SAFETY-KLEEN CORPORATION
(MANHATTAN AVENUE)
FLD 049 557 408
HF29-158003

GROUNDWATER MONITORING REPORTS:

1998 3rd Quarter Report (OCT '98)
1998 2nd Quarter Report (JUL '98)
1998 1st Quarter Report (APR '98)
1997 4th Quarter Report (JAN '98)

ATTACHMENT IX

1998 THIRD QUARTER MONITORING REPORT
SAFETY-KLEEN SYSTEMS, INC.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA

PREPARED FOR:

SAFETY-KLEEN SYSTEMS, INC.
1 Brinckman Way
Elgin, Illinois 60123

PREPARED BY:

ECT
Environmental Consulting & Technology, Inc.
5405 Cypress Center Drive
Suite 200
Tampa, Florida 33609
(813) 289-9338

98033-1111

OCTOBER 1998

ECT
vironmental Consulting & Technology, Inc.

October 26, 1998
98033-1111

Hazardous Waste Supervisor
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Re: 1998 Third Quarter Monitoring Report
Safety-Kleen Systems, Inc., Manhattan Avenue, Tampa Facility
Closure Permit No. HF29-158003
EPA ID No. FLD 049 557 408

Dear Hazardous Waste Supervisor:

On behalf of Safety-Kleen, Environmental Consulting & Technology, Inc. (ECT) herein submits results of the August 1998 quarterly ground water monitoring pursuant to Specific Conditions (S.C.) IV.4 and IV.11 of the referenced permit. In addition, limited ground water corrective actions were proactively conducted this quarter from June 25 through August; therefore, this document includes the quarterly ground water remedial system report pursuant to Specific Conditions IV.13 and IV.14.

QUARTERLY GROUND WATER MONITORING REPORT

Ground water samples and water level data were collected in August 1998 according to procedures described in the closure permit for the facility. The ground water samples were submitted to Analytical Services, Inc. (ASI) for analysis of the parameters listed in Specific Condition IV.3 of the closure permit as modified on August 7, 1996.

Ground water samples were collected from nine monitor wells in August 1998. Offsite monitor wells SA-3 and DA-4D were under water and could not be sampled. Monitor well sampling data forms are provided in Appendix A. Ground water levels and total well depths were measured at each well sampled. Ground water elevation data for August 12, 1998, are presented in Table 1, and a water table elevation contour map is shown in Figure 1. The water table elevations shown average approximately 3 ft higher than the May 1998 elevations. The inferred ground water flow direction is toward the east-northeast, consistent with historical data for nonpumping conditions.

The laboratory report of ground water quality analytical methods and results is presented as Appendix B. Table 2 provides a summary of all constituents detected in ground water. Concentration trends for select analytes are illustrated in Figure 2 for monitor well POC-2 and Figure 3 for monitor well POC-3. Well locations are shown in Figure 1.

Several organic constituents were detected in low concentrations at monitor well POC-3, yet only one slightly exceeded a health-based standard listed in the draft renewal permit; naphthalene (33 µg/L) exceeded its standard of 28 µg/L. Xylenes (41 µg/L) at POC-3 exceeded its secondary standard of 20 µg/L. Monitor well POC-2 has not exceeded any

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ground water standard since November 1996. Period of record trends show that all constituent concentrations have decreased significantly at these wells (Figures 2 and 3). The observed decreases are likely the result of ground water recovery and the treatment system adjustments previously reported.

As usual, concentrations of metals were generally below detection limits or very low. Metals are clearly not a problem at this facility.

GROUND WATER REMEDIATION SYSTEM REPORT

Specific Condition IV.13 of the closure permit requires quarterly reporting on the effectiveness of the ground water recovery and treatment systems. The specific items that must be included in the ground water remediation system report are outlined in Specific Condition IV.14. Each of these items, "a" through "l", is reprinted below and followed by pertinent information.

Item a. **A narrative summary on the effectiveness of the treatment and recovery system.**

The soil vapor and ground water recovery and treatment systems began continuous, automated operation in late January 1994. The following discussion provides a summary of the effectiveness of the soil and ground water remediation systems.

The ground water remediation system had undergone extensive and rigorous startup testing. As discussed in the November 1993 quarterly report, the objectives of the Phase 1 and Phase 2 startup testing were achieved in January, 1994. As such, Phase 3 operation was initiated in late January, 1994. The Phase 3 sampling program (now quarterly) includes influent and intercarbon sample analyses for the eight RCRA metals and volatile organic compounds by EPA Methods 8010/8020. This report includes results of the monitoring program for August 1998 (Appendix C).

The ground water remediation system is effectively capturing the contaminant plume (see Items i and k) and completely treating the impacted ground water (see Item g and Table 3). The ground water system has recovered and treated approximately 5,957,580 gallons of water. Ground water constituent concentrations have been reduced dramatically. In addition, an air sparging system was installed in November 1996 and became operational on December 16, 1996 (see Item b). This system was added to accelerate site cleanup, and current data suggest the air sparging system is highly effective.

As described in item b.4. (below), and as previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C.IV.10 and X.3. On December 30, 1997, limited ground water corrective actions (pumping POC-3 and air sparging at SP-1 and SP-2) were proactively reinitiated. This quarter, ground water recovery at POC-3 was initiated on a continuous basis from June 25 through August 1998.

The soil vapor extraction (SVE) system had been operating from January 24, 1994 to May 23, 1997. Rainy seasons had resulted in periods when the SVE system could not operate due to high water levels. Soil compaction had also hindered operation of the SVE system. An SVE well point pilot test was initiated in October, 1995 and is described in

Item 1. Results showed significant reductions in soil vapor concentrations. Organic compound removal efficiency in the recovered soil vapor air stream ranged from 99.4 percent to greater than 99.9 percent. The SVE system is no longer in operation.

Item b. Any minor revisions or adjustments to the treatment and recovery system or plan.

The following adjustments have been made:

1. To maximize effectiveness and efficiency of ground water cleanup, on February 9, 1995, wells POC-2 and POC-3 were equipped to serve as temporary recovery wells and supplement pumpage from recovery wells RW-1 and RW-2, as previously reported. Drop pipes were installed in POC-2 and POC-3 and connected to a common header. Water is pumped from these wells via a diaphragm suction pump into the oil/water separator, then treated as usual.

2. Temporary SVE well points were installed and testing initiated in October 1995 (see Item 1). The original SVE system blower was removed and a mobile blower was subsequently used.

3. In November 1996, two air sparging points were added to the system to accelerate site cleanup. As agreed with FDEP on October 1, 1996, this adjustment is an interim measure and does not require a permit modification. Air sparging point SP-2 is located approximately 9 ft west-southwest of monitor well POC-2, and SP-1 is located approximately 17 ft west of POC-3. The sparge point construction logs were provided in the January 29, 1997 quarterly report. After installation of the air compressor, operation of the air sparging system began on December 16, 1996. Subsequent data suggest that the air sparging system is significantly enhancing the ground water cleanup efforts.

4. As previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C.IV.10 and X.3. On December 30, 1997, limited ground water corrective actions (pumping POC-3 and air sparging at SP-1 and SP-2) were proactively reinitiated on a continuous basis.

Item c. Any proposed modification to the treatment and recovery system.

No modifications are proposed at this time.

Item d. Complete inspection logs for previous three months. These logs must include inspections of the recovery well pump(s) and treatment systems.

Operation and maintenance logs are provided in Appendix D.

Item e. Record of when the treatment system is operating.

The ground water treatment system is designed to shut off automatically by a high-level switch in the oil/water separator, and by a high-level switch in the infiltration gallery. The infiltration gallery high-level switch shut off is equipped with a timer set at 5 hours. This timer affects automatic restart of the system, unless water levels have not receded to below

the cut off level. Automated operation was continuous throughout this quarter from June 25 through August 31, 1998. Approximately 108,368 gallons of water from POC-3 were recovered and treated this quarter.

Item f. Total volume of processed ground water.

As of August 31, 1998, a grand total of approximately 5,957,580 gallons of ground water had been recovered and treated; this also includes water treated during the Phase 1 and Phase 2 startup testing program.

Item g. Summary of influent/effluent data, chain-of-custodies, and lab reports.

Appendix C is comprised of chain-of-custodies and lab reports pertaining to the ground water remediation system for August, 1998. Influent and effluent analytical data for ground water are summarized in Table 3.

Item h. Summary of ground water data (including graphical representation) with emphasis on the most common contaminants and those most difficult to treat.

Period of record ground water quality data for monitor wells POC-2 and POC-3 are presented in Figures 2 and 3, respectively. These are the only two wells at the site that historically indicated ground water impacts. The figures provide graphs of concentrations through time for the following analytes: benzene, chlorobenzene, ethylbenzene, xylenes and naphthalene. The long term trend is toward decreasing concentrations for all constituents. These trends are further discussed in the Quarterly Ground Water Monitoring Report section of this document.

Item i. Ground water elevation contour maps for previous six months.

Ground water elevation contour maps are provided for March 25, 1998 (Figure 4); May 27, 1998 (Figure 5); and August 12, 1998 (Figure 1).

Item j. Record of repairs (wells, piping, etc.).

- The ground water system totalizing flow meter was previously replaced. The grand total flow volume is now calculated as the direct reading from the existing meter plus 4,178,000 gallons (from previous meters).
- Chlorine and bromine tablets were added to the oil/water separator to reduce biofouling of the ground water treatment system.
- Water filters were replaced, as necessary.

Item k. Figure depicting the zone of capture of the recovery wells including delineation of stagnation points.

Pursuant to Specific Condition IV.12 of the closure permit, water table elevation contour maps are presented in Figures 4, 5 and 1. These maps depict water table elevations in March, May, and August, 1998, as indicated in Item i. While pumping POC-3, the capture zone appears to fully envelope the limited area of ground water impacts.

Item l. Soil venting data.

Not applicable.

If you have any questions or comments regarding this quarterly monitoring report, please contact me at (813) 289-9338 or Gary Risse of Safety-Kleen at (770) 418-1860. Thank you.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Richard J. Stebnisky, P.G.
Senior Hydrogeologist, II

10-26-98
Date

Bradley S. Pekas, P.G., P.E.
Engineer of Record-PE 0046867

10/26/98
Date

Attachments: Tables 1 to 3
Figures 1 to 5
Appendices A, B, C, and D

cc: Gary Risse, SK
Mark Attaway, SK
999 Site File No. 1760 % Russ Giambrone, SK
Clare Burr
FDEP, Tallahassee (2 copies)
Davy Simonson, EPA, Region 4
Robert Colberg, ECT

TABLES

Table 1. Water Table Elevations (August 12, 1998)
Safety-Kleen Corp.
Manhattan Avenue Facility, Tampa, Florida

Well No.	MP Elevation (ft-msl)	Depth to Water (ft)	Water Table Elevation (ft-msl)
POC-1	32.80	4.54	28.26
POC-2	32.77	4.59	28.18
POC-3	31.84	3.83	28.01
SA-1	28.29	0.41	27.88
SA-2	29.72	1.68	28.04
SA-3	27.49	NM	NA
SA-4	30.05	1.58	28.47
BG-1	32.83	4.24	28.59
DA-1A*	30.90	3.95	26.95
DA-4D*	27.55	NM	NA
DA-5D*	29.70	6.69	23.01

Notes: MP = Measuring point.
ft-msl = Feet above mean sea level.
NM = Not measured - underwater.
NA = Not applicable.
MPs for POC-2 and POC-3 are for nonpumping conditions.
MP for DA-1A is approximate (to ~0.1 ft).
* = Not a water table monitor well, a deeper well.

Source: ECT, 1998.

Table 2. Summary of All Constituents Detected in Ground Water - August 1998
Safety-Kleen Corp.
Manhattan Avenue Facility, Tampa, Florida

Constituent	Units	Monitor Well												
		POC-1	POC-2	POC-3	POC-3 Dupe-1	BG-1	DA-1A	DA-5D	SA-1	SA-2	SA-4	Trip Blank	Equip. Blank-T1	Equip. Blk-B2
Total Sulfide (S)	mg/L	3	3	4	3				3	0.3	5			
Total Arsenic (As)	mg/L										0.007			
Total Barium (Ba)	mg/L	0.01	0.02	0.007	0.006	0.02	0.01	0.01	0.01	0.007	0.03		0.002	
Total Chromium (Cr)	mg/L								0.001					
Total Copper (Cu)	mg/L			0.03	0.03		0.10	0.05						
Total Zinc (Zn)	mg/L	0.07	0.12	0.13	0.09	0.08	0.08	0.07	0.10	0.09	0.11			
Total Vanadium (V)	mg/L		0.003				0.006		0.005					
Acetone	µg/L	3.8	6.3	39	40		5.3	6.6	3.7	3.1	3.8			
Chlorobenzene	µg/L			7.3	7.9				1.5					
1,2-Dichlorobenzene	µg/L								3.5					
1,3-Dichlorobenzene	µg/L								0.27					
1,4-Dichlorobenzene	µg/L								0.94					
Ethylbenzene	µg/L			3.2	3.9				2.2					
Naphthalene	µg/L			33	34				7.1					
Tetrachloroethene	µg/L							0.52						
Toluene	µg/L			7.5	7.2									
Trichloroethene	µg/L							0.68						
Xylenes (total)	µg/L			41	41						0.48			
2-Methylnaphthalene	µg/L			10										

Notes: µg/L = Micrograms per liter.
mg/L = Milligrams per liter.

Source: ECT, 1998.

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 1 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
2/24/94	Barium	mg/L	0.01	<0.01	--
2/24/94	Benzene	µg/L	2	<1	--
2/24/94	Ethylbenzene	µg/L	4	<1	--
3/16/94	Benzene	µg/L	1	<1	--
3/16/94	Chlorobenzene	µg/L	5	<1	--
3/16/94	Ethylbenzene	µg/L	3	<1	--
4/29/94	Barium	mg/L	0.01	<0.01	--
4/29/94	Chlorobenzene	µg/L	4	<1	--
4/29/94	Ethylbenzene	µg/L	3	<1	--
5/19/94	All analytes below detection limits for both influent and intercarbon				
6/17/94	Benzene	µg/L	1	<1	--
6/17/94	Chlorobenzene	µg/L	8	<1	--
6/17/94	Ethylbenzene	µg/L	3	<1	--
7/28/94	Barium	mg/L	0.01	0.01	--
7/28/94	Chlorobenzene	µg/L	5	<1	--
7/28/94	Ethylbenzene	µg/L	2	<1	--
7/28/94	Xylenes	µg/L	4	<2	--
8/31/94	Benzene	µg/L	1	<1	--
8/31/94	Chlorobenzene	µg/L	3	<1	--
8/31/94	Ethylbenzene	µg/L	2	<1	--
8/31/94	Xylenes	µg/L	12	<2	--
9/30/94	Benzene	µg/L	1	<1	--
9/30/94	Chlorobenzene	µg/L	5	<1	--
9/30/94	1,2-Dichlorobenzene	µg/L	3	<2	--
9/30/94	Ethylbenzene	µg/L	4	<1	--
10/19/94	Barium	mg/L	<0.01	0.03	--
10/19/94	Chlorobenzene	µg/L	3	<1	--
10/19/94	Ethylbenzene	µg/L	2	<1	--
10/19/94	Xylenes	µg/L	7	<2	--

Table 3. Ground Water Remediation System
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Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 2 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
11/30/94	Barium	mg/L	0.01	<0.01	--
11/30/94	Benzene	µg/L	1	<1	--
11/30/94	Chlorobenzene	µg/L	5	<1	--
11/30/94	Ethylbenzene	µg/L	3	<1	--
12/21/94	Benzene	µg/L	1	<1	--
12/21/94	Chlorobenzene	µg/L	5	<1	--
12/21/94	Ethylbenzene	µg/L	4	<1	--
01/30/95	Barium	mg/L	0.01	<0.01	--
01/30/95	Benzene	µg/L	1	<1	--
01/30/95	Chlorobenzene	µg/L	6	<1	--
01/30/95	Ethylbenzene	µg/L	3	<1	--
02/23/95	Barium	mg/L	0.01	<0.01	--
02/23/95	Benzene	µg/L	2	<1	--
02/23/95	Chlorobenzene	µg/L	37	<1	--
02/23/95	Ethylbenzene	µg/L	9	<1	--
02/23/95	Xylenes	µg/L	14	<2	--
03/09/95	Barium	mg/L	0.01	<0.01	--
03/09/95	Chlorobenzene	µg/L	12	<1	--
03/09/95	Ethylbenzene	µg/L	4	<1	--
04/25/95	Barium	mg/L	0.01	0.01	--
04/25/95	Lead	µg/L	<0.003	0.006	--
04/25/95	Chlorobenzene	µg/L	12	<1	--
04/25/95	Ethylbenzene	µg/L	2	<1	--
05/26/95	Lead	mg/L	<0.003	0.004	--
05/26/95	Chlorobenzene	µg/L	1	<1	--
06/30/95	Barium	mg/L	0.02	<0.01	--
06/30/95	Benzene	µg/L	2	<1	--
06/30/95	Chlorobenzene	µg/L	17	<1	--
06/30/95	Ethylbenzene	µg/L	6	<1	--
06/30/95	Xylenes	µg/L	7	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
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Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 3 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
07/26/95	Barium	mg/L	0.01	<0.01	--
07/26/95	Benzene	µg/L	1	<1	--
07/26/95	Chlorobenzene	µg/L	17	<1	--
07/26/95	1,2-Dichlorobenzene	µg/L	5	<2	--
07/26/95	1,4-Dichlorobenzene	µg/L	3	<2	--
07/26/95	Ethylbenzene	µg/L	6	<1	--
07/26/95	Xylenes	µg/L	5	<2	--
08/21/95	Barium	mg/L	0.01	<0.01	--
08/21/95	Chlorobenzene	µg/L	9	<1	--
08/21/95	1,2-Dichlorobenzene	µg/L	7	<2	--
08/21/95	Ethylbenzene	µg/L	3	<1	--
08/21/95	Xylenes	µg/L	4	<2	--
09/21/95	Barium	mg/L	0.01	<0.01	--
09/21/95	Benzene	µg/L	2	<1	--
09/21/95	Chlorobenzene	µg/L	24	<1	--
09/21/95	1,4-Dichlorobenzene	µg/L	3	<2	--
09/21/95	Ethylbenzene	µg/L	7	<1	--
09/21/95	Xylenes	µg/L	6	<2	--
10/18/95	Benzene	µg/L	2	<1	--
10/18/95	Chlorobenzene	µg/L	29	<1	--
10/18/95	1, 2-Dichlorobenzene	µg/L	5	<2	--
10/18/95	1, 4-Dichlorobenzene	µg/L	3	<2	--
10/18/95	Ethylbenzene	µg/L	8	<1	--
10/18/95	Xylenes	µg/L	6	<2	--
11/29/95	Barium	mg/L	0.01	<0.01	--
11/29/95	Benzene	µg/L	1	<1	--
11/29/95	Chlorobenzene	µg/L	27	<1	--
11/29/95	1,4 -Dichlorobenzene	µg/L	3	<2	--
11/29/95	Ethylbenzene	µg/L	6	<1	--
11/29/95	Xylenes	µg/L	5	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 4 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
12/18/95	Barium	mg/L	0.01	<0.01	<0.01
12/18/95	Chlorobenzene	µg/L	24	<1	<1
12/18/95	1,4-Dichlorobenzene	µg/L	2	<2	<2
12/18/95	Ethylbenzene	µg/L	5	<1	<1
12/18/95	Xylenes	µg/L	4	<2	<2
1/22/96	Benzene	µg/L	1	<1	--
1/22/96	Chlorobenzene	µg/L	20	<1	--
1/22/96	1,4-Dichlorobenzene	µg/L	3	<2	--
1/22/96	Ethylbenzene	µg/L	6	<1	--
1/22/96	Xylenes	µg/L	8	<2	--
2/29/96	Benzene	µg/L	1	<1	--
2/29/96	Chlorobenzene	µg/L	28	<1	--
2/29/96	1,4-Dichlorobenzene	µg/L	3	<2	--
2/29/96	Ethylbenzene	µg/L	7	<1	--
2/29/96	Xylenes	µg/L	5	<2	--
3/26/96	Chlorobenzene	µg/L	16	<1	--
3/26/96	1,4-Dichlorobenzene	µg/L	3	<2	--
3/26/96	Ethylbenzene	µg/L	6	<1	--
3/26/96	Xylenes	µg/L	4	<2	--
4/25/96	No analytes detected.				
5/23/96	Chlorobenzene	µg/L	12	<1	--
5/23/96	1,4-Dichlorobenzene	µg/L	3	<2	--
5/23/96	Ethylbenzene	µg/L	4	<1	--
5/23/96	Xylenes	µg/L	6	<2	--
6/27/96	Barium	mg/L	0.01	<0.01	--
6/27/96	Chlorobenzene	µg/L	11	<1	--
7/29/96	Barium	mg/L	0.01	<0.01	--
7/29/96	Chlorobenzene	µg/L	14	<1	--
7/29/96	Xylenes	µg/L	15	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
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Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 5 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
8/15/96	Benzene	µg/L	1	1	--
8/15/96	Chlorobenzene	µg/L	17	16	--
8/15/96	1,4-Dichlorobenzene	µg/L	3	<2	--
8/15/96	Ethylbenzene	µg/L	12	4	--
8/15/96	Xylenes	µg/L	30	3	--
10/3/96	Benzene	µg/L	1	--	--
10/3/96	Chlorobenzene	µg/L	27	--	--
10/3/96	1,4-Dichlorobenzene	µg/L	3	--	--
10/3/96	Ethylbenzene	µg/L	36	--	--
10/3/96	Xylenes	µg/L	60	--	--
10/31/96	Barium	mg/L	0.02	0.01	--
10/31/96	Chlorobenzene	µg/L	21	<1	--
10/31/96	Ethylbenzene	µg/L	6	<1	--
10/31/96	Xylenes	µg/L	9	<2	--
11/21/96	Barium	mg/L	0.02	<0.01	--
11/21/96	Chlorobenzene	µg/L	10	<1	--
11/21/96	Ethylbenzene	µg/L	2	<1	--
12/16/96	Chlorobenzene	µg/L	25	<1	--
12/16/96	1,4-Dichlorobenzene	µg/L	4	<2	--
12/16/96	Ethylbenzene	µg/L	24	<1	--
12/16/96	Xylenes	µg/L	150	<2	--
1/30/97	Barium	mg/L	0.01	<0.01	--
1/30/97	Chlorobenzene	µg/L	3	<1	--
1/30/97	Ethylbenzene	µg/L	1	<1	--
2/27/97	No analytes detected	--	--	--	--
3/27/97	No analytes detected	--	--	--	--
12/30/97	Total Barium	mg/L	0.01	0.004	--
12/30/97	Ethylbenzene	µg/L	1.7	<1	--
12/30/97	Xylenes	µg/L	4.3	<1	--
12/30/97	Chlorobenzene	µg/L	3.5	<1	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 6 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
1/29/98	Total Barium	mg/L	0.01	0.009	--
1/29/98	Total Chromium	mg/L	0.001	0.002	--
1/29/98	Benzene	µg/L	1.0	<1	--
1/29/98	Ethylbenzene	µg/L	3.1	<1	--
1/29/98	Toluene	µg/L	1.0	<1	--
1/29/98	Xylenes	µg/L	6.3	<2	--
1/29/98	Chlorobenzene	µg/L	2.9	<1	--
2/27/98	Total Barium	mg/L	<0.001	0.001	--
2/27/98	Total Selenium	mg/L	0.006	<0.006	--
2/27/98	Benzene	µg/L	1.5	<1	--
2/27/98	Ethylbenzene	µg/L	4.9	<1	--
2/27/98	Xylenes	µg/L	8.9	<2	--
2/27/98	Chlorobenzene	µg/L	5.3	<1	--
3/25/98	Total Barium	mg/L	0.01	0.004	--
3/25/98	Ethylbenzene	µg/L	1.7	<1	--
3/25/98	Xylenes	µg/L	4.3	<2	--
3/25/98	Chlorobenzene	µg/L	3.5	<1	--
8/24/98	Total Barium	mg/L	0.01	0.009	0.009
8/24/98	Benzene	µg/L	0.84	<0.26	<0.26
8/24/98	Ethylbenzene	µg/L	1.2	<0.24	<0.24
8/24/98	Xylenes	µg/L	1.4	<0.82	<0.82
8/24/98	Chlorobenzene	µg/L	7.0	<0.64	<0.64

Notes:
mg/L = Milligrams per liter.
µg/L = Micrograms per liter.
* = Air stripper blower not on.
-- = Not analyzed.

Ground Water System Sample Locations

- Influent (from oil/water separator, except April and May, 1995, from transfer tank).
- Intercarbon (from port between the two sets of carbon drums).
- Effluent (from port after the second set of carbon drums).

Source: ECT, 1998.

FIGURES

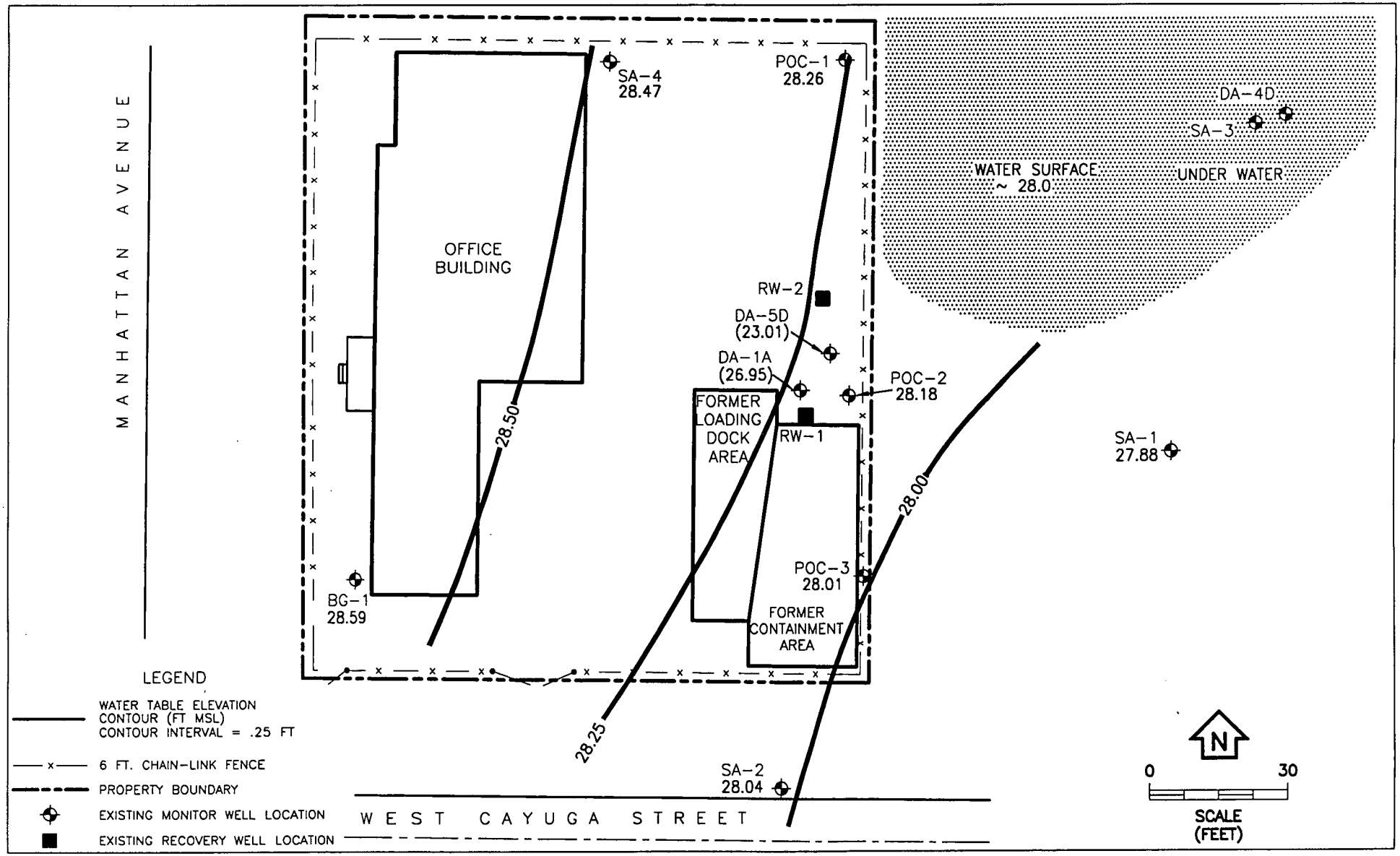
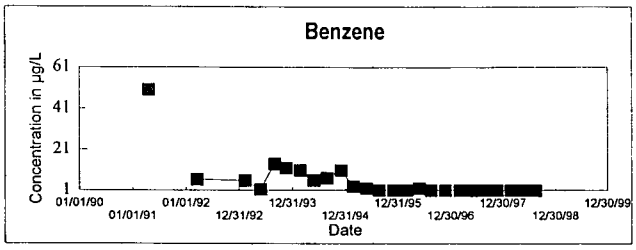


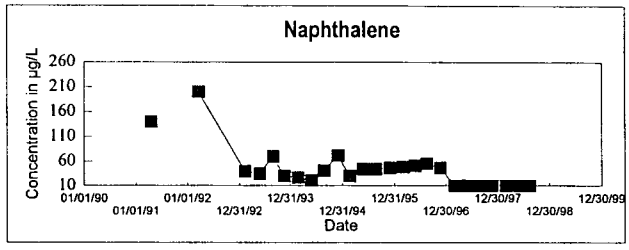
FIGURE 1.
WATER TABLE ELEVATION CONTOUR MAP (AUGUST 12, 1998)
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Source: ERM, 1993; ECT, 1998.

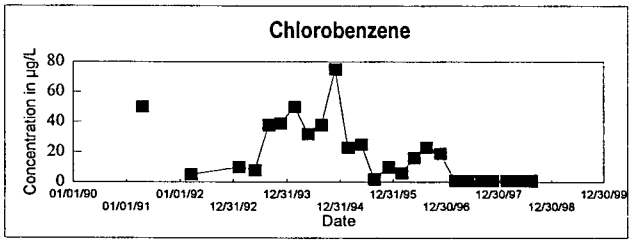
ECT
Environmental Consulting & Technology, Inc.

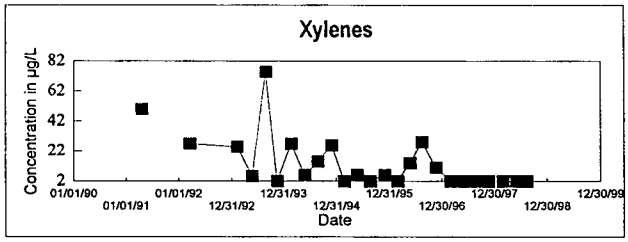
Figure 2. Period of Record Ground Water Quality - POC-2

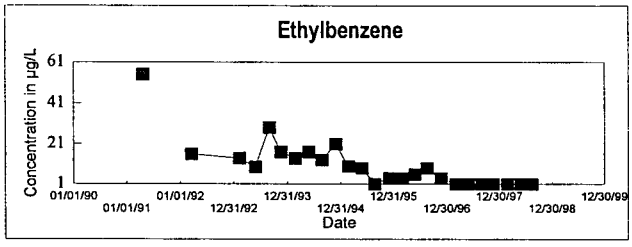
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-2 Sample Date 06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/25/94	11/29/94	02/22/95
Benzene	µg/L		<50		6.5	5.8	1.5	14	12	11	6	7	11	3
Chlorobenzene	µg/L		<50		<5	10	7.8	38	39	50	32	38	75	23
Ethylbenzene	µg/L		55		16	14	9.7	29	17	14	17	13	21	10
Xylenes	µg/L		<50		27	25	5.3	75	<2	27	6	15	26	2
Naphthalene	µg/L		140		<200	40	35	70	30	27	21	41	72	30

Parameter	Units	POC-2 Sample Date 05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	05/29/97	08/28/97	11/18/97	02/24/98	05/28/98	08/12/98
Benzene	µg/L	2	<1	1	<1	2	<1	1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	25	2	10	6	16	23	19	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	9	<1	4	4	6	9	4	<1	<1	<1	<1	<1	<1	<1
Xylenes	µg/L	6	<2	6	2	14	28	11	<2	<2	<2	<2	<2	<2	<2
Naphthalene	µg/L	44	44	47	49	51	56	47	<10	<10	<10	<10	<10	<10	<10

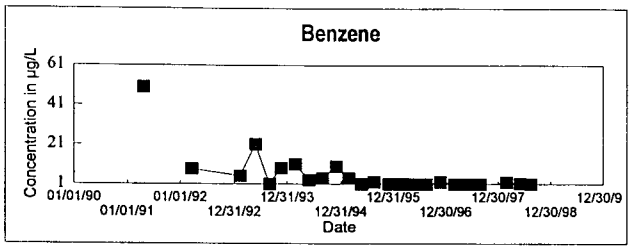
Notes: µg/L = Micrograms per liter.

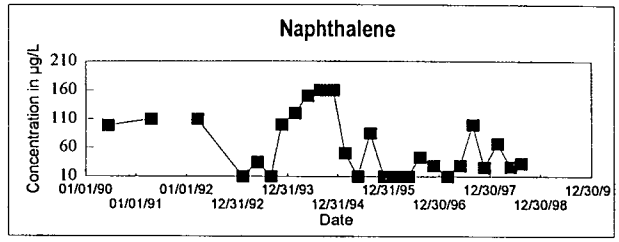
Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

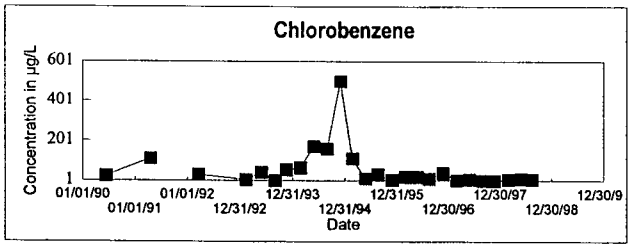
Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

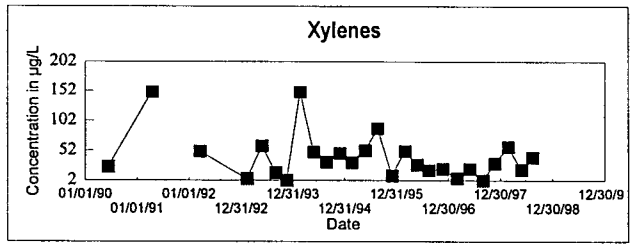
Figure 3. Period of Record Ground Water Quality - POC-3

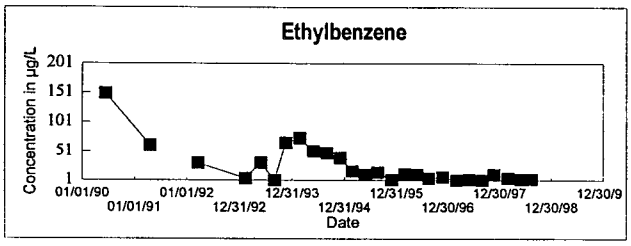
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-3 Sample Date 06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/26/94	11/29/94	02/22/95
Benzene	µg/L		<50		8.6	<5.0	21	<1.0	9	11	3	4	10	4
Chlorobenzene	µg/L	<25	110		31	<5.0	40	1	55	64	170	160	500	110
Ethylbenzene	µg/L	150	62		31	<5.0	32	1	66	74	52	48	40	17
Xylenes	µg/L	<25	150		50	<5.0	59	15	<2	150	49	33	47	32
Naphthalene	µg/L	99	110		110	<10	35	10	100	120	150	160	160	51

Parameter	Units	POC-3 Sample Date 05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	Dupe 05/29/97	08/28/97	11/18/97	02/24/98	05/28/98	08/12/98
Benzene	µg/L	<1	2	<1	<1	<1	<1	2	<1	<1	<1	0.87	1.9	1.3	<1
Chlorobenzene	µg/L	11	30	6	20	19	10	39	3	7	<11	<1	5.5	10	7.3
Ethylbenzene	µg/L	11	15	2	12	11	5	7	<1	2	<15	11	5	2.4	3.2
Xylenes	µg/L	52	89	10	51	28	19	21	6	21	<18	30	58	20	41
Naphthalene	µg/L	<10	85	<10	<10	<10	44	29	<10	29	100	26	67	27	33

Notes: µg/L = Micrograms per liter.

Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

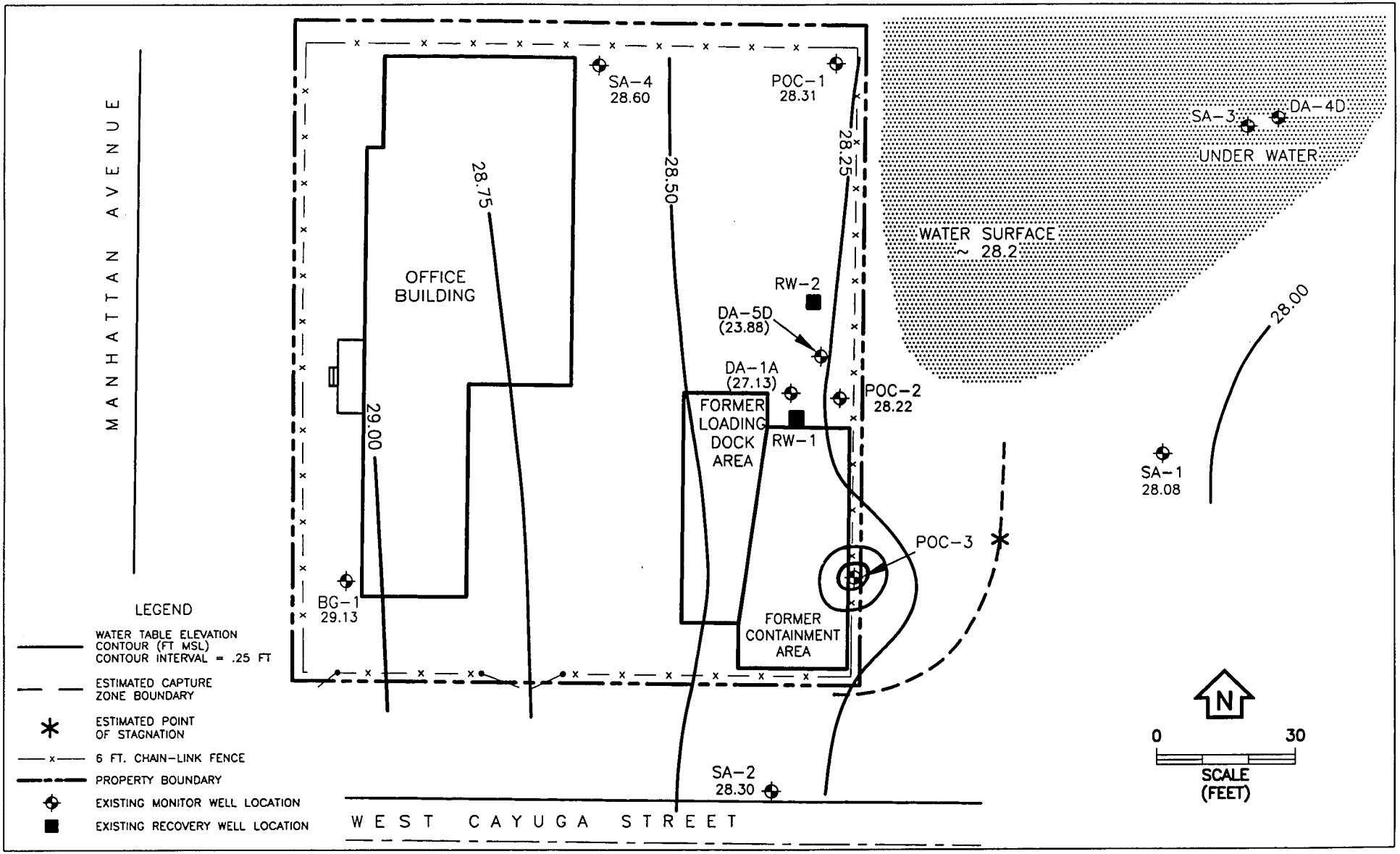


FIGURE 4.
WATER TABLE ELEVATION CONTOUR MAP, MARCH 25, 1998
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Sources: ERM, 1993; ECT, 1998.

ECT
Environmental Consulting & Technology, Inc.

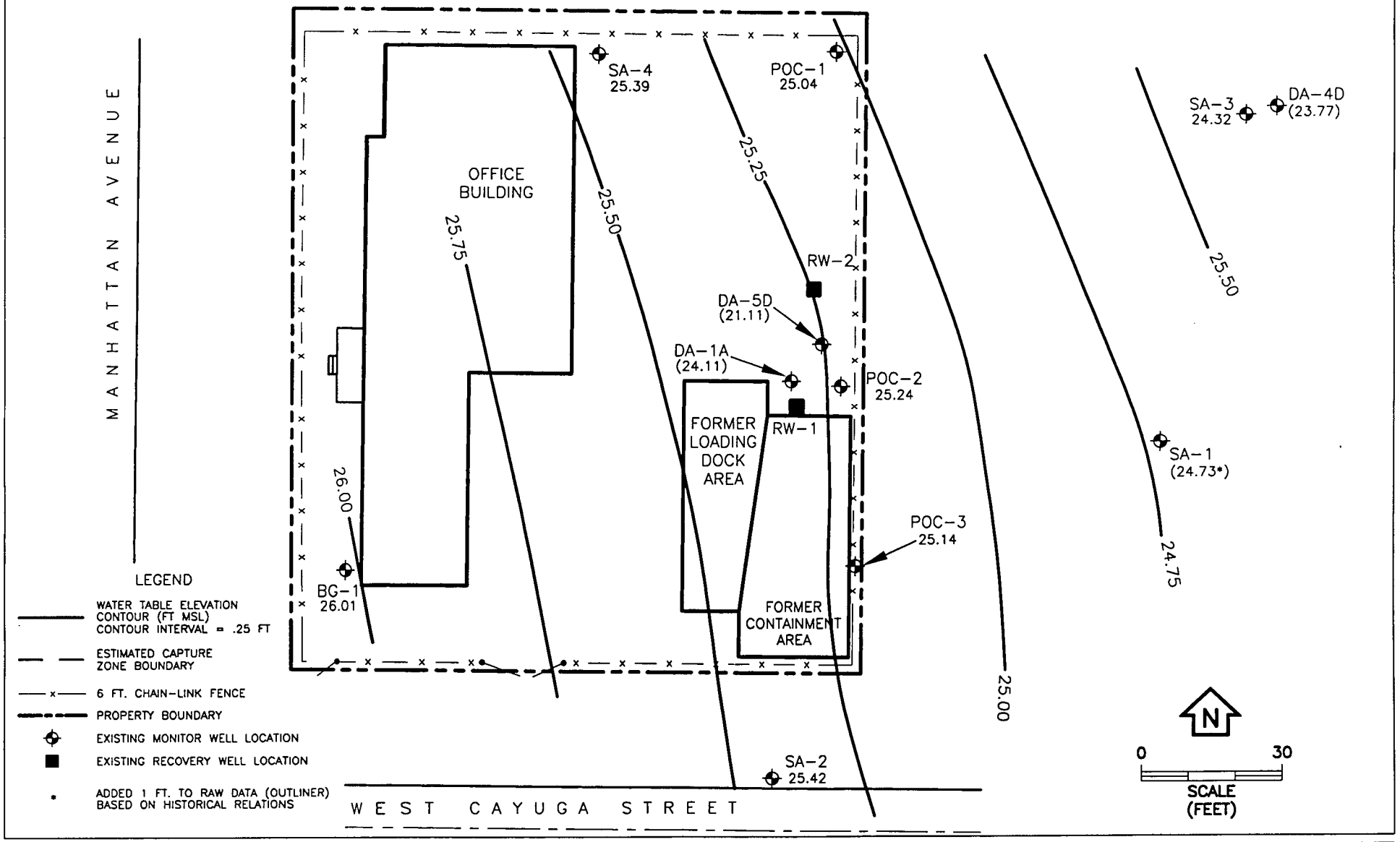


FIGURE 5.
WATER TABLE ELEVATION CONTOUR MAP, MAY 27, 1998
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Sources: ERM, 1993; ECT, 1998.

ECT
Environmental Consulting & Technology, Inc.

APPENDIX A

MONITOR WELL SAMPLING DATA FORMS

ECT FIELD TRIP INFORMATION SHEET

PROJECT INFORMATION

Project & Task #: 98033-1111-1200

Client & Project Name:

LOCATION

Site Name: SAFETY-KLEEN MANHATTAN

Street Address:

City or Town:

County (optional) & State: Postal Code:

Country (if not USA):

FIELD EVENT

Date: DAY OF

ECT PERSONNEL

Role	Name (Printed) (Enter names prior to field trip, if known)	Signature	Time: Arrive	Time: Depart
Documentation Recorder	Ron Noark	Ron Noark 8/12/98	0900	1530
	Ron Noark	Ron Noark 8/13/98	0700	1130

NON-ECT PERSONS PRESENT

Name (Printed)	Affiliation	Arrive	Depart

COMMENTS

Technical Oversight

Field Effort Review:	Print Name	Signature	Date	# of Pages Reviewed
Task/Project Manager	Rick Schwisky	[signature]	8-18-98	All
QA Oversight				

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #:

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
PH/cond. meter	187557	pH	S.U.	0930	04	4		
8-12-98		pH	S.U.		07	7		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		
		pH	S.U.	1300	4	4		
		pH	S.U.		7	7		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		
8-13-98		pH	S.U.	0800	4	4		
		pH	S.U.		7	7		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		

NIST Traceable Thermometer No. 4

Standard pH 4 Lot No. G081 Exp. Date 8/98

Standard pH 7 Lot No. M082 Exp. Date 2/99

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity 200 Lot No. 1216 Exp. Date 2/99

Standard Conductivity 720 Lot No. 3007 Exp. Date 10/01

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: [illegible] Date: 8/12/98 + 8/13/98 Reviewed by: Date:

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

roject & Task #:

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
Turbidimeter	9403 00004832	Turbidity	NTU	0930	0 - 10	5.70		
8-12-98					0-100	44.8		
					0-1000	506		
8-13-98				0800	0-10	5.54		
					0-100	44.7		
					0-1000	504		

ST Traceable Thermometer No. _____

ndard pH _____ Lot No. _____ Exp. Date _____

ndard pH _____ Lot No. _____ Exp. Date _____

ndard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

ibrated by: Date: Reviewed by: Date:

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #:

LEVEL DATA

Well #	Order	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Observations/Comments
SA-1					0.41		
SA-3					underwater		
DA-4D					underwater		
SA-2					1.68		
BG-1					4.24		
SA-4					1.58		
POC-1					4.54		
DA-5D					6.69		
DA-1A					3.95		
POC-2					4.59		
POC-3					3.83		

SIGNED INITIALS

Measured by: [signature] Date: 8-12-98

Recorded by: [signature] Date: 8-12-98

Reviewed by: Date:

EQUIPMENT DESCRIPTION & DECONTAMINATION

Description ID or S/N: #4

Decontaminate between wells? Y o (Circle One)

Procedure 4.1.9.1 (Y or N) or other (describe):

5 of 18

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8-12 -98

SAMPLING INFORMATION

Well Number: SA-1

Sample Time: 1055 Sampled By: [illegible]

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 13.96

Depth to Water (ft): 0.41

Column of Water in Well (ft): 13.55

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 2.21

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: (Y) N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

1125	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	2.25				
Time (military)	1034	1043	1052		
pH (standard units)	5.6	5.6	5.6		
Conductivity (µhmos/CM)	220	220	220		
Temperature (°C)	26	26	26		
Actual Volume of Water Removed	2.25	2.25	2.25		
Sediment/Turbidity	14.8	10.9	9.7		
Color	Clear Lite yellow				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: using Peristaltic Pump & C-Flex Tubing to Purge well For 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033-1111-1200 Date: 8-12-98

SAMPLING INFORMATION

Well Number: DA-4D

Sample Time: Sampled By: R

Total Depth of Well (ft): 41.1

Duplicate Sample: Yes (No)

Depth to Water (ft): underwater

Column of Water in Well (ft):

Well Casing Diameter: 2"

Volume of Water in Well (gal.):

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) 2.0 gal/min

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume: Gal Jar

Bailer No.: Disposable Bailer Source: Lab Precleaned: (Y) N

Equipment Blank Collected: Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)					
Time (military)					
pH (standard units)					
Conductivity (µhmos/CM)					
Temperature (°C)					
Actual Volume of Water Removed					
Sediment/Turbidity					
Color					

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Submersible pump To purge Same method As SA-1

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8-12 - 98

SAMPLING INFORMATION

Well Number: SA - 3

Sample Time: Sampled By: [illegible]

Total Depth of Well (ft): 11.04

Duplicate Sample: Yes No

Depth to Water (ft): under water

Column of Water in Well (ft):

Well Casing Diameter: 2"

Volume of Water in Well (gal.):

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)					
Time (military)					
pH (standard units)					
Conductivity (µhmos/CM)					
Temperature (°C)					
Actual Volume of Water Removed					
Sediment/Turbidity					
Color					

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: using Peristaltic Pump & C-Flex Tubing to Purge well for 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8 - 12 - 98

SAMPLING INFORMATION

Well Number: SA-2

Sample Time: 1145 Sampled By: [illegible]

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 14.10

Depth to Water (ft): 1.68

Column of Water in Well (ft): 12.42

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 2.02

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

VOLUME/LINEAR FT. OF PIPE	
I.D. (in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

DIS	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	2.0				
Time (military)	1124	1133	1142		
pH (standard units)	5.4	5.4	5.4		
Conductivity (µhmos/CM)	160	160	160		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.25	2.25	2.25		
Sediment/Turbidity	2.35	1.95	1.89		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well for 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8-12-98

SAMPLING INFORMATION

Well Number: BG-1

Sample Time: 1240 Sampled By: [illegible]

Total Depth of Well (ft): 15.0

Duplicate Sample: Yes (No)

Depth to Water (ft): 4.24

Column of Water in Well (ft): 10.76

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.75

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

1210	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.75				
Time (military)	1218	1226	1234		
pH (standard units)	6.6	6.6	6.6		
Conductivity (µhmos/CM)	380	390	390		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	1.84	1.70	.54		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well For 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8 - 12 - 98

SAMPLING INFORMATION

Well Number: SA-4

Sample Time: 1330 Sampled By: [illegible]

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 12.3

Depth to Water (ft): 1.58

Column of Water in Well (ft): 10.72

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.75

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

EQ. BL 1250

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: (Y) N

Equipment Blank Collected : (Yes) No Equipment: Sample I.D. EQUIP BLK-J1 EQUIP BLK-B-2

FIELD PARAMETER STABILIZATION

1255

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.75				
Time (military)	1303	1311	1319		
pH (standard units)	6.4	6.4	6.4		
Conductivity (µhmos/CM)	480	480	480		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	.79	.71	.56		
Color					

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well for 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033-1111-1200 Date: 8-12-98

SAMPLING INFORMATION

Well Number: POC-1

Sample Time: 1416

Sampled By: [illegible]

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 15.2

Depth to Water (ft): 4.54

Column of Water in Well (ft): 10.66

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.75

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume: gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: (Y) N

Equipment Blank Collected: Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

1350

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.75				
Time (military)	1358	1406	1414		
pH (standard units)	6.4	6.4	6.4		
Conductivity (µhmos/CM)	340	340	340		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	.76	.58	.50		
Color	CLEAR				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well for 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8-12-98

SAMPLING INFORMATION

Well Number: DA-5D

Sample Time: 1500

Sampled By: [illegible]

Total Depth of Well (ft): 64.0

Duplicate Sample: Yes (No)

Depth to Water (ft): 6.69

Column of Water in Well (ft): 57.31

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 9.34

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) 2.0

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume: GAL Jug

Bailer No.: Disposable

Bailer Source: Lab

Precleaned: (Y) N

Equipment Blank Collected: Yes (No)

Equipment:

Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	9.34				
Time (military)	1445	1450	1455		
pH (standard units)	7.3	7.4	7.4		
Conductivity (µhmos/CM)	340	340	340		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	10	10	10		
Sediment/Turbidity	1.12	.98	.90		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Purge w/ Submersible Pump same method as SA-1

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8-13-98

SAMPLING INFORMATION

Well Number: DA - 1A

Sample Time: 0805 Sampled By: [illegible]

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 56.00

Depth to Water (ft): 3.95

Column of Water in Well (ft): 52.05

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 8.48

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) 2.0

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal ~~gus~~

Bailer No.: Disposable Bailer Source: Lab Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	8.48				
Time (military)	750	755	800		
pH (standard units)	7.8	8.6	8.6		
Conductivity (µhmos/CM)	280	200	200		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	10	10	10		
Sediment/Turbidity	15.9	9.68	6.13		
Color	clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Purge w/ submersable pump

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8-13 - 98

SAMPLING INFORMATION

Well Number: POC - 2

Sample Time: 0900 Sampled By: [illegible]

Total Depth of Well (ft): 14.80

Duplicate Sample: Yes (No)

Depth to Water (ft): 4.59

Column of Water in Well (ft): 10.21

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.66

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

8:30

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.66				
Time (military)	0837	0844	0851		
pH (standard units)	6.7	6.7	6.7		
Conductivity (µhmos/CM)	570	570	570		
Temperature (°C)	26	26	26		
Actual Volume of Water Removed	1.75	1.75	1.75		
Sediment/Turbidity	3.04	3.44	3.40		
Color	clear lite yellow				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well For 3 Volumes using Tubing to Sample for metals & Hg. Bailer for 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 98033 - 1111 - 1200 Date: 8 - 12 - 98

SAMPLING INFORMATION

Well Number: POC - 3

Sample Time: 1000

Sampled By: [illegible]

Duplicate Sample: Yes No

Total Depth of Well (ft): 13.0

Depth to Water (ft): 3.83

Column of Water in Well (ft): 9.17

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.49

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : gal Jar

Bailer No.: DISPOSABLE Bailer Source: LAB Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

0930	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.49				
Time (military)	0937	0944	0951		
pH (standard units)	6.6	6.6	6.6		
Conductivity (µhmos/CM)	220	220	220		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	1.75	1.75	1.75		
Sediment/Turbidity	3.56	3.06	3.0		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well For 3 Volumes using Tubing to Sample for metals & Hg. Bailer For 8240, 8030, 8220

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

APPENDIX B

GROUND WATER ANALYTICAL LABORATORY REPORTS

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

September 4, 1998

P.O. No. E13353

Report No. 98421-1

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-1, 08/12/98, 10:55, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	3	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.01	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	0.001	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.10	0.008
Total Vanadium (V)(EPA 6010).....	0.005	0.002

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-1

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-1, 08/12/98, 10:55, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	3.7	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	1.5	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	3.5	0.09
1,3-Dichlorobenzene	0.27	0.19
1,4-Dichlorobenzene	0.94	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	2.2	0.29
Methylene chloride	BDL	0.21
Naphthalene	7.1	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-1

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-1, 08/12/98, 10:55, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-2

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-2, 08/12/98, 11:45, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	0.3	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.007	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.09	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-2

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-2, 08/12/98, 11:45, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	3.1	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

Acid Extractable Organics (EPA 8270C)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-2

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-2, 08/12/98, 11:45, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Frank Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-3

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, BG-1, 08/12/98, 12:40, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.02	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.08	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-3

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, BG-1, 08/12/98, 12:40, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-3

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, BG-1, 08/12/98, 12:40, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-4

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Equip. Blank-T1, 08/12/98, 12:50, received 08/14/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.002	0.001
Total Beryllium (Be)(EPA 6010)	BDL	0.0004
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Copper (Cu)(EPA 6010)	BDL	0.01
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Nickel (Ni)(EPA 6010)	BDL	0.002
Total Silver (Ag)(EPA 6010)	BDL	0.0009
Total Zinc (Zn)(EPA 6010)	BDL	0.008
Total Vanadium (V)(EPA 6010)	BDL	0.002

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-5

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Equip. Blk-B2, 08/12/98, 12:50, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.2
Volatile Organics (EPA 8260B)	(ug/l)	(ug/l)
Acetone.....	BDL	2.26
Benzene.....	BDL	0.17
Carbon disulfide.....	BDL	0.57
Carbon tetrachloride.....	BDL	0.11
Chlorobenzene.....	BDL	0.22
Chloroform.....	BDL	0.14
1,2-Dichlorobenzene.....	BDL	0.09
1,3-Dichlorobenzene.....	BDL	0.19
1,4-Dichlorobenzene.....	BDL	0.20
1,1-Dichloroethene.....	BDL	0.27
1,1-Dichloroethane.....	BDL	0.12
Ethylbenzene.....	BDL	0.29
Methylene chloride.....	BDL	0.21
Naphthalene.....	BDL	0.74
Tetrachloroethene.....	BDL	0.31
Toluene.....	BDL	0.20
1,2,4-Trichlorobenzene.....	BDL	0.74
1,1,1-Trichloroethane.....	BDL	0.21
1,1,2-Trichloroethane.....	BDL	0.23
Trichloroethene.....	BDL	0.26

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-5

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Equip. Blk-B2, 08/12/98, 12:50, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
Base/Neutral Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-6

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-4, 08/12/98, 13:30, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	5	2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	0.007	0.005
Total Barium (Ba)(EPA 6010).....	0.03	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.11	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-6

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-4, 08/12/98, 13:30, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	3.8	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	0.48	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-6

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, SA-4, 08/12/98, 13:30, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-7

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-1, 08/12/98, 14:16, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	3	2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.07	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-1, 08/12/98, 14:16, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	3.8	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-7

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-1, 08/12/98, 14:16, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-8

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, DA-5D, 08/12/98, 15:00, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.01	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	0.05	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.07	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-8

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, DA-5D, 08/12/98, 15:00, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	6.6	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	0.52	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	0.68	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-8

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, DA-5D, 08/12/98, 15:00, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

September 4, 1998
Report No. 98421-10

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-2, 08/13/98, 09:00, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	6.3	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-10

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-2, 08/13/98, 09:00, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-11

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-3, 08/13/98, 10:00, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	4	2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.007	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	0.03	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.13	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-9

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, DA-1A, 08/13/98, 08:05, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.01	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	0.10	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.08	0.008
Total Vanadium (V)(EPA 6010).....	0.006	0.002

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-9

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, DA-1A, 08/13/98, 08:05, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	5.3	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-9

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, DA-1A, 08/13/98, 08:05, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-10

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-2, 08/13/98, 09:00, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	3	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.02	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.12	0.008
Total Vanadium (V)(EPA 6010).....	0.003	0.002

BDL - Below Detection Limit

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-3, 08/13/98, 10:00, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	39	22.6
Benzene	BDL	1.7
Carbon disulfide	BDL	5.7
Carbon tetrachloride	BDL	1.1
Chlorobenzene	7.3	2.2
Chloroform	BDL	1.4
1,2-Dichlorobenzene	BDL	0.9
1,3-Dichlorobenzene	BDL	1.9
1,4-Dichlorobenzene	BDL	2.0
1,1-Dichloroethene	BDL	2.7
1,1-Dichloroethane	BDL	1.2
Ethylbenzene	3.2	2.9
Methylene chloride	BDL	2.1
Naphthalene	33	7.4
Tetrachloroethene	BDL	3.1
Toluene	7.5	2.0
1,2,4-Trichlorobenzene	BDL	7.4
1,1,1-Trichloroethane	BDL	2.1
1,1,2-Trichloroethane	BDL	2.3
Trichloroethene	BDL	2.6
Trichlorofluoromethane	BDL	1.3
Xylenes (total)	41	3.6
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-11

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, POC-3, 08/13/98, 10:00, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	10	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-12

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Dupe-1, 08/13/98, received 08/14/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	3	2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.006	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	0.03	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.09	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Dupe-1, 08/13/98, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	40	22.6
Benzene	BDL	1.7
Carbon disulfide	BDL	5.7
Carbon tetrachloride	BDL	1.1
Chlorobenzene	7.9	2.2
Chloroform	BDL	1.4
1,2-Dichlorobenzene	BDL	0.9
1,3-Dichlorobenzene	BDL	1.9
1,4-Dichlorobenzene	BDL	2.0
1,1-Dichloroethene	BDL	2.7
1,1-Dichloroethane	BDL	1.2
Ethylbenzene	3.9	2.9
Methylene chloride	BDL	2.1
Naphthalene	34	7.4
Tetrachloroethene	BDL	3.1
Toluene	7.2	2.0
1,2,4-Trichlorobenzene	BDL	7.4
1,1,1-Trichloroethane	BDL	2.1
1,1,2-Trichloroethane	BDL	2.3
Trichloroethene	BDL	2.6
Trichlorofluoromethane	BDL	1.3
Xylenes (total)	41	3.6
Acid Extractable Organics (EPA 8270C)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-12

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Dupe-1, 08/13/98, received 08/14/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270C)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 4, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98421-13

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Trip Blank, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20

BDL - Below Detection Limit

September 4, 1998
Report No. 98421-13

Water, SK-Tampa (Manhattan Ave), Project #98033-1111-1200, Trip Blank, received 08/14/98

RESULTS

Volatile Organics (EPA 8260B)	Result (ug/l)	Detection Limit (ug/l)
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky
ECT, Tampa

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

Analytical Services Inc. Batch QC
For Report Number :98421
Base Neutrals / Acids

Matrix : Aqueous Batch # 41079 Method : EPA 8270

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Phenol	76	72	5	12 - 89	0 - 42
2-Chlorophenol	81	78	4	27 - 123	0 - 40
1,4-Dichlorobenzene	75	75	0	36 - 97	0 - 28
N-Nitrosodipropylamine	79	79	0	41 - 116	0 - 38
1,2,4-Trichlorobenzene	82	82	0	44 - 142	0 - 28
4-Chloro-3-methylphenol	82	77	6	23 - 97	0 - 42
Acenaphthene	78	78	0	46 - 118	0 - 31
2,4-Dinitrotoluene	64	64	1	24 - 96	0 - 38
4-Nitrophenol	68	61	11	10 - 80	0 - 50
Pentachlorophenol	64	62	3	9 - 103	0 - 50
Pyrene	78	83	7	26 - 127	0 - 31

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Phenol	27	29	6	12 - 89	0 - 42
2-Chlorophenol	50	52	6	27 - 123	0 - 40
1,4-Dichlorobenzene	37	40	8	36 - 97	0 - 28
N-Nitrosodipropylamine	52	56	7	41 - 116	0 - 38
1,2,4-Trichlorobenzene	51	45	13	44 - 142	0 - 28
4-Chloro-3-methylphenol	58	63	8	23 - 97	0 - 42
Acenaphthene	49	48	1	46 - 118	0 - 31
2,4-Dinitrotoluene	60	65	7	24 - 96	0 - 38
4-Nitrophenol	26	27	2	10 - 80	0 - 50
Pentachlorophenol	67	60	10	9 - 103	0 - 50
Pyrene	51	55	8	26 - 127	0 - 31

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 41079 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
98271-6	A1734	0	0	43	50	0	35
^^Note: BN only							
98236-1	A1735	29	35	58	76	30	60
98236-2	A1736	34	21	66	82	63	68
98236-3	B8036	1	2	57	70	0	67
^^Note: REEXTRACT							
98236-4	A1737	30	18	73	88	53	73
41079BLK	A1747	40	23	61	73	70	75
41079LCS	A1748	78	77	77	90	77	84
41079LCSD	A1749	76	73	79	92	75	90
98236-3RR	A1791	0	0	62	67	3	65
^^Note: Matrix interference							
98421-2	A1800	45	27	56	56	98	76
98421-3	A1801	46	26	59	59	90	63
98421-5	A1802	38	22	2	9	78	71
^^Note: REEXTRACT							
98421-6	A1803	30	20	51	61	85	66
98421-8MS	A1807	38	27	52	56	66	54
98421-8MSD	A1808	41	30	57	56	71	61
98421-10	A1809	34	20	59	63	85	66
98421-11	A1810	26	16	55	46	46	35
98421-12	A1811	46	29	219	84	85	63
^^Note: Matrix interference							
98421-12DUP	A1812	24	18	126	62	68	55
^^Note: Matrix interference							
98421-1	A1830	36	22	61	65	68	74
98421-7	A1831	52	32	80	94	97	96
98421-8	A1832	38	23	63	71	80	78
98421-9	A1833	44	27	73	84	88	82

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 41079 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
98762-1	B8150	46	34	74	81	82	91
98762-2	B8151	39	28	59	69	97	79
98762-3	B8152	44	33	45	81	96	83

Q.C. Information for Batch # 41079 Printed: 09/04/98 17:19:41

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

Q.C. Information for Batch # 41079 Printed: 09/04/98 17:19:41

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
98271-6	08/18/98	0900	JS/NP		08/19/98	1338	RAC	5973
98236-1	08/18/98	0900	JS/NP		08/19/98	1415	RAC	5973
98236-2	08/18/98	0900	JS/NP		08/19/98	1452	RAC	5973
98236-3	08/18/98	0900	JS/NP		08/20/98	0213	RAC	5973
98236-4	08/18/98	0900	JS/NP		08/19/98	1529	RAC	5973
41079BLK	08/18/98	0900	JS/NP		08/21/98	1327	RAC	5973
41079LCS	08/18/98	0900	JS/NP		08/21/98	1403	RAC	5973
41079LCSD	08/18/98	0900	JS/NP		08/21/98	1440	RAC	5973
98236-3RR	08/21/98	1500	CP/JS		08/22/98	1520	RAC	5973
98421-2	08/18/98	0900	JS/NP		08/22/98	2049	RAC	5973
98421-3	08/18/98	0900	JS/NP		08/22/98	2125	RAC	5973
98421-5	08/18/98	0900	JS/NP		08/22/98	2201	RAC	5973
98421-6	08/18/98	0900	JS/NP		08/22/98	2237	RAC	5973
98421-8MS	08/19/98	0900	CP/JS		08/23/98	1239	RAC	5973
98421-8MSD	08/19/98	0900	CP/JS		08/23/98	0115	RAC	5973
98421-10	08/19/98	0900	CP/JS		08/23/98	0151	RAC	5973
98421-11	08/19/98	0900	CP/JS		08/23/98	0227	RAC	5973
98421-12	08/19/98	0900	CP/JS		08/23/98	0303	RAC	5973
[illegible] 21-12DUP	08/19/98	0900	CP/JS		08/23/98	0339	RAC	5973
[illegible]21-1	08/19/98	0900	CP/JS		08/23/98	1416	RAC	5973
98421-7	08/18/98	0900	JS/NP		08/23/98	1452	RAC	5973
98421-8	08/18/98	0900	JS/NP		08/23/98	1529	RAC	5973
98421-9	08/19/98	0900	CP/JS		08/23/98	1605	RAC	5973
98762-1	08/25/98	0900	CP/NP		08/29/98	1505	RAC	5971
98762-2	08/25/98	0900	CP/NP		08/29/98	1540	RAC	5971
98762-3	08/25/98	0900	CP/NP		08/29/98	1616	RAC	5971

Analytical Services Inc. Batch QC
For Report Number :98421
Volatile Organics

Matrix : Aqueous Batch # 41380 Method : EPA 8260

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	85	93	10	61 - 145	0 - 14
Trichloroethene	92	101	9	71 - 120	0 - 14
Benzene	105	113	8	76 - 127	0 - 11
Toluene	99	108	9	76 - 125	0 - 13
Chlorobenzene	95	104	9	75 - 130	0 - 13

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	84	76	10	61 - 145	0 - 14
Trichloroethene	95	89	7	71 - 120	0 - 14
Benzene	115	108	6	76 - 127	0 - 11
Toluene	104	97	6	76 - 125	0 - 13
Chlorobenzene	102	96	6	75 - 130	0 - 13

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics

Matrix : Aqueous Batch # 41380 Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
41380LCS	A5765	105	103	105	104		
41380LCSD	A5766	103	103	106	103		
98421-7MS	A5861	106	100	108	101		
98421-7MSD	A5862	108	100	107	101		
41380BLK	A5829	101	101	103	99		
98421-1	A5844	112	100	106	102		
98421-2	A5845	112	102	106	102		
98421-3	A5846	112	101	105	103		
98421-5	A5847	112	100	106	102		
98421-6	A5848	110	101	106	101		
98421-7	A5849	109	101	107	101		
98421-8	A5850	111	100	106	103		
98421-9	A5851	110	101	106	102		
98421-10	A5852	108	101	107	100		
98421-11	A5853	113	100	108	109		
98421-12	A5854	115	102	106	105		
98421-13	A5855	113	102	108	102		
41380BLK2	A5897	108	101	107	100		
98421-1DUP	A5899	98	100	109	98		
98421-2DUP	A5900	107	100	107	102		
98421-3DUP	A5901	109	101	106	100		
98421-5DUP	A5902	110	99	106	100		
98421-6DUP	A5903	109	99	108	101		
98421-7DUP	A5904	109	100	107	100		
98421-8DUP	A5905	107	99	107	99		
98421-9DUP	A5906	108	100	106	101		
98421-10DUP	A5907	109	100	107	100		
98421-11DUP	A5908	111	101	107	101		
98421-12DUP	A5909	111	101	108	104		
98421-13DUP	A5910	113	99	106	100		
98514-1	C5437	113	95	96	100		
98514-2	C5438	116	99	102	101		
98514-3	C5439	113	99	103	102		
98514-4	C5440	115	99	101	99		
98514-5	C5441	119	100	103	100		
98514-6	C5442	117	99	103	100		
98514-7	C5443	118	101	102	101		

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics

Matrix : Aqueous Batch # 41380 Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
98514-8	C5444	112	100	103	100		
98514-5DUP	B8300	106	98	100	86		
98514-6DUP	B8301	106	99	99	92		

Q.C. Information for Batch # 41380 Printed: 09/04/98 17:19:44

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes	BDL	0.36

Q.C. Information for Batch # 41380 Printed: 09/04/98 17:19:44

Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
41380LCS	/ /				08/21/98	2106	TLW	VOA1
41380LCSD	/ /				08/21/98	2132	TLW	VOA1
98421-7MS	/ /				08/26/98	0950	TLW	VOA1
98421-7MSD	/ /				08/26/98	1017	TLW	VOA1
41380BLK	/ /				08/25/98	1108	TLW	VOA1
98421-1	/ /				08/25/98	1900	TLW	VOA1
98421-2	/ /				08/25/98	1927	TLW	VOA1
98421-3	/ /				08/25/98	1953	TLW	VOA1
98421-5	/ /				08/25/98	2020	TLW	VOA1
98421-6	/ /				08/25/98	2047	TLW	VOA1
98421-7	/ /				08/25/98	2113	TLW	VOA1
98421-8	/ /				08/25/98	2140	TLW	VOA1
98421-9	/ /				08/25/98	2207	TLW	VOA1
98421-10	/ /				08/25/98	2233	TLW	VOA1
98421-11	/ /				08/25/98	2300	TLW	VOA1
98421-12	/ /				08/25/98	2327	TLW	VOA1
98421-13	/ /				08/25/98	2353	TLW	VOA1
41380BLK2	/ /				08/27/98	1019	TLW	VOA1
[illegible]21-1DUP	/ /				08/27/98	1112	TLW	VOA1
[illegible]21-2DUP	/ /				08/27/98	1139	TLW	VOA1
98421-3DUP	/ /				08/27/98	1206	TLW	VOA1
98421-5DUP	/ /				08/27/98	1232	TLW	VOA1
98421-6DUP	/ /				08/27/98	1259	TLW	VOA1
98421-7DUP	/ /				08/27/98	1326	TLW	VOA1
98421-8DUP	/ /				08/27/98	1352	TLW	VOA1
98421-9DUP	/ /				08/27/98	1418	TLW	VOA1
98421-10DUP	/ /				08/27/98	1445	TLW	VOA1
98421-11DUP	/ /				08/27/98	1511	TLW	VOA1
98421-12DUP	/ /				08/27/98	1538	TLW	VOA1
98421-13DUP	/ /				08/27/98	1604	TLW	VOA1
98514-1	/ /				08/27/98	1707	LLP	VOA3
98514-2	/ /				08/27/98	1733	LLP	VOA3
98514-3	/ /				08/27/98	1759	LLP	VOA3
98514-4	/ /				08/27/98	1825	LLP	VOA3
98514-5	/ /				08/27/98	1852	LLP	VOA3
98514-6	/ /				08/27/98	1918	LLP	VOA3
98514-7	/ /				08/27/98	1944	LLP	VOA3
98514-8	/ /				08/27/98	2010	LLP	VOA3
98514-5DUP	/ /				08/28/98	1142	RFA	VOA2
98514-6DUP	/ /				08/28/98	1206	RFA	VOA2

