

Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

December 20, 2004

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Mr. John Morris, P.G.
Florida Department of Environmental Protection
Solid Waste Section
3804 Coconut Palm Drive
Tampa, FL 33619-8318



Re: **Southeast County Landfill – Section 7
Analytical Data - TH-59, TH-60, and Leak Detection System**

Dear Mr. Morris:

The Hillsborough County Solid Waste Management Department (SWMD) is pleased to provide the analytical data from the detection wells TH-59, TH-60, and the Section 7 Leak Detection System (LDS) at the Southeast County Landfill (SCLF).

As discussed in the August 2004 ADR for the SCLF, which was submitted on November 3, 2004, the SWMD collected samples from the referenced locations on November 9, 2004. These samples were collected as follow up assessment activities in response to the analytical results from October 6 and 14, 2004 sampling of these data points. Those results indicated the presence of benzene and chlorinated solvents above their maximum contaminant level (MCL). Each of the detection wells and the LDS were sampled by the SWMD Field Sampling Team, and the samples were transported to our contracted laboratory on November 9, 2004. SCS Engineers also collected samples from these locations and sent them to an independent laboratory for additional quality control and assurance. Each set of samples collected was analyzed by the two laboratories for EPA Method 8260 and the major cations and anions. Additional analyses for a number of metals were run on the SWMD's samples. The analytical data set generated from this split sampling effort by the SWMD and SCS is discussed in detail herein.

Analytical Data – SWMD Samples

The SWMD collected groundwater samples from TH-59, TH-60, and sampled the LDS on November 9, 2004 for the above-referenced parameters. A number of parameters were observed above the State of Florida Primary Drinking Water Standard (PDWS), Secondary Drinking Water Standards (SDWS) (FAC Ch 62-550.310-.320), and the Florida Groundwater Cleanup Target Levels (GCTL) (FAC Ch 62-777).

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Nov. 2004
Event at
Section 7 Leak
Detection Unit

The parameters observed above their respective MCLs in TH-59 were benzene at 5.4 ug/l, sulfate at 300 mg/l, iron at 8.6 mg/l, manganese at 0.32 mg/l, nickel at 0.12 mg/l, aluminum at 0.2 mg/l, and pH at 5.61 pH units. Parameters detected above their MCLs in TH-60 were benzene at 3.8 ug/l, sulfate at 400 mg/l, iron at 12 mg/l, manganese 0.5 mg/l, nickel at 0.19 mg/l, aluminum at 0.58 mg/l, and cadmium at 0.0071 mg/l. The value for pH was 5.59 pH units, which is below the SDWS acceptable range for pH.

The SWMD collected a sample from the LDS and the results indicated a number of parameters exceeding standards. These parameters included benzene at 5.4 ug/l, chloride at 490 mg/l, iron at 100 mg/l, manganese at 2.2 mg/l, 1,2-dichloroethane at 3.4 ug/l, methylene chloride at 5.8 ug/l, and pH at 6.27 pH units.

Analytical Data – SCS Samples

SCS Engineers collected groundwater samples from TH-59 and TH-60, and also sampled the LDS on November 9, 2004. The samples were analyzed for organics and major cations and anions. A number of parameters were observed above the State of Florida Primary Drinking Water Standard (PDWS), Secondary Drinking Water Standards (SDWS) (FAC Ch 62-550.310-.320), and the Florida Groundwater Cleanup Target Levels (GCTL) (FAC Ch 62-777). TH-59 exhibited benzene at 2.8 ug/l, and iron at 8.8 mg/l. TH-60 exhibited benzene at 1.7 ug/l, sulfate at 304 mg/l, and iron at 12 mg/l. A number of other metals and organic parameters were detected in the groundwater samples below their applicable MCL's.

SCS Engineers collected a sample from the LDS and the results indicated a number of parameters exceeding standards. The parameters observed above standards include benzene at 3.3 ug/l, 1,2-dichloroethane at 3.3 ug/l, sulfate at 420 mg/l, and iron at 160 mg/l,. A summary table of the two sets of analytical results is provided within this report.

Evaluation of Data

The data generated to date has been thoroughly evaluated by the SWMD and SCS Engineers. Comparative analyses of the groundwater and the leachate collected from the LDS has been performed, and stiff diagrams have been prepared for the two wells and the LDS by SCS Engineers. These diagrams, which are provided in the attached letter report from SCS, support the position that the contaminants observed in the two detection wells are not associated with the contaminants observed within the LDS.

Conclusions

After carefully reviewing the water quality from the initial and supplemental sampling events, it appears that the contaminants observed in the two detection wells, TH-59 and TH-60, are of a

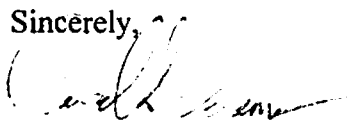
Mr. John Morris, P.G.
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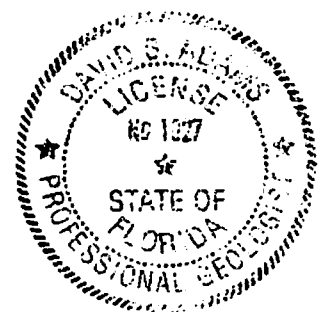
different origin than the contaminants collected from the LDS. The stiff diagrams provided within the SCS Letter Report depict that ionic concentrations of the major cations and anions are different within the groundwater collected from TH-59 and TH-60 when compared to the LDS. This evaluation along with our previous discussions about groundwater velocities at the site and the travel time since initiation of waste filling activities, indicate that the contaminants in the groundwater are not likely the result of a liner system failure.

The SWMD is continuing to make every effort to determine the source of impacts to the groundwater in TH-59 and TH-60. In response to the latest groundwater quality, the SWMD collected twenty-five (25) soil samples in the vicinity of the two wells on December 15, 2004. Nineteen soil samples were collected from the upper 1 foot of soils along the eastern side of the adjacent access road, the ramp up to Section 7, and along the top of the northwestern side of the Section 7 cell. The remaining six (6) samples were collected in the direct vicinity of TH-59 and TH-60. Three samples were collected from each boring location at depths of 6-inches, one-foot, and two feet below land surface (bls). These soil samples will be analyzed by EPA Method 8260, chlorides, sulfides, aluminum, cadmium, iron, manganese, nickel, and vanadium to determine if there are any surficial impacts that could affect groundwater quality. A map depicting the 25 soil sample locations are attached within this report. A report will be generated and submitted to the Florida Department of Environmental Protection (FDEP) after the soil sample analysis has been completed.

Enclosed for you review, please find a site map, a water quality summary table, the letter report from SCS Engineers containing the stiff diagrams, a map of the soil sample locations, and the complete laboratory analytical data sheets. Should you have any questions or comments concerning the information provided in this submittal, please feel free to contact David Adams at (813) 276-2944.

Sincerely,


David S. Adams, P.G.
Environmental Manager
Solid Waste Management Department



/dsa

Enclosures

xc: Patricia Berry, Solid Waste Management Department
Larry Ruiz, Solid Waste Management Department
Bob Westly, P.G., SCS Engineers
Paul Schipfer, EPC

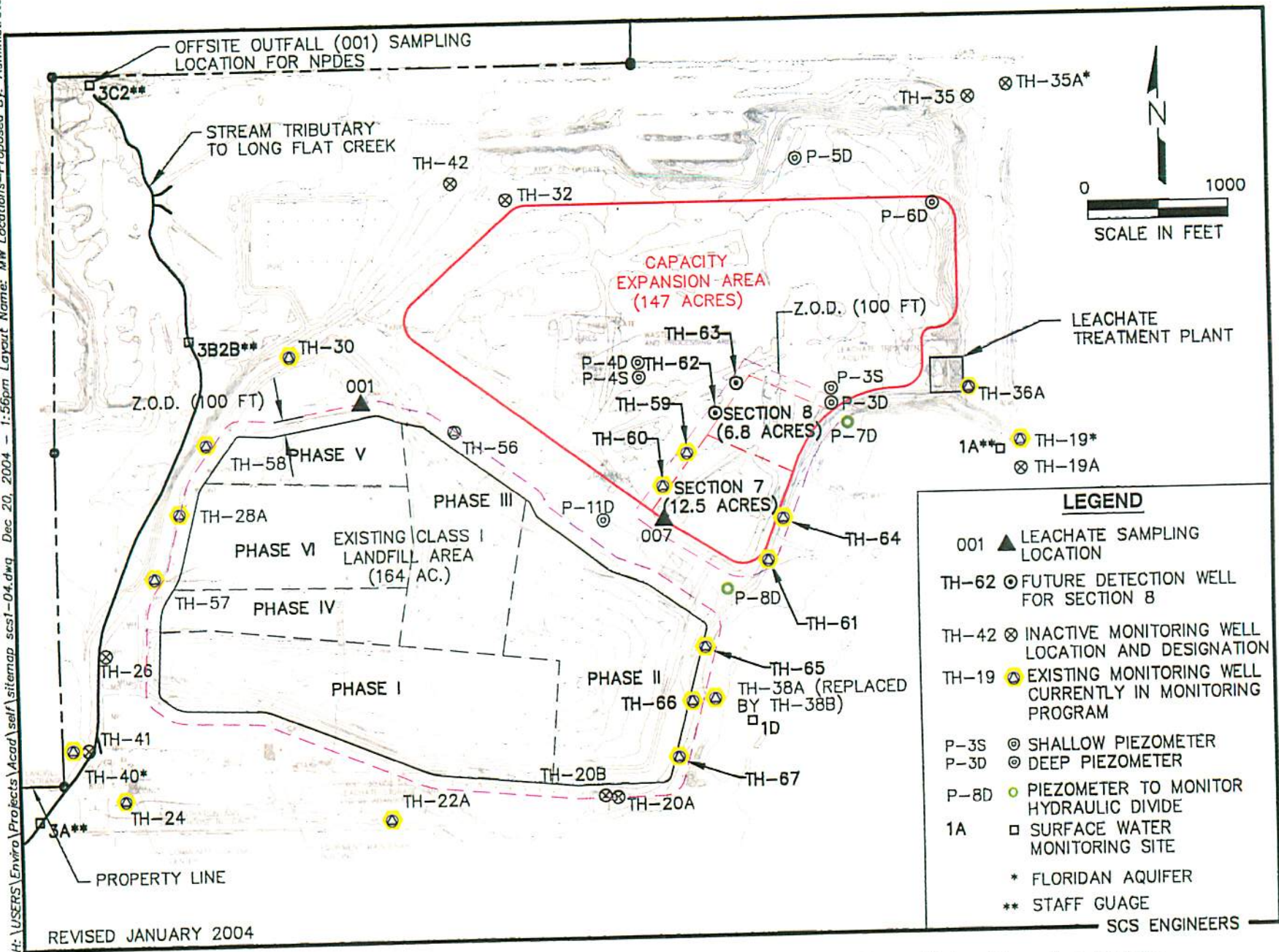


Figure M-1. Location of Monitoring Wells, Piezometers, and Surface Water Sampling Points Southeast County Facility, Hillsborough County, Florida

Analytical Results from Detection Wells TH-59, TH-60, and Section 7 Leak Detection System at the Southeast Landfill

