27.20°C 80.96°F	SL. Cloudy No odor
1702	9.31	6.78	5,601	27.08°C 80.74°F	SL. Cloudy No odor
1707	9.31	6.81	5,462	26.96°C 80.53°F	SL. Cloudy

* MEK sampled well.
* Sample time is 1710. Sampled for full App. I parameters including 1,4-Dioxane and Beta-BHC.
* Sample is slightly cloudy with no apparent odor.
* Flow rate was at minimum capacity of pump.

Thursday September 30, 2004

* Weather is hot, humid, and cloudy with some wind.
* An interface probe was used to collect initial SWL. No product observed. Groundwater level meter was used for each round of purging.
* Full App. I list:
  (4) 40 mL VOAs - HCL preserved
  (2) 250 mL Poly - HNO_3 preserved
* Beta-BHC (2) - 1-liter ambers - not preserved.
* 1,4-Dioxane (2) - 1-liter ambers - not preserved.
* A peristaltic pump was used to purge and sample.
* The final SWL is 9.31' below top of PVC.
* A YSI multimeter was used for field parameters.
* The SWL is approximately 1.5' below top of PVC shallower than the SWL collected during the March 2004 Semi-Annual Monitoring.

Thursday September 30, 2004

* The TD was shallower than during the March 2004 sampling event by approx. 1'.5".

Jon C. Edel Jr.

Thursday September 30, 2004

1649 Arrive at R7GW08R to collect groundwater samples.

1715 Leaving R7GW08R to go to Marina to get more ice.

1720 Arrive at Marina. I am checking the calibration of the multimeter.

- Specific conductivity was .956 mS/cm on a 1 mS/cm standard
- The PH was the following:
  - 4 standard was 4.29
  - 7 standard was 6.76
  - 10 standard was 10.32

1738 MEK and I left the marina. Finished sampling for the day. Offsite.

Jon C. Edel Jr.

Friday October 1, 2004

0720 Arrive at Gate 1 with MEK

0740 Arrive at PWD to pick up more supplies for the days sampling.

0757 Collecting R7TB01-10.

0802 Collecting Field Blank sample R7FB01-10 of lab grade deionized water.

0804 Collecting Equipment rinsate sample of silicon tubing using lab grade deionized water.

0810 MEK and I are packing up samples for shipment today.

0910 we are leaving to go get more ice for the shipment.

0925 Arrive back at PWD to finish packing Samples.

1035 Leaving PWD to go get a round of water levels at the landfill.

1040 Arrive at R7GW02R to get water level. (4.24' feet below top of PVC)

1043 Arrive at R7GW09 to get water level. (8.69' below top of PVC).

1045 Arrive at R7GW04R to collect

Friday October 1, 2004

water level. (14.74' below top of PVC). Noticed pressure build up in well.

1049 Arrive at R7GW01R to collect water level. (5.32' below top of PVC.)

1053 Arrive at R7GW05R to collect water levels. (13.67' below top of PVC.)

1055 Arrive at R7GW10 to collect water level. (11.56' below top of PVC.)

1057 Arrive at R7GW07RA to collect water level. (11.98' below top of PVC.) Noticed pressure build up in well.

1059 Arrive at R7GW08R to collect water level. (9.24' below top of PVC).

1102 Arrive at R7GW11 to collect water level. (3.45' below top of PVC.)

1105 Arrive back at PWD to load

Friday October 1, 2004

truck with coolers to Duke to FedEx.

1150 Leaving PWD to head to San Juan to drop coolers off at FedEx.

1230 Arrive at FedEx to drop off 8 coolers of samples. The master air waybill number is 8480 3122 5211. The relinquish time was 1300 on the COCs.

Jon C. Edel Jr.

Wednesday March 6, 2004

0721 Arrive at R7GW11 to collect SWL, with MEK and John Mallnowski. SWL is 3.74' below top PVC.

0727 Arrive at R7GW05R to collect SWL. SWL is 13.75' below top PVC.

0731 Arrive at R7GW10 to collect SWL. SWL is 11.74' below top PVC. Root growth noted in the well.

0732 Arrive at R7GW07R2 to collect SWL. SWL is 11.51' below top of PVC.

0736 Arrive at R7GW08R to collect SWL. SWL is 9.50' below top PVC.

0739 Arrive at R7GW01R to collect SWL. SWL is 5.38' below top PVC.

0744 Arrive at R7GW04R to collect SWL. SWL is 11.82' below top PVC.

0748 Arrive at R7GW09 to collect SWL. SWL is 9.56' below top PVC.

0752 Arrive at R7GW02R to collect SWL. SWL is 4.31' below top PVC.

0805 Arrive back at PWD. Finished with the Landfill Semi-Annual Monitoring. Plastic zip ties were used to

Wednesday March 6, 2004

Secure the metal casing of each well with the exception of R)GW11 which is a flushmount. The plastic zip ties were requested by Madeline Rivera of PWD. Environmental on base.

Jon C. Edell Jr.

APPENDIX D
Laboratory Analytical Results

APPENDIX D

LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW01R**	**R7GW02R**	**R7GW02R (Dup)**
Sample Description :	**R7GW01R-10**	**R7GW02R-10**	**R7GW02R-10D**
Sample Date/Time :	**09-30-2004/1349**	**09-30-2004/1221**	**09-30-2004/1221**
Appendix I Volatile Organics (ug/L)			
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U
1,2,3-Trichloropropane	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U
1,2-Dibromoethane (EDB)	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2-Butanone (MEK)	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U
Acetone	25 U	25 U	25 U
Acrylonitrile	20 U	20 U	20 U
Benzene	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	0.86 J
Carbon tetrachloride	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U
Dichloromethane	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U
Iodomethane	1 U	1 U	1 U
Styrene	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U
Toluene	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	2 U	2 U	2 U
Trichloroethene	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U
Vinyl acetate	2 U	2 U	2 U
Vinyl chloride	1 U	1 U	1 U
Xylenes, Total	2 U	2 U	2 U

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LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW01R**	**R7GW02R**	**R7GW02R (Dup)**
Sample Description :	**R7GW01R-10**	**R7GW02R-10**	**R7GW02R-10D**
Sample Date/Time :	**09-30-2004/1349**	**09-30-2004/1221**	**09-30-2004/1221**
Appendix I Metals (mg/L)			
Antimony	0.02 U	0.02 U	0.02 U
Arsenic	0.01 U	0.01 U	0.01 U
Barium	0.046	0.033	0.033
Beryllium	0.004 U	0.004 U	0.004 U
Cadmium	0.005 U	0.005 U	0.005 U
Chromium	0.0011 J	0.0014 J	0.01 U
Cobalt	0.01 U	0.01 U	0.01 U
Copper	0.02 U	0.02 U	0.02 U
Lead	0.005 U	0.005 U	0.005 U
Nickel	0.0023 J	0.0039 J	0.0054 J
Selenium	0.01 U	0.01 U	0.01 U
Silver	0.01 U	0.01 U	0.01 U
Thallium	0.01 U	0.0086 J	0.01 U
Vanadium	0.0054 J	0.0072 J	0.0068 J
Zinc	0.0034 J	0.0038 J	0.0046 J
Appendix I Metals (Dissolved) (mg/L)			
Antimony (Dissolved)	0.02 U	0.02 U	0.02 U
Arsenic, (Dissolved)	0.01 U	0.01 U	0.01 U
Barium, (Dissolved)	0.041	0.028	0.029
Beryllium (Dissolved)	0.004 U	0.004 U	0.004 U
Cadmium (Dissolved)	0.005 U	0.005 U	0.005 U
Chromium, (Dissolved)	0.01 U	0.01 U	0.01 U
Cobalt (Dissolved)	0.0061 J	0.01 U	0.01 U
Copper, Dissolved	0.02 U	0.02 U	0.02 U
Lead, (Dissolved)	0.005 U	0.005 U	0.005 U
Nickel, (Dissolved)	0.04 U	0.0045 J	0.0036 J
Selenium (Dissolved)	0.01 U	0.01 U	0.01 U
Silver (Dissolved)	0.01 U	0.01 U	0.01 U
Thallium, (Dissolved)	0.0077 J	0.01 U	0.008 J
Vanadium (Dissolved)	0.0044 J	0.0058 J	0.0069 J
Zinc, (Dissolved)	0.0015 J	0.0023 J	0.0018 J