Analytical Services Inc. Batch QC
For Report Number :98421

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
40867	Hg	EPA 7470	Aqueous	<	0.0002	
41105	Ag	EPA 6010	Aqueous	<	0.0009	
^^Note : Batch passes on LCS/LCSD/MS/MSD						
41105	As	EPA 6010	Aqueous	<	0.0050	
41105	Ba	EPA 6010	Aqueous	<	0.0010	
41105	Be	EPA 6010	Aqueous	<	0.0004	
41105	Cd	EPA 6010	Aqueous	<	0.0010	
41105	Cr	EPA 6010	Aqueous	<	0.0010	
41105	Cu	EPA 6010	Aqueous	<	0.0100	
41105	Ni	EPA 6010	Aqueous	<	0.0020	
41105	Pb	EPA 6010	Aqueous	<	0.0040	
41105	V	EPA 6010	Aqueous	<	0.0020	
41105	Zn	EPA 6010	Aqueous	<	0.0080	
41300	S	SM 4500-S	Aqueous	<	0.2000	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
40867	Hg	EPA 7470	97	92	5	76 - 124	0 - 20
41105	Ag	EPA 6010	110	110	0	76 - 124	0 - 20
41105	As	EPA 6010	90	90	0	76 - 124	0 - 20
41105	Ba	EPA 6010	92	92	0	76 - 124	0 - 20
41105	Be	EPA 6010	93	93	0	76 - 124	0 - 20
41105	Cd	EPA 6010	90	91	1	76 - 124	0 - 20
41105	Cr	EPA 6010	88	89	1	76 - 124	0 - 20
41105	Cu	EPA 6010	91	91	0	76 - 124	0 - 20
41105	Ni	EPA 6010	93	92	1	76 - 124	0 - 20
41105	Pb	EPA 6010	91	91	0	76 - 124	0 - 20
41105	V	EPA 6010	90	90	0	76 - 124	0 - 20
41105	Zn	EPA 6010	92	93	1	76 - 124	0 - 20
41300	S	SM 4500-S	99	103	4	60 - 140	0 - 40

Analytical Services Inc. Batch QC
For Report Number :98421

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
40867	Hg	EPA 7470	92	92	0	76 - 124	0 - 20
41105	Ag	EPA 6010	110	110	0	76 - 124	0 - 20
41105	As	EPA 6010	92	96	4	76 - 124	0 - 20
41105	Ba	EPA 6010	93	92	1	76 - 124	0 - 20
41105	Be	EPA 6010	95	97	2	76 - 124	0 - 20
41105	Cd	EPA 6010	92	97	5	76 - 124	0 - 20
41105	Cr	EPA 6010	90	91	1	76 - 124	0 - 20
41105	Cu	EPA 6010	93	88	6	76 - 124	0 - 20
41105	Ni	EPA 6010	94	100	6	76 - 124	0 - 20
41105	Pb	EPA 6010	93	98	5	76 - 124	0 - 20
41105	V	EPA 6010	92	90	2	76 - 124	0 - 20
41105	Zn	EPA 6010	85	87	2	76 - 124	0 - 20
41300	S	SM 4500-S	108	112	4	60 - 140	0 - 40

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
41105	Ag	EPA 6010	41	76 - 124
41105	As	EPA 6010	97	76 - 124
41105	Ba	EPA 6010	97	76 - 124
41105	Be	EPA 6010	100	76 - 124
41105	Cd	EPA 6010	96	76 - 124
41105	Cr	EPA 6010	95	76 - 124
41105	Cu	EPA 6010	97	76 - 124
41105	Ni	EPA 6010	97	76 - 124
41105	Pb	EPA 6010	97	76 - 124
41105	V	EPA 6010	96	76 - 124
41105	Zn	EPA 6010	92	76 - 124

Unspiked Sample Duplicate Information

Batch Number	Analyte	Method	Sample 1 RPD	Sample 2 RPD	RPD Range
41300	S	SM 4500-S	0	0	0 - 40

Q.C. Information for Batch # 40867 For Report Number :98421

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
40867BLANK	HG	08/18/98	0720	FBS		08/18/98	1201	FBS	HG1
40867LCS	HG	08/18/98	0720	FBS		08/18/98	1203	FBS	HG1
40867LCSD	HG	08/18/98	0720	FBS		08/18/98	1206	FBS	HG1
98421-4MS	HG	08/18/98	0720	FBS		08/18/98	1208	FBS	HG1
98421-4MSD	HG	08/18/98	0720	FBS		08/18/98	1211	FBS	HG1
98421-2DUP	HG	08/18/98	0720	FBS		08/18/98	1213	FBS	HG1
98430-1	HG	08/18/98	0720	FBS		08/18/98	1220	FBS	HG1
98430-2	HG	08/18/98	0720	FBS		08/18/98	1223	FBS	HG1
98421-1	HG	08/18/98	0720	FBS		08/18/98	1230	FBS	HG1
98421-2	HG	08/18/98	0720	FBS		08/18/98	1218	FBS	HG1
98421-3	HG	08/18/98	0720	FBS		08/18/98	1233	FBS	HG1
98421-4	HG	08/18/98	0720	FBS		08/18/98	1215	FBS	HG1
98421-6	HG	08/18/98	0720	FBS		08/18/98	1235	FBS	HG1
98421-7	HG	08/18/98	0720	FBS		08/18/98	1237	FBS	HG1
98421-8	HG	08/18/98	0720	FBS		08/18/98	1240	FBS	HG1
98421-9	HG	08/18/98	0720	FBS		08/18/98	1242	FBS	HG1
98421-10	HG	08/18/98	0720	FBS		08/18/98	1245	FBS	HG1
98421-11	HG	08/18/98	0720	FBS		08/18/98	1247	FBS	HG1
9[illegible]21-12	HG	08/18/98	0720	FBS		08/18/98	1250	FBS	HG1
W[illegible]0-1	HG	08/18/98	0720	FBS	0.5ML	08/18/98	1257	FBS	HG1
WP40-1	HG	08/18/98	0720	FBS	0.5ML	08/18/98	1300	FBS	HG1
WP40-1	HG	08/18/98	0720	FBS	1.0ML	08/18/98	1302	FBS	HG1
WP40-1	HG	08/18/98	0720	FBS	1.0ML	08/18/98	1304	FBS	HG1
WP40-1MS	HG	08/18/98	0720	FBS	1.0ML	08/18/98	1307	FBS	HG1
WP40-1MSD	HG	08/18/98	0720	FBS	1.0ML	08/18/98	1309	FBS	HG1

Q.C. Information for Batch # 41105 For Report Number :98421

Sample Batch Information
Analysis : Ag, As, Ba, Be, Cd, Cr, Cu, Ni, Pb, V, Zn

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
41105BLANK		08/24/98	1035	DMK	TRACE	08/25/98	0852	MCW	ICP2
41105LCS		08/24/98	1035	DMK	TRACE	08/25/98	0856	MCW	ICP2
41105LCSD		08/24/98	1035	DMK	TRACE	08/25/98	0901	MCW	ICP2
98588-6 MS		08/24/98	1035	DMK	TRACE	08/25/98	0905	MCW	ICP2
98588-6MSD		08/24/98	1035	DMK	TRACE	08/25/98	0909	MCW	ICP2
98421-3PDS		08/24/98	1035	DMK	TRACE	08/25/98	0914	MCW	ICP2
98421-3DUP		08/24/98	1035	DMK	TRACE	08/25/98	0918	MCW	ICP2
98527-1		08/24/98	1035	DMK	TRACE	08/25/98	0932	MCW	ICP2
98527-2		08/24/98	1035	DMK	TRACE	08/25/98	0945	MCW	ICP2
98588-15		08/24/98	1035	DMK	TRACE	08/25/98	0950	MCW	ICP2
98588-6		08/24/98	1035	DMK	TRACE	08/25/98	0923	MCW	ICP2
98421-1		08/24/98	1035	DMK	TRACE	08/25/98	0954	MCW	ICP2
98421-10		08/24/98	1035	DMK	TRACE	08/25/98	1025	MCW	ICP2
98421-11		08/24/98	1035	DMK	TRACE	08/25/98	1039	MCW	ICP2
98421-12		08/24/98	1035	DMK	TRACE	08/25/98	1043	MCW	ICP2
98421-2		08/24/98	1035	DMK	TRACE	08/25/98	0958	MCW	ICP2
98421-3		08/24/98	1035	DMK	TRACE	08/25/98	0927	MCW	ICP2
98421-4		08/24/98	1035	DMK	TRACE	08/25/98	1003	MCW	ICP2
9[illegible]21-6		08/24/98	1035	DMK	TRACE	08/25/98	1007	MCW	ICP2
9[illegible]21-7		08/24/98	1035	DMK	TRACE	08/25/98	1012	MCW	ICP2
98421-8		08/24/98	1035	DMK	TRACE	08/25/98	1016	MCW	ICP2
98421-9		08/24/98	1035	DMK	TRACE	08/25/98	1021	MCW	ICP2

Q.C. Information for Batch # 41300 For Report Number :98421

Sample Batch Information
Analysis : S

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
41300BLK		/ /				08/19/98	0900	JN	
41300LCS		/ /				08/19/98	0900	JN	
41300LCSD		/ /				08/19/98	0900	JN	
98421-5MS		/ /				08/19/98	0900	JN	
98421-5MSD		/ /				08/19/98	0900	JN	
41300CALCHK		/ /				08/19/98	0900	JN	
98421-1		/ /				08/19/98	0900	JN	
98421-2		/ /				08/19/98	0900	JN	
98421-3		/ /				08/19/98	0900	JN	
98421-5		/ /				08/19/98	0900	JN	
98421-6		/ /				08/19/98	0900	JN	
98421-7		/ /				08/19/98	0900	JN	
98421-8		/ /				08/19/98	0900	JN	
98421-9		/ /				08/19/98	0900	JN	
98421-10		/ /				08/19/98	0900	JN	
98421-11		/ /				08/19/98	0900	JN	
98421-12		/ /				08/19/98	0900	JN	
98378-1		/ /				08/19/98	0900	JN	
98378-1DUP		/ /				08/19/98	0900	JN	
98421-5DUP		/ /				08/19/98	0900	JN	

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

#2 V 2 P3 Q3

CLIENT NAME: ECT

CLIENT ADDRESS AND PHONE NUMBER: (813) 289-9338
5405 CYPRESS CENTER DR. #200
TAMPA FL 33609

PROJECT MANAGER: R. Sheinberg

COPY TO (if applicable):

REQUESTED COMPLETION DATE: STANDARD

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☑ OTHER ____

PROJECT NAME: SKMA

PROJECT NUMBER: 98033-1111-1200

PURCHASE ORDER NO.

FOR LAB USE ONLY

LAB #: 98421

PROJECT NO.

ACK | VERIFIED

QUOTE # | BS

NO. OF SAMPLES: 13 | PG 1 | OF 1

ANALYSES REQUESTED

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	CP2	MET	Hg	SVOA	SVOA	LAB ID	REMARKS/ADDITIONAL INFORMATION
	8-12-98	1055				SA-1	8	3	1	1	2	1	-1	abc-VOA f-S-
		1145				SA-2	8	3	1	1	2	1	-2	d-met g,h-SVOA
		1240				BG-1	8	3	1	1	2	1	-3	e-Hg
		1250				EQUIP BLK-T1	2		1	1			-4	(-a-met, b-Hg)
		1250				EQUIP BLK-B-2	6	3			2	1	-5	1 BIT (-abc-VOA, d-S-, -e-SVOA)
		1330				SA-4	8	3	1	1	2	1	-6	
		1416				POC-1	8	3	1	1	2	1	-7	
		1500				DA-5D	8	3	1	1	2	1	-8	
	8-13-98	0805				DA-1A	8	3	1	1	2	1	-9	
		0900				POC-2	8	3	1	1	2	1	-10	1 BIT
		1000				POC-3	8	3	1	1	2	1	-11	
CJ 8/17 per → cont.	8-13-98					DUPE-1	8	3	1	1	2	1	-12	
													-13	Trip Blank

SAMPLED BY AND TITLE: Ron Novak | DATE/TIME | RELINQUISHED BY | DATE/TIME

RECEIVED BY: Ron Novak | DATE/TIME: 8-11-98 1200 | RELINQUISHED BY: Ron Novak | DATE/TIME: 8-13-98 1200

RECEIVED BY: | DATE/TIME | RELINQUISHED BY: | DATE/TIME

RECEIVED BY LAB: [signature] | DATE/TIME: 8/14/98 1300

SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____

AIR BILL # 8018564690-30, 29, 18, 07

HAZWRAP/NEESA Y N

QC LEVEL 1 2 3

COC ✓ | ICE yes

ANA REQ | TEMP 10°C

CUST SEAL N | PH 1 (met) 9 (S-)

SAMPLE COND. See below "remarks"

ENTERED INTO LIMS ____ | COC REVIEWD ____

REMARKS: BIT → BNA "POC-2", BNA "EQUIP BLK-B-2" See cont.

APPENDIX C

REMEDIAL SYSTEM ANALYTICAL LABORATORY REPORTS

ASI ANALYTICAL SERVICES, INC.
ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

September 16, 1998

P.O. No. E13353

Report No. 98674-1

Sample Description

Water, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent, 08/24/98, 15:20, received 08/25/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.01	0.001
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Selenium (Se)(EPA 6010)	BDL	0.006
Total Silver (Ag)(EPA 6010)	BDL	0.0009
BTEX (EPA 8021B)	**(ug/l)**	**(ug/l)**
Benzene	0.84	0.26
Ethylbenzene	1.2	0.24
Toluene	BDL	0.48
Xylenes	1.4	0.82
Halogenated Volatile Organics (EPA 8021B)	**(ug/l)**	**(ug/l)**
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.50
Bromodichloromethane	BDL	0.50
Bromoform	BDL	0.50
Bromomethane	BDL	0.97

BDL - Below Detection Limit

September 16, 1998
Report No. 98674-1

Water, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent, 08/24/98, 15:20, received 08/25/98

RESULTS

Halogenated Volatile Organics (EPA 8021B)	Result (ug/l)	Detection Limit (ug/l)
Carbon tetrachloride	BDL	0.70
Chlorobenzene	7.0	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.70
2-Chloroethylvinyl ether	BDL	0.70
Chloromethane	BDL	0.70
Dibromochloromethane	BDL	0.45
Dibromomethane	BDL	0.50
1,2-Dichlorobenzene	BDL	0.70
1,3-Dichlorobenzene	BDL	0.70
1,4-Dichlorobenzene	BDL	0.90
Dichlorodifluoromethane	BDL	0.70
1,1-Dichloroethane	BDL	0.70
1,2-Dichloroethane	BDL	0.70
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.70
1,2-Dichloropropane	BDL	0.50
cis-1,3-Dichloropropene	BDL	0.70
trans-1,3-Dichloropropene	BDL	0.70
Methylene chloride	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	0.70
1,1,1,2-Tetrachloroethane	BDL	0.50
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.50
1,1,2-Trichloroethane	BDL	0.50
Trichloroethene	BDL	0.70
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98674-2

Sample Description

Water, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Intercarbon, 08/24/98, 15:25, received 08/25/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.009	0.001
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Selenium (Se)(EPA 6010)	BDL	0.006
Total Silver (Ag)(EPA 6010)	BDL	0.0009
BTEX (EPA 8021B)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.26
Ethylbenzene	BDL	0.24
Toluene	BDL	0.48
Xylenes	BDL	0.82
Halogenated Volatile Organics (EPA 8021B)	**(ug/l)**	**(ug/l)**
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.50
Bromodichloromethane	BDL	0.50
Bromoform	BDL	0.50
Bromomethane	BDL	0.97

BDL - Below Detection Limit

September 16, 1998
Report No. 98674-2

Water, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Intercarbon, 08/24/98, 15:25, received 08/25/98

RESULTS

Halogenated Volatile Organics (EPA 8021B)	Result (ug/l)	Detection Limit (ug/l)
Carbon tetrachloride	BDL	0.70
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.70
2-Chloroethylvinyl ether	BDL	0.70
Chloromethane	BDL	0.45
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.50
1,2-Dichlorobenzene	BDL	0.70
1,3-Dichlorobenzene	BDL	0.70
1,4-Dichlorobenzene	BDL	0.90
Dichlorodifluoromethane	BDL	0.70
1,1-Dichloroethane	BDL	0.70
1,2-Dichloroethane	BDL	0.70
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.70
1,2-Dichloropropane	BDL	0.50
cis-1,3-Dichloropropene	BDL	0.70
trans-1,3-Dichloropropene	BDL	0.70
Methylene chloride	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	0.70
1,1,1,2-Tetrachloroethane	BDL	0.50
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.50
1,1,2-Trichloroethane	BDL	0.50
Trichloroethene	BDL	0.70
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawson
Quality Assurance

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

September 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 98674-3

Sample Description

Water, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Effluent, 08/24/98, 15:30, received 08/25/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.009	0.001
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Selenium (Se)(EPA 6010)	BDL	0.006
Total Silver (Ag)(EPA 6010)	BDL	0.0009
BTEX (EPA 8021B)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.26
Ethylbenzene	BDL	0.24
Toluene	BDL	0.48
Xylenes	BDL	0.82
Halogenated Volatile Organics (EPA 8021B)	**(ug/l)**	**(ug/l)**
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.50
Bromodichloromethane	BDL	0.50
Bromoform	BDL	0.50
Bromomethane	BDL	0.97

BDL - Below Detection Limit

September 16, 1998
Report No. 98674-3

Water, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Effluent, 08/24/98, 15:30, received 08/25/98

RESULTS

Halogenated Volatile Organics (EPA 8021B)	Result (ug/l)	Detection Limit (ug/l)
Carbon tetrachloride	BDL	0.70
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.70
2-Chloroethylvinyl ether	BDL	0.70
Chloromethane	BDL	0.70
Dibromochloromethane	BDL	0.45
Dibromomethane	BDL	0.50
1,2-Dichlorobenzene	BDL	0.70
1,3-Dichlorobenzene	BDL	0.70
1,4-Dichlorobenzene	BDL	0.90
Dichlorodifluoromethane	BDL	0.70
1,1-Dichloroethane	BDL	0.70
1,2-Dichloroethane	BDL	0.70
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.70
1,2-Dichloropropane	BDL	0.50
cis-1,3-Dichloropropene	BDL	0.70
trans-1,3-Dichloropropene	BDL	0.70
Methylene chloride	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	0.70
1,1,1,2-Tetrachloroethane	BDL	0.50
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.50
1,1,2-Trichloroethane	BDL	0.50
Trichloroethene	BDL	0.70
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky

Respectfully submitted,

Shari Harper
Project Manager

Mark Dawn
Quality Assurance

Analytical Services Inc. Batch QC
For Report Number :98674
Volatiles

Matrix : Aqueous Batch # 41552 Method : EPA 8021

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Benzene	106	107	1	39 - 150	0 - 20
Chlorobenzene	105	104	1	55 - 135	0 - 20
1,4-Dichlorobenzene	99	102	3	42 - 143	0 - 20
1,3-Dichlorobenzene	94	102	8	50 - 141	0 - 20
1,2-Dichlorobenzene	107	100	7	37 - 154	0 - 20
Ethylbenzene	104	103	1	32 - 160	0 - 20
Toluene	103	104	1	46 - 148	0 - 20

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Benzene	99	104	5	39 - 150	0 - 20
Chlorobenzene	101	105	4	55 - 135	0 - 20
1,4-Dichlorobenzene	100	101	1	42 - 143	0 - 20
[illegible]-Dichlorobenzene	96	98	3	50 - 141	0 - 20
[illegible]-Dichlorobenzene	100	104	4	37 - 154	0 - 20
Ethylbenzene	99	102	3	32 - 160	0 - 20
Toluene	97	104	7	46 - 148	0 - 20

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatiles

Matrix : Aqueous Batch # 41552 Method : EPA 8021

% Recovery Objectives

S1	1,4-Dichlorobutane	75 - 125
S2	4-Bromochlorobenzene	75 - 125

Sample	File	S1	S2	S3	S4	S5	S6
41552BLK	090298018FR	104	106				
41552LCS	090298013FR	100	99				
41552LCSD	090298014FR	100	101				
98674-3MS	090298023FR	101	102				
98674-3MSD	090298024FR	102	99				
98674-1DUP	090298022FR	104	102				
98674-1	090298019FR	101	101				
98674-2	090298020FR	102	103				
98674-3	090298021FR	107	108				

Q.C. Information for Batch # 41552 Printed: 09/16/98 17:10:58

Blank Results Information
Volatiles Method : EPA 8021

Analyte	Blank Result	Detection Limit
Benzene	BDL	0.26
Ethylbenzene	BDL	0.24
Toluene	BDL	0.48
Xylenes	BDL	0.82
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.50
Bromodichloromethane	BDL	0.50
Bromoform	BDL	0.50
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.70
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.70
2-Chloroethylvinyl ether	BDL	0.70
Chloromethane	BDL	0.45
Dibromochloromethane	BDL	0.45
Dibromomethane	BDL	0.50
1,2-Dichlorobenzene	BDL	0.70
1,3-Dichlorobenzene	BDL	0.70
1,4-Dichlorobenzene	BDL	0.90
Dichlorodifluoromethane	BDL	0.70
1,1-Dichloroethane	BDL	0.70
1,2-Dichloroethane	BDL	0.70
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.70
1,2-Dichloropropane	BDL	0.50
cis-1,3-Dichloropropene	BDL	0.70
trans-1,3-Dichloropropene	BDL	0.70
Methylene chloride	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	0.70
1,1,1,2-Tetrachloroethane	BDL	0.50
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.50
1,1,2-Trichloroethane	BDL	0.50
Trichloroethene	BDL	0.70
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

Q.C. Information for Batch # 41552 Printed: 09/16/98 17:10:59

Sample Batch Information
Volatiles Method : EPA 8021

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
41552BLK	/ /				09/03/98	0039	DR	VGC1
41552LCS	/ /				09/02/98	2102	DR	VGC1
41552LCSD	/ /				09/02/98	2145	DR	VGC1
98674-3MS	/ /				09/03/98	1643	DR	VGC1
98674-3MSD	/ /				09/03/98	1727	DR	VGC1
98674-1DUP	/ /				09/03/98	1539	DR	VGC1
98674-1	/ /				09/03/98	1349	DR	VGC1
98674-2	/ /				09/03/98	1432	DR	VGC1
98674-3	/ /				09/03/98	1516	DR	VGC1

Analytical Services Inc. Batch QC
For Report Number :98674

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
40878	Hg	EPA 7470	Aqueous	<	0.0002	
41142	Ag	EPA 6010	Aqueous	<	0.0009	
41142	As	EPA 6010	Aqueous	<	0.0050	
41142	Ba	EPA 6010	Aqueous	<	0.0010	
41142	Cd	EPA 6010	Aqueous	<	0.0010	
41142	Cr	EPA 6010	Aqueous	<	0.0010	
41142	Pb	EPA 6010	Aqueous	<	0.0040	
41142	Se	EPA 6010	Aqueous	<	0.0060	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
40878	Hg	EPA 7470	94	96	2	76 - 124	0 - 20
41142	Ag	EPA 6010	100	100	0	76 - 124	0 - 20
41142	As	EPA 6010	93	93	0	76 - 124	0 - 20
41142	Ba	EPA 6010	92	92	0	76 - 124	0 - 20
41142	Cd	EPA 6010	90	90	0	76 - 124	0 - 20
41142	Cr	EPA 6010	91	92	1	76 - 124	0 - 20
41142	Pb	EPA 6010	90	91	1	76 - 124	0 - 20
41142	Se	EPA 6010	96	96	0	76 - 124	0 - 20

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
40878	Hg	EPA 7470	83	85	2	76 - 124	0 - 20
41142	Ag	EPA 6010	93	98	5	76 - 124	0 - 20
41142	As	EPA 6010	97	100	3	76 - 124	0 - 20
41142	Ba	EPA 6010	86	91	6	76 - 124	0 - 20
41142	Cd	EPA 6010	91	96	5	76 - 124	0 - 20
41142	Cr	EPA 6010	84	89	6	76 - 124	0 - 20
41142	Pb	EPA 6010	90	95	5	76 - 124	0 - 20
41142	Se	EPA 6010	95	100	5	76 - 124	0 - 20

Analytical Services Inc. Batch QC
For Report Number :98674

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
41142	Ag	EPA 6010	82	76 - 124
41142	As	EPA 6010	95	76 - 124
41142	Ba	EPA 6010	94	76 - 124
41142	Cd	EPA 6010	92	76 - 124
41142	Cr	EPA 6010	92	76 - 124
41142	Pb	EPA 6010	92	76 - 124
41142	Se	EPA 6010	98	76 - 124

Q.C. Information for Batch # 40878 For Report Number :98674

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
40878BLANK	HG	08/27/98	1140	FBS		08/27/98	1521	FBS	HG1
40878LCS	HG	08/27/98	1140	FBS		08/27/98	1528	FBS	HG1
40878LCSD	HG	08/27/98	1140	FBS		08/27/98	1531	FBS	HG1
98716-1MS	HG	08/27/98	1140	FBS		08/27/98	1533	FBS	HG1
98716-1MSD	HG	08/27/98	1140	FBS		08/27/98	1535	FBS	HG1
98701DUP	HG	08/27/98	1140	FBS		08/27/98	1538	FBS	HG1
98674-1	HG	08/27/98	1140	FBS		08/27/98	1545	FBS	HG1
98674-2	HG	08/27/98	1140	FBS		08/27/98	1553	FBS	HG1
98674-3	HG	08/27/98	1140	FBS		08/27/98	1557	FBS	HG1
98701	HG	08/27/98	1140	FBS		08/27/98	1543	FBS	HG1
98716-1	HG	08/27/98	1140	FBS		08/27/98	1540	FBS	HG1
98751-1	HG	08/27/98	1140	FBS		08/27/98	1559	FBS	HG1

Q.C. Information for Batch # 41142 For Report Number :98674

Sample Batch Information
Analysis : Ag, As, Ba, Cd, Cr, Pb, Se

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
41142BLANK		08/31/98	1240	LLP	TRACE	09/01/98	0926	MCW	ICP2
41142LCS		08/31/98	1240	LLP	TRACE	09/01/98	0931	MCW	ICP2
41142LCSD		08/31/98	1240	LLP	TRACE	09/01/98	0935	MCW	ICP2
98762-1MS		08/31/98	1240	LLP	TRACE	09/01/98	0940	MCW	ICP2
98762-1MSD		08/31/98	1240	LLP	TRACE	09/01/98	0944	MCW	ICP2
98762-2PDS		08/31/98	1240	LLP	TRACE	09/01/98	0949	MCW	ICP2
98762-2DUP		08/31/98	1240	LLP	TRACE	09/01/98	0953	MCW	ICP2
98762-1		08/31/98	1240	LLP	TRACE	09/01/98	0957	MCW	ICP2
98762-2		08/31/98	1240	LLP	TRACE	09/01/98	1002	MCW	ICP2
98762-3		08/31/98	1240	LLP	TRACE	09/01/98	1006	MCW	ICP2
98762-4		08/31/98	1240	LLP	TRACE	09/01/98	1020	MCW	ICP2
98762-5		08/31/98	1240	LLP	TRACE	09/01/98	1024	MCW	ICP2
98674-1		08/31/98	1240	LLP	TRACE	09/01/98	1029	MCW	ICP2
98674-2		08/31/98	1240	LLP	TRACE	09/01/98	1033	MCW	ICP2
98674-3		08/31/98	1240	LLP	TRACE	09/01/98	1038	MCW	ICP2
98688-2		08/31/98	1240	LLP	TRACE	09/01/98	1042	MCW	ICP2
98688-3		08/31/98	1240	LLP	TRACE	09/01/98	1047	MCW	ICP2
98688-4		08/31/98	1240	LLP	TRACE	09/01/98	1051	MCW	ICP2
[illegible]88-5		08/31/98	1240	LLP	TRACE	09/01/98	1055	MCW	ICP2
[illegible]88-6		08/31/98	1240	LLP	TRACE	09/01/98	1100	MCW	ICP2
98688-7		08/31/98	1240	LLP	TRACE	09/01/98	1113	MCW	ICP2
98688-8		08/31/98	1240	LLP	TRACE	09/01/98	1118	MCW	ICP2
98688-9		08/31/98	1240	LLP	TRACE	09/01/98	1122	MCW	ICP2
98688-11		08/31/98	1240	LLP	TRACE	09/01/98	1127	MCW	ICP2
98688-12		08/31/98	1240	LLP	TRACE	09/01/98	1131	MCW	ICP2
98688-13		08/31/98	1240	LLP	TRACE	09/01/98	1136	MCW	ICP2
98688-14		08/31/98	1240	LLP	TRACE	09/01/98	1140	MCW	ICP2

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

V 732

CLIENT NAME: SAFETY-KLEEN CORP./ECI

CLIENT ADDRESS AND PHONE NUMBER: 5405 CYPRESS CENTER DR #200, TAMPA FL 33609

PROJECT MANAGER: R. STOBNISKY

COPY TO (if applicable):

REQUESTED COMPLETION DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☒ OTHER ____

PROJECT NAME: SK-MANHATTAN

PROJECT NUMBER: 98033-1111

PURCHASE ORDER NO.:

FOR LAB USE ONLY: RJ 8/2

LAB #: ~~98675~~ 98674

PROJECT NO.:

ACK: VERIFIED:

QUOTE #: BS:

NO. OF SAMP: 3 PG 1 OF 1

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	VOC 624	METALS	Hg	LAB ID	REMARKS/ADDITIONAL INFORMATION
1	8/24/98	1520		✓		INFLUENT .082498		3	1	1		a,b,c - V
2	8/24/98	1525		✓		INTER. CARBON .082498		3	1	1		d - Hg
3	8/24/98	1520		✓		~~POST CARBON .082498~~		3	1	1		e - met
				✓		EFFLUENT .082498						
						PEG						

SAMPLED BY AND TITLE	DATE/TIME	RELINQUISHED BY	DATE/TIME	
R. Coyne	8/24/98 1520			HAZWRAP/NEESA Y N
RECEIVED BY:	DATE/TIME 8/24/98 1400	RELINQUISHED BY:	DATE/TIME 8/24/98 1610	QC LEVEL 1 2 3
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC / ICE Melted
				ANA REQ / TEMP 6°
				CUST SEAL N / A / PH 11 m
				SAMPLE COND. good
RECEIVED BY LAB:	DATE/TIME 8/25/98 9:10	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____		AIR BILL # 5270310216

REMARKS: Renee E. 15 cont.

ENTERED INTO LIMS ____ COC REVIEWD ____

APPENDIX D

OPERATION AND MAINTENANCE LOGS

Section E
Ground Water Treatment System Operation Periods
Safety Kleen—Manhattan Ave

Date	Status Arrival	Status Departure	Meter Reading	Time
1/29/98	[✓ On] Off	[✓ On] Off	1394275	1015
2/27/98	[✓ On] Off	[✓ On] Off	1476302	920
	On Off	On Off		
	On Off	On Off		
	On Off	On Off		
6/25/98	On [✓ Off]	[✓ On] Off	1671212	1040
7/6/98	[✓ On] Off	[✓ On] Off	1711575	953
8/8/98	On [✓ Off]	[✓ On] Off	1725433	845
8/24/98	[✓ On] Off	On Off	1753463	1500
8/31/98	[✓ On] Off	[✓ On] Off	1779580	830
	On Off	On Off		
	On Off	On Off		
	On Off	On Off		
	On Off	On Off		
	On Off	On Off		
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	On Off	On Off		

OPERATION AND MAINTENANCE DATA SHEET

Safety Kleen Facility
4701 North Manhattan Avenue

Date: 6/25/98
Time Arrive Site: 1030
Time Depart Site: 1315

STATUS UPON ARRIVAL

GWTS

Meter Reading: 1671212 gal
System: On _____ Off ✓

Flow Rate: 12

Solids Filter 1 Pressure: —

Solids Filter 2 Pressure: 20/14

Air Compressor Pressure Setting At: 135 psi

Line Pressure At: 100 psi

RW-1 Regulator At: N/A psi

RW-2 Regulator At: N/A psi

Cause: PRE CARBON FILTER CLOGGED THAT CAUSED T-TANK TO TRIP E-HI FLOAT SWITCH

Corrective Action: CHANGED FILTER

*System Sampled: Yes (No) Diaphram Pump @ 38 psi

VES

On _____ Off _____

Vacuum Pressure:

Blower: _____ " Hg

VEL 1: _____ " H_2O

VEL 2: _____ " H_2O

VEL 3: _____ " H_2O

VEL 4: _____ " H_2O

Cause: _____

Corrective Action: _____

OVA Reading: unfil - fil = total
Influent ____ - ____ = ____
Effluent ____ - ____ = ____

*System Sampled: Yes No

STATUS UPON DEPARTURE

✓ Same as Arrival
The following adjustments were made: SYSTEM ON.

MAINTENANCE

GTWS

Air Compressor*
Tank Drained: (Yes) No
Oil Changed: Yes (No)
Air Filter Cleaned: (Yes) No
Belts Okay: Yes (No)

Inspect Ground Water Pumps: (Yes) No

Solids Filters
#1 Changed: ~~Yes~~ ~~No~~
#2 Changed: (Yes) No

VES

Blower*
Oil Changed: Yes No
Greased End Unit: Yes No
Greased Motor: Yes No
Belts Okay: Yes No

See maintenance/sampling documents in onsite file container for more detail.

OPERATION AND MAINTENANCE DATA SHEET

Safety Kleen Facility
4701 North Manhattan Avenue

Date: 7/6/98
Time Arrive Site: 900
Time Depart Site: 1010

STATUS UPON ARRIVAL

GWTS

Meter Reading : 1711575 gal
System: On ✓ Off _____

Flow Rate: 12 Cause: _____

Solids Filter 1 Pressure: _____

Solids Filter 2 Pressure: 22/12

Air Compressor Pressure Setting At: 135 psi

Line Pressure At: 100 psi Corrective Action: _____

RW-1 Regulator At: _____ psi

RW-2 Regulator At: _____ psi

*System Sampled: Yes (No) Diaphram Pump @ 38

VES

On _____ Off _____

Vacuum Pressure: Cause: _____

Blower: _____ " Hg

VEL 1: _____ " H_2O

VEL 2: _____ " H_2O

VEL 3: _____ " H_2O Corrective Action: _____

VEL 4: _____ " H_2O

OVA Reading: unfil - fil = total
Influent _____ - _____ = _____
Effluent _____ - _____ = _____

*System Sampled: Yes No

STATUS UPON DEPARTURE

✓ Same as Arrival
____ The following adjustments were made: _____

MAINTENANCE

GTWS

Air Compressor*
Tank Drained: Yes No
Oil Changed: Yes No
Air Filter Cleaned: Yes No
Belts Okay: Yes No

Inspect Ground Water Pumps: Yes No

Solids Filters
#1 Changed: Yes No
#2 Changed: Yes No

VES

Blower*
Oil Changed: Yes No
Greased End Unit: Yes No
Greased Motor: Yes No
Belts Okay: Yes No

ee maintenance/sampling documents in onsite file container for more detail.

OPERATION AND MAINTENANCE DATA SHEET

Safety Kleen Facility
4701 North Manhattan Avenue

Date: 8/18/98
Time Arrive Site: 845
Time Depart Site: 1600

STATUS UPON ARRIVAL

GWTS

Meter Reading: 1725433 gal
System: On _____ Off ✓

Flow Rate: 13.6
Solids Filter 1 Pressure: N/A
Solids Filter 2 Pressure: 20/16
Air Compressor Pressure Setting At: 135 psi
Line Pressure At: 73 psi
RW-1 Regulator At: _____ psi
RW-2 Regulator At: _____ psi

Cause: INFILTRATION GALLERY PIEZOMETER CAP W/ LEVEL SWITCH TURNED UP ?
CORRECTED: ALSO BAD + IN CLOSED POSITION

Corrective Action: REMOVED INF. GAL. FLOAT SWITCH - WILL REPLACE

*System Sampled: Yes (No)

VES

On _____ Off _____

Vacuum Pressure:
Blower: _____ " Hg
VEL 1: _____ " H_2O
VEL 2: _____ " H_2O
VEL 3: _____ " H_2O
VEL 4: _____ " H_2O

Cause: _____

Corrective Action: _____

OVA Reading: unfil - fil = total
Influent _____ - _____ = _____
Effluent _____ - _____ = _____

*System Sampled: Yes No

STATUS UPON DEPARTURE

✓ Same as Arrival
✓ The following adjustments were made: SET ABOVE - SYSTEM ON UPON DEPARTURE. AIR SPARGER OFF.

MAINTENANCE

GTWS			VES		
Air Compressor*			Blower*		
Tank Drained:	Yes	No	Oil Changed:	Yes	No
Oil Changed:	Yes	No	Greased End Unit: Yes	No	
Air Filter Cleaned:	Yes	No	Greased Motor:	Yes	No
Belts Okay:	Yes	No	Belts Okay:	Yes	No
Inspect Ground Water Pumps:	~~Yes~~	~~No~~ N/A			
Solids Filters					
#1 Changed:	~~Yes~~	~~No~~ N/A			
#2 Changed:	Yes	No			

*See maintenance/sampling documents in onsite file container for more detail.