November 9, 2004

General Parameters (mg/l)	November 9, 2004								(MCL) STANDARD
	TH-59 (11/03)	TH-60 (11/03)	TH-59 (SWMD)	TH-59 (SCS)	TH-60 (SWMD)	TH-60 (SCS)	LDS (SWMD)	LDS (SCS)	F.A.C. 62-550
conductivity (umhos/cm)	826	1033	1139	DNS	1296	DNS	2727	DNS	NS
pH (field)	5.74	5.21	5.61	DNS	5.59	DNS	6.27	DNS	(6.5 - 8.5)**
temperature (°C) (field)	23.66	23.79	24.19	DNS	24.82	DNS	30.46	DNS	NS
turbidity (NTU) (field)	54.7	30	1.90	DNS	13	DNS	DNS	DNS	NS
chloride (mg/l)	7.8	8.2	83	78	96	91	490	420	250**
sulfate (mg/l)	NS	NS	300	244	400	304	BDL	BDL	10*
dissolved oxygen (mg/l)	3.62	0.98	2.11	DNS	1.77	DNS	2.82	DNS	NS
Metals: (mg/l)	November 9, 2004								(MCL) STANDARD
	TH-59 (11/03)	TH-60 (11/03)	TH-59 (SWMD)	TH-59 (SCS)	TH-60 (SWMD)	TH-60 (SCS)	LDS (SWMD)	LDS (SCS)	F.A.C. 62-550
antimony	0.00046	0.0018	BDL	DNS	0.0044	DNS	0.0011	DNS	0.006*
aluminum	NS	NS	0.2	DNS	0.58	DNS	0.068	DNS	0.2**
arsenic	0.0036	0.0038	BDL	DNS	0.0056	DNS	BDL	DNS	0.05*
barium	0.046	0.026	0.016	DNS	0.024	DNS	0.033	DNS	2*
cadmium	0.00045	0.0011	BDL	DNS	0.0071	DNS	BDL	DNS	0.005*
calcium	NS	NS	150	140	170	150	210	190	NS
chromium	0.012	0.0024	0.0011	DNS	0.0016	DNS	0.0038	DNS	0.1*
cobalt	0.014	0.018	0.03	DNS	0.064	DNS	0.022	DNS	0.42*
copper	0.0046	0.0023	BDL	DNS	0.0035	DNS	0.16	DNS	1**
iron	3.5	3	8.6	8.8	12	12	100	160	0.3**
lead	0.005	BDL	BDL	DNS	BDL	DNS	0.0036	DNS	0.015*
magnesium	NS	NS	58	56	72	65	32	31	NS
manganese	NS	NS	0.32	DNS	0.55	DNS	2.2	DNS	0.05**
nickel	0.091	0.14	0.12	DNS	0.190	DNS	0.012	DNS	0.1*
potassium	NS	NS	3	2.5	3.6	2.7	38	32	NS
sodium	7	7.7	13	11	15	13	120	110	160*
thallium	BDL	0.00067	0.00029	DNS	0.0014	DNS	BDL	DNS	0.002*
vanadium	0.0071	0.06	0.0028	DNS	0.022	DNS	0.011	DNS	0.049*
zinc	0.018	0.053	BDL	DNS	0.11	DNS	0.28	DNS	5**
Organics: (µg/l)	November 9, 2004								(MCL) STANDARD
	TH-59 (11/03)	TH-60 (11/03)	TH-59 (SWMD)	TH-59 (SCS)	TH-60 (SWMD)	TH-60 (SCS)	LDS (SWMD)	LDS (SCS)	F.A.C. 62-550
benzene	BDL	BDL	5.4	2.8	3.8	1.7	5.4	3.3	1*
carbon disulfide	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.3	700*
chloroethane	BDL	BDL	0.67	BDL	BDL	BDL	9	BDL	140***
chloromethane	BDL	BDL	BDL	BDL	BDL	BDL	1	BDL	2.7*
1,1-dichloroethane	BDL	BDL	3.8	2.5	3.6	2.3	4.3	2.9	70*

Analytical Results from Detection Wells TH-59, TH-60, and Section 7 Leak Detection System at the Southeast Landfill

November 9, 2004

1,2-dichloroethane	BDL	BDL	2.4	BDL	2.6	BDL	7.3 3.4	4 3.3	3*
cis-1,2-dichloroethene	BDL	BDL	1.2	BDL	1.3	BDL	7.3	4	70*
ethylbenzene	BDL	BDL	BDL	BDL	0.3	BDL	3.4	3.4	700*
4-methyl-2-pentanone	BDL	BDL	BDL	BDL	BDL	BDL	5.3	BDL	NS
methylene chloride	BDL	BDL	BDL	BDL	BDL	BDL	5.8 5.8	3.6	5*
toluene	BDL	BDL	0.43	BDL	BDL	BDL	24	13	1,000*
trichloroethene	BDL	BDL	0.89	0.86	0.32	BDL	2.4	1.7	3*
trichlorofluoromethane	BDL	BDL	0.51	BDL	BDL	BDL	BDL	BDL	2,100*
total xylenes	BDL	BDL	BDL	BDL	BDL	BDL	7.9	6.3	10,000*

Notes: Reference Groundwater Guidance Concentrations, FDEP June 1994.

Shaded and Bolded Values exceed the respective maximum contaminant level.

SWMD = Samples collected by the Hillsborough County Solid Waste Management Department

SCS = SCS Engineers

NS=NO STANDARD

DNS = DID NOT SAMPLE

LDS = LEACHATE DETECTION SYSTEM

MCL=MAXIMUM CONTAMINANT LEVEL

BDL=BELOW DETECTION LIMIT

*=DENOTES PRIMARY DRINKING WATER STANDARD

**=DENOTES SECONDARY DRINKING WATER STANDARD

***=DENOTES GROUNDWATER CLEANUP TARGET LEVEL STANDARD

NTU=NEPHELOMETRIC TURBIDITY UNITS

ug/l=MICROGRAMS PER LITER

mg/l=MILLIGRAMS PER LITER

SCS ENGINEERS

December 10, 2004
File No. 09200020.15

Mr. David Adams, P.G.
Hillsborough County
Solid Waste Management Department
P.O. Box 1110
Tampa, FL 33601

Subject: Split Sampling and Stiff Diagram Evaluation for the Southeast County Landfill,
Hillsborough County, Florida

Dear Dave:

On November 9, 2004 Hillsborough County Solid Waste Department (HCSWD) and SCS Engineers (SCS) collected split water quality samples, with Hillsborough County staff, from selected monitoring locations at the Southeast County Landfill (SELF). Samples were collected through dedicated pumps from monitoring wells TH-59, TH-60, and the leak detection system of Section 7. Samples were analyzed, by separate laboratories, for the major cations (sodium, potassium, calcium, magnesium, and iron), the major anions (chloride, bicarbonate alkalinity, carbonate alkalinity, and sulfate), and Environmental Protection Agency (EPA) Method 8260 for volatile organic compounds (VOCs).

Table 1 presents SCS' summary of detected parameters from the November 9, 2004 sampling event. Tables 2, 3, and 4 presents a summary of detected parameters at each sampling location (TH-59, TH-60, and the leak detection system) from the initial sampling event (October 6, 2004) and the subsequent resampling events (October 14 and November 9, 2004), as performed by HCSWD. These tables indicate that during the October 6, 2004 sampling event benzene was exceeding the Florida Administrative Code (F.A.C.) Chapter 62-550 primary drinking water standard (PDWS) of 1 microgram per liter (ug/l) of benzene in monitoring wells TH-59 and TH-60. HCSWD resampled monitoring wells TH-59 and TH-60 on October 14, 2004, and laboratory analytical results indicated an PDWS exceedence of benzene in TH-59 and TH-60. Additionally, the leak detection system was sampled on October 14, 2004 and laboratory analytical results indicated that PDWS were exceeded for benzene, 1,2-dichloroethane, methylene chloride, and trichloroethene. Laboratory analytical results from the November 9, 2004 sampling event indicate that sulfate and iron were exceeding the F.A.C. Chapter 62-550 secondary drinking water standards (SDWS) of 250 mg/l and 0.3 mg/l, respectively, and the PDWS for benzene in monitoring wells TH-59 and TH-60. Additionally, the leak detection system was exceeding SDWS for chloride and iron of 250 mg/l and 0.3 mg/l, respectively, and the PDWS for benzene, 1,2-dichloroethane, and methylene chloride.

SCS evaluated the analytical data by comparing ionic concentrations of major cations and anions found in the surficial aquifer and the leak detection system. Stiff diagrams are one variety of ion-concentrations graphs that visually represent quality of water at a particular location with respect to select inorganic parameters. Each Stiff diagram shows a figure

Mr. David Adams, P.G.
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obtained by connecting concentration values of nine inorganic dissolved constituents with sodium and potassium summed for one of the values. Each figure is constructed using a split horizontal scale with concentrations of cations shown on the left side of the figure and concentrations of anions shown on the right side of the figure. All concentrations are in milliequivalents per liter (meq/l). Table 5 presents the conversion table for the cation and anions from milligrams per liter (mg/l) to meq/l. Resulting figures can be compared to find similar types of water quality which are represented by similarly shape figures. Dilution or concentration of a particular water quality reduces or increases, respectively, the size of the figure but does not substantively change its basic shape.

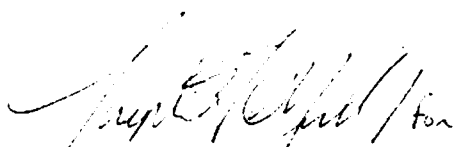
Figure 1 presents the stiff diagrams for monitoring wells TH-59, TH-60 and the leak detection system. The Stiff diagrams for TH-59 and TH-60 are relatively similar, and their cation/anion ratios are similar. It is concluded that the shapes of these diagrams are representative of surficial aquifer groundwater quality with respect to ionic species. These shapes can be compared to the Stiff diagram for leak detection system. The Stiff diagram for the leak detection system is noticeably different than those that represent the surficial aquifer groundwater (TH-59 and TH-60). It is concluded that the groundwater present in the leak detection system is not the same groundwater present in the surficial aquifer. Consequently, the source for the VOCs in the monitoring wells appears to not be related to the VOCs found in the leak detection system.

Please call if you have any questions or require additional information.

Sincerely,



Ken E. Guilbeault
Staff Scientist



Robert L. Westly
Project Director
SCS ENGINEERS

KEG/RLW:keg

Attachments

TABLE 1. SUMMARY OF WATER QUALITY ANALYTICAL RESULTS (DETECTED PARAMETERS ONLY),
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

Parameter	Date	MCL	Units	Sample Location		
				TH-59	TH-60	Leak Detection
Chloride ²	11/10/2004	250	mg/L	78	91	420
Sulfate ²	11/10/2004	250	mg/L	244	304	<1.7
Bicarbonate Alkalinity	11/10/2004	NA	mg/L	170	130	290
Carbonate Alkalinity	11/10/2004	NA	mg/L	<1.0	<1.0	<1.0
Sodium ¹	11/10/2004	160	mg/L	11	13	110
Potassium	11/10/2004	NA	mg/L	2.5	2.7	32
Calcium	11/10/2004	NA	mg/L	140	150	190
Magnesium	11/10/2004	NA	mg/L	56	65	31
Iron ²	11/10/2004	0.3	mg/L	8.8	12	160
Benzene ¹	11/10/2004	1	ug/L	2.8	1.7	3.3
1,1-Dichloroethane ³	11/10/2004	70	ug/L	2.5	2.3	2.9
1,2-Dichloroethane ¹	11/10/2004	3	ug/L	<0.57	<0.57	3.3
cis-1,2-Dichloroethene ¹	11/10/2004	70	ug/L	<0.65	<0.65	4
Ethylbenzene ¹	11/10/2004	700	ug/L	<0.83	<0.83	3.4
Methylene Chloride ¹	11/10/2004	5	ug/L	<1.0	<1.0	3.6
Toluene ¹	11/10/2004	1000	ug/L	<0.51	<0.51	13
Trichloroethene ¹	11/10/2004	3	ug/L	0.86 I	<0.28	1.7
Total Xylenes ¹	11/10/2004	10000	ug/L	<1.52	<1.52	6.3
Carbon Disulfide ³	11/10/2004	700	ug/L	<0.85	<0.85	1.3

Notes:

MCL = Maximum Contaminant Level.

Shaded = Sample result above the MCL.

I = Analyte detected below quantitation limits.

¹ Parameter MCL is a Primary Drinking Water Standard (62-550 F.A.C.).

² Parameter MCL is a Secondary Drinking Water Standard (62-550 F.A.C.).

³ Parameter MCL is a Groundwater Clean-up Target Level (62-777 F.A.C.).