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter

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LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW04R**	**R7GW05R**	**R7GW07R2**
Sample Description :	**R7GW04R-10**	**R7GW05R-10**	**R7GW07R2-10**
Sample Date/Time :	**09-30-2004/1026**	**09-30-2004/1525**	**09-30-2004/1639**
Appendix I Volatile Organics (ug/L)			
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U
1,2,3-Trichloropropane	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U
1,2-Dibromoethane (EDB)	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2-Butanone (MEK)	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U
Acetone	25 U	25 U	25 U
Acrylonitrile	20 U	20 U	20 U
Benzene	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U
Carbon tetrachloride	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	0.44 J	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U
Dichloromethane	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U
Iodomethane	1 U	1 U	1 U
Styrene	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U
Toluene	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	2 U	2 U	2 U
Trichloroethene	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U
Vinyl acetate	2 U	2 U	2 U
Vinyl chloride	1 U	1 U	1 U
Xylenes, Total	2 U	2 U	2 U

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LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW04R**	**R7GW05R**	**R7GW07R2**
Sample Description :	**R7GW04R-10**	**R7GW05R-10**	**R7GW07R2-10**
Sample Date/Time :	**09-30-2004/1026**	**09-30-2004/1525**	**09-30-2004/1639**
Appendix I Metals (mg/L)			
Antimony	0.02 U	0.02 U	0.02 U
Arsenic	0.01 U	0.01 U	0.0059 J
Barium	0.6	0.015	0.18
Beryllium	0.00054 J	0.004 U	0.004 U
Cadmium	0.0073	0.005 U	0.005 U
Chromium	0.035	0.01 U	0.01 U
Cobalt	0.038	0.01 U	0.0029 J
Copper	0.3	0.02 U	0.02 U
Lead	0.032	0.005 U	0.005 U
Nickel	0.019 J	0.003 J	0.0033 J
Selenium	0.01 U	0.01 U	0.01 U
Silver	0.01 U	0.01 U	0.01 U
Thallium	0.01 U	0.01 U	0.01 U
Vanadium	0.18	0.0052 J	0.0013 J
Zinc	0.52	0.0048 J	0.0036 J
Appendix I Metals (Dissolved) (mg/L)			
Antimony (Dissolved)	0.02 U	0.02 U	0.02 U
Arsenic, (Dissolved)	0.01 U	0.0069 J	0.0052 J
Barium, (Dissolved)	0.16	0.014	0.17
Beryllium (Dissolved)	0.004 U	0.004 U	0.004 U
Cadmium (Dissolved)	0.0013 J	0.005 U	0.005 U
Chromium, (Dissolved)	0.01 U	0.01 U	0.01 U
Cobalt (Dissolved)	0.022	0.0066 J	0.012
Copper, Dissolved	0.02 U	0.02 U	0.02 U
Lead, (Dissolved)	0.005 U	0.005 U	0.0039 J
Nickel, (Dissolved)	0.0056 J	0.04 U	0.0039 J
Selenium (Dissolved)	0.01 U	0.01 U	0.01 U
Silver (Dissolved)	0.01 U	0.01 U	0.01 U
Thallium, (Dissolved)	0.01 U	0.01 U	0.01 U
Vanadium (Dissolved)	0.009 J	0.0044 J	0.00083 J
Zinc, (Dissolved)	0.013 J	0.0034 J	0.0024 J

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter

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LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW08R**	**R7GW09R**	**R7GW10R**
Sample Description :	**R7GW08R-10**	**R7GW09-10**	**R7GW10-10**
Sample Date/Time :	**09-30-2004/1710**	**09-30-2004/1126**	**09-30-2004/1558**
Appendix I Volatile Organics (ug/L)			
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U
1,2,3-Trichloropropane	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U
1,2-Dibromoethane (EDB)	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2-Butanone (MEK)	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U
Acetone	25 U	25 U	25 U
Acrylonitrile	20 U	20 U	20 U
Benzene	1 U	1 U	1.6
Bromochloromethane	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U
Carbon tetrachloride	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	5.7
Chloroethane	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U
Dichloromethane	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U
Iodomethane	1 U	1 U	1 U
Styrene	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U
Toluene	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	2 U	2 U	2 U
Trichloroethene	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U
Vinyl acetate	2 U	2 U	2 U
Vinyl chloride	1 U	1 U	1 U
Xylenes, Total	2 U	2 U	2 U

APPENDIX D

LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW08R**	**R7GW09R**	**R7GW10R**
Sample Description :	**R7GW08R-10**	**R7GW09-10**	**R7GW10-10**
Sample Date/Time :	**09-30-2004/1710**	**09-30-2004/1126**	**09-30-2004/1558**
Appendix I Metals (mg/L)			
Antimony	0.02 U	0.02 U	0.02 U
Arsenic	0.01 U	0.0068 J	0.027
Barium	0.036	0.076	0.011
Beryllium	0.004 U	0.004 U	0.004 U
Cadmium	0.005 U	0.005 U	0.005 U
Chromium	0.01 U	0.01 U	0.0022 J
Cobalt	0.0053 J	0.0054 J	0.0049 J
Copper	0.02 U	0.02 U	0.02 U
Lead	0.005 U	0.005 U	0.005 U
Nickel	0.0028 J	0.04 U	0.0088 J
Selenium	0.01 U	0.01 U	0.01 U
Silver	0.01 U	0.01 U	0.01 U
Thallium	0.01 U	0.01 U	0.01 U
Vanadium	0.0055 J	0.012	0.0069 J
Zinc	0.0026 J	0.0022 J	0.0018 J
Appendix I Metals (Dissolved) (mg/L)			
Antimony (Dissolved)	0.02 U	0.02 U	0.02 U
Arsenic, (Dissolved)	0.01 U	0.0064 J	0.025
Barium, (Dissolved)	0.034	0.068	0.011
Beryllium (Dissolved)	0.004 U	0.004 U	0.004 U
Cadmium (Dissolved)	0.005 U	0.005 U	0.005 U
Chromium, (Dissolved)	0.01 U	0.01 U	0.0015 J
Cobalt (Dissolved)	0.01 U	0.011	0.015
Copper, Dissolved	0.0039 J	0.02 U	0.02 U
Lead, (Dissolved)	0.005 U	0.005 U	0.0025 J
Nickel, (Dissolved)	0.004 J	0.0027 J	0.0083 J
Selenium (Dissolved)	0.01 U	0.01 U	0.01 U
Silver (Dissolved)	0.01 U	0.01 U	0.01 U
Thallium, (Dissolved)	0.01 U	0.01 U	0.01 U
Vanadium (Dissolved)	0.0072 J	0.011	0.0057 J
Zinc, (Dissolved)	0.0042 J	0.0047 J	0.003 J

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter

APPENDIX D

LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW11**
Sample Description :	**R7GW11-10**
Sample Date/Time :	**09-30-2004/0935**

Appendix I Volatile Organics (ug/L)