OPERATION AND MAINTENANCE DATA SHEET

Safety Kleen Facility
4701 North Manhattan Avenue

Date: 8/24/98
Time Arrive Site: 1500
Time Depart Site: 1555

STATUS UPON ARRIVAL

GWTS

Meter Reading : 1753463 gal
System: On ✓ Off _____

Flow Rate: ~14 Cause: _____

Solids Filter 1 Pressure: 6/14

Solids Filter 2 Pressure: 20/14-5

Air Compressor Pressure Setting At: _____ psi

Line Pressure At: 135 psi Corrective Action: _____

RW-1 Regulator At: 70 psi

RW-2 Regulator At: — psi

*System Sampled: (Yes) No

VES

On _____ Off _____

Vacuum Pressure: Cause: _____

Blower: _____ " Hg

VEL 1: _____ " H_2O

VEL 2: _____ " H_2O

VEL 3: _____ " H_2O Corrective Action: _____

VEL 4: _____ " H_2O

OVA Reading: unfil - fil = total
Influent ____ - ____ = ____
Effluent ____ - ____ = ____

*System Sampled: Yes No

STATUS UPON DEPARTURE

✓ Same as Arrival
___ The following adjustments were made: _____

MAINTENANCE

GTWS

Air Compressor*
Tank Drained: (Yes) No
Oil Changed: Yes (No)
Air Filter Cleaned: Yes (No)
Belts Okay: (Yes) No

Inspect Ground Water Pumps: Yes (No)

Solids Filters
#1 Changed: Yes No
2 Changed: Yes (No)

VES

Blower*
Oil Changed: Yes No
Greased End Unit: Yes No
Greased Motor: Yes No
Belts Okay: Yes No

See maintenance/sampling documents in onsite file container for more detail.

OPERATION AND MAINTENANCE DATA SHEET

Safety Kleen Facility
4701 North Manhattan Avenue

Date: 8/31/98
Time Arrive Site: 825
Time Depart Site: 1155

STATUS UPON ARRIVAL

GWTS

Meter Reading : 1779580 gal
System: On ✓ Off ____

Flow Rate: 12 Cause: ____

Solids Filter 1 Pressure: —

Solids Filter 2 Pressure: 20/13.5

Air Compressor Pressure Setting At: 135 psi

Line Pressure At: 70 psi Corrective Action: ____

RW-1 Regulator At: — psi

RW-2 Regulator At: — psi

*System Sampled: Yes (No)

VES

On ____ Off ____

Vacuum Pressure: Cause: ____

Blower: ____ " Hg

VEL 1: ____ " H_2O

VEL 2: ____ " H_2O

VEL 3: ____ " H_2O Corrective Action: ____

VEL 4: ____ " H_2O

OVA Reading: unfil - fil = total
Influent ____ - ____ = ____
Effluent ____ - ____ = ____

*System Sampled: Yes No

STATUS UPON DEPARTURE

✓ Same as Arrival
___ The following adjustments were made: Replaced Float Switch in Infil. Gallery

MAINTENANCE

GTWS

Air Compressor*
Tank Drained: (Yes) No
Oil Changed: Yes (No)
Air Filter Cleaned: (Yes) No
Belts Okay: (Yes No)

Inspect Ground Water Pumps: Yes (No) — N/A

Solids Filters
#1 Changed: ~~Yes No~~ N/A.
2 Changed: Yes (No)

VES

Blower*
Oil Changed: Yes No
Greased End Unit: Yes No
Greased Motor: Yes No
Belts Okay: Yes No

See maintenance/sampling documents in onsite file container for more detail.

APPENDIX IX-A

1998 SECOND QUARTER MONITORING REPORT
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA

PREPARED FOR:

SAFETY-KLEEN CORP.
1 Brinkman Way
Elgin, Illinois 60123

PREPARED BY:

ECT
Environmental Consulting & Technology, Inc.

5405 Cypress Center Drive
Suite 200
Tampa, Florida 33609
(813) 289-9338

98033-1111

JULY 1998

ECT
vironmental Consulting & Technology, Inc.

July 20, 1998
98033-1111

Hazardous Waste Supervisor
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Re: 1998 Second Quarter Monitoring Report
Safety-Kleen Corp., Manhattan Avenue, Tampa Facility
Closure Permit No. HF29-158003
EPA ID No. FLD 049 557 408

Dear Hazardous Waste Supervisor:

On behalf of Safety-Kleen Corp., Environmental Consulting & Technology, Inc. (ECT) herein submits results of the May 1998 quarterly ground water monitoring pursuant to Specific Conditions (S.C.) IV.4 and IV.11 of the referenced permit. In addition, limited ground water corrective actions were proactively conducted this quarter in March and April; therefore, this document includes the quarterly ground water remedial system report pursuant to Specific Conditions IV.13 and IV.14.

Safety-Kleen continues to await issuance of the renewal permit; the permit application was submitted on March 27, 1997. Safety-Kleen also awaits Department approval to implement the March 1997 soil sampling plan to document clean closure of the soil.

QUARTERLY GROUND WATER MONITORING REPORT

Ground water samples and water level data were collected in May 1998 according to procedures described in the closure permit for the facility. The ground water samples were submitted to Analytical Services, Inc. (ASI) for analysis of the parameters listed in Specific Condition IV.3 of the closure permit as modified on August 7, 1996.

Ground water samples were collected from all eleven monitor wells in May 1998. Monitor well sampling data forms are provided in Appendix A. Ground water levels and total well depths were measured at each well sampled. Ground water elevation data for May 27, 1998, are presented in Table 1, and a water table elevation contour map is shown in Figure 1. The water table elevations shown average approximately 3.5 ft lower than the February 1998 elevations. The inferred ground water flow direction is toward the east-northeast, consistent with historical data for nonpumping conditions.

The laboratory report of ground water quality analytical methods and results is presented as Appendix B. Table 2 provides a summary of all constituents detected in ground water. Concentration trends for select analytes are illustrated in Figure 2 for monitor well POC-2 and Figure 3 for monitor well POC-3. Well locations are shown in Figure 1.

Several organic constituents were detected in low concentrations at monitor well POC-3, yet only one exceeded a health-based standard listed in the draft permit; benzene (1.3 μg/L) exceeded its standard of 1 μg/L. Monitor well POC-2 has not exceeded any ground water

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Tampa, FL
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289-9338

FAX (813)
289-9388

standard since November 1996. Period of record trends show that all constituent concentrations have decreased significantly at these wells (Figures 2 and 3). The observed decreases are likely the result of ground water recovery and the treatment system adjustments previously reported. However, POC-3 showed increased concentrations for several constituents last quarter. That was probably due to a temporary remobilization of previously sorbed organics, as a result of the excessive winter rains and the physical agitation of the reinitiated ground water corrective actions (pumping at POC-3 and air sparging at SP-1 and SP-2). Concentrations decreased at POC-3 this quarter.

As usual, concentrations of metals were generally below detection limits or very low. Metals are clearly not a problem at this facility.

GROUND WATER REMEDIATION SYSTEM REPORT

Specific Condition IV.13 of the closure permit requires quarterly reporting on the effectiveness of the ground water recovery and treatment systems. The specific items that must be included in the ground water remediation system report are outlined in Specific Condition IV.14. Each of these items, "a" through "l", is reprinted below and followed by pertinent information.

Item a. A narrative summary on the effectiveness of the treatment and recovery system.

The soil vapor and ground water recovery and treatment systems began continuous, automated operation in late January 1994. The following discussion provides a summary of the effectiveness of the soil and ground water remediation systems.

The ground water remediation system had undergone extensive and rigorous startup testing. As discussed in the November 1993 quarterly report, the objectives of the Phase 1 and Phase 2 startup testing were achieved in January, 1994. As such, Phase 3 operation was initiated in late January, 1994. The Phase 3 sampling program (now quarterly) includes influent and intercarbon sample analyses for the eight RCRA metals and volatile organic compounds by EPA Methods 8010/8020. This report includes results of the monitoring program for March 1998 (Appendix C).

The ground water remediation system is effectively capturing the contaminant plume (see Items i and k) and completely treating the impacted ground water (see Item g and Table 3). The ground water system has recovered and treated approximately 5,849,212 gallons of water. Ground water constituent concentrations have been reduced dramatically. In addition, an air sparging system was installed in November 1996 and became operational on December 16, 1996 (see Item b). This system was added to accelerate site cleanup, and current data suggest the air sparging system is highly effective.

As described in item b.4. (below), and as previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C.IV.10 and X.3. On December 30, 1997, limited ground water corrective actions (pumping POC-3 and air sparging at SP-1 and SP-2) were proactively reinitiated on a continuous basis through April 1998.

The soil vapor extraction (SVE) system had been operating from January 24, 1994 to May 23, 1997. Rainy seasons had resulted in periods when the SVE system could not operate due to high water levels. Soil compaction had also hindered operation of the SVE system. An SVE well point pilot test was initiated in October, 1995 and is described in Item 1. Results showed significant reductions in soil vapor concentrations. Organic compound removal efficiency in the recovered soil vapor air stream ranged from 99.4 percent to greater than 99.9 percent. The SVE system is no longer in operation.

Item b. Any minor revisions or adjustments to the treatment and recovery system or plan.

The following adjustments have been made:

1. To maximize effectiveness and efficiency of ground water cleanup, on February 9, 1995, wells POC-2 and POC-3 were equipped to serve as temporary recovery wells and supplement pumpage from recovery wells RW-1 and RW-2, as previously reported. Drop pipes were installed in POC-2 and POC-3 and connected to a common header. Water is pumped from these wells via a diaphragm suction pump into the oil/water separator, then treated as usual.

2. Temporary SVE well points were installed and testing initiated in October 1995 (see Item 1). The original SVE system blower was removed and a mobile blower was subsequently used.

3. In November 1996, two air sparging points were added to the system to accelerate site cleanup. As agreed with FDEP on October 1, 1996, this adjustment is an interim measure and does not require a permit modification. Air sparging point SP-2 is located approximately 9 ft west-southwest of monitor well POC-2, and SP-1 is located approximately 17 ft west of POC-3. The sparge point construction logs were provided in the January 29, 1997 quarterly report. After installation of the air compressor, operation of the air sparging system began on December 16, 1996. Subsequent data suggest that the air sparging system is significantly enhancing the ground water cleanup efforts.

4. As previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C.IV.10 and X.3. On December 30, 1997, limited ground water corrective actions (pumping POC-3 and air sparging at SP-1 and SP-2) were proactively reinitiated on a continuous basis through April 1998.

Item c. Any proposed modification to the treatment and recovery system.

No modifications are proposed at this time.

Item d. Complete inspection logs for previous three months. These logs must include inspections of the recovery well pump(s) and treatment systems.

Operation and maintenance logs are provided in Appendix D.

Item e. Record of when the treatment system is operating.

The ground water treatment system is designed to shut off automatically by a high-level switch in the oil/water separator, and by a high-level switch in the infiltration gallery. The infiltration gallery high-level switch shut off is equipped with a timer set at 5 hours. This timer affects automatic restart of the system, unless water levels have not receded to below the cut off level. Automated operation was continuous throughout March and April this quarter. Approximately 195,212 gallons of water from POC-3 were recovered and treated this quarter.

Item f. Total volume of processed ground water.

As of June 25, 1998, a grand total of approximately 5,849,212 gallons of ground water had been recovered and treated; this also includes water treated during the Phase 1 and Phase 2 startup testing program.

Item g. Summary of influent/effluent data, chain-of-custodies, and lab reports.

Appendix C is comprised of chain-of-custodies and lab reports pertaining to the ground water remediation system for March, 1998. Influent and effluent analytical data for ground water are summarized in Table 3.

Item h. Summary of ground water data (including graphical representation) with emphasis on the most common contaminants and those most difficult to treat.

Period of record ground water quality data for monitor wells POC-2 and POC-3 are presented in Figures 2 and 3, respectively. These are the only two wells at the site that historically indicated ground water impacts. The figures provide graphs of concentrations through time for the following analytes: benzene, chlorobenzene, ethylbenzene, xylenes and naphthalene. The long term trend is toward decreasing concentrations for all constituents. These trends are further discussed in the Quarterly Ground Water Monitoring Report section of this document.

Item i. Ground water elevation contour maps for previous six months.

Ground water elevation contour maps are provided for the following dates: February 24, 1998 (Figure 4); March 25, 1998 (Figure 5); and May 27, 1998 (Figure 1).

Item j. Record of repairs (wells, piping, etc.).

- The ground water system totalizing flow meter was previously replaced. The grand total flow volume is now calculated as the direct reading from the existing meter plus 4,178,000 gallons (from previous meters).
- Chlorine and bromine tablets were emplaced in the oil/water separator to reduce biofouling of the ground water treatment system.
- Water filters were replaced, as necessary.

Item k. **Figure depicting the zone of capture of the recovery wells including delineation of stagnation points.**

Pursuant to Specific Condition IV.12 of the closure permit, water table elevation contour maps are presented in Figures 1, 4, and 5. These maps depict water table elevations in May, February and March, 1998, as indicated in Item i. While pumping POC-3, the capture zone appears to fully envelope the area of ground water impacts.

Item l. **Soil venting data.**

Not applicable.

If you have any questions or comments regarding this quarterly monitoring report, please contact me at (813) 289-9338 or Gary Risse of Safety-Kleen at (770) 418-1860. Thank you.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Richard J. Stebnisky, P.G.
Senior Hydrogeologist, II

7-20-98
Date

Bradley S. Pekas, P.G., P.E.
Engineer of Record--PE 0046867

7/20/98
Date

Attachments: Tables 1 to 3
Figures 1 to 5
Appendices A, B, C, and D

cc: Gary Risse, SK
Mark Attaway, LES
999 Site File No. 1760 % Russ Giambrone, SK
Clare Burr
FDEP, Tallahassee (2 copies)
Davy Simonson, EPA, Region 4
Robert Colberg, ECT

TABLES

Table 1. Water Table Elevations (May 27, 1998)
Safety-Kleen Corp.
Manhattan Avenue Facility, Tampa, Florida

Well No.	MP Elevation (ft-msl)	Depth to Water (ft)	Water Table Elevation (ft-msl)
POC-1	32.80	7.76	25.04
POC-2	32.77	7.53	25.24
POC-3	31.84	6.70	25.14
SA-1	28.29	4.56	23.73**
SA-2	29.72	4.30	25.42
SA-3	27.49	3.17	24.32
SA-4	30.05	4.66	25.39
BG-1	32.83	6.82	26.01
DA-1A*	30.90	6.79	24.11
DA-4D*	27.55	3.78	23.77
DA-5D*	29.70	8.59	21.11

Notes: MP = Measuring point.
ft-msl = Feet above mean sea level.
MPs for POC-2 and POC-3 are for nonpumping conditions.
MP for DA-1A is approximate (to ~0.1 ft).
* = Not a water table monitor well, a deeper well.
** = Outlier - assumed 1 ft error on reading; adjusted to 24.73 in Figure 1.

Source: ECT, 1998.

Table 2. Summary of All Constituents Detected in Ground Water - May 1998
Safety-Kleen Corp.
Manhattan Avenue Facility, Tampa, Florida

Constituent	Units	Monitor Well												
		POC-1	POC-2	POC-3	POC-3 Dupe-1	BG-1	DA-1A	DA-5D	SA-1	SA-2	SA-4	Trip Blank	Equip Blank T-1	Equip Blank B-2
Total Arsenic (As)	mg/L		0.01	0.01	0.01	0.009								
Total Barium (Ba)	mg/L	0.01	0.01	0.01	0.01	0.007	0.01	0.01	0.009	0.008	0.01			
Total Copper (Cu)	mg/L		0.01				0.44	0.09		0.01				
Total Nickel (Ni)	mg/L		0.004							0.002				
Total Zinc (Zn)	mg/L	0.04	0.08	0.03	0.11	0.04	0.10	0.07	0.03	0.01	0.03		0.02	
Total Vanadium (V)	mg/L		0.008	0.006	0.006	0.003	0.008							
Acetone	µg/L				2.89									
Benzene	µg/L			1.3	1.1									
Carbon disulfide	µg/L			1.6	1.3									
Chlorobenzene	µg/L			10	11									
1,3-Dichlorobenzene	µg/L				1.1									
1,4-Dichlorobenzene	µg/L			2	2.3									
Ethylbenzene	µg/L			2.4	2.8									
Naphthalene	µg/L			27	27							0.86		
Toluene	µg/L			2.1	2.4									
Xylenes (total)	µg/L			20	23									
2-Methylnaphthalene	µg/L				14									
Total Sulfide (S)	mg/L	3.60		3.4	3.6	1.4				0.3				

Notes: µg/L = Micrograms per liter.
mg/L = Milligrams per liter.

Source: ECT, 1998.

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 1 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
2/24/94	Barium	mg/L	0.01	<0.01	--
2/24/94	Benzene	µg/L	2	<1	--
2/24/94	Ethylbenzene	µg/L	4	<1	--
3/16/94	Benzene	µg/L	1	<1	--
3/16/94	Chlorobenzene	µg/L	5	<1	--
3/16/94	Ethylbenzene	µg/L	3	<1	--
4/29/94	Barium	mg/L	0.01	<0.01	--
4/29/94	Chlorobenzene	µg/L	4	<1	--
4/29/94	Ethylbenzene	µg/L	3	<1	--
5/19/94	All analytes below detection limits for both influent and intercarbon				
6/17/94	Benzene	µg/L	1	<1	--
6/17/94	Chlorobenzene	µg/L	8	<1	--
6/17/94	Ethylbenzene	µg/L	3	<1	--
7/28/94	Barium	mg/L	0.01	0.01	--
7/28/94	Chlorobenzene	µg/L	5	<1	--
7/28/94	Ethylbenzene	µg/L	2	<1	--
7/28/94	Xylenes	µg/L	4	<2	--
8/31/94	Benzene	µg/L	1	<1	--
8/31/94	Chlorobenzene	µg/L	3	<1	--
8/31/94	Ethylbenzene	µg/L	2	<1	--
8/31/94	Xylenes	µg/L	12	<2	--
9/30/94	Benzene	µg/L	1	<1	--
9/30/94	Chlorobenzene	µg/L	5	<1	--
9/30/94	1,2-Dichlorobenzene	µg/L	3	<2	--
9/30/94	Ethylbenzene	µg/L	4	<1	--
10/19/94	Barium	mg/L	<0.01	0.03	--
10/19/94	Chlorobenzene	µg/L	3	<1	--
10/19/94	Ethylbenzene	µg/L	2	<1	--
10/19/94	Xylenes	µg/L	7	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 2 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
11/30/94	Barium	mg/L	0.01	<0.01	--
11/30/94	Benzene	µg/L	1	<1	--
11/30/94	Chlorobenzene	µg/L	5	<1	--
11/30/94	Ethylbenzene	µg/L	3	<1	--
12/21/94	Benzene	µg/L	1	<1	--
12/21/94	Chlorobenzene	µg/L	5	<1	--
12/21/94	Ethylbenzene	µg/L	4	<1	--
01/30/95	Barium	mg/L	0.01	<0.01	--
01/30/95	Benzene	µg/L	1	<1	--
01/30/95	Chlorobenzene	µg/L	6	<1	--
01/30/95	Ethylbenzene	µg/L	3	<1	--
02/23/95	Barium	mg/L	0.01	<0.01	--
02/23/95	Benzene	µg/L	2	<1	--
02/23/95	Chlorobenzene	µg/L	37	<1	--
02/23/95	Ethylbenzene	µg/L	9	<1	--
02/23/95	Xylenes	µg/L	14	<2	--
03/09/95	Barium	mg/L	0.01	<0.01	--
03/09/95	Chlorobenzene	µg/L	12	<1	--
03/09/95	Ethylbenzene	µg/L	4	<1	--
04/25/95	Barium	mg/L	0.01	0.01	--
04/25/95	Lead	µg/L	<0.003	0.006	--
04/25/95	Chlorobenzene	µg/L	12	<1	--
04/25/95	Ethylbenzene	µg/L	2	<1	--
05/26/95	Lead	mg/L	<0.003	0.004	--
05/26/95	Chlorobenzene	µg/L	1	<1	--
06/30/95	Barium	mg/L	0.02	<0.01	--
06/30/95	Benzene	µg/L	2	<1	--
06/30/95	Chlorobenzene	µg/L	17	<1	--
06/30/95	Ethylbenzene	µg/L	6	<1	--
06/30/95	Xylenes	µg/L	7	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 3 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
07/26/95	Barium	mg/L	0.01	<0.01	--
07/26/95	Benzene	µg/L	1	<1	--
07/26/95	Chlorobenzene	µg/L	17	<1	--
07/26/95	1,2-Dichlorobenzene	µg/L	5	<2	--
07/26/95	1,4-Dichlorobenzene	µg/L	3	<2	--
07/26/95	Ethylbenzene	µg/L	6	<1	--
07/26/95	Xylenes	µg/L	5	<2	--
08/21/95	Barium	mg/L	0.01	<0.01	--
08/21/95	Chlorobenzene	µg/L	9	<1	--
08/21/95	1,2-Dichlorobenzene	µg/L	7	<2	--
08/21/95	Ethylbenzene	µg/L	3	<1	--
08/21/95	Xylenes	µg/L	4	<2	--
09/21/95	Barium	mg/L	0.01	<0.01	--
09/21/95	Benzene	µg/L	2	<1	--
09/21/95	Chlorobenzene	µg/L	24	<1	--
09/21/95	1,4-Dichlorobenzene	µg/L	3	<2	--
09/21/95	Ethylbenzene	µg/L	7	<1	--
09/21/95	Xylenes	µg/L	6	<2	--
10/18/95	Benzene	µg/L	2	<1	—
10/18/95	Chlorobenzene	µg/L	29	<1	--
10/18/95	1, 2-Dichlorobenzene	µg/L	5	<2	--
10/18/95	1, 4-Dichlorobenzene	µg/L	3	<2	--
10/18/95	Ethylbenzene	µg/L	8	<1	--
10/18/95	Xylenes	µg/L	6	<2	--
11/29/95	Barium	mg/L	0.01	<0.01	--
11/29/95	Benzene	µg/L	1	<1	--
11/29/95	Chlorobenzene	µg/L	27	<1	--
11/29/95	1,4 -Dichlorobenzene	µg/L	3	<2	--
11/29/95	Ethylbenzene	µg/L	6	<1	--
11/29/95	Xylenes	µg/L	5	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 4 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
12/18/95	Barium	mg/L	0.01	<0.01	<0.01
12/18/95	Chlorobenzene	µg/L	24	<1	<1
12/18/95	1,4-Dichlorobenzene	µg/L	2	<2	<2
12/18/95	Ethylbenzene	µg/L	5	<1	<1
12/18/95	Xylenes	µg/L	4	<2	<2
1/22/96	Benzene	µg/L	1	<1	--
1/22/96	Chlorobenzene	µg/L	20	<1	--
1/22/96	1,4-Dichlorobenzene	µg/L	3	<2	--
1/22/96	Ethylbenzene	µg/L	6	<1	--
1/22/96	Xylenes	µg/L	8	<2	--
2/29/96	Benzene	µg/L	1	<1	--
2/29/96	Chlorobenzene	µg/L	28	<1	--
2/29/96	1,4-Dichlorobenzene	µg/L	3	<2	--
2/29/96	Ethylbenzene	µg/L	7	<1	--
2/29/96	Xylenes	µg/L	5	<2	--
3/26/96	Chlorobenzene	µg/L	16	<1	--
3/26/96	1,4-Dichlorobenzene	µg/L	3	<2	--
3/26/96	Ethylbenzene	µg/L	6	<1	--
3/26/96	Xylenes	µg/L	4	<2	--
4/25/96	No analytes detected.				
5/23/96	Chlorobenzene	µg/L	12	<1	--
5/23/96	1,4-Dichlorobenzene	µg/L	3	<2	--
5/23/96	Ethylbenzene	µg/L	4	<1	--
5/23/96	Xylenes	µg/L	6	<2	--
6/27/96	Barium	mg/L	0.01	<0.01	--
6/27/96	Chlorobenzene	µg/L	11	<1	--
7/29/96	Barium	mg/L	0.01	<0.01	--
7/29/96	Chlorobenzene	µg/L	14	<1	--
7/29/96	Xylenes	µg/L	15	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 5 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
8/15/96	Benzene	µg/L	1	1	--
8/15/96	Chlorobenzene	µg/L	17	16	--
8/15/96	1,4-Dichlorobenzene	µg/L	3	<2	--
8/15/96	Ethylbenzene	µg/L	12	4	--
8/15/96	Xylenes	µg/L	30	3	--
10/3/96	Benzene	µg/L	1	--	--
10/3/96	Chlorobenzene	µg/L	27	--	--
10/3/96	1,4-Dichlorobenzene	µg/L	3	--	--
10/3/96	Ethylbenzene	µg/L	36	--	--
10/3/96	Xylenes	µg/L	60	--	--
10/31/96	Barium	mg/L	0.02	0.01	--
10/31/96	Chlorobenzene	µg/L	21	<1	--
10/31/96	Ethylbenzene	µg/L	6	<1	--
10/31/96	Xylenes	µg/L	9	<2	--
11/21/96	Barium	mg/L	0.02	<0.01	--
11/21/96	Chlorobenzene	µg/L	10	<1	--
11/21/96	Ethylbenzene	µg/L	2	<1	--
12/16/96	Chlorobenzene	µg/L	25	<1	--
12/16/96	1,4-Dichlorobenzene	µg/L	4	<2	--
12/16/96	Ethylbenzene	µg/L	24	<1	--
12/16/96	Xylenes	µg/L	150	<2	--
1/30/97	Barium	mg/L	0.01	<0.01	--
1/30/97	Chlorobenzene	µg/L	3	<1	--
1/30/97	Ethylbenzene	µg/L	1	<1	--
2/27/97	No analytes detected	--	--	--	--
3/27/97	No analytes detected	--	--	--	--
12/30/97	Total Barium	mg/L	0.01	0.004	--
12/30/97	Ethylbenzene	µg/L	1.7	<1	--
12/30/97	Xylenes	µg/L	4.3	<1	--
12/30/97	Chlorobenzene	µg/L	3.5	<1	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 6 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
1/29/98	Total Barium	mg/L	0.01	0.009	--
1/29/98	Total Chromium	mg/L	0.001	0.002	--
1/29/98	Benzene	µg/L	1.0	<1	--
1/29/98	Ethylbenzene	µg/L	3.1	<1	--
1/29/98	Toluene	µg/L	1.0	<1	--
1/29/98	Xylenes	µg/L	6.3	<2	--
1/29/98	Chlorobenzene	µg/L	2.9	<1	--
2/27/98	Total Barium	mg/L	<0.001	0.001	--
2/27/98	Total Selenium	mg/L	0.006	<0.006	--
2/27/98	Benzene	µg/L	1.5	<1	--
2/27/98	Ethylbenzene	µg/L	4.9	<1	--
2/27/98	Xylenes	µg/L	8.9	<2	--
2/27/98	Chlorobenzene	µg/L	5.3	<1	--
3/25/98	Total Barium	mg/L	0.01	0.004	--
3/25/98	Ethylbenzene	µg/L	1.7	<1	--
3/25/98	Xylenes	µg/L	4.3	<2	--
3/25/98	Chlorobenzene	µg/L	3.5	<1	--

Notes:
mg/L = Milligrams per liter.
µg/L = Micrograms per liter.
* = Air stripper blower not on.
-- = Not analyzed.

Ground Water System Sample Locations

- Influent (from oil/water separator, except April and May, 1995, from transfer tank).
- Intercarbon (from port between the two sets of carbon drums).
- Effluent (from port after the second set of carbon drums).

Source: ECT, 1998.

FIGURES

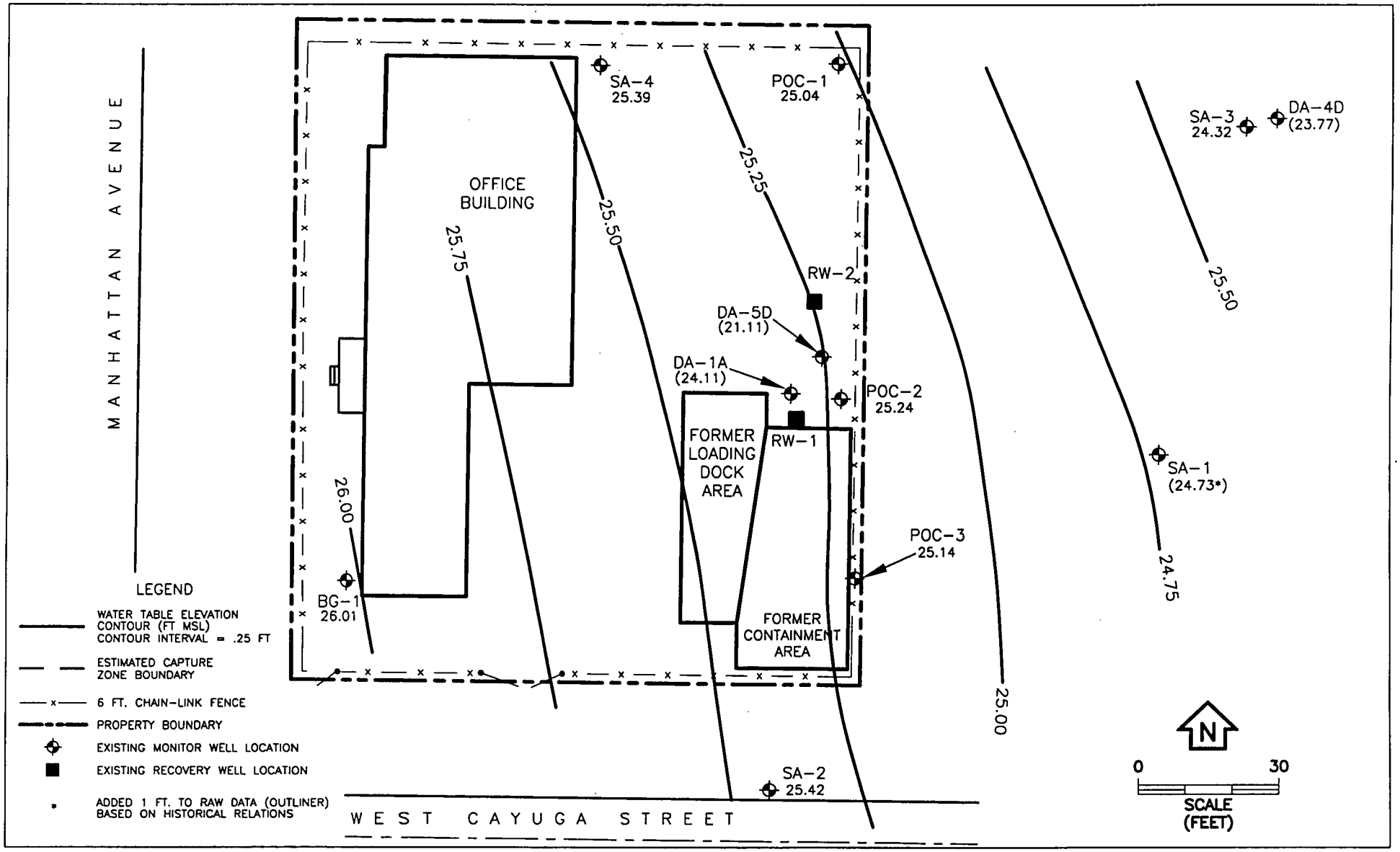
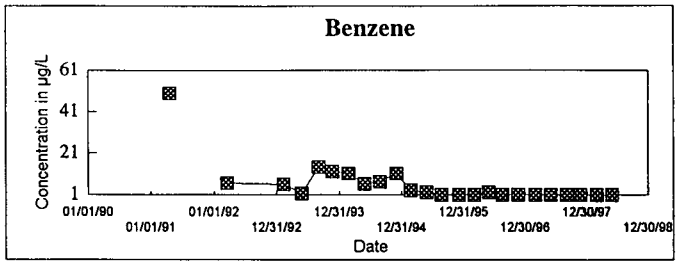


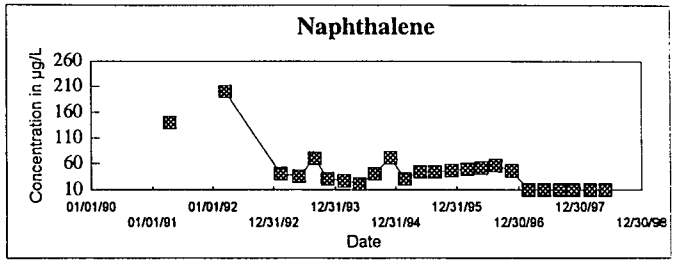
FIGURE 1.
WATER TABLE ELEVATION CONTOUR MAP, MAY 27, 1998
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Sources: ERM, 1993; ECT, 1998.

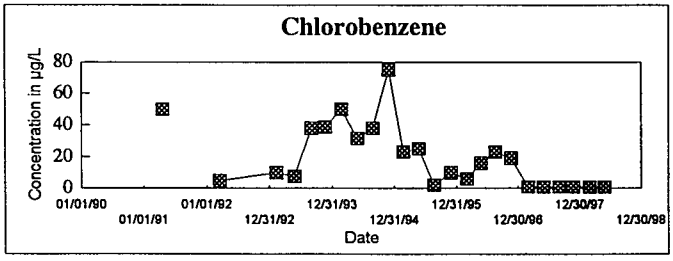
ECT
Environmental Consulting & Technology, Inc.

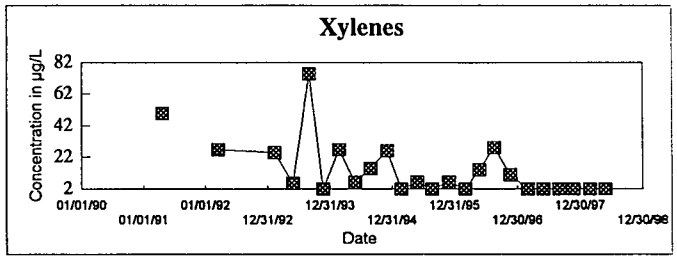
Figure 2. Period of Record Ground Water Quality - POC-2

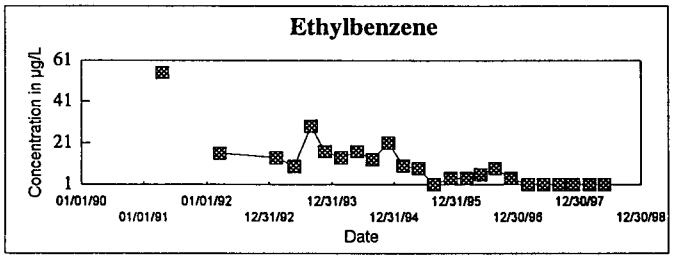
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-2 Sample Date 06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/25/94	11/29/94	02/22/95
Benzene	µg/L		<50		6.5	5.8	1.5	14	12	11	6	7	11	3
Chlorobenzene	µg/L		<50		<5	10	7.8	38	39	50	32	38	75	23
Ethylbenzene	µg/L		55		16	14	9.7	29	17	14	17	13	21	10
Xylenes	µg/L		<50		27	25	5.3	75	<2	27	6	15	26	2
Naphthalene	µg/L		140		<200	40	35	70	30	27	21	41	72	30

Parameter	Units	POC-2 Sample Date 05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	05/29/97	08/28/97	11/18/97	02/24/98	05/28/98
Benzene	µg/L	2	<1	1	<1	2	<1	1	<1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	25	2	10	6	16	23	19	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	9	<1	4	4	6	9	4	<1	<1	<1	<1	<1	<1
Xylenes	µg/L	6	<2	6	2	14	28	11	<2	<2	<2	<2	<2	<2
Naphthalene	µg/L	44	44	47	49	51	56	47	<10	<10	<10	<10	<10	<10

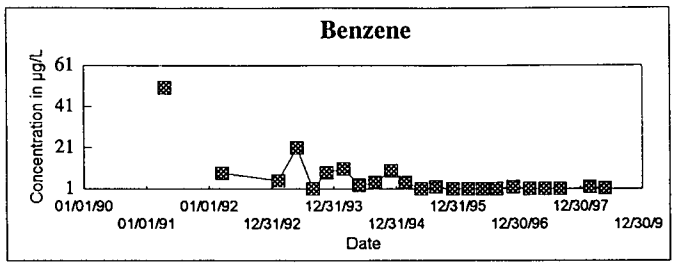
Notes: µg/L = Micrograms per liter.