TABLE 2. SUMMARY OF WATER QUALITY ANALYTICAL RESULTS (DETECTED PARAMETERS ONLY),
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

Parameter Date	MCL	Units	Sample Location			
			TH-59 10/6/2004	TH-59 10/14/2004	HC TH-59 11/9/2004	SCS TH-59 11/9/2004
Chloride ²	250	mg/L	---	---	83	78
Sulfate ²	250	mg/L	---	---	300	244
Bicarbonate Alkalinity	NA	mg/L	---	---	180	170
Carbonate Alkalinity	NA	mg/L	---	---	<0.16	<1.0
Sodium ¹	160	mg/L	---	---	13	11
Potassium	NA	mg/L	---	---	3	2.5
Calcium	NA	mg/L	---	---	150	140
Magnesium	NA	mg/L	---	---	58	56
Iron ²	0.3	mg/L	---	---	8.6	8.8
Acetone ³	700	ug/L	<3.7	<3.7	<3.7	NS
Benzene ¹	1	ug/L	3.8	4.0	5.4	2.8
2-Butanone ³	4,200	ug/L	<1.8	<1.8	<1.8	<8.4
Carbon Disulfide ³	700	ug/L	<0.49	<0.49	<0.49	<0.85
Chloroethane ³	12	ug/L	<0.51	<0.51	0.67 I	<0.80
Chloromethane ³	3	ug/L	<0.50	<0.50	<0.50	<0.64
1,1-Dichloroethane ³	70	ug/L	4.2	3.9	3.8	2.5
1,2-Dichloroethane ¹	3	ug/L	1.8	1.9	2.4	<0.57
cis-1,2-Dichloroethene ¹	70	ug/L	0.96 I	0.89 I	1.2	<0.65
Ethylbenzene ¹	700	ug/L	<0.20	<0.20	<0.20	<0.83
2-Hexanone ³	280	ug/L	<0.28	<0.28	<0.28	<4.4
4-Methyl-2-Pentanone ³	560	ug/L	<0.26	<0.26	<0.26	<3.8
Methylene Chloride ¹	5	ug/L	<2.0	2.3 I	<2.0	<1.0
Tetrachloroethene ¹	3	ug/L	<0.17	<0.17	<0.17	<0.34
Toluene ¹	1,000	ug/L	<0.35	<0.35	0.43 I	<0.51
1,1,1-Trichloroethane ¹	200	ug/L	<0.33	<0.33	<0.33	<0.46
Trichloroethene ¹	3	ug/L	0.83 I	0.74 I	0.89 I	0.86 I
Trichlorofluoromethane ³	2,100	ug/L	0.63 I	0.62 I	0.51 I	<0.98
Total Xylenes ¹	10,000	ug/L	<0.32	<0.32	<0.32	<1.52

Notes:

MCL = Maximum Contaminant Level.

Shaded = Sample result above the MCL.

I = Analyte detected below quantitation limits.

¹ Parameter MCL is a Primary Drinking Water Standard (62-550 F.A.C.).

² Parameter MCL is a Secondary Drinking Water Standard (62-550 F.A.C.).

³ Parameter MCL is a Groundwater Clean-up Target Level (62-777 F.A.C.).

TABLE 3. SUMMARY OF WATER QUALITY ANALYTICAL RESULTS (DETECTED PARAMETERS ONLY),
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

Parameter Date	MCL	Units	Sample Location			
			TH-60 10/6/2004	TH-60 10/14/2004	HC TH-60 11/9/2004	SCS TH-60 11/9/2004
Chloride ²	250	mg/L	---	---	96	91
Sulfate ²	250	mg/L	---	---	400	304
Bicarbonate Alkalinity	NA	mg/L	---	---	130	130
Carbonate Alkalinity	NA	mg/L	---	---	<0.16	<1.0
Sodium ¹	160	mg/L	---	---	15	13
Potassium	NA	mg/L	---	---	3.6	2.7
Calcium	NA	mg/L	---	---	170	150
Magnesium	NA	mg/L	---	---	72	65
Iron ²	0.3	mg/L	---	---	12	12
Acetone ³	700	ug/L	<3.7	<3.7	<3.7	NS
Benzene ¹	1	ug/L	2.7	3.0	3.8	1.7
2-Butanone ³	4,200	ug/L	<1.8	<1.8	<1.8	<8.4
Carbon Disulfide ³	700	ug/L	<0.49	<0.49	<0.49	<0.85
Chloroethane ³	12	ug/L	<0.51	0.59 I	<0.51	<0.80
Chloromethane ³	3	ug/L	<0.50	<0.50	<0.50	<0.64
1,1-Dichloroethane ³	70	ug/L	3.0	3.1	3.6	2.3
1,2-Dichloroethane ¹	3	ug/L	1.9	2.0	2.6	<0.57
cis-1,2-Dichloroethene ¹	70	ug/L	0.73 I	0.64 I	1.3	<0.65
Ethylbenzene ¹	700	ug/L	<0.20	<0.20	0.30 I	<0.83
2-Hexanone ³	280	ug/L	<0.28	<0.28	<0.28	<4.4
4-Methyl-2-Pentanone ³	560	ug/L	<0.26	<0.26	<0.26	<3.8
Methylene Chloride ¹	5	ug/L	<2.0	2.1 I	<2.0	<1.0
Tetrachloroethene ¹	3	ug/L	<0.17	<0.17	<0.17	<0.34
Toluene ¹	1,000	ug/L	<0.35	<0.35	<0.35	<0.51
1,1,1-Trichloroethane ¹	200	ug/L	<0.33	<0.33	<0.33	<0.46
Trichloroethene ¹	3	ug/L	<0.27	<0.27	0.32 I	<0.28
Trichlorofluoromethane ³	2,100	ug/L	<0.50	0.52 I	<0.50	<0.98
Total Xylenes ¹	10,000	ug/L	<0.32	<0.32	<0.32	<1.52

Notes:

MCL = Maximum Contaminant Level.

Shaded = Sample result above the MCL.

I = Analyte detected below quantitation limits.

¹ Parameter MCL is a Primary Drinking Water Standard (62-550 F.A.C.).

² Parameter MCL is a Secondary Drinking Water Standard (62-550 F.A.C.).

³ Parameter MCL is a Groundwater Clean-up Target Level (62-777 F.A.C.).

TABLE 4. SUMMARY OF WATER QUALITY ANALYTICAL RESULTS (DETECTED PARAMETERS ONLY),
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

Parameter Date	MCL	Units	Sample Location			
			Leak Detection 10/6/2004	Leak Detection 10/14/2004	HC Leak Detection 11/9/2004	SCS Leak Detection 11/9/2004
Chloride ²	250	mg/L	NS	---	490	420
Sulfate ²	250	mg/L	NS	---	<0.10	<1.7
Bicarbonate Alkalinity	NA	mg/L	NS	---	260	290
Carbonate Alkalinity	NA	mg/L	NS	---	<0.16	<1.0
Sodium ¹	160	mg/L	NS	---	120	110
Potassium	NA	mg/L	NS	---	38	32
Calcium	NA	mg/L	NS	---	210	190
Magnesium	NA	mg/L	NS	---	32	31
Iron ²	0.3	mg/L	NS	---	100	160
Acetone ³	700	ug/L	NS	22	<3.7	NA
Benzene ¹	1	ug/L	NS	6.2	5.4	3.3
2-Butanone ³	4,200	ug/L	NS	44	<1.8	<8.4
Carbon Disulfide ³	700	ug/L	NS	<0.49	<0.49	1.3
Chloroform ³	5.7	ug/L	NS	0.31 I	<0.23	<0.23
Chloroethane ³	12	ug/L	NS	5.2	9.0	<0.80
Chloromethane ³	3	ug/L	NS	<0.50	1.0	<0.64
1,1-Dichloroethane ³	70	ug/L	NS	3.6	4.3	2.9
1,2-Dichloroethane ¹	3	ug/L	NS	3.1	3.4	3.3
cis-1,2-Dichloroethene ¹	70	ug/L	NS	7.3	7.3	4.0
Ethylbenzene ¹	700	ug/L	NS	5.4	3.4	3.4
2-Hexanone ³	280	ug/L	NS	1.3 I	<0.28	<4.4
4-Methyl-2-Pentanone ³	560	ug/L	NS	8.4 I	5.3 I	<3.8
Methylene Chloride ¹	5	ug/L	NS	17	5.8	3.6
Tetrachloroethene ¹	3	ug/L	NS	1.9	<0.17	<0.34
Toluene ¹	1,000	ug/L	NS	74	24	13
1,1,1-Trichloroethane ¹	200	ug/L	NS	0.56 I	<0.33	<0.46
Trichloroethene ¹	3	ug/L	NS	3.1	2.4	1.7
Trichlorofluoromethane ³	2,100	ug/L	NS	4.9	<0.50	<0.98
Total Xylenes ¹	10,000	ug/L	NS	12	7.9	6.3

Notes:

MCL = Maximum Contaminant Level.

Shaded = Sample result above the MCL.

I = Analyte detected below quantitation limits.

¹ Parameter MCL is a Primary Drinking Water Standard (62-550 F.A.C.).

² Parameter MCL is a Secondary Drinking Water Standard (62-550 F.A.C.).

³ Parameter MCL is a Groundwater Clean-up Target Level (62-777 F.A.C.).

**TABLE 5. CONVERSION TABLES FOR mg/l TO meq/l,
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

Parameter	TH-59 (mg/l)	TH-60 (mg/l)	Leak Detection (mg/l)	Conversion Factor	TH-59 (meq/l)	TH-60 (meq/l)	Leak Detection (meq/l)
Sodium	11	13	110	0.0435	0.48	0.57	4.79
K	2.5	2.7	32	0.02558	0.06	0.07	0.82
Ca	140	150	190	0.0499	6.99	7.49	9.48
Mg	56	65	31	0.08229	4.61	5.35	2.55
Fe	8.8	12	160	0.03581	0.32	0.43	5.73
Cl	78	91	420	0.02821	2.20	2.57	11.85
HCO ₃	170	130	290	0.01639	2.79	2.13	4.75
SO ₄	244	304	0.85	0.02082	5.08	6.33	0.02
CO ₃	0.5	0.5	0.5	0.03333	0.02	0.02	0.02
Total (meq/l)					22.54	24.94	40.00
Cation Total (meq/l)					12.45	13.90	23.37
Anion Total (meq/l)					10.08	11.04	16.64

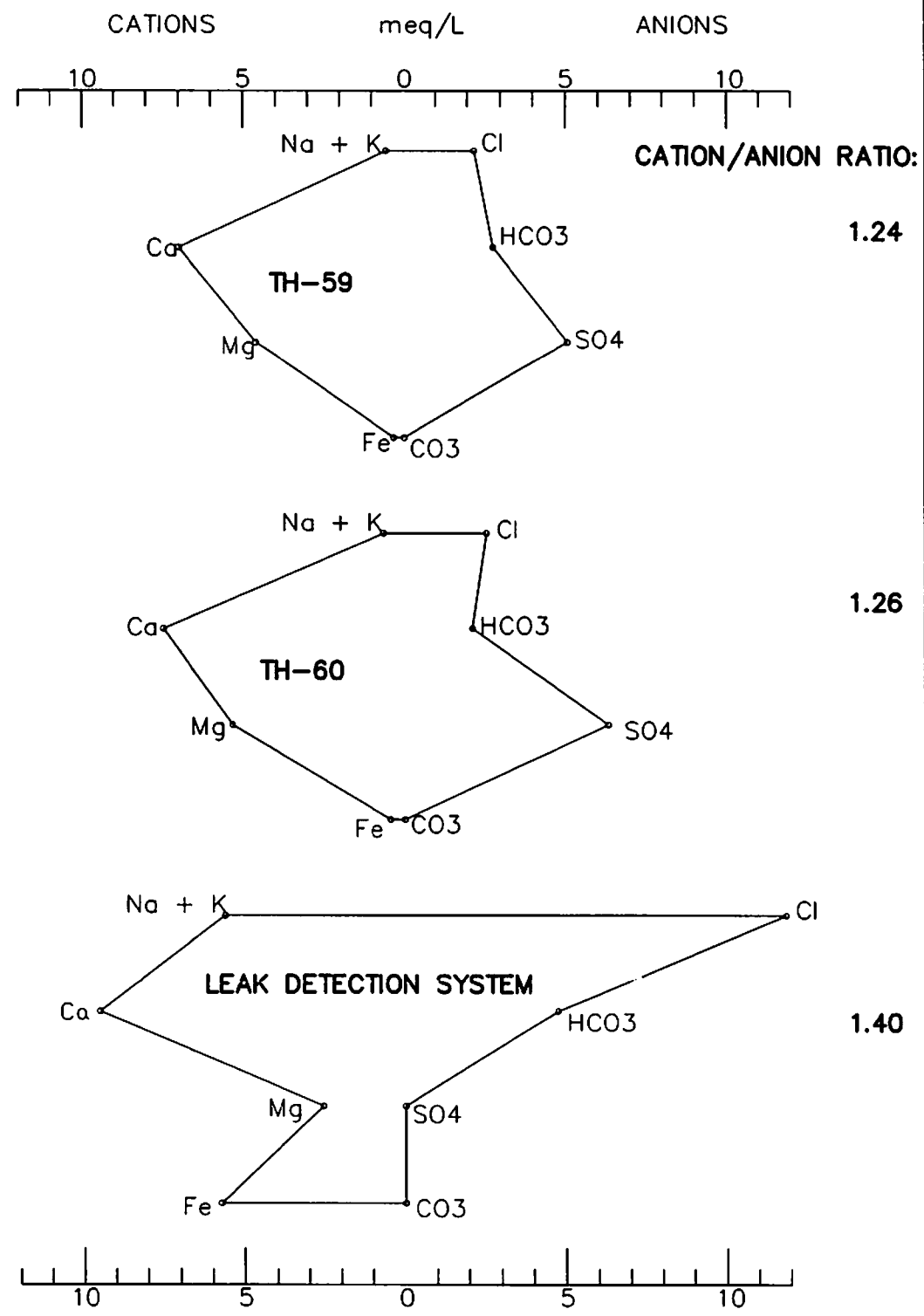
Notes:

mg/l = milligrams per liter.

meq/l = milliequivalents per liter.

mg/l x Conversion Factor = meq/l.