1,1,1,2-Tetrachloroethane	1 U
1,1,1-Trichloroethane	1 U
1,1,2,2-Tetrachloroethane	1 U
1,1,2-Trichloroethane	1 U
1,1-Dichloroethane	1 U
1,1-Dichloroethene	1 U
1,2,3-Trichloropropane	1 U
1,2-Dibromo-3-chloropropane	1 U
1,2-Dibromoethane (EDB)	1 U
1,2-Dichlorobenzene	1 U
1,2-Dichloroethane	1 U
1,2-Dichloropropane	1 U
1,4-Dichlorobenzene	1 U
2-Butanone (MEK)	10 U
2-Hexanone	10 U
4-Methyl-2-pentanone (MIBK)	10 U
Acetone	25 U
Acrylonitrile	20 U
Benzene	1 U
Bromochloromethane	1 U
Bromodichloromethane	1 U
Bromoform	1 U
Bromomethane	1 U
Carbon Disulfide	1 U
Carbon tetrachloride	1 U
Chlorobenzene	1 U
Chloroethane	1 U
Chloroform	1 U
Chloromethane	1 U
cis-1,2-Dichloroethene	1 U
cis-1,3-Dichloropropene	1 U
Dibromochloromethane	1 U
Dibromomethane	1 U
Dichloromethane	5 U
Ethylbenzene	1 U
Iodomethane	1 U
Styrene	1 U
Tetrachloroethene	1 U
Toluene	1 U
trans-1,2-Dichloroethene	1 U
trans-1,3-Dichloropropene	1 U
trans-1,4-Dichloro-2-butene	2 U
Trichloroethene	1 U
Trichlorofluoromethane	1 U
Vinyl acetate	2 U
Vinyl chloride	1 U
Xylenes, Total	2 U

APPENDIX D

LABORATORY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

Site ID	**R7GW11**
Sample Description :	**R7GW11-10**
Sample Date/Time :	**09-30-2004/0935**

Appendix I Metals (mg/L)	
Antimony	0.02 U
Arsenic	0.01 U
Barium	0.01
Beryllium	0.004 U
Cadmium	0.005 U
Chromium	0.01 U
Cobalt	0.01 U
Copper	0.02 U
Lead	0.005 U
Nickel	0.04 U
Selenium	0.01 U
Silver	0.01 U
Thallium	0.01 U
Vanadium	0.0022 J
Zinc	0.004 J

Appendix I Metals (Dissolved) (mg/L)	
Antimony (Dissolved)	0.02 U
Arsenic, (Dissolved)	0.01 U
Barium, (Dissolved)	0.0098 J
Beryllium (Dissolved)	0.004 U
Cadmium (Dissolved)	0.005 U
Chromium, (Dissolved)	0.01 U
Cobalt (Dissolved)	0.0035 J
Copper, Dissolved	0.02 U
Lead, (Dissolved)	0.0034 J
Nickel, (Dissolved)	0.04 U
Selenium (Dissolved)	0.01 U
Silver (Dissolved)	0.01 U
Thallium, (Dissolved)	0.01 U
Vanadium (Dissolved)	0.0025 J
Zinc, (Dissolved)	0.0032 J

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter

APPENDIX D
LABORAROTY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

	Equipment Rinsate	Field Blank	Trip Blank
Site ID	**R7ER01**	**R7FB01**	**R7TB01**
Sample Description :	**R7ER01-10**	**R7FB01-10**	**RTB01-10**
Sample Date/Time :	**10-01-2004/0804**	**10-01-2004/0802**	**10-01-2004/0757**
Appendix 1 Volatile Organics (ug/L)			
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U
1,2,3-Trichloropropane	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1 U	1 U	1 U
1,2-Dibromoethane (EDB)	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2-Butanone (MEK)	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U
Acetone	25 U	25 U	25 U
Acrylonitrile	20 U	20 U	20 U
Benzene	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U
Carbon Disulfide	1 U	1 U	1 U
Carbon tetrachloride	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U
Chloroform	1 U	1 U	1 U
Chloromethane	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U
Dichloromethane	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U
Iodomethane	1 U	1 U	1 U
Styrene	1 U	1 U	1 U
Tetrachloroethene	1 U	1 U	1 U
Toluene	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U
trans-1,4-Dichloro-2-butene	2 U	2 U	2 U
Trichloroethene	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U
Vinyl acetate	2 U	2 U	2 U
Vinyl chloride	1 U	1 U	1 U
Xylenes, Total	2 U	2 U	2 U

APPENDIX D
LABORAROTY ANALYTICAL RESULTS
SEMI-ANNUAL GROUNDWATER MONITORING REPORT, SEPTEMBER 2004
SOLID WASTE LANDFILL FACILITY
NAVAL ACTIVITY PUERTO RICO, CEIBA, PUERTO RICO

	Equipment Rinsate	Field Blank	Trip Blank
Site ID	**R7ER01**	**R7FB01**	**R7TB01**
Sample Description :	**R7ER01-10**	**R7FB01-10**	**RTB01-10**
Sample Date/Time :	**10-01-2004/0804**	**10-01-2004/0802**	**10-01-2004/0757**
Appendix I Metals (mg/L)			
Antimony	0.02 U	0.02 U	NA
Arsenic	0.01 U	0.01 U	NA
Barium	0.01 U	0.01 U	NA
Beryllium	0.004 U	0.004 U	NA
Cadmium	0.005 U	0.005 U	NA
Chromium	0.01 U	0.01 U	NA
Cobalt	0.01 U	0.01 U	NA
Copper	0.02 U	0.02 U	NA
Lead	0.005 U	0.005 U	NA
Nickel	0.04 U	0.04 U	NA
Selenium	0.01 U	0.01 U	NA
Silver	0.01 U	0.01 U	NA
Thallium	0.01 U	0.01 U	NA
Vanadium	0.01 U	0.01 U	NA
Zinc	0.0013 J	0.0015 J	NA

Notes:
U - Not Detected
ug/L - micrograms per liter
J - Qualified as Estimated
mg/L - milligrams per liter
NA--not analyzed

APPENDIX E
Puerto Rican Chemist Certification

SEVERN TRENT STL

Report to: Mr. Mark Kimes
Michael Baker Corporation/Baker Environmental Inc.
Airside Business Park - 100 Airside Dr.
Moon Township, PA 15108

STL Log #: S449419
Client Project #: T.O. 10
Client Project Description: BASE LANDFILL/PRNS124
Report Date: 10-29-04

Angie Weimerskirk, Project Manager

ESTADO LIBRE ASOCIADO DE PUERTO RICO
A 958307
Lic Abraham Ortiz Charriez
QUIMICO LICENCIADO

STL Savannah
5102 LaRoche Ave
Savannah, Ga 31404

SEVERN TRENT STL

CASE NARRATIVE

SDG# PRN124
PROJECT#(s) S449419

Volatiles by GC/MS Fraction

The following samples were analyzed according to SW-846 Method 8260B.

SAMPLE#	SAMPLE DESCRIPTION	MATRIX
S449419*1	R7GW01R-10	Liquid
S449419*2	R7GW02R-10	Liquid
S449419*3	R7GW02R-10D	Liquid
S449419*4	R7GW04R-10	Liquid
S449419*5	R7GW05R-10	Liquid
S449419*6	R7GW07R2-10	Liquid
S449419*7	R7GW08R-10	Liquid
S449419*8	R7GW09-10	Liquid
S449419*9	R7GW10-10	Liquid
S449419*10	R7GW11-10	Liquid
S449419*11	R7ER01-10	Liquid
S449419*12	R7FB01-10	Liquid
S449419*13	R7TB01-10	Liquid

Client sample S449419-2 (R7GW-2R-10) was the designated matrix spike/ matrix spike duplicate and all acceptance criteria were met.

A lab control sample was performed and all acceptance criteria were met.

SEVERN TRENT STL

CASE NARRATIVE

SDG# PRN124
PROJECT#(s) S449419

Metals Fraction

The following samples were analyzed according to SW-846 Methods 6010B and 7470A.