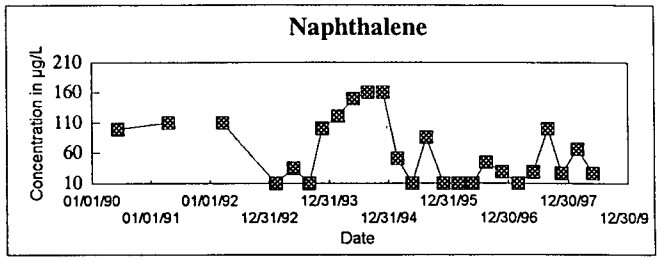
Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

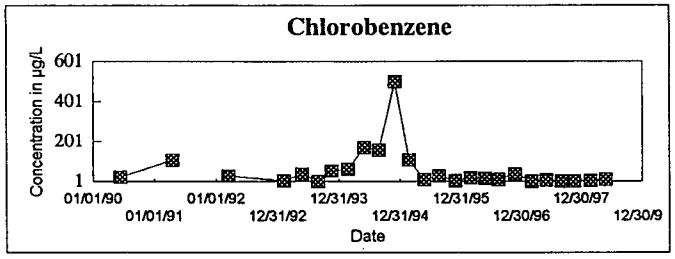
Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

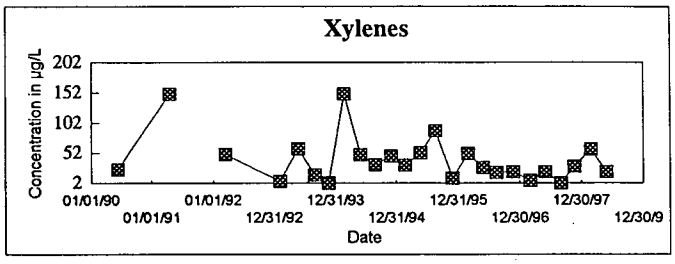
Figure 3. Period of Record Ground Water Quality - POC-3

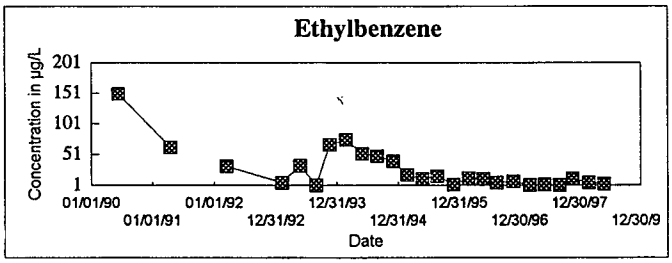
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-3 Sample Date 06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/26/94	11/29/94	02/22/95
Benzene	µg/L		<50		8.6	<5.0	21	<1.0	9	11	3	4	10	4
Chlorobenzene	µg/L	<25	110		31	<5.0	40	1	55	64	170	160	500	110
Ethylbenzene	µg/L	150	62		31	<5.0	32	1	66	74	52	48	40	17
Xylenes	µg/L	<25	150		50	<5.0	59	15	<2	150	49	33	47	32
Naphthalene	µg/L	99	110		110	<10	35	10	100	120	150	160	160	51

Parameter	Units	POC-3 Sample Date 05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	Dupe 05/29/97	08/28/97	11/18/97	02/24/98	05/28/98
Benzene	µg/L	<1	2	<1	<1	<1	<1	2	<1	<1	<1	0.87	1.9	1.3
Chlorobenzene	µg/L	11	30	6	20	19	10	39	3	7	<11	<1	5.5	10
Ethylbenzene	µg/L	11	15	2	12	11	5	7	<1	2	<15	11	5	2.4
Xylenes	µg/L	52	89	10	51	28	19	21	6	21	<18	30	58	20
Naphthalene	µg/L	<10	85	<10	<10	<10	44	29	<10	29	100	26	67	27

Notes: µg/L = Micrograms per liter.

Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

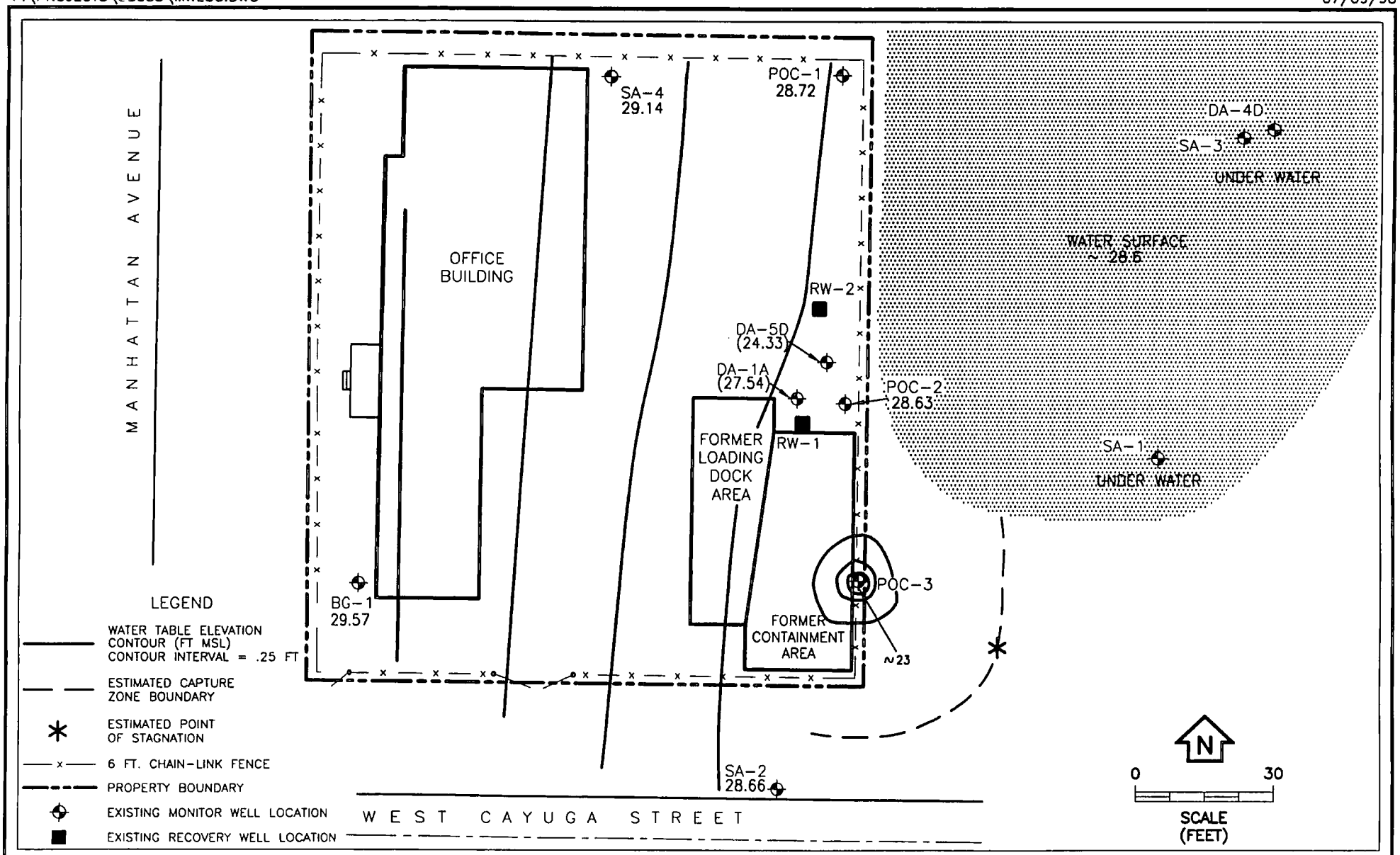


FIGURE 4.
WATER TABLE ELEVATION CONTOUR MAP. FEBRUARY 24, 1998
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Source: ERM, 1993; ECT, 1998.

ECT
Environmental Consulting & Technology, Inc.

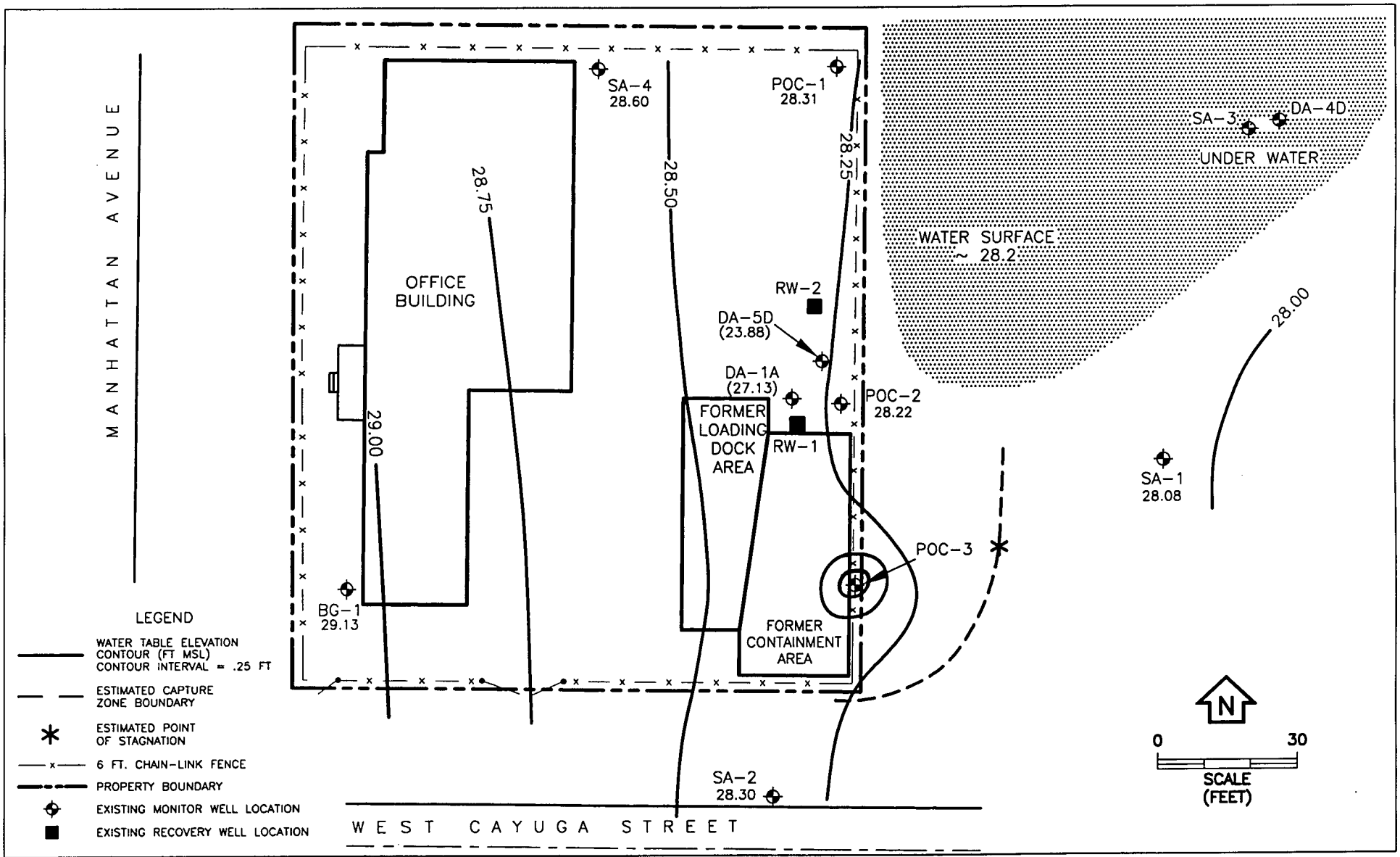


FIGURE 5.
WATER TABLE ELEVATION CONTOUR MAP, MARCH 25, 1998
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Sources: ERM, 1993; ECT, 1998.

ECT
Environmental Consulting & Technology, Inc.

APPENDIX A

MONITOR WELL SAMPLING DATA FORMS

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-27-98

SAMPLING INFORMATION

Well Number: SA-1

Sample Time: 1100

Sampled By: [illegible]

Duplicate Sample: Yes No

Total Depth of Well (ft): 13.96

Depth to Water (ft): 4.56 2.56? RJ

Column of Water in Well (ft): 9.4

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.53

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: Y N

Equipment Blank Collected: Yes No

Equipment: Tubing, Bailer Rope Gloves

Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.53	1.53	1.53		
Time (military)	1043	1050	1057		
pH (standard units)	5.8	5.8	5.8		
Conductivity (µhmos/CM)	190	180	180		
Temperature (°C)	23	23	23		
Actual Volume of Water Removed	1.75	1.75	1.75		
Sediment/Turbidity	14.6	13.7	10.4		
Color	Clear	→	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe): viable to smell

OBSERVATIONS: Using Peristaltic Pump & C-Flex Tubing to Purge well for 3 volumes use Tubing for Sampling of Metals + Hg. Bailer for 8240, 8030 8260

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 5- -98

SAMPLING INFORMATION

Well Number: SA-3

Sample Time: 1140

Sampled By: A

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 11.04

Depth to Water (ft): 3.17

Column of Water in Well (ft): 7.9

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.29

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE Bailer Source: Precleaned: (Y) N

Equipment Blank Collected: Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.29				
Time (military)	1121	1127	1133		
pH (standard units)	5.2	5.2	5.2		
Conductivity (µhmos/CM)	96	96	96		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.50	1.5	1.5		
Sediment/Turbidity	2.22	2.36	1.17		
Color	clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 5-27-98

SAMPLING INFORMATION

Well Number: DA-4D

Sample Time: 1310 Sampled By: 2

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 41.1

Depth to Water (ft): 3.78

Column of Water in Well (ft): 37.32

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 6.08

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) ~~.25~~ 2.0 gal/min

Method of Determining Purged Volume: Liter Jar

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Bailer No.: DISPOSABLE Bailer Source: Precleaned: (Y) N

Equipment Blank Collected: Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

1150	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	6.08				
Time (military)	1155	1200	1307		
pH (standard units)	7.2	7.0	6.8		
Conductivity (µhmos/CM)	170	160	140		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	6.25	6.25	6.25		
Sediment/Turbidity	9.7	10.8	30.5		
Color	clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 5-27-98

SAMPLING INFORMATION

Well Number: SA-2

Sample Time: 1240

Sampled By: [illegible]

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 14.10

Depth to Water (ft): 4.30

Column of Water in Well (ft): 9.8

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.59

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: (Y) N

Equipment Blank Collected : Yes No

Equipment:

Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.59	1.59	1.59		
Time (military)	1223	1230	1237		
pH (standard units)	6.0	5.8	5.8		
Conductivity (µhmos/CM)	160	160	160		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.75	1.75	1.75		
Sediment/Turbidity	4.85	6.17	6.52		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-27-98

SAMPLING INFORMATION

Well Number: BG-1

Sample Time: 1410

Sampled By:

Duplicate Sample: Yes No

Total Depth of Well (ft): 15.0

Depth to Water (ft): 6.82

Column of Water in Well (ft): 8.18

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.33

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: Y N

Equipment Blank Collected: Yes No

Equipment:

Sample I.D.

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

FIELD PARAMETER STABILIZATION

1345

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.33	1.33	1.33		
Time (military)	1351	1402	1408		
pH (standard units)	7.2	7.4	7.4		
Conductivity (µhmos/CM)	280	280	280		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.50	1.50	1.50		
Sediment/Turbidity	4.77	2.88	2.17		
Color	clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-27-98

SAMPLING INFORMATION

Well Number: SA-4

Sample Time: 1450

Sampled By:

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 12.30

Depth to Water (ft): 4.66

Column of Water in Well (ft): 7.64

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.24

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: (Y) N

Equipment Blank Collected: Yes No

Equipment:

Sample I.D.

FIELD PARAMETER STABILIZATION

1423

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.24				
Time (military)	1436	1442	1448		
pH (standard units)	6.6	6.5	6.5		
Conductivity (µhmos/CM)	280	280	280		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.50	1.35	1.08		
Sediment/Turbidity	2.53	2.41	2.38		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-27-98

SAMPLING INFORMATION

Well Number: POC-1

Sample Time: 1540 Sampled By: [illegible]

Total Depth of Well (ft): 15.20

Duplicate Sample: Yes (No)

Depth to Water (ft): 7.76

Column of Water in Well (ft): 7.44

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.21

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: (Y) N

Equipment Blank Collected: Yes No

Equipment:

Sample I.D.

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

FIELD PARAMETER STABILIZATION

1515

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.21	1.21	1.21		
Time (military)	1521	1526	1531		
pH (standard units)	6.6	6.6	6.6		
Conductivity (µhmos/CM)	390	380	380		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.25	1.25	1.25		
Sediment/Turbidity	1.66	0.90	.87		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-28-98

SAMPLING INFORMATION

Well Number: DA-5D

Sample Time: 0837

Sampled By: [illegible]

Total Depth of Well (ft): 64.0

Duplicate Sample: Yes (No)

Depth to Water (ft): 8.59

Column of Water in Well (ft): 55.41

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 9.03

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: (Y) N

Equipment Blank Collected: Yes No

Equipment:

Sample I.D.

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

FIELD PARAMETER STABILIZATION

0810	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	9.03	9.03	9.03		
Time (military)	0818	0826	0835		
pH (standard units)	7.5	7.5	7.5		
Conductivity (µhmos/CM)	320	340	340		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	9.25	9.25	9.25		
Sediment/Turbidity	6.28	1.78	1.78		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 5-28-98

SAMPLING INFORMATION

Well Number: DA-1A

Sample Time: 1130 Sampled By:

Total Depth of Well (ft): 56.00

Duplicate Sample: Yes No

Depth to Water (ft): 6.79

Column of Water in Well (ft): 49.21

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 8.02

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE Bailer Source: Precleaned: Y N

Equipment Blank Collected: Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

853

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	8.02				
Time (military)	0903	0950	1120		
pH (standard units)	8.2	7.8	7.8		
Conductivity (µhmos/CM)	220	220	220		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	8.25	8.25	8.25		
Sediment/Turbidity	9.97	9.27	8.89		
Color					

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-28-98

SAMPLING INFORMATION

Well Number: POC-2

Sample Time: 0930

Sampled By: [illegible]

Total Depth of Well (ft): 14.80

Duplicate Sample: Yes (No)

Depth to Water (ft): 7.53

Column of Water in Well (ft): 7.27

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.18

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: (Y) N

Equipment Blank Collected: Yes No

Equipment:

Sample I.D.

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

FIELD PARAMETER STABILIZATION

0910

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.18	1.18	1.18		
Time (military)	0915	0920	0925		
pH (standard units)	7.6	7.4	7.4		
Conductivity (µhmos/CM)	360	380	380		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.25	1.25	1.25		
Sediment/Turbidity	5.44	3.52	2.80		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No.

Date: 5-28-98

SAMPLING INFORMATION

Well Number: POC-3

Sample Time: 1030

Sampled By: R

Total Depth of Well (ft): 13.0

Duplicate Sample: Yes No

Depth to Water (ft): 6.70

Column of Water in Well (ft): 6.3

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.03

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume : Liter Jar

Bailer No.: DISPOSABLE

Bailer Source:

Precleaned: Y N

Equipment Blank Collected : Yes No

Equipment:

Sample I.D.

FIELD PARAMETER STABILIZATION

1010

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.03	1.03	1.03		
Time (military)	1015	1020	1025		
pH (standard units)	7.0	7.0	7.0		
Conductivity (µhmos/CM)	340	340	340		
Temperature (°C)	22	22	22		
Actual Volume of Water Removed	1.25	1.25	1.25		
Sediment/Turbidity	15.5	12.7	12.3		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS:

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No

Additional Quantities of Preservative Added:

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #:

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
2100P Turbidimeter	94030004932	~~pH~~	~~S.U.~~ NTU	0930	0-10	5.42		5/27/98
		~~pH~~	~~S.U.~~		0-100	45.8		
		~~Conductivity~~	~~µHos/CM~~		0-1000	509.1		
		~~Conductivity~~	~~µHos/CM~~	1315	0-10	5.44		
		pH	S.U.		0-100	45.7		
		pH	S.U.		0-1000	510.0		
		Conductivity	µHos/CM					
		Conductivity	µHos/CM	0815	0-10	5.41		5-28-98
		pH	S.U.		0-100	45.8		
		pH	S.U.		0-100	511.0		
		Conductivity	µHos/CM					
		Conductivity	µHos/CM					

NIST Traceable Thermometer No. _____

Standard pH _____ Lot No. _____ Exp. Date _____

Standard pH _____ Lot No. _____ Exp. Date _____

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: Ron Nash Date: 5/27/98 / 5/28/98 Reviewed by: Date:

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #:

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
PH/cond meter	187557	pH	S.U.	0930	4	4		5/27/98
		pH	S.U.		7	7		
		Conductivity	µHos/CM		720	720		
		Conductivity	µHos/CM		200	200		
		pH	S.U.	1350	4	4		
		pH	S.U.		7	7		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		
		pH	S.U.	0815	4	4		5/28/98
		pH	S.U.		7	7		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		

NIST Traceable Thermometer No. 2

Standard pH 7.0 Lot No. M082 Exp. Date 2/99

Standard pH 4.0 Lot No. G081 Exp. Date 8/98

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity 200 Lot No. 1707 Exp. Date 4/01

Standard Conductivity 720 Lot No. 3002 Exp. Date 10/01

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: [signature] Date: 5/27/98 / 5/28/98 Reviewed by: RJS (AH) Date: 6-6-98

APPENDIX B

GROUND WATER ANALYTICAL LABORATORY REPORTS

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

RECEIVED
JUN 23 1999

June 17, 1998

P.O. No. E13353

Report No. 95510-1

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, Equip Blk-T-1, 05/27/98, 10:00, received 05/29/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	BDL	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.02	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Rufati
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-2

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, Equip Blk-B-2, 05/27/98, 10:00, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.2
Volatile Organics (EPA 8260)	(ug/l)	(ug/l)
Acetone.....	BDL	2.26
Benzene.....	BDL	0.17
Carbon disulfide.....	BDL	0.57
Carbon tetrachloride.....	BDL	0.11
Chlorobenzene.....	BDL	0.22
Chloroform.....	BDL	0.14
1,2-Dichlorobenzene.....	BDL	0.09
1,3-Dichlorobenzene.....	BDL	0.19
1,4-Dichlorobenzene.....	BDL	0.20
1,1-Dichloroethene.....	BDL	0.27
1,1-Dichloroethane.....	BDL	0.12
Ethylbenzene.....	BDL	0.29
Methylene chloride.....	BDL	0.21
Naphthalene.....	BDL	0.74
Tetrachloroethene.....	BDL	0.31
Toluene.....	BDL	0.20
1,2,4-Trichlorobenzene.....	BDL	0.74
1,1,1-Trichloroethane.....	BDL	0.21
1,1,2-Trichloroethane.....	BDL	0.23
Trichloroethene.....	BDL	0.26

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-2

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, Equip Blk-B-2, 05/27/98, 10:00, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
Base/Neutral Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Rufatto
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-3

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-1, 05/27/98, 11:00, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.009	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.03	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-3

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-1, 05/27/98, 11:00, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-3

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-1, 05/27/98, 11:00, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Duffett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-4

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-3, 05/27/98, 11:40, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	1.6	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.03	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-4

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-3, 05/27/98, 11:40, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-4

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-3, 05/27/98, 11:40, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pickett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-5

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-4D, 05/27/98, 13:10, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.03	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.31	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.10	0.008
Total Vanadium (V) (EPA 6010)	0.02	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-5

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-4D, 05/27/98, 13:10, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-5

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-4D, 05/27/98, 13:10, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Project Manager

Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-6

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-2, 05/27/98, 12:40, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	0.3	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.008	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.01	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.002	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.01	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-6

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-2, 05/27/98, 12:40, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-6

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-2, 05/27/98, 12:40, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Infante
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-7

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, BG-1, 05/27/98, 14:10, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	1.4	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	0.009	0.005
Total Barium (Ba) (EPA 6010)	0.007	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.04	0.008
Total Vanadium (V) (EPA 6010)	0.003	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-7

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, BG-1, 05/27/98, 14:10, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-7

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, BG-1, 05/27/98, 14:10, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Project Manager

Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-8

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-4, 05/27/98, 14:50, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.03	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-8

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-4, 05/27/98, 14:50, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-8

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, SA-4, 05/27/98, 14:50, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Dufresne
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-9

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-1, 05/27/98, 15:40, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	3.60	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.01	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.04	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-9

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-1, 05/27/98, 15:40, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-9

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-1, 05/27/98, 15:40, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina G. Dufresti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-10

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-5D, 05/28/98, 08:37, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.09	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.07	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-10

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-5D, 05/28/98, 08:37, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-10

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-5D, 05/28/98, 08:37, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-11

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-1A, 05/28/98, 11:30, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.01	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	0.44	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.10	0.008
Total Vanadium (V)(EPA 6010).....	0.008	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-11

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-1A, 05/28/98, 11:30, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-11

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DA-1A, 05/28/98, 11:30, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Dufresne
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-12

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-2, 05/28/98, 09:30, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	0.01	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.01	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.004	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.08	0.008
Total Vanadium (V) (EPA 6010)	0.008	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-12

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-2, 05/28/98, 09:30, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-12

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-2, 05/28/98, 09:30, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Bryant
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

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ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

June 17, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 95510-13

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-3, 05/28/98, 10:30, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	3.4	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	0.01	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.03	0.008
Total Vanadium (V) (EPA 6010)	0.006	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-13

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-3, 05/28/98, 10:30, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	1.3	0.17
Carbon disulfide	1.6	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	10	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	2	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	2.4	0.29
Methylene chloride	BDL	0.21
Naphthalene	27	0.74
Tetrachloroethene	BDL	0.31
Toluene	2.1	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	20	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	100
o-Cresol	BDL	100
m+p-Cresol	BDL	100

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-13

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, POC-3, 05/28/98, 10:30, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	100
2-Naphthylamine.....	BDL	100

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. DiFetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-14

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DUPE-1, 05/28/98, received 05/29/98

RESULTS

	Result	Detection Limit
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	3.6	1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	0.01	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.11	0.008
Total Vanadium (V) (EPA 6010)	0.006	0.002

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-14

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DUPE-1, 05/28/98, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	2.89	2.26
Benzene	1.1	0.17
Carbon disulfide	1.3	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	11	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	1.1	0.19
1,4-Dichlorobenzene	2.3	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	2.8	0.29
Methylene chloride	BDL	0.21
Naphthalene	27	0.74
Tetrachloroethene	BDL	0.31
Toluene	2.4	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	23	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-14

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, DUPE-1, 05/28/98, received 05/29/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	14	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Rafetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

June 17, 1998

P.O. No. E13353

Report No. 95510-15

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, Trip Blank, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	0.86	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20

BDL - Below Detection Limit

June 17, 1998
Report No. 95510-15

Water, SK-Tampa (Manhattan Ave), Project #98033-1111, Trip Blank, received 05/29/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky
ECT, Tampa

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Dr[illegible]
Quality Assurance

Analytical Services Inc. Batch QC
For Report Number :95510
Base Neutrals / Acids

Matrix : Aqueous Batch # 38916 Method : EPA 8270

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Phenol	29	26	12	12 - 89	0 - 42
2-Chlorophenol	64	55	14	27 - 123	0 - 40
1,4-Dichlorobenzene	38	36	4	36 - 97	0 - 28
N-Nitrosodipropylamine	59	61	4	41 - 116	0 - 38
1,2,4-Trichlorobenzene	48	46	5	44 - 142	0 - 28
4-Chloro-3-methylphenol	65	61	7	23 - 97	0 - 42
Acenaphthene	55	57	3	46 - 118	0 - 31
2,4-Dinitrotoluene	51	57	13	24 - 96	0 - 38
4-Nitrophenol	23	23	3	10 - 80	0 - 50
Pentachlorophenol	55	58	4	9 - 103	0 - 50
Pyrene	70	79	12	26 - 127	0 - 31

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Phenol	29	32	8	12 - 89	0 - 42
2-Chlorophenol	44	50	14	27 - 123	0 - 40
1,4-Dichlorobenzene	24	36	39	36 - 97	0 - 28
N-Nitrosodipropylamine	42	57	32	41 - 116	0 - 38
1,2,4-Trichlorobenzene	37	44	17	44 - 142	0 - 28
4-Chloro-3-methylphenol	60	52	15	23 - 97	0 - 42
Acenaphthene	47	52	9	46 - 118	0 - 31
2,4-Dinitrotoluene	55	46	18	24 - 96	0 - 38
4-Nitrophenol	42	27	42	10 - 80	0 - 50
Pentachlorophenol	64	50	25	9 - 103	0 - 50
Pyrene	70	58	18	26 - 127	0 - 31

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous — Batch # 38916 — Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
38916BLK	B6141	49	30	73	68	76	88
38916LCS	B6142	49	30	54	56	72	82
38916LCSD	B6143	41	25	53	54	67	94
95510-3	B6150	45	29	68	67	74	99
95510-4	B6151	34	22	53	52	59	80
95510-5	B6152	21	13	51	48	36	45
95510-6	B6153	25	18	56	50	50	70
95510-7	B6154	42	26	56	54	72	84
95510-8	B6155	37	24	46	44	64	75
95510-9	B6156	50	30	68	62	72	89
95510-10	B6157	36	22	49	45	60	66
95510-11	B6158	34	22	48	44	60	68
95510-12	B6159	28	19	45	45	59	68
95510-3MS	B6160	39	31	44	45	61	82
95510-3MSD	B6161	48	33	54	49	52	61
95510-6DUP	B6162	38	23	49	47	65	80
95510-14	B6164	9	65	251	49	48	51
^^Note: DILUTE 1:10 DUE TO POOR MATRIX							
95510-2	B6166	53	31	72	62	65	99
95510-13D	B6194	21	14	186	74	69	83
^^Note: 1:10;MATRIX EFFECT							
95510-14D	B6195	24	22	60	47	38	57
^^Note: 1:10 DILUTION							
95535	B6235			47	44		58
^^Note: BN only							
95368-4	A9331	49	41	52	57	70	77
95368-3D	A9332	21	18	46	55	75	83
^^Note: 1:10 DILUTION							
95368-3	A9333	22	22	27	48	28	29
^^Note: Matrix interference							

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 38916 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
95642-1	B6330			48	47		74
^^Note: BN only							
95642-2	B6331			55	54		91
^^Note: BN only							
95642-3D	B6332			59	48		59
^^Note: BN only; 1:50							
95675	B6348			58	59		75
^^Note: BN only							

Q.C. Information for Batch # 38916 Printed: 06/17/98 17:12:12

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

Q.C. Information for Batch # 38916 Printed: 06/17/98 17:12:12

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
38916BLK	06/01/98	1200	SB		06/02/98	1627	RAC	5971
38916LCS	06/01/98	1200	SB		06/02/98	1704	RAC	5971
38916LCSD	06/01/98	1200	SB		06/02/98	1742	RAC	5971
95510-2	06/01/98	1200	SB		06/03/98	0726	RAC	5971
95510-3	06/01/98	1200	SB		06/02/98	2137	RAC	5971
95510-4	06/01/98	1200	SB		06/02/98	2213	RAC	5971
95510-5	06/01/98	1200	SB		06/02/98	2249	RAC	5971
95510-6	06/01/98	1200	SB		06/02/98	2325	RAC	5971
95510-6DUP	06/01/98	1200	SB		06/03/98	0442	RAC	5971
95510-7	06/01/98	1200	SB		06/03/98	1200	RAC	5971
95510-8	06/01/98	1200	SB		06/03/98	1236	RAC	5971
95510-9	06/01/98	1200	SB		06/03/98	0111	RAC	5971
95510-10	06/01/98	1200	SB		06/03/98	0147	RAC	5971
95510-11	06/01/98	1200	SB		06/03/98	0222	RAC	5971
95510-12	06/01/98	1200	SB		06/03/98	0257	RAC	5971
95510-13	06/01/98	1200	SB		/ /			
95510-14	06/01/98	1200	SB		06/03/98	0616	RAC	5971
95510-3MS	06/01/98	1200	SB		06/03/98	0332	RAC	5971
95510-3MSD	06/01/98	1200	SB		06/03/98	0407	RAC	5971
95510-13D	/ /				06/04/98	1235	RAC	5971
95510-14D	/ /				06/04/98	0111	RAC	5971
95535	06/02/98	1330	SB	BN ONLY	06/05/98	1126	RAC	5971
95368-4	06/02/98	1200	SB		06/06/98	0719	RAC	5970
95368-3D	/ /				06/06/98	0754	RAC	5970
95368-3	06/02/98	1200	SB		06/06/98	0828	RAC	5970
95642-1	06/04/98	0900	SB		06/08/98	1713	RAC	5971
95642-2	06/04/98	0900	SB		06/08/98	1748	RAC	5971
95642-3D	06/04/98	0900	SB		06/08/98	1823	RAC	5971
95675	06/10/98	0730	SB		06/10/98	1430	RAC	5971

Analytical Services Inc. Batch QC
For Report Number :95510
Volatile Organics

Matrix : Aqueous Batch # 39050 Method : EPA 8260

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	119	104	13	61 - 145	0 - 14
Trichloroethene	108	108	0	71 - 120	0 - 14
Benzene	105	103	2	76 - 127	0 - 11
Toluene	110	104	5	76 - 125	0 - 13
Chlorobenzene	107	106	1	75 - 130	0 - 13

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	46	45	2	61 - 145	0 - 14
Trichloroethene	65	71	8	71 - 120	0 - 14
Benzene	70	74	5	76 - 127	0 - 11
Toluene	67	71	7	76 - 125	0 - 13
Chlorobenzene	75	80	7	75 - 130	0 - 13

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics

Matrix : Aqueous — Batch # 39050 — Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
39050LCS	A3638	101	99	100	103		
39050LCSD	A3639	101	99	100	103		
39050BLK	C3523	104	101	99	99		
95510-4MS	C3547	94	100	97	100		
95510-4MSD	C3548	91	98	96	98		
39050BLK2	C3541	110	104	102	103		
95510-2	C3531	119	101	103	104		
95510-3	C3532	119	102	100	102		
95510-4	C3533	112	100	100	103		
95510-5	C3534	112	100	99	104		
95510-6	C3535	113	101	102	105		
95510-7	C3536	116	103	102	104		
95510-8	C3537	115	102	103	105		
95510-9	C3538	114	104	102	105		
95510-10	C3539	115	98	98	105		
95510-11	C3542	114	100	101	105		
95510-12	C3543	113	101	101	103		
95510-13	C3544	113	101	100	111		
95510-14	C3545	102	101	98	105		
95510-3DUP	C3549	93	102	97	97		
95514-1	C3524	106	101	98	100		
95514-2	C3525	108	101	99	101		
95514-3	C3526	112	96	95	102		
95514-4	C3527	112	101	100	102		
95514-5	C3528	113	101	100	102		
95514-6	C3529	115	100	101	103		
95514-7	C3530	115	101	102	104		

Q.C. Information for Batch # 39050 Printed: 06/17/98 17:12:14

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes	BDL	0.36

Q.C. Information for Batch # 39050 Printed: 06/17/98 17:12:14

Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
39050LCS	/ /				06/03/98	1503	RFA	VOA1
39050LCSD	/ /				06/03/98	1530	RFA	VOA1
39050BLK	/ /				06/05/98	0854	LLP	VOA3
95510-4MS	/ /				06/05/98	2008	LLP	VOA3
95510-4MSD	/ /				06/05/98	2034	LLP	VOA3
39050BLK2	/ /				06/05/98	1730	LLP	VOA3
95510-2	/ /				06/05/98	1226	LLP	VOA3
95510-3	/ /				06/05/98	1252	LLP	VOA3
95510-4	/ /				06/05/98	1319	LLP	VOA3
95510-5	/ /				06/05/98	1345	LLP	VOA3
95510-6	/ /				06/05/98	1412	LLP	VOA3
95510-7	/ /				06/05/98	1438	LLP	VOA3
95510-8	/ /				06/05/98	1504	LLP	VOA3
95510-9	/ /				06/05/98	1531	LLP	VOA3
95510-10	/ /				06/05/98	1557	LLP	VOA3
95510-11	/ /				06/05/98	1756	LLP	VOA3
95510-12	/ /				06/05/98	1823	LLP	VOA3
95510-13	/ /				06/05/98	1849	LLP	VOA3
95510-14	/ /				06/05/98	1916	LLP	VOA3
95510-3DUP	/ /				06/05/98	2101	LLP	VOA3
95514-1	/ /				06/05/98	0920	LLP	VOA3
95514-2	/ /				06/05/98	0947	LLP	VOA3
95514-3	/ /				06/05/98	1013	LLP	VOA3
95514-4	/ /				06/05/98	1040	LLP	VOA3
95514-5	/ /				06/05/98	1106	LLP	VOA3
95514-6	/ /				06/05/98	1132	LLP	VOA3
95514-7	/ /				06/05/98	1200	LLP	VOA3

Analytical Services Inc. Batch QC
For Report Number :95510
Volatile Organics

Matrix : Aqueous Batch # 39199 Method : EPA 8260

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	101	68	39	61 - 145	0 - 14
Trichloroethene	97	97	1	71 - 120	0 - 14
Benzene	98	97	1	76 - 127	0 - 11
Toluene	102	100	2	76 - 125	0 - 13
Chlorobenzene	103	100	2	75 - 130	0 - 13

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	103	101	2	61 - 145	0 - 14
Trichloroethene	102	102	1	71 - 120	0 - 14
Benzene	96	98	2	76 - 127	0 - 11
Toluene	91	101	10	76 - 125	0 - 13
Chlorobenzene	100	103	3	75 - 130	0 - 13