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meq/L = MILLIEQUIVILANTS PER LITER.

SCS ENGINEERS

Figure 1. Stiff Diagram, Southeast County Landfill, Hillsborough County, Florida

HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT DEPARTMENT
SOIL SAMPLING LOCATIONS
DECEMBER 15, 2004



Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-001



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:05:00 AM
Well/Sampling Point WACS:	EQ Blank	Report Period:	November 2004
Well/Sampling Point Name:	Equipment Blank	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Equip QC
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
INORGANICS									
00940	Chloride	Grab	N	E300.0	11/10/2004	0.036	U	mg/L	0.036
00951	Fluoride	Grab	N	E300.0	11/10/2004	0.0076	U	mg/L	0.0076
00620	Nitrogen, Nitrate	Grab	N	E300.0	11/10/2004	0.0091	U	mg/L	0.0091
00615	Nitrogen, Nitrite	Grab	N	E300.0	11/10/2004	0.0091	U	mg/L	0.0091
00630	Nitrogen, Nitrate-Nitrite	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00945	Sulfate	Grab	N	E300.0	11/10/2004	0.051	U	mg/L	0.051
00440	Alkalinity, Bicarbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
00430	Alkalinity, Carbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
00410	Alkalinity, Total (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
METALS									
01105	Aluminum	Grab	N	SW6010	11/11/2004	18	U	µg/L	18
01002	Arsenic	Grab	N	SW6010	11/11/2004	2.8	U	µg/L	2.8
01007	Barium	Grab	N	SW6010	11/11/2004	0.23	U	µg/L	0.23
01012	Beryllium	Grab	N	SW6010	11/11/2004	0.056	U	µg/L	0.056
01027	Cadmium	Grab	N	SW6010	11/11/2004	0.34	U	µg/L	0.34
00916	Calcium	Grab	N	SW6010	11/11/2004	210	IV	µg/L	28
01034	Chromium	Grab	N	SW6010	11/11/2004	0.60	U	µg/L	0.60
01037	Cobalt	Grab	N	SW6010	11/11/2004	1.6	U	µg/L	1.6
01042	Copper	Grab	N	SW6010	11/11/2004	0.47	U	µg/L	0.47
01045	Iron	Grab	N	SW6010	11/11/2004	11	U	µg/L	11
01051	Lead	Grab	N	SW6010	11/11/2004	2.2	U	µg/L	2.2
00927	Magnesium	Grab	N	SW6010	11/11/2004	14	U	µg/L	14
01055	Manganese	Grab	N	SW6010	11/11/2004	0.24	U	µg/L	0.24
01067	Nickel	Grab	N	SW6010	11/11/2004	1.0	U	µg/L	1.0
00937	Potassium	Grab	N	SW6010	11/11/2004	39	IV	µg/L	32
01147	Selenium	Grab	N	SW6010	11/11/2004	3.1	U	µg/L	3.1
01077	Silver	Grab	N	SW6010	11/11/2004	0.93	U	µg/L	0.93
00929	Sodium	Grab	N	SW6010	11/11/2004	220	I	µg/L	190
01087	Vanadium	Grab	N	SW6010	11/11/2004	0.73	U	µg/L	0.73
01092	Zinc	Grab	N	SW6010	11/11/2004	3.5	U	µg/L	3.5
	Antimony	Grab	N	SW6020	11/13/2004	0.40	U	µg/L	0.40

Data * Value exceeds Maximum Contaminant Level
 Qualifier U Not Detected Above the MDL
 Code Key:

I Analyte detected below quantitation limits
 V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-001



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:05:00 AM
Well/Sampling Point WACS:	EQ Blank	Report Period:	November 2004
Well/Sampling Point Name:	Equipment Blank	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Equip QC
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
71900	Thallium	Grab	N	SW6020	11/13/2004	0.31	IV	µg/L	0.12
	Mercury	Grab	N	SW7470	11/16/2004	0.012	U	µg/L	0.012
ORGANICS									
49146	1,2-Dibromo-3-chloropropane	Grab	N	SW8011	11/15/2004	0.0014	U	µg/L	0.0014
77651	Ethylene Dibromide	Grab	N	SW8011	11/15/2004	0.0030	U	µg/L	0.0030
81552	Acetone	Grab	N	SW8260	11/16/2004	3.7	U	µg/L	3.7
34215	Acrylonitrile	Grab	N	SW8260	11/16/2004	2.2	U	µg/L	2.2
34030	Benzene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
73085	Bromochloromethane	Grab	N	SW8260	11/16/2004	0.21	U	µg/L	0.21
32101	Bromodichloromethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
32104	Bromoform	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
34413	Bromomethane	Grab	N	SW8260	11/16/2004	0.60	U	µg/L	0.60
81595	2-Butanone	Grab	N	SW8260	11/16/2004	1.8	U	µg/L	1.8
77041	Carbon disulfide	Grab	N	SW8260	11/16/2004	0.49	U	µg/L	0.49
32102	Carbon tetrachloride	Grab	N	SW8260	11/16/2004	0.29	U	µg/L	0.29
34301	Chlorobenzene	Grab	N	SW8260	11/16/2004	0.15	U	µg/L	0.15
34311	Chloroethane	Grab	N	SW8260	11/16/2004	0.51	U	µg/L	0.51
32106	Chloroform	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34418	Chloromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
32105	Dibromochloromethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
77596	Dibromomethane	Grab	N	SW8260	11/16/2004	0.30	U	µg/L	0.30
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	11/16/2004	0.64	U	µg/L	0.64
34536	1,2-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34571	1,4-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34496	1,1-Dichloroethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
34531	1,2-Dichloroethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34501	1,1-Dichloroethene	Grab	N	SW8260	11/16/2004	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34541	1,2-Dichloropropane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.25	U	µg/L	0.25

Data Qualifier Code Key:

- * Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank



SE Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-001

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:05:00 AM
Well/Sampling Point WACS:	EQ Blank	Report Period:	November 2004
Well/Sampling Point Name:	Equipment Blank	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Equip QC
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
34371	Ethylbenzene	Grab	N	SW8260	11/16/2004	0.20	I	µg/L	0.20
77103	2-Hexanone	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
77424	Iodomethane	Grab	N	SW8260	11/16/2004	0.52	U	µg/L	0.52
81596	4-Methyl-2-pentanone	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
34423	Methylene chloride	Grab	N	SW8260	11/16/2004	2.0	U	µg/L	2.0
77128	Styrene	Grab	N	SW8260	11/16/2004	0.12	U	µg/L	0.12
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34010	Toluene	Grab	N	SW8260	11/16/2004	0.35	U	µg/L	0.35
34506	1,1,1-Trichloroethane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34511	1,1,2-Trichloroethane	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
39180	Trichloroethene	Grab	N	SW8260	11/16/2004	0.27	U	µg/L	0.27
34488	Trichlorofluoromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
77443	1,2,3-Trichloropropane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
77057	Vinyl acetate	Grab	N	SW8260	11/16/2004	0.46	U	µg/L	0.46
39175	Vinyl chloride	Grab	N	SW8260	11/16/2004	0.43	U	µg/L	0.43
34020	Xylenes, Total	Grab	N	SW8260	11/16/2004	0.32	U	µg/L	0.32

Data Qualifier Code Key:

- * Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

- I Analyte detected below quantitation limits
- V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-002



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004
Well/Sampling Point WACS:	Field Duplicate	Report Period:	November 2004
Well/Sampling Point Name:	DUPLICATE	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
INORGANICS									
00940	Chloride	Grab	N	E300.0	11/10/2004	77		mg/L	0.072
00951	Fluoride	Grab	N	E300.0	11/10/2004	0.32		mg/L	0.015
00620	Nitrogen, Nitrate	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00615	Nitrogen, Nitrite	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00630	Nitrogen, Nitrate-Nitrite	Grab	N	E300.0	11/10/2004	0.036	U	mg/L	0.036
00945	Sulfate	Grab	N	E300.0	11/10/2004	280	*	mg/L	0.10
00440	Alkalinity, Bicarbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	170		mg/L	0.16
00430	Alkalinity, Carbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
00410	Alkalinity, Total (As CaCO3)	Grab	N	SM2320	11/22/2004	170		mg/L	0.16
METALS									
01105	Aluminum	Grab	N	SW6010	11/11/2004	180		µg/L	18
01002	Arsenic	Grab	N	SW6010	11/11/2004	2.8	U	µg/L	2.8
01007	Barium	Grab	N	SW6010	11/11/2004	16		µg/L	0.23
01012	Beryllium	Grab	N	SW6010	11/11/2004	0.056	U	µg/L	0.056
01027	Cadmium	Grab	N	SW6010	11/11/2004	0.34	U	µg/L	0.34
00916	Calcium	Grab	N	SW6010	11/11/2004	150000	V	µg/L	28
01034	Chromium	Grab	N	SW6010	11/11/2004	1.1	I	µg/L	0.60
01037	Cobalt	Grab	N	SW6010	11/11/2004	31		µg/L	1.6
01042	Copper	Grab	N	SW6010	11/11/2004	0.76	I	µg/L	0.47
01045	Iron	Grab	N	SW6010	11/11/2004	8800	*	µg/L	11
01051	Lead	Grab	N	SW6010	11/11/2004	2.2	U	µg/L	2.2
00927	Magnesium	Grab	N	SW6010	11/11/2004	59000		µg/L	14
01055	Manganese	Grab	N	SW6010	11/11/2004	330	*	µg/L	0.24
01067	Nickel	Grab	N	SW6010	11/11/2004	130	*	µg/L	1.0
00937	Potassium	Grab	N	SW6010	11/11/2004	3000	V	µg/L	32
01147	Selenium	Grab	N	SW6010	11/11/2004	3.1	U	µg/L	3.1
01077	Silver	Grab	N	SW6010	11/11/2004	0.93	U	µg/L	0.93
00929	Sodium	Grab	N	SW6010	11/11/2004	13000		µg/L	190
01087	Vanadium	Grab	N	SW6010	11/11/2004	2.6	I	µg/L	0.73
01092	Zinc	Grab	N	SW6010	11/11/2004	3.5	U	µg/L	3.5
	Antimony	Grab	N	SW6020	11/13/2004	0.40	U	µg/L	0.40

Data Qualifier Code Key:

- * Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

- I Analyte detected below quantitation limits
- V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-002