SAMPLE#	SAMPLE DESCRIPTION	MATRIX
S449419*1	R7GW01R-10	Liquid
S449419*2	R7GW02R-10	Liquid
S449419*3	R7GW02R-10D	Liquid
S449419*4	R7GW04R-10	Liquid
S449419*5	R7GW05R-10	Liquid
S449419*6	R7GW07R2-10	Liquid
S449419*7	R7GW08R-10	Liquid
S449419*8	R7GW09-10	Liquid
S449419*9	R7GW10-10	Liquid
S449419*10	R7GW11-10	Liquid
S449419*11	R7ER01-10	Liquid
S449419*12	R7FB01-10	Liquid

Sample S449419-2 (R7GW01R-10) was the designated matrix spike/ matrix spike duplicate (MS/MSD) for both total and dissolved metals for the ICP and mercury analyses.

The MS/MSD percent recoveries were outside of control limits for both total and dissolved mercury. All total and dissolved results from the same digestion batch were flagged with a "N". The MSD percent recovery for the S449419-2 total MSD was outside of control limits for silver. All associated total and dissolved results from the same digestion batch were flagged with a "N".

Due to a high percent relative standard deviation (%RSD) between the sample replicates in the initial analysis for arsenic for sample S449419-6 dissolved, the sample was reanalyzed on October 12, 2004 and all elements were reported from the reanalysis.

Due to a high negative value for thallium, sample S449419-4 was reanalyzed on October 13, 2004 and thallium was reported from the reanalysis.

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*1
Sample ID : R7GW01R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*1
Sample ID : R7GW01R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*108*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*112*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.046**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-11-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0011**	**B**	**mg/l**	**1**	**0.010**	**0.0011**
Cobalt	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0023**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-11-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0054**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0034**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.041**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0061**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*1
Sample ID : R7GW01R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0044	B	mg/l	1	0.010	0.00070
Zinc. (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0015	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0077	B	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00010	BN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*2
Sample ID : R7GW02R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*2
Sample ID : R7GW02R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*98*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*112*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.033**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0014**	**B**	**mg/l**	**1**	**0.010**	**0.0011**
Cobalt	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0039**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0072**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0038**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0086**	**B**	**mg/l**	**1**	**0.010**	**0.0057**
Antimony (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.028**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper, Dissolved	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*2
Sample ID : R7GW02R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0045	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0058	B	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0023	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*3
Sample ID : R7GW02R-10D
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	0.86	J	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*3
Sample ID : R7GW02R-10D
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*108*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*114*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.033**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0054**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0068**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0046**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.029**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*3
Sample ID : R7GW02R-10D
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel. (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0036	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0069	B	mg/l	1	0.010	0.00070
Zinc. (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0018	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0080	B	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00010	BN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00011	BN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*4
Sample ID : R7GW04R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*4
Sample ID : R7GW04R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*114*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-12-04	BR	0.032		mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	6010	1008G	10-08-04	10-12-04	BR	0.60		mg/l	1	0.010	0.0010
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.00054	B	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0073		mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.035		mg/l	1	0.010	0.0011
Cobalt	6010	1008G	10-08-04	10-12-04	BR	0.038		mg/l	1	0.010	0.0014
Copper	6010	1008G	10-08-04	10-12-04	BR	0.30		mg/l	1	0.020	0.0027
Nickel	6010	1008G	10-08-04	10-12-04	BR	0.019	B	mg/l	1	0.040	0.0022
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0020
Vanadium	6010	1008G	10-08-04	10-12-04	BR	0.18		mg/l	1	0.010	0.00070
Zinc	6010	1008G	10-08-04	10-12-04	BR	0.52		mg/l	1	0.020	0.0013
Thallium Dissolved	6010	1008G	10-08-04	10-13-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.16		mg/l	1	0.010	0.0010
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0013	B	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.022		mg/l	1	0.010	0.0014
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*4
Sample ID : R7GW04R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0056	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0090	B	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.013	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00017	BN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.000091	BN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*5
Sample ID : R7GW05R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	**8260**	**2P1006**	**10-07-04**	**10-07-04**	**PC**	**0.44**	**J**	**ug/l**	**1**	**1.0**	**0.16**
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*5
Sample ID : R7GW05R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*108*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*98*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*114*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.015**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0030**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0052**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0048**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0069**	**B**	**mg/l**	**1**	**0.010**	**0.0050**
Lead, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.014**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0066**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*5
Sample ID : R7GW05R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0044	B	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0034	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*6
Sample ID : R7GW07R2-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*6
Sample ID : R7GW07R2-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*110*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0059**	**B**	**mg/l**	**1**	**0.010**	**0.0050**
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.18**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0029**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0033**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0013**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0036**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**LJV**	**0.0052**	**B**	**mg/l**	**1**	**0.010**	**0.0050**
Lead, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**LJV**	**0.0039**	**B**	**mg/l**	**1**	**0.0050**	**0.0025**
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**LJV**	**0.17**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**LJV**	**0.012**		**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	LJV	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*6
Sample ID : R7GW07R2-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.0039	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.00083	B	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.0024	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	LJV	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00011	BN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*7
Sample ID : R7GW08R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*7
Sample ID : R7GW08R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*108*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*98*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*110*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.036**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0053**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0028**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0055**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0026**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.034**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper, Dissolved	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0039**	**B**	**mg/l**	**1**	**0.020**	**0.0027**

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*7
Sample ID : R7GW08R-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0072	B	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0042	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.000099	BN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*8
Sample ID : R7GW09-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*8
Sample ID : R7GW09-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*108*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*112*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0068**	**B**	**mg/l**	**1**	**0.010**	**0.0050**
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.076**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0054**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	6010	1008G	10-08-04	10-12-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.012**		**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0022**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0064**	**B**	**mg/l**	**1**	**0.010**	**0.0050**
Lead, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.068**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.011**		**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*8
Sample ID : R7GW09-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0027	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.011		mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0047	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.000079	BN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*9
Sample ID : R7GW10-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.6		ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	5.7		ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*9
Sample ID : R7GW10-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*104*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*112*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.027**		**mg/l**	**1**	**0.010**	**0.0050**
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.011**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0022**	**B**	**mg/l**	**1**	**0.010**	**0.0011**
Cobalt	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0049**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0088**	**B**	**mg/l**	**1**	**0.040**	**0.0022**
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0069**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0018**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.025**		**mg/l**	**1**	**0.010**	**0.0050**
Lead, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0025**	**B**	**mg/l**	**1**	**0.0050**	**0.0025**
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.011**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium. (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0015**	**B**	**mg/l**	**1**	**0.010**	**0.0011**
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.015**		**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*9
Sample ID : R7GW10-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0083	B	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0057	B	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0030	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.000093	BN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*10
Sample ID : R7GW11-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*10
Sample ID : R7GW11-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*98*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*110*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.010**		**mg/l**	**1**	**0.010**	**0.0010**
Beryllium	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	6010	1008G	10-08-04	10-12-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0022**	**B**	**mg/l**	**1**	**0.010**	**0.00070**
Zinc	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0040**	**B**	**mg/l**	**1**	**0.020**	**0.0013**
Thallium Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0034**	**B**	**mg/l**	**1**	**0.0050**	**0.0025**
Selenium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0098**	**B**	**mg/l**	**1**	**0.010**	**0.0010**
Beryllium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-12-04**	**BR**	**0.0035**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-12-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*10
Sample ID : R7GW11-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	UN	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0025	B	mg/l	1	0.010	0.00070
Zinc. (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.0032	B	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-12-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00013	BN	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	JL	0.00020	UN	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*11
Sample ID : R7ER01-10
Matrix : LI
Percent Solids :

Sampled : 10-01-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*11
Sample ID : R7ER01-10
Matrix : LI
Percent Solids :