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics

Matrix : Aqueous — Batch # 39199 — Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
39199LCS	A3713	100	101	100	100		
39199LCSD	A3714	99	102	99	97		
39199BLK	A3716	101	102	98	94		
95748-1	A3718	101	101	97	94		
^^Note: 1:100 DILUTION							
95748-2	A3719	101	98	98	92		
95748-1MS	A3720	103	102	96	94		
^^Note: 1:100 DILUTION							
95748-1MSD	A3721	101	103	97	92		
^^Note: 1:100 DILUTION							
95593-10	C3659	106	97	97	95		
95702	B6081	113	87	113	104		
^^Note: DF=2500/MATRIX INTERFERENCE							
95510-15	C3546	95	100	99	100		
39199BLK2	C3658	107	102	101	96		
39199BLK3	C3673	104	101	102	94		
95740-1	C3675	102	99	95	90		
95740-2	C3676	103	96	98	94		
95740-3	C3677	105	99	100	93		
95740-4	C3678	105	100	100	93		
95740-5	C3679	106	98	96	94		
95565-1	C3666	105	100	101	97		
95565-2	C3667	101	100	98	95		
95565-3	C3668	107	99	95	94		
95565-4	C3669	106	101	100	94		
95565-5	C3670	103	100	100	93		
95793-1	A3846	98	110	106	104		
^^Note: DF=500,000							
95793-2	A3847	100	113	102	73		
^^Note: DF=500,000							
95793-3	A3848	98	104	104	102		
^^Note: DF=500,000							

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics
Batch # 39199

Matrix : Aqueous

Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
95793-2DUP	A3873	108	113	102	103		
^^Note: MATRIX EFFECT							
95770-1	A3748	100	99	98	96		
95770-2	A3749	101	100	100	98		

Q.C. Information for Batch # 39199 Printed: 06/17/98 17:12:16

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes	BDL	0.36

Q.C. Information for Batch # 39199 Printed: 06/17/98 17:12:16

Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
39199LCS	/ /				06/08/98	1346	RFA	VOA1
39199LCSD	/ /				06/08/98	1413	RFA	VOA1
39199BLK	/ /				06/08/98	1507	RFA	VOA1
95748-1	/ /				06/08/98	1600	RFA	VOA1
95748-2	/ /				06/08/98	1627	RFA	VOA1
95748-1MS	/ /				06/08/98	1652	RFA	VOA1
95748-1MSD	/ /				06/08/98	1719	RFA	VOA1
95593-10	/ /				06/11/98	1631	LLP	VOA3
95702	/ /				06/11/98	1717	TLW	VOA2
95510-15	/ /				06/05/98	1942	LLP	VOA3
39199BLK2	/ /				06/11/98	1605	LLP	VOA3
39199BLK3	/ /				06/11/98	2245	LLP	VOA3
95740-1	/ /				06/11/98	2337	LLP	VOA3
95740-2	/ /				06/12/98	0003	LLP	VOA3
95740-3	/ /				06/12/98	0029	LLP	VOA3
95740-4	/ /				06/12/98	0055	LLP	VOA3
95740-5	/ /				06/12/98	0121	LLP	VOA3
95565-1	/ /				06/11/98	1940	LLP	VOA3
95565-2	/ /				06/11/98	2008	LLP	VOA3
95565-3	/ /				06/11/98	2034	LLP	VOA3
95565-4	/ /				06/11/98	2101	LLP	VOA3
95565-5	/ /				06/11/98	2127	LLP	VOA3
95793-1	/ /				06/11/98	2216	LLP	VOA1
95793-2	/ /				06/11/98	2243	LLP	VOA1
95793-3	/ /				06/11/98	2310	LLP	VOA1
95793-2DUP	/ /				06/12/98	1439	LLP	VOA1
95770-1	/ /				06/14/98	1049	TLW	VOA3
95770-2	/ /				06/14/98	1143	TLW	VOA3

Analytical Services Inc. Batch QC
For Report Number :95510

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
38531	Hg	EPA 7470	Aqueous	<	0.0002	
38534	Hg	EPA 7470	Aqueous	<	0.0002	
38767	Ag	EPA 6010	Aqueous	<	0.0009	
38767	As	EPA 6010	Aqueous	<	0.0050	
38767	Ba	EPA 6010	Aqueous	<	0.0010	
38767	Be	EPA 6010	Aqueous	<	0.0004	
38767	Cd	EPA 6010	Aqueous	<	0.0010	
38767	Cr	EPA 6010	Aqueous	<	0.0010	
38767	Cu	EPA 6010	Aqueous	<	0.0100	
38767	Ni	EPA 6010	Aqueous	<	0.0020	
38767	Pb	EPA 6010	Aqueous	<	0.0040	
38767	V	EPA 6010	Aqueous	<	0.0020	
38767	Zn	EPA 6010	Aqueous	<	0.0080	
38997	S	SM 4500-S	Aqueous	<	0.2000	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
38531	Hg	EPA 7470	90	90	0	76 - 124	0 - 20
38534	Hg	EPA 7470	99	96	3	76 - 124	0 - 20
38767	Ag	EPA 6010	95	97	2	76 - 124	0 - 20
38767	As	EPA 6010	100	100	0	76 - 124	0 - 20
38767	Ba	EPA 6010	97	99	2	76 - 124	0 - 20
38767	Be	EPA 6010	93	96	3	76 - 124	0 - 20
38767	Cd	EPA 6010	95	96	1	76 - 124	0 - 20
38767	Cr	EPA 6010	96	98	2	76 - 124	0 - 20
38767	Cu	EPA 6010	91	92	1	76 - 124	0 - 20
38767	Ni	EPA 6010	91	91	0	76 - 124	0 - 20
38767	Pb	EPA 6010	97	99	2	76 - 124	0 - 20
38767	V	EPA 6010	100	110	10	76 - 124	0 - 20
38767	Zn	EPA 6010	89	93	4	76 - 124	0 - 20
38997	S	SM 4500-S	90	90	0	60 - 140	0 - 40

Analytical Services Inc. Batch QC
For Report Number :95510

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
38531	Hg	EPA 7470	100	99	1	76 - 124	0 - 20
38534	Hg	EPA 7470	101	101	0	76 - 124	0 - 20
38767	Ag	EPA 6010	94	94	0	76 - 124	0 - 20
38767	As	EPA 6010	99	98	1	76 - 124	0 - 20
38767	Ba	EPA 6010	95	94	1	76 - 124	0 - 20
38767	Be	EPA 6010	92	91	1	76 - 124	0 - 20
38767	Cd	EPA 6010	92	91	1	76 - 124	0 - 20
38767	Cr	EPA 6010	96	94	2	76 - 124	0 - 20
38767	Cu	EPA 6010	90	89	1	76 - 124	0 - 20
38767	Ni	EPA 6010	88	86	2	76 - 124	0 - 20
38767	Pb	EPA 6010	95	94	1	76 - 124	0 - 20
38767	V	EPA 6010	100	100	0	76 - 124	0 - 20
38767	Zn	EPA 6010	86	83	4	76 - 124	0 - 20
38997	S	SM 4500-S	96	96	0	60 - 140	0 - 40

Post Digestion Spike Information

Batch nber	Analyte	Method	PDS %Rec	%Recovery Range
38767	Ag	EPA 6010	96	76 - 124
38767	As	EPA 6010	100	76 - 124
38767	Ba	EPA 6010	95	76 - 124
38767	Be	EPA 6010	93	76 - 124
38767	Cd	EPA 6010	93	76 - 124
38767	Cr	EPA 6010	94	76 - 124
38767	Cu	EPA 6010	86	76 - 124
38767	Ni	EPA 6010	87	76 - 124
38767	Pb	EPA 6010	96	76 - 124
38767	V	EPA 6010	100	76 - 124
38767	Zn	EPA 6010	87	76 - 124

Unspiked Sample Duplicate Information

Batch Number	Analyte	Method	Sample 1 RPD	Sample 2 RPD	RPD Range
38997	S	SM 4500-S	0	0	0 - 40

Q.C. Information for Batch # 38531 For Report Number :95510

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
38531BLANK	HG	06/01/98	0649	FBS		06/01/98	1113	FBS	HG1
38531LCS	HG	06/01/98	0649	FBS		06/01/98	1115	FBS	HG1
38531LCSD	HG	06/01/98	0649	FBS		06/01/98	1118	FBS	HG1
95510-4MS	HG	06/01/98	0649	FBS		06/01/98	1120	FBS	HG1
95510-4MSD	HG	06/01/98	0649	FBS		06/01/98	1122	FBS	HG1
95527DUP	HG	06/01/98	0649	FBS		06/01/98	1125	FBS	HG1
95527	HG	06/01/98	0649	FBS		06/01/98	1130	FBS	HG1
95530-1	HG	06/01/98	0649	FBS		06/01/98	1147	FBS	HG1
95530-2	HG	06/01/98	0649	FBS		06/01/98	1149	FBS	HG1
95530-3	HG	06/01/98	0649	FBS		06/01/98	1151	FBS	HG1
95530-4	HG	06/01/98	0649	FBS		06/01/98	1154	FBS	HG1
95510-1	HG	06/01/98	0649	FBS		06/01/98	1132	FBS	HG1
95510-3	HG	06/01/98	0649	FBS		06/01/98	1134	FBS	HG1
95510-4	HG	06/01/98	0649	FBS		06/01/98	1127	FBS	HG1
95510-5	HG	06/01/98	0649	FBS		06/01/98	1142	FBS	HG1
95510-6	HG	06/01/98	0649	FBS		06/01/98	1144	FBS	HG1

Q.C. Information for Batch # 38534 For Report Number :95510

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
38534BLANK	HG	06/02/98	0815	FBS		06/02/98	1434	FBS	HG1
38534LCS	HG	06/02/98	0815	FBS		06/02/98	1437	FBS	HG1
38534LCSD	HG	06/02/98	0815	FBS		06/02/98	1439	FBS	HG1
95510-8MS	HG	06/02/98	0815	FBS		06/02/98	1441	FBS	HG1
95510-8MSD	HG	06/02/98	0815	FBS		06/02/98	1444	FBS	HG1
95511-1DUP	HG	06/02/98	0815	FBS		06/02/98	1446	FBS	HG1
95580	HG	06/02/98	0815	FBS		06/02/98	1553	FBS	HG1
95585-2	HG	06/02/98	0815	FBS		06/02/98	1555	FBS	HG1
95585-3	HG	06/02/98	0815	FBS		06/02/98	1558	FBS	HG1
95585-4	HG	06/02/98	0815	FBS		06/02/98	1600	FBS	HG1
95513	HG	06/02/98	0815	FBS		06/02/98	1529	FBS	HG1
95559-4	HG	06/02/98	0815	FBS		06/02/98	1526	FBS	HG1
95588-4	HG	06/02/98	0815	FBS		06/02/98	1531	FBS	HG1
95590	HG	06/02/98	0815	FBS		06/02/98	1533	FBS	HG1
95433-1	HG	06/02/98	0815	FBS		06/02/98	1541	FBS	HG1
95433-2	HG	06/02/98	0815	FBS		06/02/98	1543	FBS	HG1
95433-3	HG	06/02/98	0815	FBS		06/02/98	1546	FBS	HG1
95510-10	HG	06/02/98	0815	FBS		06/02/98	1514	FBS	HG1
9[illegible]0-11	HG	06/02/98	0815	FBS		06/02/98	1517	FBS	HG1
95510-12	HG	06/02/98	0815	FBS		06/02/98	1519	FBS	HG1
95510-13	HG	06/02/98	0815	FBS		06/02/98	1521	FBS	HG1
95510-14	HG	06/02/98	0815	FBS		06/02/98	1524	FBS	HG1
95510-7	HG	06/02/98	0815	FBS		06/02/98	1453	FBS	HG1
95510-8	HG	06/02/98	0815	FBS		06/02/98	1449	FBS	HG1
95510-9	HG	06/02/98	0815	FBS		06/02/98	1456	FBS	HG1
95511-1	HG	06/02/98	0815	FBS		06/02/98	1451	FBS	HG1

Q.C. Information for Batch # 38767 For Report Number :95510

Sample Batch Information
Analysis : Ag, As, Ba, Be, Cd, Cr, Cu, Ni, Pb, V, Zn

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
95559-4		06/02/98	1045	DCF	TRACE	06/03/98	1012	MCW	ICP2
38767BLANK		06/02/98	1045	DCF	TRACE	06/03/98	0641	MCW	ICP2
38767LCS		06/02/98	1045	DCF	TRACE	06/03/98	0644	MCW	ICP2
38767LCSD		06/02/98	1045	DCF	TRACE	06/03/98	0648	MCW	ICP2
95510-1MS		06/02/98	1045	DCF	TRACE	06/03/98	0652	MCW	ICP2
95510-1MSD		06/02/98	1045	DCF	TRACE	06/03/98	0656	MCW	ICP2
95510-5PDS		06/02/98	1045	DCF	TRACE	06/03/98	0700	MCW	ICP2
95510-5DUP		06/02/98	1045	DCF	TRACE	06/03/98	0704	MCW	ICP2
95595-1		06/02/98	1045	DCF	TRACE	06/03/98	1819	MCW	ICP2
95595-2		06/02/98	1045	DCF	TRACE	06/03/98	1822	MCW	ICP2
95510-1		06/02/98	1045	DCF	TRACE	06/03/98	0708	MCW	ICP2
95510-10		06/02/98	1045	DCF	TRACE	06/03/98	0938	MCW	ICP2
95510-11		06/02/98	1045	DCF	TRACE	06/03/98	0942	MCW	ICP2
95510-12		06/02/98	1045	DCF	TRACE	06/03/98	0946	MCW	ICP2
95510-13		06/02/98	1045	DCF	TRACE	06/03/98	0959	MCW	ICP2
95510-14		06/02/98	1045	DCF	TRACE	06/03/98	1003	MCW	ICP2
95510-3		06/02/98	1045	DCF	TRACE	06/03/98	0913	MCW	ICP2
95510-4		06/02/98	1045	DCF	TRACE	06/03/98	0917	MCW	ICP2
95510-5		06/02/98	1045	DCF	TRACE	06/03/98	0712	MCW	ICP2
95510-6		06/02/98	1045	DCF	TRACE	06/03/98	0921	MCW	ICP2
95510-7		06/02/98	1045	DCF	TRACE	06/03/98	0925	MCW	ICP2
95510-8		06/02/98	1045	DCF	TRACE	06/03/98	0929	MCW	ICP2
95510-9		06/02/98	1045	DCF	TRACE	06/03/98	0934	MCW	ICP2
95514-5D		06/02/98	1045	DCF	TRACE	06/03/98	1016	MCW	ICP2
QCBLANK		06/02/98	1045	DCF	TRACE	06/03/98	1020	MCW	ICP2

Q.C. Information for Batch # 38997 For Report Number :95510

Sample Batch Information
Analysis : S

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
38997BLK		/ /				06/02/98	1200	JN	HACH
38997LCS		/ /				06/02/98	1200	JN	HACH
38997LCSD		/ /				06/02/98	1200	JN	HACH
38997CALCHK		/ /				06/02/98	1200	JN	HACH
95510-2		/ /				06/02/98	1200	JN	HACH
95510-3		/ /				06/02/98	1200	JN	HACH
95510-4		/ /				06/02/98	1200	JN	HACH
95510-5		/ /				06/02/98	1200	JN	HACH
95510-6		/ /				06/02/98	1200	JN	HACH
95510-7		/ /				06/02/98	1200	JN	HACH
95510-8		/ /				06/02/98	1200	JN	HACH
95510-9		/ /				06/02/98	1200	JN	HACH
95510-10		/ /				06/02/98	1200	JN	HACH
95510-10DUP		/ /				06/02/98	1200	JN	HACH
95510-11		/ /				06/02/98	1200	JN	HACH
95510-12		/ /				06/02/98	1200	JN	HACH
95510-13		/ /				06/02/98	1200	JN	HACH
95510-14		/ /				06/02/98	1200	JN	HACH
9[illegible]0-2		/ /				06/02/98	1200	JN	HACH
9[illegible]0-2DUP		/ /				06/02/98	1200	JN	HACH
95350-2MS		/ /				06/02/98	1200	JN	HACH
95350-2MSD		/ /				06/02/98	1200	JN	HACH

APPENDIX C

REMEDIAL SYSTEM ANALYTICAL LABORATORY REPORTS

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

April 22, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 93334-1

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111, Effluent 032598, 03/25/98, 07:45, received 03/27/98

RESULTS

Hold until further notice.

Respectfully submitted,

Project Manager

Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

April 22, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 93334-2

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111,
Inter Carbon 032598, 03/25/98, 07:50, received 03/27/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Selenium (Se) (EPA 6010)	BDL	0.006
Total Silver (Ag) (EPA 6010)	0.0009	0.0009
BTEX Volatiles (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.76
Ethylbenzene	BDL	0.34
Toluene	BDL	0.51
Xylenes	BDL	1.46
Halogenated Volatile Organics (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.34
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97

BDL - Below Detection Limit

April 22, 1998
Report No. 93334-2

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111,
Inter Carbon 032598, 03/25/98, 07:50, received 03/27/98

RESULTS

Halogenated Volatile Organics (EPA 8021)	Result (ug/l)	Detection Limit (ug/l)
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.90
1,3-Dichlorobenzene	BDL	0.70
1,4-Dichlorobenzene	BDL	0.90
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.47
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky
ECT, Tampa

Respectfully submitted,

Shari Harper
Project Manager

Quality Assurance

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

April 22, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 93334-3

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent 032598, 03/25/98, 07:55, received 03/27/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Selenium (Se) (EPA 6010)	BDL	0.006
Total Silver (Ag) (EPA 6010)	0.001	0.0009
BTEX Volatiles (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzene	0.78	0.76
Ethylbenzene	2.1	0.34
Toluene	0.78	0.51
Xylenes	7.1	1.46
Halogenated Volatile Organics (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.34
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97

BDL - Below Detection Limit

April 22, 1998
Report No. 93334-3

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111,
Influent 032598, 03/25/98, 07:55, received 03/27/98

RESULTS

Halogenated Volatile Organics (EPA 8021)	Result (ug/l)	Detection Limit (ug/l)
Carbon tetrachloride	BDL	0.34
Chlorobenzene	2.3	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.90
1,3-Dichlorobenzene	BDL	0.70
1,4-Dichlorobenzene	BDL	0.90
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.47
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pulsetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

April 22, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 93334-4

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111, Equipment Blank, 03/25/98, 08:30, received 03/27/98

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	BDL	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.2
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.002	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.05	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002
Volatile Organics (EPA 8260)	(ug/l)	(ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11

BDL - Below Detection Limit

April 22, 1998
Report No. 93334-4

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111, Equipment Blank, 03/25/98, 08:30, received 03/27/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Chlorobenzene	BDL	0.22
Chloroform	2.4	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
Base/Neutral Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

BDL - Below Detection Limit

April 22, 1998
Report No. 93334-4

Groundwater, SK-Tampa (Manhattan Ave), Project #98033-1111, Equipment Blank, 03/25/98, 08:30, received 03/27/98

RESULTS

Florida Petroleum Range Organics	Result	Detection Limit
Gasoline Range Organics (mg/l)(FL PRO).....	BDL	0.10
Diesel Range Organics (mg/l)(FL PRO).....	0.10	0.10
Hydrocarbons (EPA 8015M)	(mg/l)	(mg/l)
Hydrocarbons (as Mineral Spirits).....	BDL	0.250

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina G. Pickett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

APPENDIX D

OPERATION AND MAINTENANCE INSPECTION LOGS

OPERATION AND MAINTENANCE DATA SHEET

Safety Kleen Facility
4701 North Manhattan Avenue

Date: 2/27/98 & 3-25-98
Time Arrive Site: 965
Time Depart Site: 1065

STATUS UPON ARRIVAL

GWTS

Meter Reading: 1476302 gal
System: On ✓ Off _____

Flow Rate: _____
Solids Filter 1 Pressure: _____
Solids Filter 2 Pressure: _____
Air Compressor Pressure Setting At: 135 psi
Line Pressure At: 90 psi
RW-1 Regulator At: N/A psi
RW-2 Regulator At: N/A psi
*System Sampled: (Yes) No

Cause: Also, 3-25-98 System ON upon arrival (no measurements) RJS

Corrective Action: _____

VES

On N/A Off _____

Vacuum Pressure:
Blower: _____ " Hg
VEL 1: _____ " H_2O
VEL 2: _____ " H_2O
VEL 3: _____ " H_2O
VEL 4: _____ " H_2O

Cause: _____

Corrective Action: _____

OVA Reading: unfil - fil = total
Influent ____ - ____ = ____
Effluent ____ - ____ = ____

*System Sampled: Yes No

AIRSPARGER OFF - TURNED ON

STATUS UPON DEPARTURE

✓ Same as Arrival
___ The following adjustments were made: _____

MAINTENANCE

GTWS

Air Compressor*
Tank Drained: (Yes) No
Oil Changed: Yes (No)
Air Filter Cleaned: (Yes) No
Belts Okay: (Yes) No

Inspect Ground Water Pumps: Yes (No)

Solids Filters
#1 Changed: N/A Yes No
#2 Changed: ___ (Yes) No 2/25/98

VES

Blower*
Oil Changed: Yes No
Greased End Unit: Yes No
Greased Motor: Yes No
Belts Okay: Yes No

See maintenance/sampling documents in onsite file container for more detail.

APPENDIX IX-B

ORIGINAL

1998 FIRST QUARTER MONITORING REPORT
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA

PREPARED FOR:

SAFETY-KLEEN CORP.
1 Brinkman Way
Elgin, Illinois 60123

PREPARED BY:

ECT
Environmental Consulting & Technology, Inc.
5405 Cypress Center Drive
Suite 200
Tampa, Florida 33609
(813) 289-9338

98033-1111

APRIL 1998

ECT
vironmental Consulting & Technology, Inc.

April 27, 1998
98033-1111

Hazardous Waste Supervisor
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Re: 1998 First Quarter Monitoring Report
Safety-Kleen Corp., Manhattan Avenue, Tampa Facility
Closure Permit No. HF29-158003
EPA ID No. FLD 049 557 408

Dear Hazardous Waste Supervisor:

On behalf of Safety-Kleen Corp., Environmental Consulting & Technology, Inc. (ECT) herein submits results of the February 1998 quarterly ground water monitoring pursuant to Specific Conditions (S.C.) IV.4 and IV.11 of the referenced permit. In addition, limited ground water corrective actions were proactively conducted this quarter; therefore, this document includes the quarterly ground water remedial system report pursuant to Specific Conditions IV.13 and IV.14.

Safety-Kleen continues to wait for FDEP issuance of the renewal permit; the permit application was submitted on March 27, 1997. Safety-Kleen also awaits Department approval to implement the March 1997 soil sampling plan to document clean closure of the soil. Safety-Kleen wishes to proactively close this facility without further delays by FDEP.

QUARTERLY GROUND WATER MONITORING REPORT

Ground water samples and water level data were collected in February 1998 according to procedures described in the closure permit for the facility. The ground water samples were submitted to Analytical Services, Inc. (ASI) for analysis of the parameters listed in Specific Condition IV.3 of the closure permit as modified on August 7, 1996.

Ground water samples were collected from eight monitor wells in February 1998. As is commonly the case during wet periods, three monitor wells located offsite to the east (SA-3, SA-1, and DA-4D) were under water and could not be sampled. Monitor well sampling data forms are provided in Appendix A. Ground water levels and total well depths were measured at each well sampled. Ground water elevation data for February 24, 1998, are presented in Table 1, and a water table elevation contour map is shown in Figure 1. The

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289-9388

inferred ground water flow direction is toward the east, consistent with historical data for pumping conditions.

The laboratory report of ground water quality analytical methods and results is presented as Appendix B. Table 2 provides a summary of all constituents detected in ground water. Concentration trends for select analytes are illustrated in Figure 2 for monitor well POC-2 and Figure 3 for monitor well POC-3. Well locations are shown in Figure 1.

Several organic compounds were detected in low concentrations at monitor well POC-3, and three exceeded standards: naphthalene was detected at a concentration of 67 µg/L, which is above its organoleptic based ground water guidance concentration; total xylenes was detected at 58 µg/L, which is above its organoleptic based secondary drinking water standard; and benzene (1.9 µg/L) exceeded its primary drinking water standard of 1 µg/L. Monitor well POC-2 has not exceeded any ground water standard since November 1996. Period of record trends show that all constituent concentrations have decreased significantly at these wells (Figures 2 and 3). The observed decreases are likely the result of ground water recovery and the treatment system adjustments previously reported. However, POC-3 showed increased concentrations for several constituents this quarter. This may be due to a temporary remobilization of previously sorbed organics, as a result of the excessive rains this winter and the physical agitation of the reinitiated ground water corrective actions (pumping at POC-3 and air sparging at SP-1 and SP-2).

As usual, concentrations of metals were generally below detection limits or very low. Metals are clearly not a problem at this facility.

GROUND WATER REMEDIATION SYSTEM REPORT

Specific Condition IV.13 of the closure permit requires quarterly reporting on the effectiveness of the ground water recovery and treatment systems. The specific items that must be included in the ground water remediation system report are outlined in Specific Condition IV.14. Each of these items, "a" through "l", is reprinted below and followed by pertinent information.

Item a. **A narrative summary on the effectiveness of the treatment and recovery system.**

The soil vapor and ground water recovery and treatment systems began continuous, automated operation in late January 1994. The following discussion provides a summary of the effectiveness of the soil and ground water remediation systems.

The ground water remediation system had undergone extensive and rigorous startup testing. As discussed in the November 1993 quarterly report, the objectives of the Phase 1 and Phase 2 startup testing were achieved in January, 1994. As such, Phase 3 operation, which includes monthly monitoring, was initiated in late January, 1994. The Phase 3 monthly

sampling program includes influent and intercarbon sample analyses for the eight RCRA metals and volatile organic compounds by EPA Methods 8010/8020. This report includes results of the monthly monitoring program for December 1997, and January and February 1998 (Appendix C).

The ground water remediation system is effectively capturing the contaminant plume (see Items i and k) and completely treating the impacted ground water (see Item g and Table 3). The ground water system has recovered and treated approximately 5,654,000 gallons of water. Ground water constituent concentrations have been reduced dramatically. In addition, an air sparging system was installed in November 1996 and became operational on December 16, 1996 (see Item b). This system was added to accelerate site cleanup, and current data suggest the air sparging system is highly effective.

As described in item b.4. (below), and as previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C.IV.10 and X.3. On December 30, 1997, limited ground water corrective actions (pumping POC-3 and air sparging at SP-1 and SP-2) were proactively reinitiated on a continuous basis.

The soil vapor extraction (SVE) system had been operating from January 24, 1994 to May 23, 1997. Rainy seasons had resulted in periods when the SVE system could not operate due to high water levels. Soil compaction had also hindered operation of the SVE system. An SVE well point pilot test was initiated in October, 1995 and is described in Item 1. Results showed significant reductions in soil vapor concentrations. Organic compound removal efficiency in the recovered soil vapor air stream ranged from 99.4 percent to greater than 99.9 percent. The SVE system is no longer in operation.

Item b. Any minor revisions or adjustments to the treatment and recovery system or plan.

The following adjustments have been made:

1. To maximize effectiveness and efficiency of ground water cleanup, on February 9, 1995, wells POC-2 and POC-3 were equipped to serve as temporary recovery wells and supplement pumpage from recovery wells RW-1 and RW-2, as previously reported. Drop pipes were installed in POC-2 and POC-3 and connected to a common header. Water is pumped from these wells via a diaphragm suction pump into the oil/water separator, then treated as usual.

2. Temporary SVE well points were installed and testing initiated in October 1995 (see Item l). The original SVE system blower was removed and a mobile blower was subsequently used.

3. In November 1996, two air sparging points were added to the system to accelerate site cleanup. As agreed with FDEP on October 1, 1996, this adjustment is an interim measure and does not require a permit modification. Air sparging point

SP-2 is located approximately 9 ft west-southwest of monitor well POC-2, and SP-1 is located approximately 17 ft west of POC-3. The sparge point construction logs were provided in the January 29, 1997 quarterly report. After installation of the air compressor, operation of the air sparging system began on December 16, 1996. Subsequent data suggest that the air sparging system is significantly enhancing the ground water cleanup efforts.

4. As previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C.IV.10 and X.3. On December 30, 1997, limited ground water corrective actions (pumping POC-3 and air sparging at SP-1 and SP-2) were proactively reinitiated on a continuous basis.

Item c. Any proposed modification to the treatment and recovery system.

No modifications are proposed at this time.

Item d. Complete inspection logs for previous three months. These logs must include inspections of the recovery well pump(s) and treatment systems.

Operation and maintenance logs are provided in Appendix D.

Item e. Record of when the treatment system is operating.

The ground water treatment system is designed to shut off automatically by a high-level switch in the oil/water separator, and by a high-level switch in the infiltration gallery. The infiltration gallery high-level switch shut off is equipped with a timer set at 5 hours. This timer affects automatic restart of the system, unless water levels have not receded to below the cut off level. Automated operation was continuous throughout the quarter. Approximately 184,800 gallons of water from POC-3 were recovered and treated this quarter.

Item f. Total volume of processed ground water.

As of February 27, 1998, a grand total of approximately 5,654,000 gallons of ground water had been recovered and treated; this also includes water treated during the Phase 1 and Phase 2 startup testing program.

Item g. Summary of influent/effluent data, chain-of-custodies, and lab reports.

Appendix C is comprised of chain-of-custodies and lab reports pertaining to the ground water remediation system for December 1997, and January and February, 1998. Influent and effluent analytical data for ground water are summarized in Table 3.

Item h. Summary of ground water data (including graphical representation) with emphasis on the most common contaminants and those most difficult to treat.

Period of record ground water quality data for monitor wells POC-2 and POC-3 are presented in Figures 2 and 3, respectively. These are the only two wells at the site that typically indicate ground water impacts. The figures provide graphs of concentrations through time for the following analytes: benzene, chlorobenzene, ethylbenzene, xylenes and naphthalene. The long term trend is toward decreasing concentrations for all constituents. These trends are further discussed in the Quarterly Ground Water Monitoring Report section of this document.

Item i. Ground water elevation contour maps for previous six months.

Ground water elevation contour maps are provided for the following dates: November 18, 1997 (Figure 4); and February 24, 1998 (Figure 1).

Item j. Record of repairs (wells, piping, etc.).

- The ground water system totalizing flow meter was previously replaced. The grand total flow is now calculated as the direct reading from the existing meter plus 4,178,000 gallons (from previous meters).
- The air sparging compressor and POC-3 pump were brought online this quarter.
- Chlorine and bromine tablets were emplaced in the oil/water separator to reduce biofouling of the ground water treatment system.
- Water filters were replaced, as necessary.

Item k. Figure depicting the zone of capture of the recovery wells including delineation of stagnation points.

Pursuant to Specific Condition IV.12 of the closure permit, water table elevation contour maps are presented in Figures 1 and 4. These maps depict water table elevations in November 1997 and February 1998, as indicated in Item i. The capture zone appears to fully envelope the area of ground water impacts.

Item l. Soil venting data.

Not applicable.

If you have any questions or comments regarding this quarterly monitoring report, please contact me at (813) 289-9338 or Gary Risse of Safety-Kleen at (770) 418-1860. Thank you.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Richard J. Stebnisky, P.G.
Senior Hydrogeologist, II

4-27-98
Date

Bradley S. Pekas, P.G., P.E.
Engineer of Record--PE 0046867

4/27/98
Date

Attachments: Tables 1 to 3
Figures 1 to 4
Appendices A, B, and C

cc: Gary Risse, SK
Keith Marcott, SK
999 Site File No. 1760 % Russ Giambrone, SK
Clare Burr
FDEP, Tallahassee (2 copies)
Davy Simonson, EPA, Region 4
Robert Colberg, ECT

TABLES

Table 1. Water Table Elevations (February 24, 1998)
Safety-Kleen Corp.
Manhattan Avenue Facility, Tampa, Florida

Well No.	MP Elevation (ft-msl)	Depth to Water (ft)	Water Table Elevation (ft-msl)
POC-1	32.80	4.08	28.72
POC-2	32.77	4.14	28.63
POC-3	32.30	NM	pumping
SA-1	28.29	**	
SA-2	29.72	1.06	28.66
SA-3	27.49	**	
SA-4	30.05	0.91	29.14
BG-1	32.83	3.26	29.57
DA-1A*	30.90	3.36	27.54
DA-4D*	27.55	**	
DA-5D*	29.70	5.37	24.33

Notes: MP = Measuring point.
ft-msl = Feet above mean sea level.
MPs for POC-2 and POC-3 are for nonpumping and pumping conditions, respectively.
MP for DA-1A is approximate (to ~0.1 ft).
* = Not a water table monitor well, a deeper well.
** = Well under water.

Source: ECT, 1998.

Table 2. Summary of All Constituents Detected in Ground Water - February 1998
Safety-Kleen Corp.
Manhattan Avenue

Constituent	Units	Monitor Well												
		POC-1	POC-2	POC-3	POC-3 Dupe-1	BG-1	DA-1A	DA-5D	SA-1	SA-2	SA-4	Trip Blank	Equip Blank T-1	Equip Blank B-2
Total Sulfide (S)	mg/L	5		1.2	1.1					2.2	5			
Total Barium (Ba)	mg/L	0.005	0.002	0.001	0.002	0.005	0.003	0.003			0.01			
Total Zinc (Zn)	mg/L	0.02	0.06	0.04	0.03	0.03	0.04	0.03		0.02	0.04		0.01	
Total Vanadium (V)	mg/L	0.007					0.02	0.009						
Acetone	µg/L				2.7									
Benzene	µg/L			1.9	1.8									
Chlorobenzene	µg/L			5.5	5.9									
1,2-Dichlorobenzene	µg/L			11	26									
1,3-Dichlorobenzene	µg/L			6.0	5.6									
1,4-Dichlorobenzene	µg/L			2.0	11									
Ethylbenzene	µg/L			5.0	11									
Naphthalene	µg/L			67	140									
Tetrachloroethene	µg/L				2.3									
Toluene	µg/L			4.0	23		0.61				1.1			
Xylenes (total)	µg/L			58	160									
2-Methylnaphthalene	µg/L			160	350									

Notes: µg/L = Micrograms per liter.
mg/L = Milligrams per liter.
NTU = Nephleometric turbidity units.

Source: ECT, 1998.