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004
Well/Sampling Point WACS:	Field Duplicate	Report Period:	November 2004
Well/Sampling Point Name:	DUPLICATE	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
	Thallium	Grab	N	SW6020	11/13/2004	0.34	IV	µg/L	0.12
71900	Mercury	Grab	N	SW7470	11/16/2004	0.012	U	µg/L	0.012
ORGANICS									
49146	1,2-Dibromo-3-chloropropane	Grab	N	SW8011	11/15/2004	0.0014	U	µg/L	0.0014
77651	Ethylene Dibromide	Grab	N	SW8011	11/15/2004	0.0030	U	µg/L	0.0030
81552	Acetone	Grab	N	SW8260	11/16/2004	3.7	U	µg/L	3.7
34215	Acrylonitrile	Grab	N	SW8260	11/16/2004	2.2	U	µg/L	2.2
34030	Benzene	Grab	N	SW8260	11/16/2004	5.0	U	µg/L	0.23
73085	Bromochloromethane	Grab	N	SW8260	11/16/2004	0.21	U	µg/L	0.21
32101	Bromodichloromethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
32104	Bromoform	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
34413	Bromomethane	Grab	N	SW8260	11/16/2004	0.60	U	µg/L	0.60
81595	2-Butanone	Grab	N	SW8260	11/16/2004	1.8	U	µg/L	1.8
77041	Carbon disulfide	Grab	N	SW8260	11/16/2004	0.49	U	µg/L	0.49
32102	Carbon tetrachloride	Grab	N	SW8260	11/16/2004	0.29	U	µg/L	0.29
34301	Chlorobenzene	Grab	N	SW8260	11/16/2004	0.15	U	µg/L	0.15
34311	Chloroethane	Grab	N	SW8260	11/16/2004	0.51	U	µg/L	0.51
32106	Chloroform	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34418	Chloromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
32105	Dibromochloromethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
77596	Dibromomethane	Grab	N	SW8260	11/16/2004	0.30	U	µg/L	0.30
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	11/16/2004	0.64	U	µg/L	0.64
34536	1,2-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34571	1,4-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34496	1,1-Dichloroethane	Grab	N	SW8260	11/16/2004	4.0	U	µg/L	0.26
34531	1,2-Dichloroethane	Grab	N	SW8260	11/16/2004	2.5	U	µg/L	0.19
34501	1,1-Dichloroethene	Grab	N	SW8260	11/16/2004	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	1.2	U	µg/L	0.17
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34541	1,2-Dichloropropane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.25	U	µg/L	0.25

Data Qualifier Code Key:

- * Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-002



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004
Well/Sampling Point WACS:	Field Duplicate	Report Period:	November 2004
Well/Sampling Point Name:	DUPLICATE	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
34371	Ethylbenzene	Grab	N	SW8260	11/16/2004	0.20	U	µg/L	0.20
77103	2-Hexanone	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
77424	Iodomethane	Grab	N	SW8260	11/16/2004	0.52	U	µg/L	0.52
81596	4-Methyl-2-pentanone	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
34423	Methylene chloride	Grab	N	SW8260	11/16/2004	2.0	U	µg/L	2.0
77128	Styrene	Grab	N	SW8260	11/16/2004	0.12	U	µg/L	0.12
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34010	Toluene	Grab	N	SW8260	11/16/2004	0.35	U	µg/L	0.35
34506	1,1,1-Trichloroethane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34511	1,1,2-Trichloroethane	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
39180	Trichloroethene	Grab	N	SW8260	11/16/2004	0.81	I	µg/L	0.27
34488	Trichlorofluoromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
77443	1,2,3-Trichloropropane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
77057	Vinyl acetate	Grab	N	SW8260	11/16/2004	0.46	U	µg/L	0.46
39175	Vinyl chloride	Grab	N	SW8260	11/16/2004	0.43	U	µg/L	0.43
34020	Xylenes, Total	Grab	N	SW8260	11/16/2004	0.32	U	µg/L	0.32

**Data
Qualifier
Code Key:**

* Value exceeds Maximum Contaminant Level
U Not Detected Above the MDL

I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-003



TH-60
11/04

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 10:30:00 AM
Well/Sampling Point WACS:	TH-60	Report Period:	November 2004
Well/Sampling Point Name:	TH-60	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
<u>FIELD</u>									
	Conductivity	Grab	N	FLD	11/9/2004	1296		umhos/c	
	Depth To Water	Grab	N	FLD	11/9/2004	17.02		ft	
	Dissolved Oxygen	Grab	N	FLD	11/9/2004	1.77		mg/L	
	pH	Grab	N	FLD	11/9/2004	5.59		S.U.	
	Temperature	Grab	N	FLD	11/9/2004	24.82		deg C	
	Turbidity	Grab	N	FLD	11/9/2004	13.0		NTU	
<u>INORGANICS</u>									
00940	Chloride	Grab	N	E300.0	11/10/2004	96		mg/L	0.072
00951	Fluoride	Grab	N	E300.0	11/10/2004	0.33		mg/L	0.015
00620	Nitrogen, Nitrate	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00615	Nitrogen, Nitrite	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00630	Nitrogen, Nitrate-Nitrite	Grab	N	E300.0	11/10/2004	0.036	U	mg/L	0.036
00945	Sulfate	Grab	N	E300.0	11/11/2004	400	*	mg/L	0.51
00440	Alkalinity, Bicarbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	130		mg/L	0.16
00430	Alkalinity, Carbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
00410	Alkalinity, Total (As CaCO3)	Grab	N	SM2320	11/22/2004	130		mg/L	0.16
<u>METALS</u>									
01105	Aluminum	Grab	N	SW6010	11/11/2004	580	*	µg/L	18
01002	Arsenic	Grab	N	SW6010	11/11/2004	5.6	I	µg/L	2.8
01007	Barium	Grab	N	SW6010	11/11/2004	24		µg/L	0.23
01012	Beryllium	Grab	N	SW6010	11/11/2004	0.056	U	µg/L	0.056
01027	Cadmium	Grab	N	SW6010	11/11/2004	7.1	*	µg/L	0.34
00916	Calcium	Grab	N	SW6010	11/11/2004	170000	V	µg/L	28
01034	Chromium	Grab	N	SW6010	11/11/2004	1.6	I	µg/L	0.60
01037	Cobalt	Grab	N	SW6010	11/11/2004	64		µg/L	1.6
01042	Copper	Grab	N	SW6010	11/11/2004	3.5	I	µg/L	0.47
01045	Iron	Grab	N	SW6010	11/11/2004	12000	*	µg/L	11
01051	Lead	Grab	N	SW6010	11/11/2004	2.2	U	µg/L	2.2
00927	Magnesium	Grab	N	SW6010	11/11/2004	72000		µg/L	14
01055	Manganese	Grab	N	SW6010	11/11/2004	500	*	µg/L	0.24

Data * Value exceeds Maximum Contaminant Level
Qualifier U Not Detected Above the MDL
Code Key:

I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank

**Southeast Landfill Well Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-003

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 10:30:00 AM
Well/Sampling Point WACS:	TH-60	Report Period:	November 2004
Well/Sampling Point Name:	TH-60	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
01067	Nickel	Grab	N	SW6010	11/11/2004	190	*	µg/L	1.0
00937	Potassium	Grab	N	SW6010	11/11/2004	3600	V	µg/L	32
01147	Selenium	Grab	N	SW6010	11/11/2004	3.1	U	µg/L	3.1
01077	Silver	Grab	N	SW6010	11/11/2004	0.93	U	µg/L	0.93
00929	Sodium	Grab	N	SW6010	11/11/2004	15000		µg/L	190
01087	Vanadium	Grab	N	SW6010	11/11/2004	22		µg/L	0.73
01092	Zinc	Grab	N	SW6010	11/11/2004	110		µg/L	3.5
	Antimony	Grab	N	SW6020	11/13/2004	4.4		µg/L	0.40
	Thallium	Grab	N	SW6020	11/13/2004	1.4	V	µg/L	0.12
71900	Mercury	Grab	N	SW7470	11/16/2004	0.012	U	µg/L	0.012
ORGANICS									
49146	1,2-Dibromo-3-chloropropane	Grab	N	SW8011	11/15/2004	0.0014	U	µg/L	0.0014
77651	Ethylene Dibromide	Grab	N	SW8011	11/15/2004	0.0030	U	µg/L	0.0030
81552	Acetone	Grab	N	SW8260	11/16/2004	3.7	U	µg/L	3.7
34215	Acrylonitrile	Grab	N	SW8260	11/16/2004	2.2	U	µg/L	2.2
34030	Benzene	Grab	N	SW8260	11/16/2004	3.8	*	µg/L	0.23
73085	Bromochloromethane	Grab	N	SW8260	11/16/2004	0.21	U	µg/L	0.21
32101	Bromodichloromethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
32104	Bromoform	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
34413	Bromomethane	Grab	N	SW8260	11/16/2004	0.60	U	µg/L	0.60
81595	2-Butanone	Grab	N	SW8260	11/16/2004	1.8	U	µg/L	1.8
77041	Carbon disulfide	Grab	N	SW8260	11/16/2004	0.49	U	µg/L	0.49
32102	Carbon tetrachloride	Grab	N	SW8260	11/16/2004	0.29	U	µg/L	0.29
34301	Chlorobenzene	Grab	N	SW8260	11/16/2004	0.15	U	µg/L	0.15
34311	Chloroethane	Grab	N	SW8260	11/16/2004	0.51	U	µg/L	0.51
32106	Chloroform	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34418	Chloromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
32105	Dibromochloromethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
77596	Dibromomethane	Grab	N	SW8260	11/16/2004	0.30	U	µg/L	0.30
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	11/16/2004	0.64	U	µg/L	0.64
34536	1,2-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34571	1,4-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19

Data Qualifier Code Key:

- * Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

- I Analyte detected below quantitation limits
- V Analyte detected in the associated Method Blank

SE **Southeast Landfill Well Monitoring**

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-003



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 10:30:00 AM
Well/Sampling Point WACS:	TH-60	Report Period:	November 2004
Well/Sampling Point Name:	TH-60	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
34496	1,1-Dichloroethane	Grab	N	SW8260	11/16/2004	3.6		µg/L	0.26
34531	1,2-Dichloroethane	Grab	N	SW8260	11/16/2004	2.6		µg/L	0.19
34501	1,1-Dichloroethene	Grab	N	SW8260	11/16/2004	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	1.3		µg/L	0.17
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34541	1,2-Dichloropropane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.25	U	µg/L	0.25
34371	Ethylbenzene	Grab	N	SW8260	11/16/2004	0.30	I	µg/L	0.20
77103	2-Hexanone	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
77424	Iodomethane	Grab	N	SW8260	11/16/2004	0.52	U	µg/L	0.52
81596	4-Methyl-2-pentanone	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
34423	Methylene chloride	Grab	N	SW8260	11/16/2004	2.0	U	µg/L	2.0
77128	Styrene	Grab	N	SW8260	11/16/2004	0.12	U	µg/L	0.12
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34010	Toluene	Grab	N	SW8260	11/16/2004	0.35	U	µg/L	0.35
34506	1,1,1-Trichloroethane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34511	1,1,2-Trichloroethane	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
39180	Trichloroethene	Grab	N	SW8260	11/16/2004	0.32	I	µg/L	0.27
34488	Trichlorofluoromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
77443	1,2,3-Trichloropropane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
77057	Vinyl acetate	Grab	N	SW8260	11/16/2004	0.46	U	µg/L	0.46
39175	Vinyl chloride	Grab	N	SW8260	11/16/2004	0.43	U	µg/L	0.43
34020	Xylenes, Total	Grab	N	SW8260	11/16/2004	0.32	U	µg/L	0.32

Data * Value exceeds Maximum Contaminant Level
 Qualifier U Not Detected Above the MDL
 Code Key:

I Analyte detected below quantitation limits
 V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-004