Sampled : 10-01-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*102*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*112*		*%*	*1*		
Antimony	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008H	10-08-04	10-11-04	LJV	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0053
Barium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0010
Beryllium	6010	1008H	10-08-04	10-11-04	LJV	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008H	10-08-04	10-11-04	LJV	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0011
Cobalt	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0027
Nickel	6010	1008H	10-08-04	10-11-04	LJV	0.040	U	mg/l	1	0.040	0.0022
Silver	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0020
Vanadium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.00070
Zinc	6010	1008H	10-08-04	10-11-04	LJV	0.0013	B	mg/l	1	0.020	0.0013
Thallium Dissolved	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1008T	10-08-04	10-10-04	SHN	0.00010	B	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*12
Sample ID : R7FB01-10
Matrix : LI
Percent Solids :

Sampled : 10-01-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*12
Sample ID : R7FB01-10
Matrix : LI
Percent Solids :

Sampled : 10-01-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*102*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*112*		*%*	*1*		
Antimony	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008H	10-08-04	10-11-04	LJV	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0053
Barium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0010
Beryllium	6010	1008H	10-08-04	10-11-04	LJV	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008H	10-08-04	10-11-04	LJV	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0011
Cobalt	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0027
Nickel	6010	1008H	10-08-04	10-11-04	LJV	0.040	U	mg/l	1	0.040	0.0022
Silver	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0020
Vanadium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.00070
Zinc	6010	1008H	10-08-04	10-11-04	LJV	0.0015	B	mg/l	1	0.020	0.0013
Thallium Dissolved	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1008T	10-08-04	10-10-04	SHN	0.00020	U	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*13
Sample ID : R7TB01-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S449419B*13
Sample ID : R7TB01-10
Matrix : LI
Percent Solids :

Sampled : 09-30-2004
Received: 10-02-2004

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*108*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*100*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*114*		*%*	*1*		

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*1
Sample ID : Method Blank
Matrix : LI Sampled :
Percent Solids : Received:

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Acetone	8260	2P1006	10-07-04	10-07-04	PC	25	U	ug/l	1	25	2.3
Acrylonitrile	8260	2P1006	10-07-04	10-07-04	PC	20	U	ug/l	1	20	3.9
Benzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.096
Bromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
Bromodichloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
Bromoform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.19
Carbon Disulfide	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.72
Carbon tetrachloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Chlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.10
Chloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.86
Chloroform	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
Dibromochloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.078
1,2-Dibromo-3-chloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.22
1,2-Dibromoethane (EDB)	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.083
1,2-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
1,4-Dichlorobenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
trans-1,4-Dichloro-2-butene	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.77
1,1-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
1,2-Dichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.18
1,1-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.31
cis-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.16
trans-1,2-Dichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.36
1,2-Dichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
cis-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.12
trans-1,3-Dichloropropene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.15
Ethylbenzene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
2-Hexanone	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.29
Bromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.49
Chloromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.40
Dibromomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.21
Dichloromethane	8260	2P1006	10-07-04	10-07-04	PC	5.0	U	ug/l	1	5.0	0.61
2-Butanone (MEK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.48
Iodomethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.085
4-Methyl-2-pentanone (MIBK)	8260	2P1006	10-07-04	10-07-04	PC	10	U	ug/l	1	10	0.27
Styrene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.050
1,1,1,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.20
1,1,2,2-Tetrachloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.17
Tetrachloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.43

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*1
Sample ID : Method Blank
Matrix : LI Sampled :
Percent Solids : Received:

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Toluene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,1-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.065
1,1,2-Trichloroethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.11
Trichloroethene	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Trichlorofluoromethane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.27
1,2,3-Trichloropropane	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.53
Vinyl acetate	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.36
Vinyl chloride	8260	2P1006	10-07-04	10-07-04	PC	1.0	U	ug/l	1	1.0	0.13
Xylenes, Total	8260	2P1006	10-07-04	10-07-04	PC	2.0	U	ug/l	1	2.0	0.28
*Surrogate-TOL **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*106*		*%*	*1*		
*Surrogate-BFB **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*98*		*%*	*1*		
*Surrogate - Dibromofluoromethane **	*8260*	*2P1006*	*10-07-04*	*10-07-04*	*PC*	*110*		*%*	*1*		
Antimony	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0010
Beryllium	6010	1008G	10-08-04	10-11-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0014**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0027
Nickel	6010	1008G	10-08-04	10-11-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0020
Vanadium	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.00070
Zinc	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0013
Thallium	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0057
Antimony (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0037
Arsenic, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0050
Lead, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.0025
Selenium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0053
Barium, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0010
Beryllium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.0050	U	mg/l	1	0.0050	0.00086
Chromium, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0011
Cobalt (Dissolved)	**6010**	**1008G**	**10-08-04**	**10-11-04**	**BR**	**0.0014**	**B**	**mg/l**	**1**	**0.010**	**0.0014**
Copper, Dissolved	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0027

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*1
Sample ID : Method Blank
Matrix : LI
Percent Solids :

Sampled :
Received:

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Nickel, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.040	U	mg/l	1	0.040	0.0022
Silver (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0020
Vanadium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.00070
Zinc, (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.020	U	mg/l	1	0.020	0.0013
Thallium (Dissolved)	6010	1008G	10-08-04	10-11-04	BR	0.010	U	mg/l	1	0.010	0.0057
Mercury	7470	1007S	10-07-04	10-08-04	JL	0.00020	U	mg/l	1	0.00020	0.000078
Mercury (Dissolved)	7470	1007S	10-07-04	10-08-04	SHN	0.00020	U	mg/l	1	0.00020	0.000078

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*12
Sample ID : Method Blank
Matrix : LI
Percent Solids :

Sampled :
Received:

RESULTS SUMMARY REPORT

Parameter	Method	Batch	Prep Date	Analysis Date	Analyst	Result	Qual	Units	DF	RL	MDL
Mercury	7470	1008T	10-08-04	10-10-04	SHN	0.000087	B	mg/l	1	0.00020	0.000078
Antimony	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0037
Arsenic	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0050
Lead	6010	1008H	10-08-04	10-11-04	LJV	0.0038	B	mg/l	1	0.0050	0.0025
Selenium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0053
Barium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0010
Beryllium	6010	1008H	10-08-04	10-11-04	LJV	0.0040	U	mg/l	1	0.0040	0.00040
Cadmium	6010	1008H	10-08-04	10-11-04	LJV	0.0050	U	mg/l	1	0.0050	0.00086
Chromium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0011
Cobalt	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0014
Copper	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0027
Nickel	6010	1008H	10-08-04	10-11-04	LJV	0.040	U	mg/l	1	0.040	0.0022
Silver	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0020
Vanadium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.00070
Zinc	6010	1008H	10-08-04	10-11-04	LJV	0.020	U	mg/l	1	0.020	0.0013
Thallium	6010	1008H	10-08-04	10-11-04	LJV	0.010	U	mg/l	1	0.010	0.0057

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*2
Sample ID : Lab Control Standard Result
Matrix : LI Sampled :
Percent Solids : Received:

LCS RESULTS SUMMARY REPORT

Parameter	Method	Batch	Spike Result	Expected Value	Units	Spike % Recovery	Accuracy Limit
Benzene	8260	2P1006	41	50	ug/l	82	69-128
Chlorobenzene	8260	2P1006	40	50	ug/l	80	72-126
1,1-Dichloroethene	8260	2P1006	46	50	ug/l	92	53-144
Toluene	8260	2P1006	42	50	ug/l	84	71-129
Trichloroethene	8260	2P1006	43	50	ug/l	86	70-123
Surrogate-TOL *	8260	2P1006	41	50	ug/l	82	74-122
Surrogate-BFB *	8260	2P1006	41	50	ug/l	82	70-119
Surrogate - Dibromofluoromethane *	8260	2P1006	45	50	ug/l	90	68-129
Antimony	6010	1008G	0.512	0.500	mg/l	102	75-125
Arsenic	6010	1008G	2.06	2.00	mg/l	103	75-125
Lead	6010	1008G	0.528	0.500	mg/l	106	75-125
Selenium	6010	1008G	2.06	2.00	mg/l	103	75-125
Barium	6010	1008G	2.14	2.00	mg/l	107	75-125
Beryllium	6010	1008G	0.0528	0.0500	mg/l	106	75-125
Cadmium	6010	1008G	0.0522	0.0500	mg/l	104	75-125
Chromium	6010	1008G	0.215	0.200	mg/l	108	75-125
Cobalt	6010	1008G	0.526	0.500	mg/l	105	75-125
Copper	6010	1008G	0.267	0.250	mg/l	107	75-125
Nickel	6010	1008G	0.529	0.500	mg/l	106	75-125
Silver	6010	1008G	0.0520	0.0500	mg/l	104	75-125
Vanadium	6010	1008G	0.520	0.500	mg/l	104	75-125
Zinc	6010	1008G	0.529	0.500	mg/l	106	75-125
Thallium	6010	1008G	2.10	2.00	mg/l	105	75-125
Antimony (Dissolved)	6010	1008G	0.512	0.500	mg/l	102	75-125
Arsenic, (Dissolved)	6010	1008G	2.06	2.00	mg/l	103	75-125
Lead, (Dissolved)	6010	1008G	0.528	0.500	mg/l	106	75-125
Selenium (Dissolved)	6010	1008G	2.06	2.00	mg/l	103	75-125
Barium, (Dissolved)	6010	1008G	2.14	2.00	mg/l	107	75-125
Beryllium (Dissolved)	6010	1008G	0.0528	0.0500	mg/l	106	75-125
Cadmium (Dissolved)	6010	1008G	0.0522	0.0500	mg/l	104	75-125
Chromium, (Dissolved)	6010	1008G	0.215	0.200	mg/l	108	75-125
Cobalt (Dissolved)	6010	1008G	0.526	0.500	mg/l	105	75-125
Copper, Dissolved	6010	1008G	0.267	0.250	mg/l	107	75-125
Nickel, (Dissolved)	6010	1008G	0.529	0.500	mg/l	106	75-125
Silver (Dissolved)	6010	1008G	0.0520	0.0500	mg/l	104	75-125
Vanadium (Dissolved)	6010	1008G	0.520	0.500	mg/l	104	75-125
Zinc, (Dissolved)	6010	1008G	0.529	0.500	mg/l	106	75-125

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*2
Sample ID : Lab Control Standard Result
Matrix : LI Sampled :
Percent Solids : Received:

LCS RESULTS SUMMARY REPORT

Parameter	Method	Batch	Spike Result	Expected Value	Units	Spike % Recovery	Accuracy Limit
Thallium (Dissolved)	6010	1008G	2.10	2.00	mg/l	105	75-125
Mercury	7470	1007S	0.00250	0.00250	mg/l	100	80-120
Mercury (Dissolved)	7470	1007S	0.00250	0.00250	mg/l	100	80-120

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*13
Sample ID : Lab Control Standard Result
Matrix : LI Sampled :
Percent Solids : Received:

LCS RESULTS SUMMARY REPORT

Parameter	Method	Batch	Spike Result	Expected Value	Units	Spike % Recovery	Accuracy Limit
Mercury	7470	1008T	0.00260	0.00250	mg/l	104	80-120
Antimony	6010	1008H	0.474	0.500	mg/l	95	75-125
Arsenic	6010	1008H	2.02	2.00	mg/l	101	75-125
Lead	6010	1008H	0.519	0.500	mg/l	104	75-125
Selenium	6010	1008H	2.06	2.00	mg/l	103	75-125
Barium	6010	1008H	2.10	2.00	mg/l	105	75-125
Beryllium	6010	1008H	0.0527	0.0500	mg/l	105	75-125
Cadmium	6010	1008H	0.0523	0.0500	mg/l	105	75-125
Chromium	6010	1008H	0.212	0.200	mg/l	106	75-125
Cobalt	6010	1008H	0.514	0.500	mg/l	103	75-125
Copper	6010	1008H	0.263	0.250	mg/l	105	75-125
Nickel	6010	1008H	0.523	0.500	mg/l	105	75-125
Silver	6010	1008H	0.0511	0.0500	mg/l	102	75-125
Vanadium	6010	1008H	0.511	0.500	mg/l	102	75-125
Zinc	6010	1008H	0.518	0.500	mg/l	104	75-125
Thallium	6010	1008H	2.10	2.00	mg/l	105	75-125

SEVERN TRENT STL

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*5
Sample ID : Matrix Spike Result (R7GW02R-10)
Matrix : LI Sampled :
Percent Solids : Received:

MS/MSD RESULTS SUMMARY REPORT

Parameter	Method	Batch	Parent Result	Spike Result	Expected Value	Units	Spike % Recovery	Spike % RPD	Accuracy Limit	Precision Limit
Benzene	8260	2P1006	1.0U	52	50	ug/l	104	1.9	69-128	30
	8260	2P1006	1.0U	51	50	ug/l	102			
Chlorobenzene	8260	2P1006	1.0U	50	50	ug/l	100	2.0	72-126	30
	8260	2P1006	1.0U	49	50	ug/l	98			
1,1-Dichloroethene	8260	2P1006	1.0U	57	50	ug/l	114	1.7	53-144	30
	8260	2P1006	1.0U	58	50	ug/l	116			
Toluene	8260	2P1006	1.0U	52	50	ug/l	104	1.9	71-129	30
	8260	2P1006	1.0U	51	50	ug/l	102			
Trichloroethene	8260	2P1006	1.0U	52	50	ug/l	104	1.9	70-123	30
	8260	2P1006	1.0U	51	50	ug/l	102			
Surrogate-TOL *	8260	2P1006	106 %	52	50	ug/l	104		74-122	
	8260	2P1006	106 %	51	50	ug/l	102			
Surrogate-BFB *	8260	2P1006	98 %	48	50	ug/l	96		70-119	
	8260	2P1006	98 %	48	50	ug/l	96			
Surrogate - Dibromofluoromethane *	8260	2P1006	112 %	54	50	ug/l	108		68-129	
	8260	2P1006	112 %	54	50	ug/l	108			
Antimony	6010	1008G	0.020U	0.568	0.500	mg/l	114	2.1	75-125	20
	6010	1008G	0.020U	0.581	0.500	mg/l	116			
Arsenic	6010	1008G	0.010U	2.21	2.00	mg/l	110	2.1	75-125	20
	6010	1008G	0.010U	2.26	2.00	mg/l	113			
Lead	6010	1008G	0.0050U	0.557	0.500	mg/l	111	1.4	75-125	20
	6010	1008G	0.0050U	0.565	0.500	mg/l	113			
Selenium	6010	1008G	0.010U	2.18	2.00	mg/l	109	2.6	75-125	20
	6010	1008G	0.010U	2.24	2.00	mg/l	112			
Barium	6010	1008G	0.033	2.12	2.00	mg/l	104	1.7	75-125	20
	6010	1008G	0.033	2.16	2.00	mg/l	106			
Beryllium	6010	1008G	0.0040U	0.0494	0.0500	mg/l	99	1.6	75-125	20
	6010	1008G	0.0040U	0.0502	0.0500	mg/l	100			
Cadmium	6010	1008G	0.0050U	0.0493	0.0500	mg/l	99	3.2	75-125	20
	6010	1008G	0.0050U	0.0509	0.0500	mg/l	102			
Chromium	6010	1008G	0.0014B	0.208	0.200	mg/l	103	1.4	75-125	20
	6010	1008G	0.0014B	0.211	0.200	mg/l	105			
Cobalt	6010	1008G	0.010U	0.515	0.500	mg/l	103	1.2	75-125	20
	6010	1008G	0.010U	0.521	0.500	mg/l	104			
Copper	6010	1008G	0.020U	0.301	0.250	mg/l	120	1.7	75-125	20
	6010	1008G	0.020U	0.306	0.250	mg/l	122			
Nickel	6010	1008G	0.0039B	0.510	0.500	mg/l	101	2.3	75-125	20
	6010	1008G	0.0039B	0.522	0.500	mg/l	104			