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 1 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
2/24/94	Barium	mg/L	0.01	<0.01	--
2/24/94	Benzene	µg/L	2	<1	--
2/24/94	Ethylbenzene	µg/L	4	<1	--
3/16/94	Benzene	µg/L	1	<1	--
3/16/94	Chlorobenzene	µg/L	5	<1	--
3/16/94	Ethylbenzene	µg/L	3	<1	--
4/29/94	Barium	mg/L	0.01	<0.01	--
4/29/94	Chlorobenzene	µg/L	4	<1	--
4/29/94	Ethylbenzene	µg/L	3	<1	--
5/19/94	All analytes below detection limits for both influent and intercarbon				
6/17/94	Benzene	µg/L	1	<1	--
6/17/94	Chlorobenzene	µg/L	8	<1	--
6/17/94	Ethylbenzene	µg/L	3	<1	--
7/28/94	Barium	mg/L	0.01	0.01	--
7/28/94	Chlorobenzene	µg/L	5	<1	--
7/28/94	Ethylbenzene	µg/L	2	<1	--
7/28/94	Xylenes	µg/L	4	<2	--
8/31/94	Benzene	µg/L	1	<1	--
8/31/94	Chlorobenzene	µg/L	3	<1	--
8/31/94	Ethylbenzene	µg/L	2	<1	--
8/31/94	Xylenes	µg/L	12	<2	--
9/30/94	Benzene	µg/L	1	<1	--
9/30/94	Chlorobenzene	µg/L	5	<1	--
9/30/94	1,2-Dichlorobenzene	µg/L	3	<2	--
9/30/94	Ethylbenzene	µg/L	4	<1	--
10/19/94	Barium	mg/L	<0.01	0.03	--
10/19/94	Chlorobenzene	µg/L	3	<1	--
10/19/94	Ethylbenzene	µg/L	2	<1	--
10/19/94	Xylenes	µg/L	7	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 2 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
11/30/94	Barium	mg/L	0.01	<0.01	--
11/30/94	Benzene	µg/L	1	<1	--
11/30/94	Chlorobenzene	µg/L	5	<1	--
11/30/94	Ethylbenzene	µg/L	3	<1	--
12/21/94	Benzene	µg/L	1	<1	--
12/21/94	Chlorobenzene	µg/L	5	<1	--
12/21/94	Ethylbenzene	µg/L	4	<1	--
01/30/95	Barium	mg/L	0.01	<0.01	--
01/30/95	Benzene	µg/L	1	<1	--
01/30/95	Chlorobenzene	µg/L	6	<1	--
01/30/95	Ethylbenzene	µg/L	3	<1	--
02/23/95	Barium	mg/L	0.01	<0.01	--
02/23/95	Benzene	µg/L	2	<1	--
02/23/95	Chlorobenzene	µg/L	37	<1	--
02/23/95	Ethylbenzene	µg/L	9	<1	--
02/23/95	Xylenes	µg/L	14	<2	--
03/09/95	Barium	mg/L	0.01	<0.01	--
03/09/95	Chlorobenzene	µg/L	12	<1	--
03/09/95	Ethylbenzene	µg/L	4	<1	--
04/25/95	Barium	mg/L	0.01	0.01	--
04/25/95	Lead	µg/L	<0.003	0.006	--
04/25/95	Chlorobenzene	µg/L	12	<1	--
04/25/95	Ethylbenzene	µg/L	2	<1	--
05/26/95	Lead	mg/L	<0.003	0.004	--
05/26/95	Chlorobenzene	µg/L	1	<1	--
06/30/95	Barium	mg/L	0.02	<0.01	--
06/30/95	Benzene	µg/L	2	<1	--
06/30/95	Chlorobenzene	µg/L	17	<1	--
06/30/95	Ethylbenzene	µg/L	6	<1	--
06/30/95	Xylenes	µg/L	7	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 3 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
07/26/95	Barium	mg/L	0.01	<0.01	--
07/26/95	Benzene	µg/L	1	<1	--
07/26/95	Chlorobenzene	µg/L	17	<1	--
07/26/95	1,2-Dichlorobenzene	µg/L	5	<2	--
07/26/95	1,4-Dichlorobenzene	µg/L	3	<2	--
07/26/95	Ethylbenzene	µg/L	6	<1	--
07/26/95	Xylenes	µg/L	5	<2	--
08/21/95	Barium	mg/L	0.01	<0.01	--
08/21/95	Chlorobenzene	µg/L	9	<1	--
08/21/95	1,2-Dichlorobenzene	µg/L	7	<2	--
08/21/95	Ethylbenzene	µg/L	3	<1	--
08/21/95	Xylenes	µg/L	4	<2	--
09/21/95	Barium	mg/L	0.01	<0.01	--
09/21/95	Benzene	µg/L	2	<1	--
09/21/95	Chlorobenzene	µg/L	24	<1	--
09/21/95	1,4-Dichlorobenzene	µg/L	3	<2	--
09/21/95	Ethylbenzene	µg/L	7	<1	--
09/21/95	Xylenes	µg/L	6	<2	--
10/18/95	Benzene	µg/L	2	<1	--
10/18/95	Chlorobenzene	µg/L	29	<1	--
10/18/95	1, 2-Dichlorobenzene	µg/L	5	<2	--
10/18/95	1, 4-Dichlorobenzene	µg/L	3	<2	--
10/18/95	Ethylbenzene	µg/L	8	<1	--
10/18/95	Xylenes	µg/L	6	<2	--
11/29/95	Barium	mg/L	0.01	<0.01	--
11/29/95	Benzene	µg/L	1	<1	--
11/29/95	Chlorobenzene	µg/L	27	<1	--
11/29/95	1,4 -Dichlorobenzene	µg/L	3	<2	--
11/29/95	Ethylbenzene	µg/L	6	<1	--
11/29/95	Xylenes	µg/L	5	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 4 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
12/18/95	Barium	mg/L	0.01	<0.01	<0.01
12/18/95	Chlorobenzene	µg/L	24	<1	<1
12/18/95	1,4-Dichlorobenzene	µg/L	2	<2	<2
12/18/95	Ethylbenzene	µg/L	5	<1	<1
12/18/95	Xylenes	µg/L	4	<2	<2
1/22/96	Benzene	µg/L	1	<1	--
1/22/96	Chlorobenzene	µg/L	20	<1	--
1/22/96	1,4-Dichlorobenzene	µg/L	3	<2	--
1/22/96	Ethylbenzene	µg/L	6	<1	--
1/22/96	Xylenes	µg/L	8	<2	--
2/29/96	Benzene	µg/L	1	<1	--
2/29/96	Chlorobenzene	µg/L	28	<1	--
2/29/96	1,4-Dichlorobenzene	µg/L	3	<2	--
2/29/96	Ethylbenzene	µg/L	7	<1	--
2/29/96	Xylenes	µg/L	5	<2	--
3/26/96	Chlorobenzene	µg/L	16	<1	--
3/26/96	1,4-Dichlorobenzene	µg/L	3	<2	--
3/26/96	Ethylbenzene	µg/L	6	<1	--
3/26/96	Xylenes	µg/L	4	<2	--
4/25/96	No analytes detected.				
5/23/96	Chlorobenzene	µg/L	12	<1	--
5/23/96	1,4-Dichlorobenzene	µg/L	3	<2	--
5/23/96	Ethylbenzene	µg/L	4	<1	--
5/23/96	Xylenes	µg/L	6	<2	--
6/27/96	Barium	mg/L	0.01	<0.01	--
6/27/96	Chlorobenzene	µg/L	11	<1	--
7/29/96	Barium	mg/L	0.01	<0.01	--
7/29/96	Chlorobenzene	µg/L	14	<1	--
7/29/96	Xylenes	µg/L	15	<2	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 5 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
8/15/96	Benzene	µg/L	1	1	--
8/15/96	Chlorobenzene	µg/L	17	16	--
8/15/96	1,4-Dichlorobenzene	µg/L	3	<2	--
8/15/96	Ethylbenzene	µg/L	12	4	--
8/15/96	Xylenes	µg/L	30	3	--
10/3/96	Benzene	µg/L	1	--	--
10/3/96	Chlorobenzene	µg/L	27	--	--
10/3/96	1,4-Dichlorobenzene	µg/L	3	--	--
10/3/96	Ethylbenzene	µg/L	36	--	--
10/3/96	Xylenes	µg/L	60	--	--
10/31/96	Barium	mg/L	0.02	0.01	--
10/31/96	Chlorobenzene	µg/L	21	<1	--
10/31/96	Ethylbenzene	µg/L	6	<1	--
10/31/96	Xylenes	µg/L	9	<2	--
11/21/96	Barium	mg/L	0.02	<0.01	--
11/21/96	Chlorobenzene	µg/L	10	<1	--
11/21/96	Ethylbenzene	µg/L	2	<1	--
12/16/96	Chlorobenzene	µg/L	25	<1	--
12/16/96	1,4-Dichlorobenzene	µg/L	4	<2	--
12/16/96	Ethylbenzene	µg/L	24	<1	--
12/16/96	Xylenes	µg/L	150	<2	--
1/30/97	Barium	mg/L	0.01	<0.01	--
1/30/97	Chlorobenzene	µg/L	3	<1	--
1/30/97	Ethylbenzene	µg/L	1	<1	--
2/27/97	No analytes detected	--	--	--	--
3/27/97	No analytes detected	--	--	--	--
12/30/97	Total Barium	mg/L	0.01	0.004	--
12/30/97	Ethylbenzene	µg/L	1.7	<1	--
12/30/97	Xylenes	µg/L	4.3	<1	--
12/30/97	Chlorobenzene	µg/L	3.5	<1	--

Table 3. Ground Water Remediation System
Summary of All Analytes Detected Since
the November 1993 Quarterly Report*
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida (Page 6 of 6)

Date Sampled	Analyte	Units	Concentration		
			Influent	Intercarbon	Effluent
1/29/98	Total Barium	mg/L	0.01	0.009	--
1/29/98	Total Chromium	mg/L	0.001	0.002	--
1/29/98	Benzene	µg/L	1.0	<1	--
1/29/98	Ethylbenzene	µg/L	3.1	<1	--
1/29/98	Toluene	µg/L	1.0	<1	--
1/29/98	Xylenes	µg/L	6.3	<2	--
1/29/98	Chlorobenzene	µg/L	2.9	<1	--
2/27/98	Total Barium	mg/L	<0.001	0.001	--
2/27/98	Total Selenium	mg/L	0.006	<0.006	--
2/27/98	Benzene	µg/L	1.5	<1	--
2/27/98	Ethylbenzene	µg/L	4.9	<1	--
2/27/98	Xylenes	µg/L	8.9	<2	--
2/27/98	Chlorobenzene	µg/L	5.3	<1	--

Notes:
mg/L = Milligrams per liter.
µg/L = Micrograms per liter.
* = Air stripper blower not on.
-- = Not analyzed.

Ground Water System Sample Locations

- Influent (from oil/water separator, except April and May, 1995, from transfer tank).
- Intercarbon (from port between the two sets of carbon drums).
- Effluent (from port after the second set of carbon drums).

Source: ECT, 1998.

FIGURES

P:\PROJECTS\98033\MWLOC.DWG

04/23/98

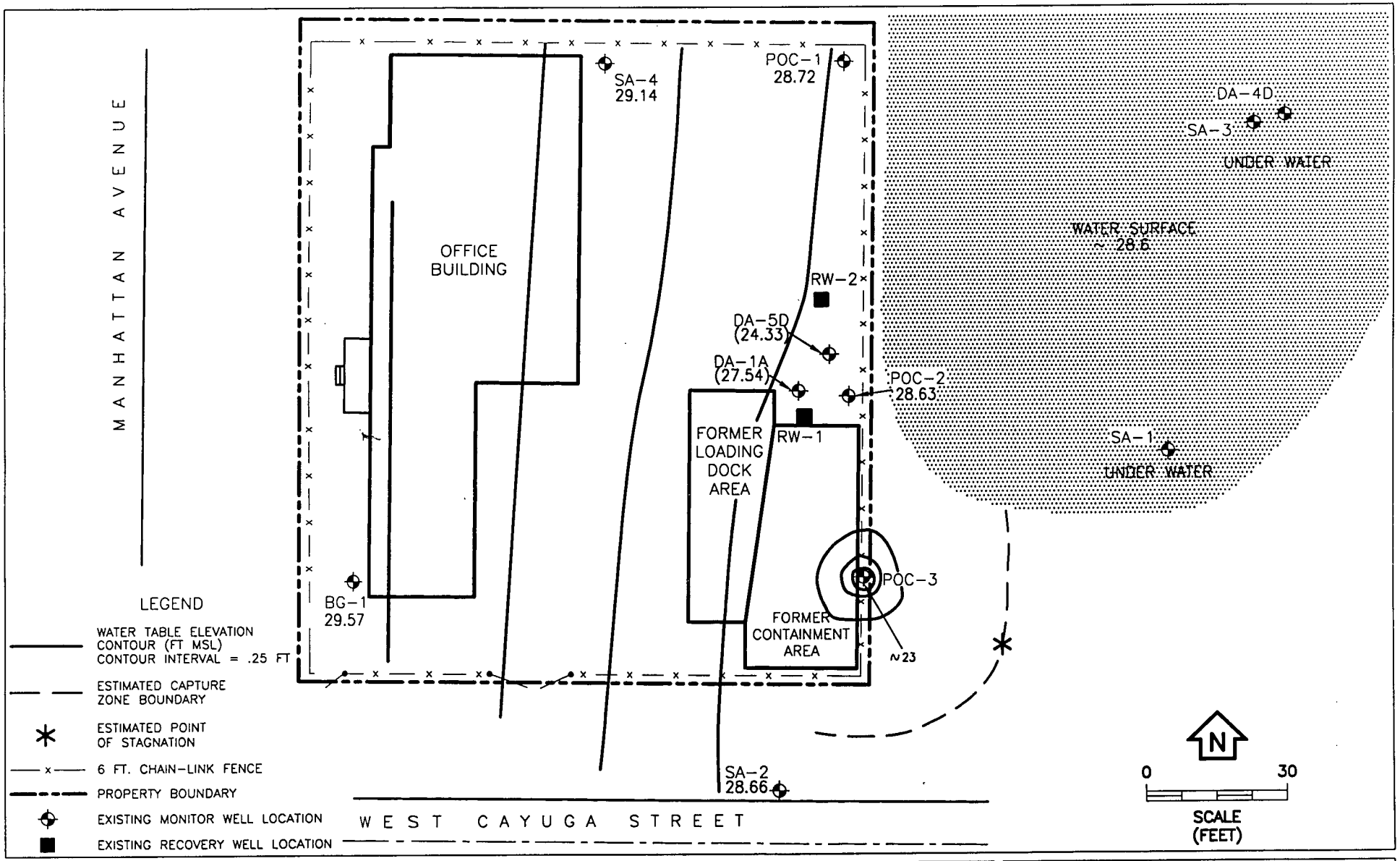
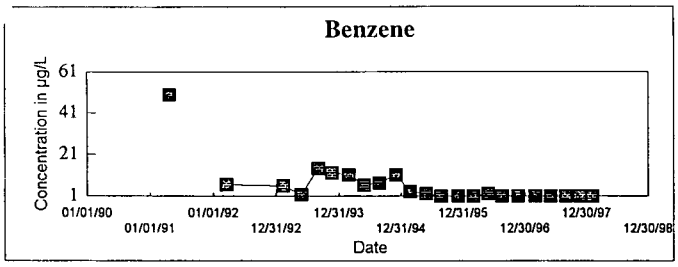


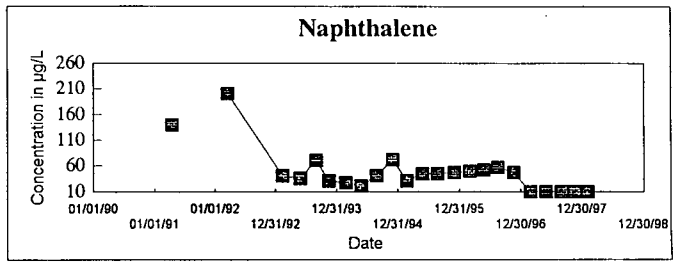
FIGURE 1.
WATER TABLE ELEVATION CONTOUR MAP. FEBRUARY 24, 1998
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Source: ERM, 1993; ECT, 1993.

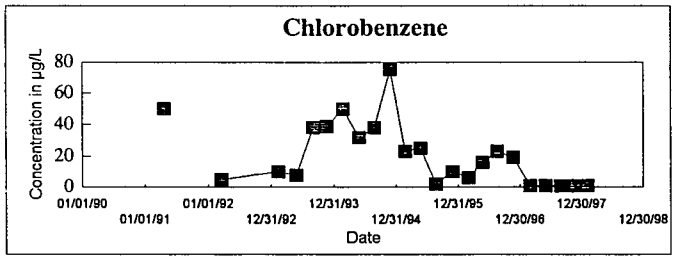
ECT
Environmental Consulting & Technology, Inc.

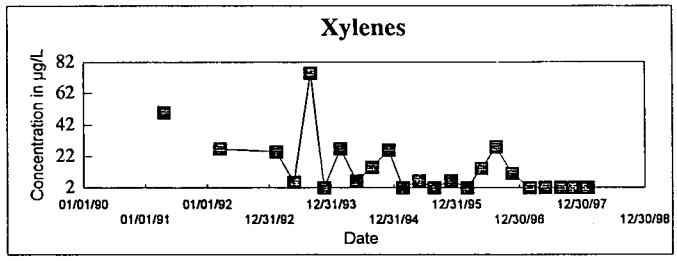
Figure 2. Period of Record Ground Water Quality - POC-2

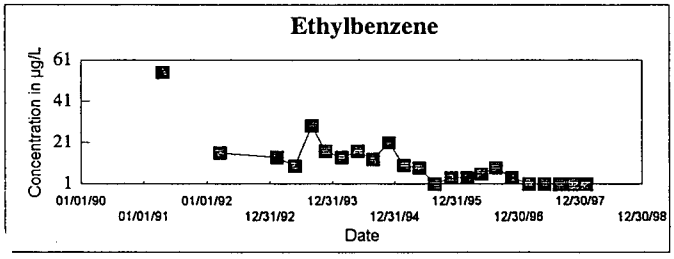
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-2 Sample Date 06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/25/94	11/29/94
Benzene	µg/L		<50		6.5	5.8	1.5	14	12	11	6	7	11
Chlorobenzene	µg/L		<50		<5	10	7.8	38	39	50	32	38	75
Ethylbenzene	µg/L		55		16	14	9.7	29	17	14	17	13	21
Xylenes	µg/L		<50		27	25	5.3	75	<2	27	6	15	26
Naphthalene	µg/L		140		<200	40	35	70	30	27	21	41	72

Parameter	Units	POC-2 Sample Date 02/22/95	05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	05/29/97	08/28/97	11/18/97	02/24/98
Benzene	µg/L	3	2	<1	1	<1	2	<1	1	<1	<1	<1	<1	<1
Chlorobenzene	µg/L	23	25	2	10	6	16	23	19	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	10	9	<1	4	4	6	9	4	<1	<1	<1	<1	<1
Xylenes	µg/L	2	6	<2	6	2	14	28	11	<2	<2	<2	<2	<2
Naphthalene	µg/L	30	44	44	47	49	51	56	47	<10	<10	<10	<10	<10

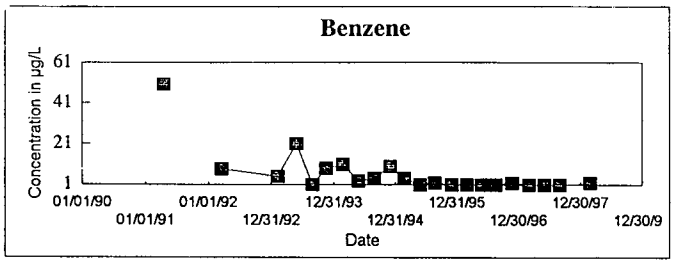
Notes: µg/L = Micrograms per liter.

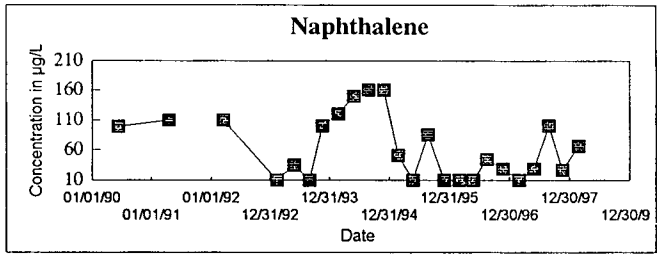
Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

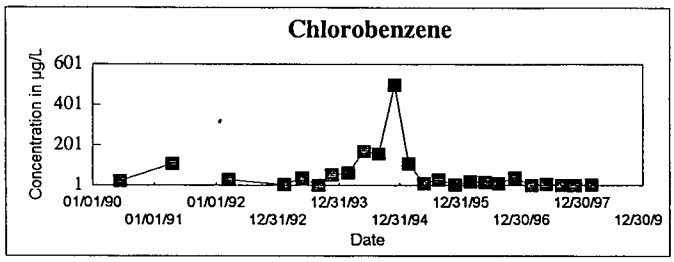
Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

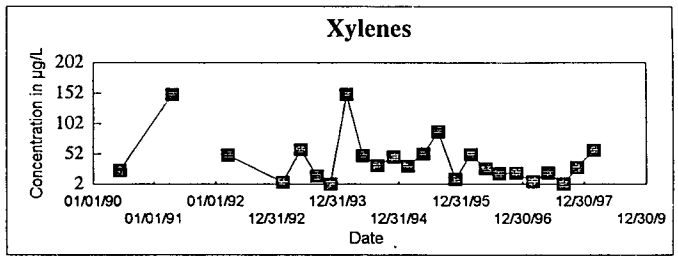
Figure 3. Period of Record Ground Water Quality - POC-3

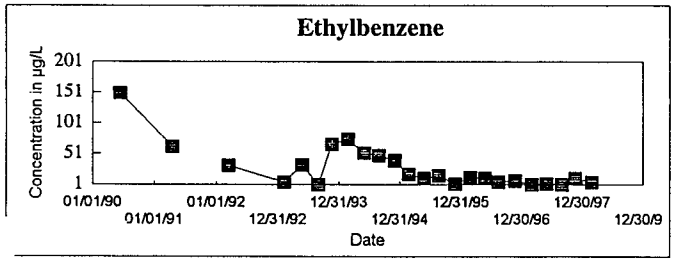
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-3 Sample Date											
		06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/26/94	11/29/94
Benzene	µg/L		<50		8.6	<5.0	21	<1.0	9	11	3	4	10
Chlorobenzene	µg/L	<25	110		31	<5.0	40	1	55	64	170	160	500
Ethylbenzene	µg/L	150	62		31	<5.0	32	1	66	74	52	48	40
Xylenes	µg/L	<25	150		50	<5.0	59	15	<2	150	49	33	47
Naphthalene	µg/L	99	110		110	<10	35	10	100	120	150	160	160

Parameter	Units	POC-3 Sample Date								Dupe				
		02/22/95	05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	05/29/97	08/28/97	11/18/97	02/24/98
Benzene	µg/L	4	<1	2	<1	<1	<1	<1	2	<1	<1	<1	0.87	1.9
Chlorobenzene	µg/L	110	11	30	6	20	19	10	39	3	7	<11	<1	5.5
Ethylbenzene	µg/L	17	11	15	2	12	11	5	7	<1	2	<15	11	5
Xylenes	µg/L	32	52	89	10	51	28	19	21	6	21	<18	30	58
Naphthalene	µg/L	51	<10	85	<10	<10	<10	44	29	<10	29	100	26	67

Notes: µg/L = Micrograms per liter.

Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

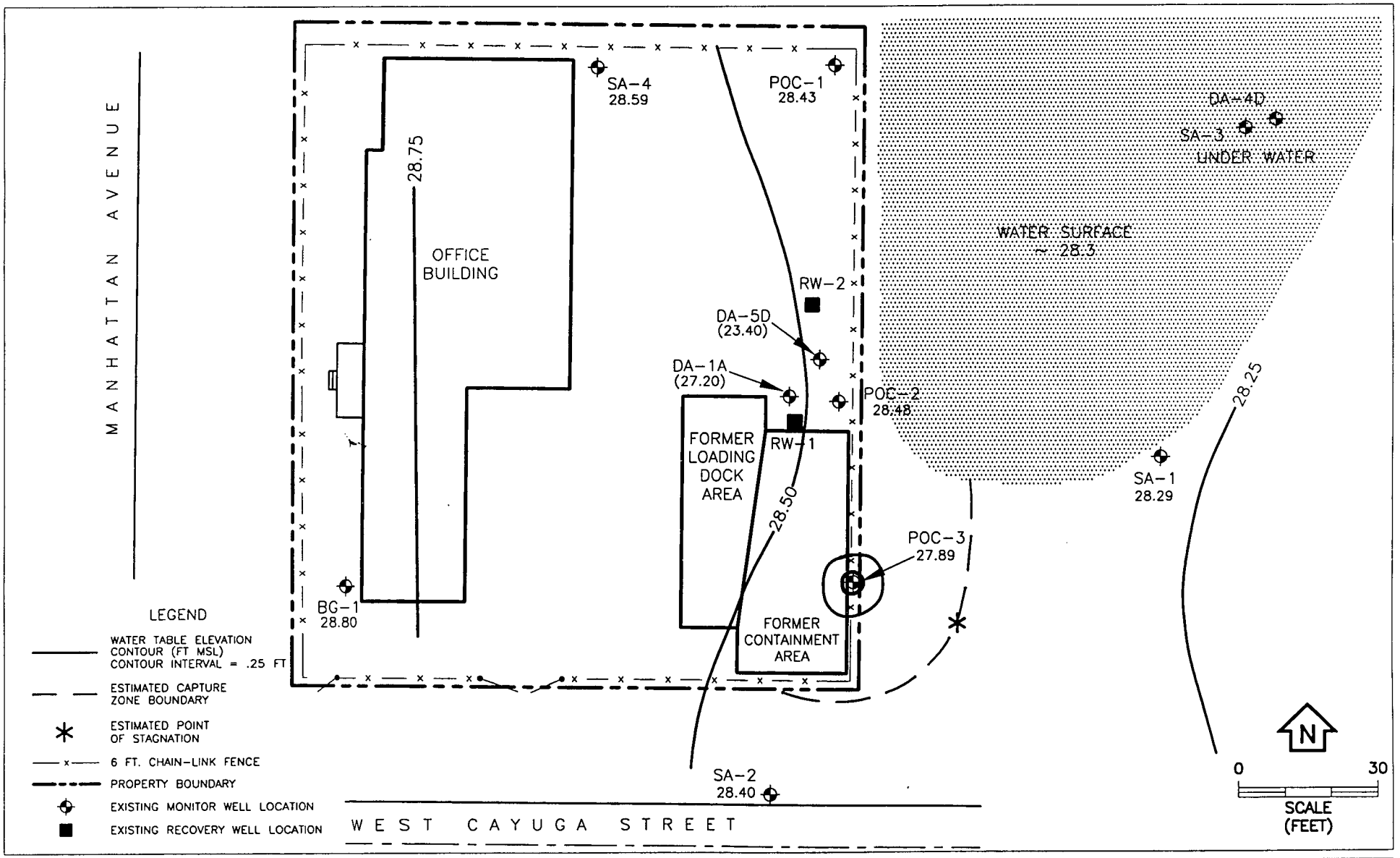


FIGURE 4.
WATER TABLE ELEVATION CONTOUR MAP, NOVEMBER 18, 1997
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Source: ECT, 1998.

ECT
Environmental Consulting & Technology, Inc.

APPENDIX A

MONITOR WELL SAMPLING DATA FORMS

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #:

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
Myron L pH/cond	187557	pH	S.U.	750	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM		200	210		
		Conductivity	µHos/CM		720	720		
		pH	S.U.	1150	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		
		pH	S.U.	1440	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM		200	210		
		Conductivity	µHos/CM		720	720		

NIST Traceable Thermometer No. #2

Standard pH 7.0 Lot No. M08L Exp. Date 2/99

Standard pH 4.0 Lot No. G081 Exp. Date 8/98

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity 200 Lot No. 1707 Exp. Date 4/01

Standard Conductivity 720 Lot No. 3007 Exp. Date 10/01

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: Robert L Hanna Date: 2/24/98 Reviewed by: RJS (all pages) Date:

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #:

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
2100P Turbidimeter	94030000483	~~pH~~	~~S.U.~~ NTU	750	0-10	5.23		
		~~pH~~	~~S.U.~~		0-100	42.70		
		Conductivity	~~µHos/CM~~		0-1000	508.0		
		~~Conductivity~~	~~µHos/CM~~	1150	0-10	5.26		
		pH	S.U.		0-100	42.7		
		pH	S.U.		0-1000	510.0		
		Conductivity	µHos/CM	1440	0-10	5.24		
		Conductivity	µHos/CM		0-100	42.8		
		pH	S.U.		0-1000	511.0		
		pH	S.U.					
		Conductivity	µHos/CM					
		Conductivity	µHos/CM					

NIST Traceable Thermometer No. _____

Standard pH _____ Lot No. _____ Exp. Date _____

Standard pH _____ Lot No. _____ Exp. Date _____

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: Robert L. Hank **Date:** 2/24/98 **Reviewed by:** **Date:**

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #:

LEVEL DATA

Well #	Order	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Observations/Comments
DA-4D		well under water					
SA-3		well under water					
SA-1		well under water					
SA-2			14.10		1.06		
BG-1			15.00		3.26		
SA-4			12.30		.91		
POC-1			15.20		4.08		
DA-5D			64.00		5.37		
DA-1A			56.00		3.36		
POC-2			14.80		4.14		
POC-3							well being pimped

SIGNED INITIALS

Measured by: RWH Date: 2/24/98

Recorded by: Date:

Reviewed by: Date:

EQUIPMENT DESCRIPTION & DECONTAMINATION

Description ID or S/N: #4

Decontaminate between wells? (Y) o (Circle One)

Procedure 4.1.9.1 (Y or N) or other (describe):

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/98

SAMPLING INFORMATION

Well Number: SA-2

Sample Time: 900 Sampled By: BN

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 14.10

Depth to Water (ft): 1.06

Column of Water in Well (ft): 13.04

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 2.13

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gpm

Method of Determining Purged Volume : Liter Jar

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : (Yes) No Equipment: Tubing Bailer Sample I.D. EquipBlk T-1 B-2

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	2.13	2.13	2.13		
Time (military)	825	834	843		
pH (standard units)	5.4	6.0	6.0		
Conductivity (µhmos/CM)	200	210	210		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	2.25	2.25	2.25		
Sediment/Turbidity	1.67	1.34	1.26		
Color	Clear	Clear	Clear		

Odor (Circle One or More): (None) / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Used peristaltic pump and C-Flex tubing to purge wells (3 volumes), sample metal + Hg using pump. Bailed one volume collected 8240, 8030 + 8270 using bailer

SAMPLE COLLECTION ORDER: Metals, Hg - Pump
8240, 8030, 8270 - Bailer

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/25/98

SAMPLING INFORMATION

Well Number: BG-1

Sample Time: 910 Sampled By: BH

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 15.0

Depth to Water (ft): 3.26

Column of Water in Well (ft): 11.74

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.92

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gpm

Method of Determining Purged Volume : Liter Jar

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.92	1.92	1.92		
Time (military)	830	838	846		
pH (standard units)	6.4	6.3	6.3		
Conductivity (µhmos/CM)	400	400	400		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	0.85	0.48	0.49		
Color	Clear →	→			

Odor (Circle One or More): (None) / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same set up + sampling as SA-2

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/98

SAMPLING INFORMATION

Well Number: SA-4

Sample Time: 1020 Sampled By: BA

Duplicate Sample: Yes No

Total Depth of Well (ft): 12.30

Depth to Water (ft): .91

Column of Water in Well (ft): 11.39

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.86

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: Pump / Bailer (circle one)

Pump Rate: (gal/min) .25 gpm

Method of Determining Purged Volume : Lake Jan

Bailer No.: Disposable Bailer Source: Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.86	1.86	1.86		
Time (military)	950	958	1006		
pH (standard units)	6.5	6.5	6.5		
Conductivity (µhmos/CM)	510	490	490		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	20	20	20		
Sediment/Turbidity	0.70	0.62	0.71		
Color	Clear →				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same setup and sampling as SA-2

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/98

SAMPLING INFORMATION

Well Number: POC-1

Sample Time: 1030 Sampled By: BH

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 15.20

Depth to Water (ft): 4.08

Column of Water in Well (ft): 11.12

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.82

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gpm

Method of Determining Purged Volume : Lita Jar

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.82	1.82	1.82		
Time (military)	952	1000	1008		
pH (standard units)	6.4	6.4	6.4		
Conductivity (µhmos/CM)	350	360	360		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	0.27	.050	0.45		
Color	Clear →	→	→		

Odor (Circle One or More): (None) / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same sampling & purging set up as Site

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/98

SAMPLING INFORMATION

Well Number: DA-5D

Sample Time: 1200 Sampled By: BU

Duplicate Sample: Yes No

Total Depth of Well (ft): 64.0

Depth to Water (ft): 5.37

Column of Water in Well (ft): 58.63

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 9.56

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .75 .50 gpm

Method of Determining Purged Volume : Lite Jar

Bailer No.: Disposable Bailer Source: Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	9.56	9.56	9.56		
Time (military)	1105	1125	1145		
pH (standard units)	7.0	7.3	7.3		
Conductivity (µhmos/CM)	540	360	360		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	10.0	10.0	10.0		
Sediment/Turbidity	0.78	0.30	0.37		
Color	Clear	Clear	Clear		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Used submersible pump with new tubing to purge and sample metals & Hg. Bailer used to purge 1 volume and sample 8260, 8080, 8270

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/91

SAMPLING INFORMATION

Well Number: DA-1A

Sample Time: 1415 Sampled By: B H

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 56.00

Depth to Water (ft): 3.36

Column of Water in Well (ft): 52.64

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 8.58

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .50 gpm

Method of Determining Purged Volume : Lt. Jan

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	8.58	8.58	8.58		
Time (military)	1300	1320	1340		
pH (standard units)	7.4	7.4	7.4		
Conductivity (µhmos/CM)	230	210	210		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	10.0	10.0	10.0		
Sediment/Turbidity	10.3	9.04	8.10		
Color	Clear	Clear	Clear		

Odor (Circle One or More): (None) / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same set up, pump as DA-5D

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/98

SAMPLING INFORMATION

Well Number: POC-2

Sample Time: 1315 Sampled By: BH

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 14.80

Depth to Water (ft): 4.14

Column of Water in Well (ft): 10.66

Well Casing Diameter: 2'

Volume of Water in Well (gal.): 1.74

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gpm

Method of Determining Purged Volume : Lite Jar

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.74	1.74	1.74		
Time (military)	1250	1257	1304		
pH (standard units)	7.6	7.3	7.3		
Conductivity (µhmos/CM)	240	240	340		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	1.75	1.75	1.75		
Sediment/Turbidity	38.6	41.8	41.5		
Color	yellow	yellow	→		

Odor (Circle One or More): (None) / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging + sampling set up as SA-1

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date: 2/24/96

SAMPLING INFORMATION

Well Number: POC-3 Sample Time: 1400 Sampled By: BH

Total Depth of Well (ft): 13.0 Duplicate Sample: Yes No Dupe 1

Depth to Water (ft): *

Column of Water in Well (ft):

Well Casing Diameter:

Volume of Water in Well (gal.):

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min)

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume :

Bailer No.: Bailer Source: Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)					
Time (military)	700				
pH (standard units)	~~250~~ 7.0				
Conductivity (µhmos/CM)	250				
Temperature (°C)	24				
Actual Volume of Water Removed					
Sediment/Turbidity	1.85				
Color					

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Well being pump for system
Free product in well ≈ .2 feet
~~Use~~ Same setup for purge and sample as BSAC

SAMPLE COLLECTION ORDER:

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

APPENDIX B

GROUND WATER ANALYTICAL LABORATORY REPORTS

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-1

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Equip Blk-T-1, 02/24/98, 7:45, received 02/25/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	BDL	0.001
Total Beryllium (Be)(EPA 6010)	BDL	0.0004
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Copper (Cu)(EPA 6010)	BDL	0.01
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Nickel (Ni)(EPA 6010)	BDL	0.002
Total Silver (Ag)(EPA 6010)	BDL	0.0009
Total Zinc (Zn)(EPA 6010)	0.01	0.008
Total Vanadium (V)(EPA 6010)	BDL	0.002

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Cristina A. Profetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-2

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Equip Blk-B-2, 02/24/98, 7:45, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.1
Volatile Organics (EPA 8260)	(ug/l)	(ug/l)
Acetone.....	BDL	2.26
Benzene.....	BDL	0.17
Carbon disulfide.....	BDL	0.57
Carbon tetrachloride.....	BDL	0.11
Chlorobenzene.....	BDL	0.22
Chloroform.....	BDL	0.14
1,2-Dichlorobenzene.....	BDL	0.09
1,3-Dichlorobenzene.....	BDL	0.19
1,4-Dichlorobenzene.....	BDL	0.20
1,1-Dichloroethene.....	BDL	0.27
1,1-Dichloroethane.....	BDL	0.12
Ethylbenzene.....	BDL	0.29
Methylene chloride.....	BDL	0.21
Naphthalene.....	BDL	0.74
Tetrachloroethene.....	BDL	0.31
Toluene.....	BDL	0.20
1,2,4-Trichlorobenzene.....	BDL	0.74
1,1,1-Trichloroethane.....	BDL	0.21
1,1,2-Trichloroethane.....	BDL	0.23
Trichloroethene.....	BDL	0.26

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-2

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Equip Blk-B-2, 02/24/98, 7:45, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
Base/Neutral Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Project Manager

Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-3

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-2, 02/24/98, 9:00, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	2.2	1.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	BDL	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.02	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-3

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-2, 02/24/98, 9:00, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-3

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-2, 02/24/98, 9:00, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Sherri Harper
Project Manager

Christina C. Pafett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-4

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, BG-1, 02/24/98, 9:10, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.005	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.03	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-4

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, BG-1, 02/24/98, 9:10, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-4

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, BG-1, 02/24/98, 9:10, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pufelt
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-5

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-4, 02/24/98, 10:20, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	5	5
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.01	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.04	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-5

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-4, 02/24/98, 10:20, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	1.1	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-5

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-4, 02/24/98, 10:20, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina R. Pulsetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-6

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-1, 02/24/98, 10:30, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	5	2
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.005	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.02	0.008
Total Vanadium (V)(EPA 6010).....	0.007	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-6

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-1, 02/24/98, 10:30, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-6

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-1, 02/24/98, 10:30, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Duffett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-7

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-5D, 02/24/98, 12:00, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.003	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.03	0.008
Total Vanadium (V)(EPA 6010).....	0.009	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-7

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-5D, 02/24/98, 12:00, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-7

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-5D, 02/24/98, 12:00, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Rufeh
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-8

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-1A, 02/24/98, 14:15, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.003	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.04	0.008
Total Vanadium (V)(EPA 6010).....	0.02	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-8

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-1A, 02/24/98, 14:15, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	0.61	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-8

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-1A, 02/24/98, 14:15, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pulletti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-9

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-2, 02/24/98, 13:15, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.002	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.06	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-9