SECT. 7
LEACHATE
11/04

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 10:25:00 AM
Well/Sampling Point WACS:	Leak Detection Sys	Report Period:	November 2004
Well/Sampling Point Name:	Leak Detection Sys	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
FIELD									
	Conductivity	Grab	N	FLD	11/9/2004	2727		umhos/c	
	Dissolved Oxygen	Grab	N	FLD	11/9/2004	2.82		mg/L	
	pH	Grab	N	FLD	11/9/2004	6.27		S.U.	
	Temperature	Grab	N	FLD	11/9/2004	30.46		deg C	
INORGANICS									
00940	Chloride	Grab	N	E300.0	11/11/2004	490	*	mg/L	0.36
00951	Fluoride	Grab	N	E300.0	11/10/2004	0.18		mg/L	0.015
00620	Nitrogen, Nitrate	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00615	Nitrogen, Nitrite	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00630	Nitrogen, Nitrate-Nitrite	Grab	N	E300.0	11/10/2004	0.036	U	mg/L	0.036
00945	Sulfate	Grab	N	E300.0	11/10/2004	0.10	U	mg/L	0.10
00440	Alkalinity, Bicarbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	260		mg/L	0.16
00430	Alkalinity, Carbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
00410	Alkalinity, Total (As CaCO3)	Grab	N	SM2320	11/22/2004	260		mg/L	0.16
METALS									
01105	Aluminum	Grab	N	SW6010	11/11/2004	68	I	µg/L	18
01002	Arsenic	Grab	N	SW6010	11/11/2004	2.8	U	µg/L	2.8
01007	Barium	Grab	N	SW6010	11/11/2004	33		µg/L	0.23
01012	Beryllium	Grab	N	SW6010	11/11/2004	0.056	U	µg/L	0.056
01027	Cadmium	Grab	N	SW6010	11/11/2004	0.34	U	µg/L	0.34
00916	Calcium	Grab	N	SW6010	11/11/2004	210000	V	µg/L	28
01034	Chromium	Grab	N	SW6010	11/11/2004	3.8	I	µg/L	0.60
01037	Cobalt	Grab	N	SW6010	11/11/2004	22		µg/L	1.6
01042	Copper	Grab	N	SW6010	11/11/2004	160		µg/L	0.47
01045	Iron	Grab	N	SW6010	11/11/2004	100000	*	µg/L	11
01051	Lead	Grab	N	SW6010	11/11/2004	3.6	I	µg/L	2.2
00927	Magnesium	Grab	N	SW6010	11/11/2004	32000		µg/L	14
01055	Manganese	Grab	N	SW6010	11/11/2004	2200	*	µg/L	0.24
01067	Nickel	Grab	N	SW6010	11/11/2004	12		µg/L	1.0
00937	Potassium	Grab	N	SW6010	11/11/2004	38000	V	µg/L	32

Data Qualifier Code Key:

* Value exceeds Maximum Contaminant Level

U Not Detected Above the MDL

I Analyte detected below quantitation limits

V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-004



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 10:25:00 AM
Well/Sampling Point WACS:	Leak Detection Sys	Report Period:	November 2004
Well/Sampling Point Name:	Leak Detection Sys	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
01147	Selenium	Grab	N	SW6010	11/11/2004	3.1	U	µg/L	3.1
01077	Silver	Grab	N	SW6010	11/11/2004	0.93	U	µg/L	0.93
00929	Sodium	Grab	N	SW6010	11/11/2004	120000		µg/L	190
01087	Vanadium	Grab	N	SW6010	11/11/2004	11		µg/L	0.73
01092	Zinc	Grab	N	SW6010	11/11/2004	280		µg/L	3.5
	Antimony	Grab	N	SW6020	11/13/2004	1.1		µg/L	0.40
	Thallium	Grab	N	SW6020	11/13/2004	0.12	U	µg/L	0.12
71900	Mercury	Grab	N	SW7470	11/16/2004	0.012	U	µg/L	0.012
ORGANICS									
49146	1,2-Dibromo-3-chloropropane	Grab	N	SW8011	11/15/2004	0.0014	U	µg/L	0.0014
77651	Ethylene Dibromide	Grab	N	SW8011	11/15/2004	0.0030	U	µg/L	0.0030
81552	Acetone	Grab	N	SW8260	11/16/2004	3.7	U	µg/L	3.7
34215	Acrylonitrile	Grab	N	SW8260	11/16/2004	2.2	U	µg/L	2.2
34030	Benzene	Grab	N	SW8260	11/16/2004	5.4	*	µg/L	0.23
73085	Bromochloromethane	Grab	N	SW8260	11/16/2004	0.21	U	µg/L	0.21
32101	Bromodichloromethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
32104	Bromoform	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
34413	Bromomethane	Grab	N	SW8260	11/16/2004	0.60	U	µg/L	0.60
81595	2-Butanone	Grab	N	SW8260	11/16/2004	1.8	U	µg/L	1.8
77041	Carbon disulfide	Grab	N	SW8260	11/16/2004	0.49	U	µg/L	0.49
32102	Carbon tetrachloride	Grab	N	SW8260	11/16/2004	0.29	U	µg/L	0.29
34301	Chlorobenzene	Grab	N	SW8260	11/16/2004	0.15	U	µg/L	0.15
34311	Chloroethane	Grab	N	SW8260	11/16/2004	9.0		µg/L	0.51
32106	Chloroform	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34418	Chloromethane	Grab	N	SW8260	11/16/2004	1.0		µg/L	0.50
32105	Dibromochloromethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
77596	Dibromomethane	Grab	N	SW8260	11/16/2004	0.30	U	µg/L	0.30
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	11/16/2004	0.64	U	µg/L	0.64
34536	1,2-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34571	1,4-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34496	1,1-Dichloroethane	Grab	N	SW8260	11/16/2004	4.3		µg/L	0.26
34531	1,2-Dichloroethane	Grab	N	SW8260	11/16/2004	3.4	*	µg/L	0.19

Data * Value exceeds Maximum Contaminant Level
 Qualifier U Not Detected Above the MDL
 Code Key:

I Analyte detected below quantitation limits
 V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring**PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-004



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 10:25:00 AM
Well/Sampling Point WACS:	Leak Detection Sys	Report Period:	November 2004
Well/Sampling Point Name:	Leak Detection Sys	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
34501	1,1-Dichloroethene	Grab	N	SW8260	11/16/2004	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	7.3		µg/L	0.17
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34541	1,2-Dichloropropane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.25	U	µg/L	0.25
34371	Ethylbenzene	Grab	N	SW8260	11/16/2004	3.4		µg/L	0.20
77103	2-Hexanone	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
77424	Iodomethane	Grab	N	SW8260	11/16/2004	0.52	U	µg/L	0.52
81596	4-Methyl-2-pentanone	Grab	N	SW8260	11/16/2004	5.3	I	µg/L	0.26
34423	Methylene chloride	Grab	N	SW8260	11/16/2004	5.8	*	µg/L	2.0
77128	Styrene	Grab	N	SW8260	11/16/2004	0.12	U	µg/L	0.12
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34010	Toluene	Grab	N	SW8260	11/16/2004	24		µg/L	0.35
34506	1,1,1-Trichloroethane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34511	1,1,2-Trichloroethane	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
39180	Trichloroethene	Grab	N	SW8260	11/16/2004	2.4		µg/L	0.27
34488	Trichlorofluoromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
77443	1,2,3-Trichloropropane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
77057	Vinyl acetate	Grab	N	SW8260	11/16/2004	0.46	U	µg/L	0.46
39175	Vinyl chloride	Grab	N	SW8260	11/16/2004	0.43	U	µg/L	0.43
34020	Xylenes, Total	Grab	N	SW8260	11/16/2004	7.9		µg/L	0.32

Data Qualifier Code Key:

- * Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

- I Analyte detected below quantitation limits
- V Analyte detected in the associated Method Blank

Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-005



TH-59
4/04

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:40:00 AM
Well/Sampling Point WACS:	TH-59	Report Period:	November 2004
Well/Sampling Point Name:	TH-59	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
FIELD									
	Conductivity	Grab	N	FLD	11/9/2004	1139		umhos/c	
	Depth To Water	Grab	N	FLD	11/9/2004	17.39		ft	
	Dissolved Oxygen	Grab	N	FLD	11/9/2004	2.11		mg/L	
	pH	Grab	N	FLD	11/9/2004	5.61		S.U.	
	Temperature	Grab	N	FLD	11/9/2004	24.19		deg C	
	Turbidity	Grab	N	FLD	11/9/2004	1.9		NTU	
INORGANICS									
00940	Chloride	Grab	N	E300.0	11/10/2004	83		mg/L	0.072
00951	Fluoride	Grab	N	E300.0	11/10/2004	0.31		mg/L	0.015
00620	Nitrogen, Nitrate	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00615	Nitrogen, Nitrite	Grab	N	E300.0	11/10/2004	0.018	U	mg/L	0.018
00630	Nitrogen, Nitrate-Nitrite	Grab	N	E300.0	11/10/2004	0.036	U	mg/L	0.036
00945	Sulfate	Grab	N	E300.0	11/10/2004	300	*	mg/L	0.10
00440	Alkalinity, Bicarbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	180		mg/L	0.16
00430	Alkalinity, Carbonate (As CaCO3)	Grab	N	SM2320	11/22/2004	0.16	U	mg/L	0.16
00410	Alkalinity, Total (As CaCO3)	Grab	N	SM2320	11/22/2004	180		mg/L	0.16
METALS									
01105	Aluminum	Grab	N	SW6010	11/11/2004	200		µg/L	18
01002	Arsenic	Grab	N	SW6010	11/11/2004	2.8	U	µg/L	2.8
01007	Barium	Grab	N	SW6010	11/11/2004	16		µg/L	0.23
01012	Beryllium	Grab	N	SW6010	11/11/2004	0.056	U	µg/L	0.056
01027	Cadmium	Grab	N	SW6010	11/11/2004	0.34	U	µg/L	0.34
00916	Calcium	Grab	N	SW6010	11/11/2004	150000	V	µg/L	28
01034	Chromium	Grab	N	SW6010	11/11/2004	1.1	I	µg/L	0.60
01037	Cobalt	Grab	N	SW6010	11/11/2004	30		µg/L	1.6
01042	Copper	Grab	N	SW6010	11/11/2004	0.47	U	µg/L	0.47
01045	Iron	Grab	N	SW6010	11/11/2004	8600	*	µg/L	11
01051	Lead	Grab	N	SW6010	11/11/2004	2.2	U	µg/L	2.2
00927	Magnesium	Grab	N	SW6010	11/11/2004	58000		µg/L	14
01055	Manganese	Grab	N	SW6010	11/11/2004	320	*	µg/L	0.24

Data * Value exceeds Maximum Contaminant Level
Qualifier U Not Detected Above the MDL
Code Key:

I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank

SE **Southeast Landfill Well Monitoring**

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-005



Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:40:00 AM
Well/Sampling Point WACS:	TH-59	Report Period:	November 2004
Well/Sampling Point Name:	TH-59	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
01067	Nickel	Grab	N	SW6010	11/11/2004	120	*	µg/L	1.0
00937	Potassium	Grab	N	SW6010	11/11/2004	3000	V	µg/L	32
01147	Selenium	Grab	N	SW6010	11/11/2004	3.1	U	µg/L	3.1
01077	Silver	Grab	N	SW6010	11/11/2004	0.93	U	µg/L	0.93
00929	Sodium	Grab	N	SW6010	11/11/2004	13000		µg/L	190
01087	Vanadium	Grab	N	SW6010	11/11/2004	2.8	I	µg/L	0.73
01092	Zinc	Grab	N	SW6010	11/11/2004	3.5	U	µg/L	3.5
	Antimony	Grab	N	SW6020	11/13/2004	0.40	U	µg/L	0.40
	Thallium	Grab	N	SW6020	11/13/2004	0.29	IV	µg/L	0.12
71900	Mercury	Grab	N	SW7470	11/16/2004	0.012	U	µg/L	0.012
ORGANICS									
49146	1,2-Dibromo-3-chloropropane	Grab	N	SW8011	11/15/2004	0.0014	U	µg/L	0.0014
77651	Ethylene Dibromide	Grab	N	SW8011	11/15/2004	0.0030	U	µg/L	0.0030
81552	Acetone	Grab	N	SW8260	11/16/2004	3.7	U	µg/L	3.7
34215	Acrylonitrile	Grab	N	SW8260	11/16/2004	2.2	U	µg/L	2.2
34030	Benzene	Grab	N	SW8260	11/16/2004	5.4	*	µg/L	0.23
73085	Bromochloromethane	Grab	N	SW8260	11/16/2004	0.21	U	µg/L	0.21
32101	Bromodichloromethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
32104	Bromoform	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
34413	Bromomethane	Grab	N	SW8260	11/16/2004	0.60	U	µg/L	0.60
81595	2-Butanone	Grab	N	SW8260	11/16/2004	1.8	U	µg/L	1.8
77041	Carbon disulfide	Grab	N	SW8260	11/16/2004	0.49	U	µg/L	0.49
32102	Carbon tetrachloride	Grab	N	SW8260	11/16/2004	0.29	U	µg/L	0.29
34301	Chlorobenzene	Grab	N	SW8260	11/16/2004	0.15	U	µg/L	0.15
34311	Chloroethane	Grab	N	SW8260	11/16/2004	0.67	I	µg/L	0.51
32106	Chloroform	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34418	Chloromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
32105	Dibromochloromethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
77596	Dibromomethane	Grab	N	SW8260	11/16/2004	0.30	U	µg/L	0.30
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	11/16/2004	0.64	U	µg/L	0.64
34536	1,2-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34571	1,4-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19