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*5
Sample ID : Matrix Spike Result (R7GW02R-10)
Matrix : LI Sampled :
Percent Solids : Received:

MS/MSD RESULTS SUMMARY REPORT

Parameter	Method	Batch	Parent Result	Spike Result	Expected Value	Units	Spike % Recovery	Spike % RPD	Accuracy Limit	Precision Limit
Silver	6010	1008G	0.010UN	0.0626	0.0500	mg/l	125	1.4	75-125	20
	6010	1008G	0.010UN	0.0635	0.0500	mg/l	127			
Vanadium	6010	1008G	0.0072B	0.511	0.500	mg/l	101	1.8	75-125	20
	6010	1008G	0.0072B	0.520	0.500	mg/l	103			
Zinc	6010	1008G	0.0038B	0.547	0.500	mg/l	109	1.4	75-125	20
	6010	1008G	0.0038B	0.554	0.500	mg/l	110			
Thallium	6010	1008G	0.0086B	2.35	2.00	mg/l	117	2.0	75-125	20
	6010	1008G	0.0086B	2.40	2.00	mg/l	120			
Antimony (Dissolved)	6010	1008G	0.020U	0.565	0.500	mg/l	113	0.7	75-125	20
	6010	1008G	0.020U	0.562	0.500	mg/l	112			
Arsenic, (Dissolved)	6010	1008G	0.010U	2.20	2.00	mg/l	110	0.5	75-125	20
	6010	1008G	0.010U	2.19	2.00	mg/l	109			
Lead, (Dissolved)	6010	1008G	0.0050U	0.561	0.500	mg/l	112	1.4	75-125	20
	6010	1008G	0.0050U	0.553	0.500	mg/l	111			
Selenium (Dissolved)	6010	1008G	0.010U	2.21	2.00	mg/l	111	0.6	75-125	20
	6010	1008G	0.010U	2.20	2.00	mg/l	110			
Barium, (Dissolved)	6010	1008G	0.028	2.13	2.00	mg/l	105	0.6	75-125	20
	6010	1008G	0.028	2.11	2.00	mg/l	104			
Beryllium (Dissolved)	6010	1008G	0.0040U	0.0503	0.0500	mg/l	101	1.2	75-125	20
	6010	1008G	0.0040U	0.0497	0.0500	mg/l	99			
Cadmium (Dissolved)	6010	1008G	0.0050U	0.0497	0.0500	mg/l	99	1.0	75-125	20
	6010	1008G	0.0050U	0.0492	0.0500	mg/l	98			
Chromium, (Dissolved)	6010	1008G	0.010U	0.210	0.200	mg/l	105	1.7	75-125	20
	6010	1008G	0.010U	0.206	0.200	mg/l	103			
Cobalt (Dissolved)	6010	1008G	0.010U	0.520	0.500	mg/l	104	1.2	75-125	20
	6010	1008G	0.010U	0.514	0.500	mg/l	103			
Copper, Dissolved	6010	1008G	0.020U	0.296	0.250	mg/l	118	0.2	75-125	20
	6010	1008G	0.020U	0.296	0.250	mg/l	118			
Nickel, (Dissolved)	6010	1008G	0.0045B	0.519	0.500	mg/l	103	1.3	75-125	20
	6010	1008G	0.0045B	0.512	0.500	mg/l	102			
Silver (Dissolved)	6010	1008G	0.010UN	0.0610	0.0500	mg/l	122	0.2	75-125	20
	6010	1008G	0.010UN	0.0609	0.0500	mg/l	122			
Vanadium (Dissolved)	6010	1008G	0.0058B	0.514	0.500	mg/l	102	0.8	75-125	20
	6010	1008G	0.0058B	0.510	0.500	mg/l	101			
Zinc, (Dissolved)	6010	1008G	0.0023B	0.546	0.500	mg/l	109	1.4	75-125	20
	6010	1008G	0.0023B	0.538	0.500	mg/l	107			
Thallium (Dissolved)	6010	1008G	0.010U	2.36	2.00	mg/l	118	0.2	75-125	20
	6010	1008G	0.010U	2.36	2.00	mg/l	118			

STL Savannah

Client : Michael Baker Corporation/Baker Enviro
Work Order ID : BASE LANDFILL/PR124A
Laboratory ID : S4PR124A*5
Sample ID : Matrix Spike Result (R7GW02R-10)
Matrix : LI Sampled :
Percent Solids : Received:

MS/MSD RESULTS SUMMARY REPORT

Parameter	Method	Batch	Parent Result	Spike Result	Expected Value	Units	Spike % Recovery	Spike % RPD	Accuracy Limit	Precision Limit
Mercury	7470	1007S	0.00020UN	0.000722	0.00100	mg/l	72	1.6	80-120	20
	7470	1007S	0.00020UN	0.00734	0.00100	mg/l	73			
Mercury (Dissolved)	7470	1007S	0.00020UN	0.000708	0.00100	mg/l	71	1.8	80-120	20
	7470	1007S	0.00020UN	0.000721	0.00100	mg/l	72			

APPENDIX F
Laboratory Data Validation Summary

QUALITY ASSURANCE REPORT
PART I
APPENDIX I DATA QUALITY ASSESSMENT
FOR SAMPLES COLLECTED SEPTEMBER 30 AND OCTOBER 1, 2004

NAVAL ACTIVITY ROOSEVELT ROADS, PUERTO RICO

Prepared for:

BAKER ENVIRONMENTAL, INC.
100 Airside Drive
Moon Township, Pennsylvania 15108

Prepared by:

CAPE
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CAPE ENVIRONMENTAL
2302 Parklake Drive
Atlanta, Georgia 30345

CAPE Project Number 34004.019.002
December 2004

SIGNATURE PAGE

QUALITY ASSURANCE REPORT
PART I
APPENDIX I DATA QUALITY ASSESSMENT
FOR SAMPLES COLLECTED SEPTEMBER 30 AND OCTOBER 1, 2004

NAVAL ACTIVITY ROOSEVELT ROADS, PUERTO RICO

Prepared for:

BAKER ENVIRONMENTAL, INC.
100 Airside Drive
Moon Township, Pennsylvania 15108

Prepared by:

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2302 Parklake Drive
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Christelle Newsome

Christelle Newsome
Chemistry Services Manager

INTRODUCTION

This quality assurance (QA) report is based upon a review of the validation of analytical data generated for samples collected September 1, 2004 and October 1, 2004, at the Naval Activity in Roosevelt Roads, Puerto Rico. The samples were collected as a part of the Base Landfill sampling event conducted at the site. The chains of custody in Attachment I present a summary of the client sample identification numbers, dates of collection, sample matrices, and the analyses performed.

Severn Trent Services of Savannah, Georgia, served as the laboratory for this event. Analysis included Appendix I List for volatile organic compounds (VOCs) SW846 Method 8260B, and total and dissolved metals by SW846 Method 6010B.

VALIDATION OVERVIEW

The analyses were reviewed for adherence to the specified analytical protocols in accordance with the U.S. Department of Defense (DOD) Quality Systems Manual, Version 1 Final (based on National Environmental Laboratory Accreditation Program [NELAP] Voted Revision 12, July 1, 1999). All analytical results have been validated or qualified according to general guidance provided U.S. Environmental Protection Agency (EPA) Region 2 Standard Operating Procedure (SOP) No. HW-24, Revision 1, June 1999, SOP for the Validation of Organic Data Acquired Using SW-846 Method 8260B, and U.S. EPA Region 2 SOP HW-2, Revision 11, January 1992, SOP for the Validation of Metals Data Acquired Using CLP Method 3/90.