Data * Value exceeds Maximum Contaminant Level
 Qualifier U Not Detected Above the MDL
 Code Key:

I Analyte detected below quantitation limits
 V Analyte detected in the associated Method Blank

**Southeast Landfill Well Monitoring****PARAMETER MONITORING REPORT**

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-005

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:40:00 AM
Well/Sampling Point WACS:	TH-59	Report Period:	November 2004
Well/Sampling Point Name:	TH-59	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Monitoring
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
34496	1,1-Dichloroethane	Grab	N	SW8260	11/16/2004	3.8		µg/L	0.26
34531	1,2-Dichloroethane	Grab	N	SW8260	11/16/2004	2.4		µg/L	0.19
34501	1,1-Dichloroethene	Grab	N	SW8260	11/16/2004	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	1.2		µg/L	0.17
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34541	1,2-Dichloropropane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.25	U	µg/L	0.25
34371	Ethylbenzene	Grab	N	SW8260	11/16/2004	0.20	U	µg/L	0.20
77103	2-Hexanone	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
77424	Iodomethane	Grab	N	SW8260	11/16/2004	0.52	U	µg/L	0.52
81596	4-Methyl-2-pentanone	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
34423	Methylene chloride	Grab	N	SW8260	11/16/2004	2.0	U	µg/L	2.0
77128	Styrene	Grab	N	SW8260	11/16/2004	0.12	U	µg/L	0.12
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34010	Toluene	Grab	N	SW8260	11/16/2004	0.43	I	µg/L	0.35
34506	1,1,1-Trichloroethane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34511	1,1,2-Trichloroethane	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
39180	Trichloroethene	Grab	N	SW8260	11/16/2004	0.89	I	µg/L	0.27
34488	Trichlorofluoromethane	Grab	N	SW8260	11/16/2004	0.51	I	µg/L	0.50
77443	1,2,3-Trichloropropane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
77057	Vinyl acetate	Grab	N	SW8260	11/16/2004	0.46	U	µg/L	0.46
39175	Vinyl chloride	Grab	N	SW8260	11/16/2004	0.43	U	µg/L	0.43
34020	Xylenes, Total	Grab	N	SW8260	11/16/2004	0.32	U	µg/L	0.32

Data
Qualifier
Code Key:

- Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

- I Analyte detected below quantitation limits
- V Analyte detected in the associated Method Blank



Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-006

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:00:00 AM
Well/Sampling Point WACS:	Trip Blank	Report Period:	November 2004
Well/Sampling Point Name:	Travel Blank	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Trip QC
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
ORGANICS									
81552	Acetone	Grab	N	SW8260	11/16/2004	3.7	U	µg/L	3.7
34215	Acrylonitrile	Grab	N	SW8260	11/16/2004	2.2	U	µg/L	2.2
34030	Benzene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
73085	Bromochloromethane	Grab	N	SW8260	11/16/2004	0.21	U	µg/L	0.21
32101	Bromodichloromethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
32104	Bromoform	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
34413	Bromomethane	Grab	N	SW8260	11/16/2004	0.60	U	µg/L	0.60
81595	2-Butanone	Grab	N	SW8260	11/16/2004	1.8	U	µg/L	1.8
77041	Carbon disulfide	Grab	N	SW8260	11/16/2004	0.49	U	µg/L	0.49
32102	Carbon tetrachloride	Grab	N	SW8260	11/16/2004	0.29	U	µg/L	0.29
34301	Chlorobenzene	Grab	N	SW8260	11/16/2004	0.15	U	µg/L	0.15
34311	Chloroethane	Grab	N	SW8260	11/16/2004	0.51	U	µg/L	0.51
32106	Chloroform	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34418	Chloromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
32105	Dibromochloromethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
77596	Dibromomethane	Grab	N	SW8260	11/16/2004	0.30	U	µg/L	0.30
77268	trans-1,4-Dichloro-2-butene	Grab	N	SW8260	11/16/2004	0.64	U	µg/L	0.64
34536	1,2-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34571	1,4-Dichlorobenzene	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34496	1,1-Dichloroethane	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26
34531	1,2-Dichloroethane	Grab	N	SW8260	11/16/2004	0.19	U	µg/L	0.19
34501	1,1-Dichloroethene	Grab	N	SW8260	11/16/2004	0.40	U	µg/L	0.40
77093	cis-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34546	trans-1,2-Dichloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34541	1,2-Dichloropropane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34704	cis-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.23	U	µg/L	0.23
34699	trans-1,3-Dichloropropene	Grab	N	SW8260	11/16/2004	0.25	U	µg/L	0.25
34371	Ethylbenzene	Grab	N	SW8260	11/16/2004	0.20	U	µg/L	0.20
77103	2-Hexanone	Grab	N	SW8260	11/16/2004	0.28	U	µg/L	0.28
77424	Iodomethane	Grab	N	SW8260	11/16/2004	0.52	U	µg/L	0.52
81596	4-Methyl-2-pentanone	Grab	N	SW8260	11/16/2004	0.26	U	µg/L	0.26

Data Qualifier Code Key:

- Value exceeds Maximum Contaminant Level
- U Not Detected Above the MDL

I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank



SE Southeast Landfill Well Monitoring

PARAMETER MONITORING REPORT

Ground Water (Rule 62-520.400, .420, .460)

Surface Water (Rule 62-302.500, .510, .503)

Leachate (Rule 62-701.510)

LAB Submission Number: F04110305

Sample Number: F04110305-006

Facility WACS:	35435-006-SO	Sample Date/Time:	11/9/2004 9:00:00 AM
Well/Sampling Point WACS:	Trip Blank	Report Period:	November 2004
Well/Sampling Point Name:	Travel Blank	Well Purged:	YES
Classification of Groundwater:	G-II	Well Type:	Trip QC
Ground Water Elevation: (NGVD):			

Storet Code	Parameter Monitored	Sampling Method	Filtered Y/N	Analysis Method	Analysis Date	Analysis Result	Q	Units	Detection Limits
34423	Methylene chloride	Grab	N	SW8260	11/16/2004	2.0	U	µg/L	2.0
77128	Styrene	Grab	N	SW8260	11/16/2004	0.12	U	µg/L	0.12
77562	1,1,1,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
34516	1,1,2,2-Tetrachloroethane	Grab	N	SW8260	11/16/2004	0.44	U	µg/L	0.44
34475	Tetrachloroethene	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
34010	Toluene	Grab	N	SW8260	11/16/2004	0.35	U	µg/L	0.35
34506	1,1,1-Trichloroethane	Grab	N	SW8260	11/16/2004	0.33	U	µg/L	0.33
34511	1,1,2-Trichloroethane	Grab	N	SW8260	11/16/2004	0.17	U	µg/L	0.17
39180	Trichloroethene	Grab	N	SW8260	11/16/2004	0.27	U	µg/L	0.27
34488	Trichlorofluoromethane	Grab	N	SW8260	11/16/2004	0.50	U	µg/L	0.50
77443	1,2,3-Trichloropropane	Grab	N	SW8260	11/16/2004	0.24	U	µg/L	0.24
77057	Vinyl acetate	Grab	N	SW8260	11/16/2004	0.46	U	µg/L	0.46
39175	Vinyl chloride	Grab	N	SW8260	11/16/2004	0.43	U	µg/L	0.43
34020	Xylenes, Total	Grab	N	SW8260	11/16/2004	0.32	U	µg/L	0.32

Data Qualifier Code Key: * Value exceeds Maximum Contaminant Level
U Not Detected Above the MDL
I Analyte detected below quantitation limits
V Analyte detected in the associated Method Blank

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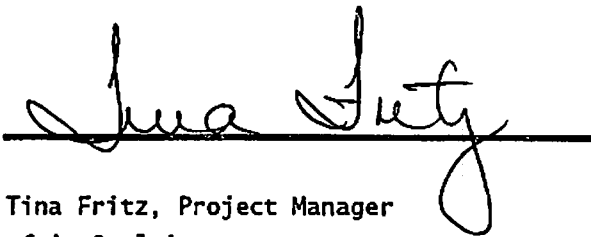
6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone: (813) 885-7427 Fax: (813) 885-7049

Analytical Report

For: Mr. Ken Guilbeault
SCS Engineers
3012 US 301 North, Suite 700
Tampa, FL 33619

CC:

Order Number: B425923
SDG Number:
Client Project ID: 09200020.15
Project: H.C. SELF
Report Date: 11/23/2004
Sampled By: Client
Sample Received Date: 11/10/2004
Requisition Number:
Purchase Order:
Revised Date: 12/06/2004



Tina Fritz, Project Manager
tfritz@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

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Sample Summary

Order: B425923
Date Received: 11/10/2004Client: SCS Engineers
Project: H.C. SELF

Client Sample ID

TH-59

TH-60

LEAK DETECTION

Lab Sample ID

B425923*1

B425923*2

B425923*3

Matrix

Liquid

Liquid

Liquid

Date Sampled

11/09/2004 09:45

11/09/2004 10:30

11/09/2004 11:25

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-1	TH-59	Liquid	11/10/04	11/09/04 09:45	
25923-2	TH-60	Liquid	11/10/04	11/09/04 10:30	
25923-3	LEAK DETECTION	Liquid	11/10/04	11/09/04 11:25	

Parameter	Units	Lab Sample IDs		
		25923-1	25923-2	25923-3

Chloride (325.3)

Chloride	mg/l	78	91	420
Dilution Factor		1	1	1
Analysis Date		11/19/04	11/19/04	11/19/04
Analysis Time		11:40	11:40	11:40
Batch ID		1119M	1119M	1119M

Sulfate as SO4 (375.4)

Sulfate as SO4	mg/l	244	304	1.7U
Dilution Factor		1	1	1
Analysis Date		12/02/04	12/02/04	12/02/04
Analysis Time		02:30	19:00	19:00
Batch ID		1202Q	1202Q	1202Q

Bicarbonate Alkalinity as CaCO3 (SM2320B)

Bicarbonate Alkalinity as CaCO3	mg/l	170	130	290
Dilution Factor		1	1	1
Analysis Date		11/16/04	11/16/04	11/16/04
Analysis Time		09:15	09:15	09:15
Batch ID		1116B	1116B	1116B

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-1	TH-59	Liquid	11/10/04	11/09/04 09:45	
25923-2	TH-60	Liquid	11/10/04	11/09/04 10:30	
25923-3	LEAK DETECTION	Liquid	11/10/04	11/09/04 11:25	

Parameter	Units	Lab Sample IDs		
		25923-1	25923-2	25923-3

Carbonate Alkalinity as CaCO3 (SM23208)

Carbonate Alkalinity as CaCO3	mg/l	1.0U	1.0U	1.0U
Dilution Factor		1	1	1
Analysis Date		11/16/04	11/16/04	11/16/04
Analysis Time		09:15	09:15	09:15
Batch ID		1116B	1116B	1116B

Sodium (6010)

Sodium	mg/l	11	13	110
Dilution Factor		2	2	2
Prep Date		11/16/04	11/16/04	11/16/04
Analysis Date		11/17/04	11/17/04	11/17/04
Analysis Time		10:13	10:20	10:26
Batch ID		41116K	41116K	41116K

Potassium (6010)