The findings of this QA report are based upon the comprehensive review of the following results summaries reported according to the Contract Laboratory Program (CLP) deliverable: chain-of-custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration summaries, internal standard area performance, target compound identification and quantitation of results, and qualitative mass spectral interpretation, post-digestion spike, inductive coupled plasma (ICP) interference check sample results, ICP serial dilution results, target compound identification, quantitation of results and electronic data deliverables.

The analyses were performed acceptably, and required several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, not discussed in this report should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A results summary report presenting the validated and qualified results is presented in Attachment 2.

GENERAL DATA QUALIFIERS

As required by EPA protocols, all compounds qualitatively identified at concentrations below their respective reporting limits (RLs) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

INORGANIC DATA QUALIFIERS

The EPA requires elemental contaminants that are detected in samples that are less than 5 times the concentration detected in the field, equipment, or method blank are qualified as quantitatively invalid. Traces levels of zinc were detected in both the equipment rinsate and the field blanks. As a result of sampling date discrepancies, no data qualifications were made as a result of field blank contamination. However, it is the professional opinion of the reviewer that the contamination of these elements in the environmental samples are due to specific field blank contamination and is not indicative of the specific sample locations in which these elements were detected.

SUMMARY

The organic and inorganic analyses were performed acceptably, but required qualifying statements. This analytical QA report has identified the aspects of the data that required qualification. These qualifiers are noted on the attached data summary reports. A support documentation package has been prepared for this QA review and is filed with the Naval Activity Roosevelt Roads project file.

APPENDIX G
Background Concentrations for Beryllium and Thallium

BERYLLIUM BACKGROUND DATA

Beryllium								
				Date				
Well	6/17/1998		2/2/2000		5/9/2000		8/15/2000	
R7GW01	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW02	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW04	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW05	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW07	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW08	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW09	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW10	0.0002	U	0.001	U J*	0.001	U	0.001	U
R7GW11	0.0002	U	0.001	U J*	0.001	U	0.001	U

proportion of detects	
background maximum	ND
background mean	ND
background median	ND
background standard deviation	ND
	compliance round

U- not detected
ND - not detected
J - estimated
R- rejected by validator

BERYLLIUM BACKGROUND DATA

Beryllium

Well	03/02/02	09/24/02	03/24/03	09/14/03	Intrawell Average/Maximum
R7GW01R	0.002 U	0.002 U	0.0022 J	0.0041 J	0.0032
R7GW02R	0.0008 J	0.002 U	0.002 U	0.0042 J	0.0025
R7GW04R	0.00065 J	0.002 U	0.00042 J	0.0037 J	0.0016
R7GW05R	0.00056 J	0.002 U	0.0027 J	0.0041 J	0.0025
R7GW07R	0.002 U	0.00059 J	0.002 U	0.0041 J	0.0023
R7GW08R	0.002 U	0.002 U	0.0029 J	0.0037 J	0.0033
R7GW09	0.00056 J	0.002 U	0.0029 J	0.0038 J	0.0025
R7GW10	0.002 U	0.002 U	0.0022 J	0.0038 J	0.0030
R7GW11	0.002 U	0.002 U	0.002 J	0.0037 J	0.0029

proportion of detects	21/36	
background maximum	0.0042	0.003
background mean	0.00232444	
background median	0.002	
background standard deviation	0.00111502	
	compliance round	
	surrogate value	

U- not detected
ND - not detected
J - estimated

THALLIUM BACKGROUND DATA

Thallium (mg/L)									
				Date					
Well	6/17/1998		2/2/2000			5/9/2000		8/15/2000	
R7GW01	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW02	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW04	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW05	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW07	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW08	0.0031	U	0.02	U	J*	0.02	U	0.02	U
R7GW09	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW10	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U
R7GW11	0.0031	U	0.02	U	J*	0.02	UJ*	0.02	U

proportion of detects	
background maximum	ND
background mean	ND
background median	ND
background standard deviation	not meaningful
	compliance round

U- not detected
ND - not detected
J - estimated
R- rejected by validator

THALLIUM BACKGROUND DATA

Thallium (mg/L)

Well	03/02/02	09/24/02	03/24/03	09/14/03	Intrawell Average/Maximum
R7GW01R	0.01 U	0.01 U	0.01 U	0.0066 J	0.0066
R7GW02R	0.0097 J	0.01 U	0.01 U	0.0092 J	0.00945
R7GW04R	0.019 J	0.01 U	0.05 U	0.034 J	0.0265
R7GW05R	0.01 U	0.01 U	0.01 U	0.0095 J	0.0095
R7GW07R	0.01 UJ	0.01 U	0.01 U	0.01 UJ	ND
R7GW08R	0.01 UJ	0.01 U	0.05 U	0.0099 J	0.0099
R7GW09	0.02 U	0.01 U	0.037 J	0.053 J	0.045
R7GW10	0.01 U	0.01 U	0.0058 J	0.0058 J	0.0058
R7GW11	0.01 UJ	0.01 U	0.01 U	0.01 UJ	ND

proportion of detects	11/36
background maximum	0.053
background mean	0.01813636
background median	0.0097
background standard deviation	0.0159832
	compliance round

U- not detected
ND - not detected
J - estimated

APPENDIX H
Krustal-Wallis Test for Copper and Vanadium

COPPER--KRUSTAL-WALLIS TEST

Hypothesis: there is no copper contamination at the 1% significance level,

one-way nonparametric analysis of variance Krustal Wallis test

	rank	concentration	sum of ranks	sum of ranks squared	average rank
R7GW01	9.5	0.005			
R7GW01	23.5	0.01			
R7GW01	28	0.013			
R7GW01	29	0.0134			
R7GW01	41.5	0.076	131.5	17292.25	26.3
R7GW02	9.5	0.005			
R7GW02	9.5	0.005			
R7GW02	19	0.0094			
R7GW02	23.5	0.01			
R7GW02	37	0.034	98.5	9702.25	19.7
R7GW04	9.5	0.005			
R7GW04	9.5	0.005			
R7GW04	32	0.0228			
R7GW04	41.5	0.076			
R7GW04	45	**0.3**	137.5	18906.25	27.5
R7GW05	9.5	0.005			
R7GW05	9.5	0.005			
R7GW05	18	0.0088			
R7GW05	23.5	0.01			
R7GW05	34	0.03	94.5	8930.25	18.9
R7GW07	1.5	0.0046			
R7GW07	9.5	0.005			
R7GW07	9.5	0.005			
R7GW07	23.5	0.01			
R7GW07	40	0.054	84	7056	16.8
R7GW08	9.5	0.005			
R7GW08	9.5	0.005			
R7GW08	17	0.0086			
R7GW08	23.5	0.01			
R7GW08	39	0.044	98.5	9702.25	19.7
R7GW09	9.5	0.005			
R7GW09	23.5	0.01			
R7GW09	33	0.026			
R7GW09	38	0.0358			
R7GW09	44	0.272	148	21904	29.6
R7GW10	9.5	0.005			
R7GW10	23.5	0.01			
R7GW10	30	0.014			
R7GW10	31	0.0195			
R7GW10	35.5	0.032	129.5	16770.25	25.9
R7GW11	1.5	0.0046			
R7GW11	9.5	0.005			
R7GW11	23.5	0.01			
R7GW11	35.5	0.032			
R7GW11	43	0.216	113	12769	22.6
krustal- wallis statistic	**10.6**				

=non-detect

Chi-squared value for 8 degrees of freedom (9 -1 wells) and 1% level = 20.01 (standard tables), 2.5% level = 17.53; 5 % level = 15.51

Since 10.6< 20.01, can accept hypothesis that no copper contamination is present at the 1% level

Since 10.6< 17.53, can accept hypothesis that no copper contamination is present at the 2.5% level

Since 10.6< 15.51, can accept hypothesis that no contamination is present at the 5 % level