Potassium	mg/l	2.5	2.7	32
Dilution Factor		2	2	2
Prep Date		11/16/04	11/16/04	11/16/04
Analysis Date		11/17/04	11/17/04	11/17/04
Analysis Time		10:13	10:20	10:26
Batch ID		41116K	41116K	41116K

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDC#
25923-1	TH-59	Liquid	11/10/04	11/09/04 09:45	
25923-2	TH-60	Liquid	11/10/04	11/09/04 10:30	
25923-3	LEAK DETECTION	Liquid	11/10/04	11/09/04 11:25	

Parameter	Units	Lab Sample IDs		
		25923-1	25923-2	25923-3

Calcium (6010)

Calcium	mg/l	140	150	190
Dilution Factor		2	2	2
Prep Date		11/16/04	11/16/04	11/16/04
Analysis Date		11/17/04	11/17/04	11/17/04
Analysis Time		10:13	10:20	10:26
Batch ID		41116K	41116K	41116K

Magnesium (6010)

Magnesium	mg/l	56	65	31
Dilution Factor		2	2	2
Prep Date		11/16/04	11/16/04	11/16/04
Analysis Date		11/17/04	11/17/04	11/17/04
Analysis Time		10:13	10:20	10:26
Batch ID		41116K	41116K	41116K

Iron (6010)

Iron	mg/l	8.8	12	160
Dilution Factor		2	2	2
Prep Date		11/16/04	11/16/04	11/16/04
Analysis Date		11/17/04	11/17/04	11/17/04
Analysis Time		10:13	10:20	10:26
Batch ID		41116K	41116K	41116K

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-1	TH-59	Liquid	11/10/04	11/09/04 09:45	
25923-2	TH-60	Liquid	11/10/04	11/09/04 10:30	
25923-3	LEAK DETECTION	Liquid	11/10/04	11/09/04 11:25	

Parameter	Units	Lab Sample IDs		
		25923-1	25923-2	25923-3

Volatiles by GC/MS (8260)

Benzene	ug/l	2.8	1.7	3.3
Bromobenzene	ug/l	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	0.67U	0.67U	0.67U
sec-Butylbenzene	ug/l	0.63U	0.63U	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	2.5	2.3	2.9
1,2-Dichloroethane	ug/l	0.57U	0.57U	3.3
1,1-Dichloroethene	ug/l	0.45U	0.45U	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U	0.65U	4.0

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDC#
25923-1	TH-59	Liquid	11/10/04	11/09/04 09:45	
25923-2	TH-60	Liquid	11/10/04	11/09/04 10:30	
25923-3	LEAK DETECTION	Liquid	11/10/04	11/09/04 11:25	
Lab Sample IDs					
25923-1	25923-2	25923-3			

Volatiles by GC/MS (8260)

trans-1,2-Dichloroethene	ug/l	0.44U	0.44U	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	0.83U	0.83U	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	0.19U	0.19U	0.19U
p-Cymene	ug/l	0.69U	0.69U	0.69U
Methylene chloride	ug/l	1.0U	1.0U	3.6
Naphthalene	ug/l	0.94U	0.94U	0.94U
n-Propylbenzene	ug/l	0.59U	0.59U	0.59U
Styrene	ug/l	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	0.34U	0.34U
Toluene	ug/l	0.51U	0.51U	13
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U
Trichloroethene	ug/l	0.86U	0.28U	1.7
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	0.86U	0.86U	0.86U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-1	TH-59	Liquid	11/10/04	11/09/04 09:45	
25923-2	TH-60	Liquid	11/10/04	11/09/04 10:30	
25923-3	LEAK DETECTION	Liquid	11/10/04	11/09/04 11:25	

Parameter	Units	Lab Sample IDs		
		25923-1	25923-2	25923-3

Volatiles by GC/MS (8260)

1,3,5-Trimethylbenzene	ug/l	0.54U	0.54U	0.54U
Vinyl chloride	ug/l	0.50U	0.50U	0.50U
o-Xylene	ug/l	0.78U	0.78U	1.6
m&p-Xylene	ug/l	0.74U	0.74U	4.7
Acetone	ug/l	9.9U	9.9U	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U	3.8U	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	1.3
2-Hexanone	ug/l	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	6.6	7.7	42
Surrogate - Toluene-d8 *	%	110 %	100 %	106 %
Surrogate -				
4-Bromofluorobenzene *	%	100 %	86 %	98 %
Surrogate -				
Dibromofluoromethane *	%	94 %	90 %	88 %
Dilution Factor		1	1	1
Analysis Date		11/16/04	11/16/04	11/16/04
Analysis Time		17:23	17:47	18:10
Batch ID		1116G	1116G	1116G

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-4	Method Blank	Liquid	11/10/04		

Parameter	Units	Lab Sample IDs
		25923-4

Chloride (325.3)

Chloride	mg/l	1.0U
Dilution Factor		1
Analysis Date		11/19/04
Analysis Time		11:40
Batch ID		1119M

Sulfate as SO4 (375.4)

Sulfate as SO4	mg/l	1.7U
Dilution Factor		1
Analysis Date		11/15/04
Analysis Time		14:00
Batch ID		1115Q

Bicarbonate Alkalinity as CaCO3 (SM2320B)

Bicarbonate Alkalinity as CaCO3	mg/l	1.0U
Dilution Factor		1
Analysis Date		11/16/04
Analysis Time		09:15
Batch ID		1116B

Carbonate Alkalinity as CaCO3 (SM2320B)

Carbonate Alkalinity as CaCO3	mg/l	1.0U
Dilution Factor		1
Analysis Date		11/16/04
Analysis Time		09:15
Batch ID		1116B

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-4	Method Blank	Liquid	11/10/04		

Parameter	Units	Lab Sample IDs
		25923-4

Sodium (6010)

Sodium	mg/l	0.15U
Dilution Factor		1
Prep Date		11/16/04
Analysis Date		11/17/04
Analysis Time		08:31
Batch ID		41116K

Potassium (6010)

Potassium	mg/l	0.19U
Dilution Factor		1
Prep Date		11/16/04
Analysis Date		11/17/04
Analysis Time		08:31
Batch ID		41116K

Calcium (6010)

Calcium	mg/l	0.048U
Dilution Factor		1
Prep Date		11/16/04
Analysis Date		11/17/04
Analysis Time		08:31
Batch ID		41116K

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-4	Method Blank	Liquid	11/10/04		

Parameter	Units	Lab Sample IDs
		25923-4

Magnesium (6010)

Magnesium	mg/l	0.11U
Dilution Factor		1
Prep Date		11/16/04
Analysis Date		11/17/04
Analysis Time		08:31
Batch ID		41116K

Iron (6010)

Iron	mg/l	0.037U
Dilution Factor		1
Prep Date		11/16/04
Analysis Date		11/17/04
Analysis Time		08:31
Batch ID		41116K

Volatiles by GC/MS (8260)

Benzene	ug/l	0.27U
Bromobenzene	ug/l	0.58U
Bromochloromethane	ug/l	0.58U
Bromodichloromethane	ug/l	0.35U
Bromoform	ug/l	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U
n-Butylbenzene	ug/l	0.67U
sec-Butylbenzene	ug/l	0.63U
tert-Butylbenzene	ug/l	0.84U
Carbon tetrachloride	ug/l	0.42U
Chlorobenzene	ug/l	0.63U
Chloroethane	ug/l	0.80U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
25923-4	Method Blank	Liquid	11/10/04		

Parameter	Units	Lab Sample IDs
		25923-4

Volatiles by GC/MS (8260)

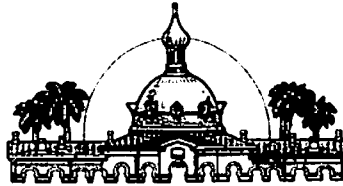
Chloroform	ug/l	0.90U
Chloromethane	ug/l	0.64U
2-Chlorotoluene	ug/l	0.65U
4-Chlorotoluene	ug/l	0.52U
Dibromochloromethane	ug/l	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U
Dibromomethane	ug/l	0.41U
1,2-Dichlorobenzene	ug/l	0.44U
1,3-Dichlorobenzene	ug/l	0.64U
1,4-Dichlorobenzene	ug/l	0.52U
Dichlorodifluoromethane	ug/l	0.40U
1,1-Dichloroethane	ug/l	0.52U
1,2-Dichloroethane	ug/l	0.57U
1,1-Dichloroethene	ug/l	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U
1,2-Dichloropropane	ug/l	0.52U
1,3-Dichloropropane	ug/l	0.39U
2,2-Dichloropropane	ug/l	0.36U
1,1-Dichloropropylene	ug/l	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U
Ethylbenzene	ug/l	0.83U
Hexachlorobutadiene	ug/l	0.46U
Isopropylbenzene	ug/l	0.19U
p-Cymene	ug/l	0.69U
Methylene chloride		
(Dichloromethane)	ug/l	1.0U
Naphthalene	ug/l	0.94U

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDC#
25923-4	Method Blank	Liquid	11/10/04		
Parameter	Units	Lab Sample IDs			
25923-4		25923-4			

Volatiles by GC/MS (8260)

n-Propylbenzene	ug/l	0.59U
Styrene	ug/l	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U
Tetrachloroethene	ug/l	0.34U
Toluene	ug/l	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U
1,1,1-Trichloroethane	ug/l	0.46U
1,1,2-Trichloroethane	ug/l	0.47U
Trichloroethene	ug/l	0.28U
Trichlorofluoromethane	ug/l	0.98U
1,2,3-Trichloropropane	ug/l	0.15U
1,2,4-Trimethylbenzene	ug/l	0.86U
1,3,5-Trimethylbenzene	ug/l	0.54U
Vinyl chloride	ug/l	0.50U
o-Xylene	ug/l	0.78U
m,p-Xylene	ug/l	0.74U
Acetone	ug/l	9.9U
2-Butanone (MEK)	ug/l	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U
Carbon disulfide	ug/l	0.85U
2-Hexanone	ug/l	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U
Surrogate - Toluene-d8 *	%	114 %
Surrogate -	%	
4-Bromofluorobenzene *	%	104 %
Surrogate -	%	
Dibromofluoromethane *	%	100 %
Dilution Factor		1
Analysis Date		11/16/04
Analysis Time		16:11
Batch ID		1116C



**Hillsborough County
Florida**

Office of the County Administrator
Patricia G. Bean
December 20, 2004

BOARD OF COUNTY COMMISSIONERS

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Mr. John Morris, P.G.
Florida Department of Environmental Protection
Solid Waste Section
3804 Coconut Palm Drive
Tampa, FL 33619-8318

**Re: Southeast County Landfill – Section 7
Analytical Data - TH-59, TH-60, and Leak Detection System**

Dear Mr. Morris:

The Hillsborough County Solid Waste Management Department (SWMD) is pleased to provide the analytical data from the detection wells TH-59, TH-60, and the Section 7 Leak Detection System (LDS) at the Southeast County Landfill (SCLF).

As discussed in the August 2004 ADR for the SCLF, which was submitted on November 3, 2004, the SWMD collected samples from the referenced locations on November 9, 2004. These samples were collected as follow up assessment activities in response to the analytical results from October 6 and 14, 2004 sampling of these data points. Those results indicated the presence of benzene and chlorinated solvents above their maximum contaminant level (MCL). Each of the detection wells and the LDS were sampled by the SWMD Field Sampling Team, and the samples were transported to our contracted laboratory on November 9, 2004. SCS Engineers also collected samples from these locations and sent them to an independent laboratory for additional quality control and assurance. Each set of samples collected was analyzed by the two laboratories for EPA Method 8260 and the major cations and anions. Additional analyses for a number of metals were run on the SWMD's samples. The analytical data set generated from this split sampling effort by the SWMD and SCS is discussed in detail herein.

Analytical Data – SWMD Samples

The SWMD collected groundwater samples from TH-59, TH-60, and sampled the LDS on November 9, 2004 for the above-referenced parameters. A number of parameters were observed above the State of Florida Primary Drinking Water Standard (PDWS), Secondary Drinking Water Standards (SDWS) (FAC Ch 62-550.310-.320), and the Florida Groundwater Cleanup Target Levels (GCTL) (FAC Ch 62-777).