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-2, 02/24/98, 13:15, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-9

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-2, 02/24/98, 13:15, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Perfetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-10

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-3, 02/24/98, 14:00, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	1.2	0.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.001	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.04	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-10

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-3, 02/24/98, 14:00, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	1.9	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	5.5	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	11	0.09
1,3-Dichlorobenzene	6.0	0.19
1,4-Dichlorobenzene	2.0	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	5.0	0.29
Methylene chloride	BDL	0.21
Naphthalene	67	0.74
Tetrachloroethene	BDL	0.31
Toluene	4.0	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	58	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	100
o-Cresol	BDL	100
m+p-Cresol	BDL	100

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-10

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-3, 02/24/98, 14:00, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	160	100
2-Naphthylamine.....	BDL	100

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Project Manager

Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-11

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Dup, 02/24/98, received 02/25/98

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	1.1	0.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010).....	BDL	0.005
Total Barium (Ba)(EPA 6010).....	0.002	0.001
Total Beryllium (Be)(EPA 6010).....	BDL	0.0004
Total Cadmium (Cd)(EPA 6010).....	BDL	0.001
Total Chromium (Cr)(EPA 6010).....	BDL	0.001
Total Copper (Cu)(EPA 6010).....	BDL	0.01
Total Lead (Pb)(EPA 6010).....	BDL	0.004
Total Mercury (Hg)(EPA 7470).....	BDL	0.0002
Total Nickel (Ni)(EPA 6010).....	BDL	0.002
Total Silver (Ag)(EPA 6010).....	BDL	0.0009
Total Zinc (Zn)(EPA 6010).....	0.03	0.008
Total Vanadium (V)(EPA 6010).....	BDL	0.002

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-11

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Dup, 02/24/98, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	2.7	2.26
Benzene	1.8	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	5.9	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	26	0.09
1,3-Dichlorobenzene	5.6	0.19
1,4-Dichlorobenzene	11	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	11	0.29
Methylene chloride	BDL	0.21
Naphthalene	140	0.74
Tetrachloroethene	2.3	0.31
Toluene	23	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	160	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	100
o-Cresol	BDL	100
m+p-Cresol	BDL	100

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-11

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Dup, 02/24/98, received 02/25/98

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	350	100
2-Naphthylamine.....	BDL	100

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pufetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 16, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92282-12

Sample Description

Water, SK-Tampa(Manhattan Ave), Project #97044-1111, Trip Blank, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20

BDL - Below Detection Limit

March 16, 1998
Report No. 92282-12

Water, SK-Tampa(Manhattan Ave), Project #97044-1111, Trip Blank, received 02/25/98

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky
ECT, Tampa

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pufett
Quality Assurance

Analytical Services Inc. Batch QC
For Report Number :92282
Base Neutrals / Acids

Matrix : Aqueous Batch # 36709 Method : EPA 8270

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Phenol	31	40	26	12 - 89	0 - 42
2-Chlorophenol	47	66	34	27 - 123	0 - 40
1,4-Dichlorobenzene	65	66	2	36 - 97	0 - 28
N-Nitrosodipropylamine	88	96	9	41 - 116	0 - 38
1,2,4-Trichlorobenzene	76	81	7	44 - 142	0 - 28
4-Chloro-3-methylphenol	63	74	16	23 - 97	0 - 42
Acenaphthene	89	95	7	46 - 118	0 - 31
2,4-Dinitrotoluene	71	75	6	24 - 96	0 - 38
4-Nitrophenol	22	28	23	10 - 80	0 - 50
Pentachlorophenol	32	39	20	9 - 103	0 - 50
Pyrene	99	99	0	26 - 127	0 - 31

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Phenol	55	54	3	12 - 89	0 - 42
2-Chlorophenol	68	68	0	27 - 123	0 - 40
1,4-Dichlorobenzene	72	65	9	36 - 97	0 - 28
N-Nitrosodipropylamine	96	93	3	41 - 116	0 - 38
1,2,4-Trichlorobenzene	80	79	2	44 - 142	0 - 28
4-Chloro-3-methylphenol	80	78	4	23 - 97	0 - 42
Acenaphthene	97	96	1	46 - 118	0 - 31
2,4-Dinitrotoluene	69	70	1	24 - 96	0 - 38
4-Nitrophenol	51	53	5	10 - 80	0 - 50
Pentachlorophenol	91	94	3	9 - 103	0 - 50
Pyrene	100	110	10	26 - 127	0 - 31

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 36709 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
36709BLK	A8158	23	37	92	106.	57	116
36709LCS	A8159	24	32	80	94	60	108
36709LCSD	A8160	40	40	88	99	105	107
92282-2	A8161	25	40	88	110	83	106
92282-3	A8162	40	41	78	97	110	99
92282-3MS	A8163	51	64	80	100	118	108
92282-3MSD	A8164	54	55	80	100	121	119
92282-4	A8165	38	38	71	101	100	104
92282-5	A8166	38	37	71	95	105	93
92282-6	A8167	41	42	82	109	118	119
92282-7	A8168	42	43	78	101	96	106
92282-8	A8169	41	45	78	102	101	106
92154-3RR	B4243	8	2	61	59	1	63
^^Note: MATRIX EFFECT							
92371-1	A8238	46	38	80	89	54	120
92371-2	A8239	46	35	77	91	48	105
92371-3	A8240	61	46	80	91	67	105
92371-4	A8241	47	37	79	88	59	104
92371-5	A8242	49	37	80	90	57	101
92371-6	A8243	48	36	72	87	72	118
92371-7	A8244	43	35	69	76	46	84
92371-10	A8245	49	38	78	91	28	117
92371-11	A8246	45	35	73	81	33	98
92282-9	B4264	39	34	56	64	61	74
92282-10	B4265						
^^Note: NO USABLE DATA							
92282-11	B4262						
^^Note: FV=5ML NO USABLE DATA							
92282-11DUP	B4263						
^^Note: NO USABLE DATA							
92282-10D	B4280	23	72	661	56	49	47
^^Note: 1:10 MATRIX EFFECT							

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 36709 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
92282-11D	B4281	31	71	260	58	43	53
^^Note: 1:50 MATRIX EFFECT							
92282-11DUP D	B4282	22	351	294	60	77	54
^^Note: 1:10							

Q.C. Information for Batch # 36709 Printed: 03/16/98 10:12:51

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

Q.C. Information for Batch # 36709 Printed: 03/16/98 10:12:51

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
36709BLK	02/27/98	0900	JW		02/27/98	1733	TAS	5970
36709LCS	02/27/98	0900	JW		02/27/98	1805	TAS	5970
36709LCSD	02/27/98	0900	JW		02/27/98	1836	TAS	5970
92282-2	02/27/98	0900	JW		02/27/98	1907	TAS	5970
92282-3	02/27/98	0900	JW		02/27/98	1939	TAS	5970
92282-3MS	02/27/98	0900	JW		02/27/98	2010	TAS	5970
92282-3MSD	02/27/98	0900	JW		02/27/98	2041	TAS	5970
92282-4	02/27/98	0900	JW		02/27/98	2112	TAS	5970
92282-5	02/27/98	0900	JW		02/27/98	2144	TAS	5970
92282-6	02/27/98	0900	JW		02/27/98	2215	TAS	5970
92282-7	02/27/98	0900	JW		02/27/98	2246	TAS	5970
92282-8	02/27/98	0900	JW		02/27/98	2316	TAS	5970
92282-9	02/27/98	1400	JW		03/03/98	2051	TAS	5971
92282-10	02/27/98	1400	JW		03/03/98	2125	TAS	5971
92282-11	02/27/98	1400	JW		03/03/98	1942	TAS	5971
92154-3RR	02/27/98	1400	JW		03/03/98	0718	TAS	5971
92282-11DUP	03/02/98	0830	TB/JW		03/03/98	2017	TAS	5971
92371-1	03/02/98	0830	TB/JW		03/03/98	1603	TAS	5970
92371-2	03/02/98	0830	TB/JW		03/03/98	1635	TAS	5970
9 1-3	03/02/98	0830	TB/JW		03/03/98	1708	TAS	5970
92371-4	03/02/98	0830	TB/JW		03/03/98	1741	TAS	5970
92371-5	03/02/98	0830	TB/JW		03/03/98	1812	TAS	5970
92371-6	03/02/98	0830	TB/JW		03/03/98	1845	TAS	5970
92371-7	03/02/98	0830	TB/JW		03/03/98	1917	TAS	5970
92371-10	03/02/98	0830	TB/JW		03/03/98	1950	TAS	5970
92371-11	03/02/98	0830	TB/JW		03/03/98	2022	TAS	5970
92371-12	/ /				03/03/98	2055	TAS	5970
92371-13	/ /				03/03/98	2127	TAS	5970
92371-14	/ /				03/03/98	2159	TAS	5970
92371-15	/ /				03/03/98	2232	TAS	5970
92282-10D	/ /				03/04/98	1957	TAS	5971
92282-11D	/ /				03/04/98	2032	TAS	5971
92282-11DUP D	/ /				03/04/98	2107	TAS	5971

Analytical Services Inc. Batch QC
For Report Number :92282
Volatile Organics

Matrix : Aqueous Batch # 36789 Method : EPA 8260

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	85	74	14	61 - 145	0 - 14
Trichloroethene	88	80	10	71 - 120	0 - 14
Benzene	84	78	7	76 - 127	0 - 11
Toluene	89	82	8	76 - 125	0 - 13
Chlorobenzene	88	85	4	75 - 130	0 - 13

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	81	70	15	61 - 145	0 - 14
Trichloroethene	108	97	11	71 - 120	0 - 14
Benzene	107	95	12	76 - 127	0 - 11
Toluene	112	101	10	76 - 125	0 - 13
Chlorobenzene	115	102	12	75 - 130	0 - 13

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics

Matrix : Aqueous Batch # 36789 Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
36789LCS	C1748	97	99	100	104		
36789LCSD	C1749	101	100	102	105		
36789BLK1	C1750	104	99	101	99		
92282-12	C1752	105	96	91	94		
92282-2	C1753	105	95	96	96		
92282-3	C1754	104	98	96	96		
92282-4	C1755	100	99	94	94		
92282-5	C1756	106	98	96	95		
92282-6	C1758	87	97	95	90		
92282-7	C1759	104	94	90	95		
92282-8	C1760	104	98	96	95		
92282-9	C1761	103	98	97	95		
92282-10	C1762	103	100	99	103		
92282-11	C1763	110	100	99	103		
92282-11DUP	C1764	117	101	102	106		
92282-6MS	C1765	116	102	104	104		
92282-6MSD	C1766	113	102	105	103		
92366-1	C1772	85	102	111	94		
92366-2	C1773	113	99	99	102		
92366-3	C1774	115	102	101	105		
92366-4	C1775	116	100	100	101		
92366-5	C1776	114	98	97	102		
92366-6	C1777	113	100	100	101		
92509-1	B3876	104	93	100	121		
92509-2	B3877	110	93	98	107		
92555-2	B3878	117	97	97	108		
92509-1D	B3881	107	91	100	110		
^^Note: DF=50							
92509-2DUP	B3908	107	96	99	102		
925091-D2	B3909	113	93	99	109		
^^Note: DF=200							

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes	BDL	0.36

Q.C. Information for Batch # 36789 Printed: 03/16/98 10:12:55

Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
36789LCS	/ /				03/02/98	1050	TLW	VOA3
36789LCSD	/ /				03/02/98	1116	TLW	VOA3
36789BLK1	/ /				03/02/98	1142	TLW	VOA3
92282-12	/ /				03/02/98	1235	TLW	VOA3
92282-2	/ /				03/02/98	1301	TLW	VOA3
92282-3	/ /				03/02/98	1326	TLW	VOA3
92282-4	/ /				03/02/98	1352	TLW	VOA3
92282-5	/ /				03/02/98	1418	TLW	VOA3
92282-6	/ /				03/02/98	1500	TLW	VOA3
92282-7	/ /				03/02/98	1528	TLW	VOA3
92282-8	/ /				03/02/98	1553	TLW	VOA3
92282-9	/ /				03/02/98	1619	TLW	VOA3
92282-10	/ /				03/02/98	1645	TLW	VOA3
92282-11	/ /				03/02/98	1710	TLW	VOA3
92282-11DUP	/ /				03/02/98	1736	TLW	VOA3
92282-6MS	/ /				03/02/98	1802	TLW	VOA3
92282-6MSD	/ /				03/02/98	1846	TLW	VOA3
92366-1	/ /				03/03/98	1325	LLP	VOA3
92366-2	/ /				03/03/98	1351	LLP	VOA3
92366-3	/ /				03/03/98	1416	LLP	VOA3
92366-4	/ /				03/03/98	1442	LLP	VOA3
92366-5	/ /				03/03/98	1507	LLP	VOA3
92366-6	/ /				03/03/98	1533	LLP	VOA3
92509-1	/ /				03/10/98	1231	RFA	VOA2
92509-2	/ /				03/10/98	1255	RFA	VOA2
92555-2	/ /				03/10/98	1319	RFA	VOA2
92509-1D	/ /				03/10/98	1430	RFA	VOA2
92509-2DUP	/ /				03/11/98	0859	RFA	VOA2
925091-D2	/ /				03/11/98	0923	RFA	VOA2

Analytical Services Inc. Batch QC
For Report Number :92282

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
36548	Hg	EPA 7470	Aqueous	<	0.0002	
36640	Ag	EPA 6010	Aqueous	<	0.0009	
36640	As	EPA 6010	Aqueous	<	0.0050	
36640	Ba	EPA 6010	Aqueous	<	0.0010	
36640	Be	EPA 6010	Aqueous	<	0.0004	
36640	Cd	EPA 6010	Aqueous	<	0.0010	
36640	Cr	EPA 6010	Aqueous	<	0.0010	
36640	Cu	EPA 6010	Aqueous	<	0.0100	
36640	Ni	EPA 6010	Aqueous	<	0.0020	
36640	Pb	EPA 6010	Aqueous	<	0.0040	
36640	V	EPA 6010	Aqueous	<	0.0020	
36640	Zn	EPA 6010	Aqueous	<	0.0080	
36645	Ag	EPA 6010	Aqueous	<	0.0009	
^^Note :	QC PASSES ON LCS,LCSD,MS,PDS					
36645	As	EPA 6010	Aqueous	<	0.0050	
36645	Ba	EPA 6010	Aqueous	<	0.0010	
36645	Be	EPA 6010	Aqueous	<	0.0004	
36645	Cd	EPA 6010	Aqueous	<	0.0010	
36645	Cr	EPA 6010	Aqueous	<	0.0010	
36645	Cu	EPA 6010	Aqueous	<	0.0100	
36645	Ni	EPA 6010	Aqueous	<	0.0020	
36645	Pb	EPA 6010	Aqueous	<	0.0040	
36645	V	EPA 6010	Aqueous	<	0.0020	
36645	Zn	EPA 6010	Aqueous	<	0.0080	
36829	S	SM 4500-S	Aqueous	<	0.2000	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
36548	Hg	EPA 7470	86	94	9	76 - 124	0 - 20
36640	Ag	EPA 6010	110	110	0	76 - 124	0 - 20
36640	As	EPA 6010	100	98	2	76 - 124	0 - 20
36640	Ba	EPA 6010	90	88	2	76 - 124	0 - 20
36640	Be	EPA 6010	98	96	2	76 - 124	0 - 20
36640	Cd	EPA 6010	93	91	2	76 - 124	0 - 20
36640	Cr	EPA 6010	90	87	3	76 - 124	0 - 20
36640	Cu	EPA 6010	89	86	3	76 - 124	0 - 20
36640	Ni	EPA 6010	98	95	3	76 - 124	0 - 20
36640	Pb	EPA 6010	99	97	2	76 - 124	0 - 20
36640	V	EPA 6010	100	100	0	76 - 124	0 - 20
36640	Zn	EPA 6010	94	90	4	76 - 124	0 - 20
36645	Ag	EPA 6010	120	106	12	76 - 124	0 - 20

Analytical Services Inc. Batch QC
For Report Number :92282

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
36645	As	EPA 6010	100	99	1	76 - 124	0 - 20
36645	Ba	EPA 6010	96	95	1	76 - 124	0 - 20
36645	Be	EPA 6010	100	100	0	76 - 124	0 - 20
36645	Cd	EPA 6010	94	94	0	76 - 124	0 - 20
36645	Cr	EPA 6010	100	100	0	76 - 124	0 - 20
36645	Cu	EPA 6010	94	92	2	76 - 124	0 - 20
36645	Ni	EPA 6010	99	98	1	76 - 124	0 - 20
36645	Pb	EPA 6010	94	93	1	76 - 124	0 - 20
36645	V	EPA 6010	100	99	1	76 - 124	0 - 20
36645	Zn	EPA 6010	92	92	0	76 - 124	0 - 20
36829	S	SM 4500-S	97	103	6	60 - 140	0 - 40

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
36648	Hg	EPA 7470	100	94	6	76 - 124	0 - 20
3[illegible]0	Ag	EPA 6010	100	110	10	76 - 124	0 - 20
36640	As	EPA 6010	95	98	3	76 - 124	0 - 20
36640	Ba	EPA 6010	84	87	4	76 - 124	0 - 20
36640	Be	EPA 6010	91	95	4	76 - 124	0 - 20
36640	Cd	EPA 6010	86	90	5	76 - 124	0 - 20
36640	Cr	EPA 6010	82	87	6	76 - 124	0 - 20
36640	Cu	EPA 6010	83	86	4	76 - 124	0 - 20
36640	Ni	EPA 6010	89	93	4	76 - 124	0 - 20
36640	Pb	EPA 6010	92	96	4	76 - 124	0 - 20
36640	V	EPA 6010	97	100	3	76 - 124	0 - 20
36640	Zn	EPA 6010	86	89	3	76 - 124	0 - 20
36645	Ag	EPA 6010	120	130	8	76 - 124	0 - 20
36645	As	EPA 6010	100	110	10	76 - 124	0 - 20
36645	Ba	EPA 6010	94	97	3	76 - 124	0 - 20
36645	Be	EPA 6010	100	100	0	76 - 124	0 - 20
36645	Cd	EPA 6010	89	91	2	76 - 124	0 - 20
36645	Cr	EPA 6010	99	100	1	76 - 124	0 - 20
36645	Cu	EPA 6010	94	97	3	76 - 124	0 - 20
36645	Ni	EPA 6010	100	100	0	76 - 124	0 - 20
36645	Pb	EPA 6010	95	99	4	76 - 124	0 - 20
36645	V	EPA 6010	99	100	1	76 - 124	0 - 20
36645	Zn	EPA 6010	110	94	16	76 - 124	0 - 20
36829	S	SM 4500-S	96	96	0	60 - 140	0 - 40

Analytical Services Inc. Batch QC
For Report Number :92282

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
36640	Cr	EPA 6010	88	76 - 124
36640	Ni	EPA 6010	36	76 - 124
36645	Ag	EPA 6010	93	76 - 124
36645	As	EPA 6010	120	76 - 124
36645	Ba	EPA 6010	110	76 - 124
36645	Be	EPA 6010	120	76 - 124
36645	Cd	EPA 6010	110	76 - 124
36645	Cr	EPA 6010	110	76 - 124
36645	Cu	EPA 6010	110	76 - 124
36645	Ni	EPA 6010	120	76 - 124
36645	Pb	EPA 6010	110	76 - 124
36645	V	EPA 6010	120	76 - 124
36645	Zn	EPA 6010	110	76 - 124

Unspiked Sample Duplicate Information

Batch Number	Analyte	Method	Sample 1 RPD	Sample 2 RPD	RPD Range
36829	S	SM 4500-S	7	0	0 - 40

Q.C. Information for Batch # 36548 For Report Number :92282

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
36548BLANK	HG	02/27/98	0710	FBS		02/27/98	1224	FBS	HG1
36548LCS	HG	02/27/98	0710	FBS		02/27/98	1227	FBS	HG1
36548LCSD	HG	02/27/98	0710	FBS		02/27/98	1229	FBS	HG1
92282-3MS	HG	02/27/98	0710	FBS		02/27/98	1231	FBS	HG1
92282-3MSD	HG	02/27/98	0710	FBS		02/27/98	1234	FBS	HG1
92282-5DUP	HG	02/27/98	0710	FBS		02/27/98	1336	FBS	HG1
92219	HG	02/27/98	0710	FBS		02/27/98	1306	FBS	HG1
92310-1	HG	02/27/98	0710	FBS		02/27/98	1308	FBS	HG1
92315-1	HG	02/27/98	0710	FBS		02/27/98	1311	FBS	HG1
92325-11	HG	02/27/98	0710	FBS		02/27/98	1313	FBS	HG1
92325-12	HG	02/27/98	0710	FBS		02/27/98	1320	FBS	HG1
92325-13	HG	02/27/98	0710	FBS		02/27/98	1323	FBS	HG1
92282-1	HG	02/27/98	0710	FBS		02/27/98	1238	FBS	HG1
92282-3	HG	02/27/98	0710	FBS		02/27/98	1240	FBS	HG1
92282-4	HG	02/27/98	0710	FBS		02/27/98	1243	FBS	HG1
92282-5	HG	02/27/98	0710	FBS		02/27/98	1245	FBS	HG1
92282-6	HG	02/27/98	0710	FBS		02/27/98	1252	FBS	HG1
92282-7	HG	02/27/98	0710	FBS		02/27/98	1255	FBS	HG1
92282-8	HG	02/27/98	0710	FBS		02/27/98	1257	FBS	HG1
92282-9	HG	02/27/98	0710	FBS		02/27/98	1259	FBS	HG1
92282-10	HG	02/27/98	0710	FBS		02/27/98	1301	FBS	HG1
92282-11	HG	02/27/98	0710	FBS		02/27/98	1304	FBS	HG1
92249-1	HG	02/27/98	0710	FBS	AKA 92228-17	02/27/98	1325	FBS	HG1
92249-2	HG	02/27/98	0710	FBS	AKA 92228-18	02/27/98	1327	FBS	HG1
92249-3	HG	02/27/98	0710	FBS	AKA 92228-19	02/27/98	1330	FBS	HG1
92255	HG	02/27/98	0710	FBS		02/27/98	1332	FBS	HG1

Q.C. Information for Batch # 36640 For Report Number :92282

Sample Batch Information
Analysis : Ag, As, Ba, Be, Cd, Cr, Cu, Ni, Pb, V, Zn

Sample ID	Tag	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst
36640BLANK		03/05/98	0920	DCM	TRACE	03/10/98	1032	MCW	ICP2
36640LCS		03/05/98	0920	DCM	TRACE	03/10/98	1040	MCW	ICP2
36640LCSD		03/05/98	0920	DCM	TRACE	03/10/98	1043	MCW	ICP2
92470-1MS		03/05/98	0920	DCM	TRACE	03/10/98	1046	MCW	ICP2
92470-1MSD		03/05/98	0920	DCM	TRACE	03/10/98	1050	MCW	ICP2
92470-2PDS		03/05/98	0920	DCM	TRACE	03/10/98	1053	MCW	ICP2
92470-2DUP		03/05/98	0920	DCM	TRACE	03/10/98	1056	MCW	ICP2
92470-1		03/05/98	0920	DCM	TRACE	03/10/98	1059	MCW	ICP2
92470-10		03/05/98	0920	DCM	TRACE	03/10/98	1133	MCW	ICP2
92470-2		03/05/98	0920	DCM	TRACE	03/10/98	1102	MCW	ICP2
92470-3		03/05/98	0920	DCM	TRACE	03/10/98	1105	MCW	ICP2
92470-4		03/05/98	0920	DCM	TRACE	03/10/98	1114	MCW	ICP2
92470-5		03/05/98	0920	DCM	TRACE	03/10/98	1118	MCW	ICP2
92470-6		03/05/98	0920	DCM	TRACE	03/10/98	1121	MCW	ICP2
92470-7		03/05/98	0920	DCM	TRACE	03/10/98	1124	MCW	ICP2
92470-8		03/05/98	0920	DCM	TRACE	03/10/98	1127	MCW	ICP2
92470-9		03/05/98	0920	DCM	TRACE	03/10/98	1130	MCW	ICP2
92270-9		03/05/98	0920	DCM	TRACE	03/10/98	1136	MCW	ICP2
9[illegible]82-1		03/05/98	0920	DCM	TRACE	03/10/98	1139	MCW	ICP2
9[illegible]32-10		03/05/98	0920	DCM	TRACE	03/10/98	1204	MCW	ICP2
92282-11		03/05/98	0920	DCM	TRACE	03/10/98	1207	MCW	ICP2
92282-3		03/05/98	0920	DCM	TRACE	03/10/98	1142	MCW	ICP2
92282-4		03/05/98	0920	DCM	TRACE	03/10/98	1152	MCW	ICP2
92282-5		03/05/98	0920	DCM	TRACE	03/10/98	1155	MCW	ICP2
92282-6		03/05/98	0920	DCM	TRACE	03/10/98	1158	MCW	ICP2
92282-7		03/05/98	0920	DCM	TRACE	03/10/98	1201	MCW	ICP2
92282-8		03/05/98	0920	DCM	TRACE	03/10/98	1211	MCW	ICP2

Q.C. Information for Batch # 36645 For Report Number :92282

Sample Batch Information
Analysis : Ag, As, Ba, Be, Cd, Cr, Cu, Ni, Pb, V, Zn

Sample ID	Tag	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst
36645BLANK		03/06/98	0900	KSP	TRACE	03/06/98	1846	MAB	ICP2
36645LCS		03/06/98	0900	KSP	TRACE	03/06/98	1849	MAB	ICP2
36645LCSD		03/06/98	0900	KSP	TRACE	03/06/98	1853	MAB	ICP2
92327-1MS		03/06/98	0900	KSP	TRACE	03/06/98	1937	MAB	ICP2
92327-1MSD		03/06/98	0900	KSP	TRACE	03/06/98	1940	MAB	ICP2
92327-2PDS		03/06/98	0900	KSP	TRACE	03/06/98	1943	MAB	ICP2
92327-2DUP		03/06/98	0900	KSP	TRACE	03/06/98	1947	MAB	ICP2
92282-9		03/06/98	0900	KSP	TRACE	03/06/98	1956	MAB	ICP2
92327-10		03/06/98	0900	KSP	TRACE	03/06/98	2028	MAB	ICP2
92327-11		03/06/98	0900	KSP	TRACE	03/06/98	2031	MAB	ICP2
92327-12		03/06/98	0900	KSP	TRACE	03/06/98	2035	MAB	ICP2
92327-13		03/06/98	0900	KSP	TRACE	03/06/98	2044	MAB	ICP2
92327-14		03/06/98	0900	KSP	TRACE	03/06/98	2048	MAB	ICP2
92327-15		03/06/98	0900	KSP	TRACE	03/06/98	2051	MAB	ICP2
92327-16		03/06/98	0900	KSP	TRACE	03/06/98	2054	MAB	ICP2
92327-17		03/06/98	0900	KSP	TRACE	03/06/98	2057	MAB	ICP2
92327-18		03/06/98	0900	KSP	TRACE	03/06/98	2100	MAB	ICP2
92327-19		03/06/98	0900	KSP	TRACE	03/06/98	2104	MAB	ICP2
9[illegible]27-2		03/06/98	0900	KSP	TRACE	03/06/98	2009	MAB	ICP2
9[illegible]27-20		03/06/98	0900	KSP	TRACE	03/06/98	2107	MAB	ICP2
92327-21		03/06/98	0900	KSP	TRACE	03/06/98	2110	MAB	ICP2
92327-3		03/06/98	0900	KSP	TRACE	03/06/98	2012	MAB	ICP2
92327-4		03/06/98	0900	KSP	TRACE	03/06/98	2015	MAB	ICP2
92327-5		03/06/98	0900	KSP	TRACE	03/06/98	2019	MAB	ICP2
92327-6		03/06/98	0900	KSP	TRACE	03/06/98	2022	MAB	ICP2
92327-7		03/06/98	0900	KSP	TRACE	03/06/98	2025	MAB	ICP2
QC BLK		03/06/98	0900	KSP	TRACE	03/06/98	2113	MAB	ICP2
92327-1		03/06/98	0900	KSP	TRACE	03/06/98	2006	MAB	ICP2
92152-18MS		03/06/98	0900	KSP	D/N	03/06/98	1950	MAB	ICP2
92152-19MSD		03/06/98	0900	KSP	D/N	03/06/98	1953	MAB	ICP2

Q.C. Information for Batch # 36829 For Report Number :92282

Sample Batch Information
Analysis : S

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
36829BLK		/ /				03/03/98	0900	JN	HACH
36829LCS		/ /				03/03/98	0900	JN	HACH
36829LCSD		/ /				03/03/98	0900	JN	HACH
36829CALCHK		/ /				03/03/98	0900	JN	HACH
92221-19MS		/ /				03/03/98	0900	JN	HACH
92221-19MSD		/ /				03/03/98	0900	JN	HACH
92221-3		/ /				03/03/98	0900	JN	HACH
92221-7		/ /				03/03/98	0900	JN	HACH
92221-11		/ /				03/03/98	0900	JN	HACH
92221-15		/ /				03/03/98	0900	JN	HACH
92221-19		/ /				03/03/98	0900	JN	HACH
92221-23		/ /				03/03/98	0900	JN	HACH
92221-27		/ /				03/03/98	0900	JN	HACH
92243-2		/ /				03/03/98	0900	JN	HACH
92282-2		/ /				03/03/98	0900	JN	HACH
92282-3		/ /				03/03/98	0900	JN	HACH
92282-3DUP		/ /				03/03/98	0900	JN	HACH
92282-2DUP		/ /				03/03/98	0900	JN	HACH
92282-4		/ /				03/03/98	0900	JN	HACH
92282-5		/ /				03/03/98	0900	JN	HACH
92282-6		/ /				03/03/98	0900	JN	HACH
92282-7		/ /				03/03/98	0900	JN	HACH
92282-8		/ /				03/03/98	0900	JN	HACH
92282-9		/ /				03/03/98	0900	JN	HACH
92282-10		/ /				03/03/98	0900	JN	HACH
92282-11		/ /				03/03/98	0900	JN	HACH

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: ECT / Safety Kleen

CLIENT ADDRESS AND PHONE NUMBER: 5405 Cypress Center Drive Suite 200 Tampa Fl. 33609 813-289-9331

PROJECT MANAGER: Rick Stebnisky

COPY TO (if applicable):

REQUESTED COMPLETION DATE: Standard

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☒ OTHER ____

PROJECT NAME: SK / MA

PROJECT NUMBER: 97044-1111

PURCHASE ORDER NO.:

FOR LAB USE ONLY

LAB #: 92282

PROJECT NO.:

ACK: VERIFIED:

QUOTE #: BS:

NO. OF SAMP: 11 PG: 1 OF: 1

ANALYSES REQUESTED

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	8240	Metals	Hg	8270	9030						LAB ID	REMARKS/ADDITIONAL INFORMATION
	2/24/98	745				Equip Blk -T-1	2		1	1								1	
		745				Equip Blk - B-2	6	3			2	1						2	
		900				SA-2	8	3	1	1	2	1						3	
		910				BG-1	8	3	1	1	2	1						4	
		1020				SA-4	8	3	1	1	2	1						5	
		1030				POC-1	8	3	1	1	2	1						6	
		1200				DA-5D	8	3	1	1	2	1						7	
		1415				DA-1A	8	3	1	1	2	1						8	
		1315				POC-2	8	3	1	1	2	1						9	
		1400				POC-3	8	3	1	1	2	1						10	
		—				Dupe 1	8	3	1	1	2	1						11	
																		12	Trip Blank

SAMPLED BY AND TITLE: Ralph Henry Field Service Mgr	DATE/TIME: 2/24/98 All day	RELINQUISHED BY: Ralph Henry	DATE/TIME: 2/24/98 1600
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY LAB: S. Good	DATE/TIME: 2/25/98 0910	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____	AIR BILL #: 801856467986, 8000, 8002, 0785543356

HAZWRAP/NEESA Y N
QC LEVEL 1 2 3
COC ✓ ICE ✓
ANA REQ TEMP 0C
CUST SEAL intact PH 1 (met)
SAMPLE COND. good

REMARKS: 80 cont.

ENTERED INTO LIMS ____ COC REVIEWD ____

APPENDIX C

REMEDIAL SYSTEM ANALYTICAL LABORATORY REPORTS

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

January 20, 1998

P.O. No. E13353

Report No. 90409-1

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #97044-1111, Influent 123097, 12/30/97, 15:05, received 12/31/97

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.01	0.001
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Selenium (Se)(EPA 6010)	BDL	0.006
Total Silver (Ag)(EPA 6010)	BDL	0.0009
BTEX (EPA 8020)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.26
Ethylbenzene	1.7	0.24
Toluene	BDL	0.48
Xylenes	4.3	0.82

BDL - Below Detection Limit

January 20, 1998
Report No. 90409-1

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #97044-1111, Influent 123097, 12/30/97, 15:05, received 12/31/97

RESULTS

Halogenated Volatile Organics (EPA 8010)	Result (ug/l)	Detection Limit (ug/l)
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.22
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	3.5	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.42
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.49
1,3-Dichlorobenzene	BDL	0.32
1,4-Dichlorobenzene	BDL	0.39
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.27
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.37
1,1,2,2-Tetrachloroethane	BDL	0.25
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.25
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

Christina G. Rylett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

January 20, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 90409-2

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #97044-1111, Intercarbon 123097, 12/30/97, 15:03, received 12/31/97

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.004	0.001
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Selenium (Se) (EPA 6010)	BDL	0.006
Total Silver (Ag) (EPA 6010)	BDL	0.0009
BTEX (EPA 8020)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.26
Ethylbenzene	BDL	0.24
Toluene	BDL	0.48
Xylenes	BDL	0.82

BDL - Below Detection Limit

January 20, 1998
Report No. 90409-2

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #97044-1111, Intercarbon 123097, 12/30/97, 15:03, received 12/31/97

RESULTS

Halogenated Volatile Organics (EPA 8010)	Result (ug/l)	Detection Limit (ug/l)
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.22
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.42
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.49
1,3-Dichlorobenzene	BDL	0.32
1,4-Dichlorobenzene	BDL	0.39
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.27
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.37
1,1,2,2-Tetrachloroethane	BDL	0.25
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.25
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Ruffetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

January 20, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 90409-3

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #97044-1111, Effluent 123097, 12/30/97, 15:00, received 12/31/97

RESULTS

Hold until further notice.

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Pufetti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

Analytical Services Inc. Batch QC
For Report Number :90409
Volatiles

Matrix : Aqueous Batch # 35515 Method : EPA 8010

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Benzyl chloride	129	135	4	50 - 150	0 - 20
Bromobenzene	105	112	7	50 - 150	0 - 20
Bromodichloromethane	115	125	9	42 - 172	0 - 20
Bromoform	118	118	0	13 - 159	0 - 20
Bromomethane	122	132	8	D - 144	0 - 20
Carbon tetrachloride	121	127	5	43 - 143	0 - 20
Chlorobenzene	112	111	1	38 - 150	0 - 20
Chloroethane	97	107	10	46 - 137	0 - 20
Chloroform	120	123	3	49 - 133	0 - 20
2-Chloroethylvinyl ether	133	119	11	14 - 186	0 - 20
Chloromethane	99	108	9	D - 193	0 - 20
Dibromochloromethane	112	126	12	24 - 191	0 - 20
Dibromomethane	115	125	9	50 - 150	0 - 20
1,2-Dichlorobenzene	112	114	2	D - 208	0 - 20
1,3-Dichlorobenzene	110	115	4	7 - 187	0 - 20
1,4-Dichlorobenzene	114	120	4	42 - 143	0 - 20
D[illegible]hlorodifluoromethane	105	111	6	50 - 150	0 - 20
1,[illegible]-Dichloroethane	121	119	1	47 - 132	0 - 20
1,2-Dichloroethane	118	128	8	51 - 147	0 - 20
1,1-Dichloroethene	106	116	9	28 - 167	0 - 20
trans-1,2-Dichloroethene	108	112	4	38 - 155	0 - 20
1,2-Dichloropropane	126	126	0	44 - 156	0 - 20
cis-1,3-Dichloropropene	120	119	1	22 - 178	0 - 20
trans-1,3-Dichloropropene	116	117	1	22 - 178	0 - 20
Methylene chloride	117	127	8	25 - 162	0 - 20
1,1,2,2-Tetrachloroethane	115	120	4	8 - 184	0 - 20
1,1,1,2-Tetrachloroethane	124	127	2	50 - 150	0 - 20
Tetrachloroethene	163	121	30	26 - 162	0 - 20
1,1,1-Trichloroethane	121	125	3	41 - 138	0 - 20
1,1,2-Trichloroethane	112	124	11	39 - 136	0 - 20
Trichloroethene	127	124	3	35 - 146	0 - 20
Trichlorofluoromethane	95	102	7	21 - 156	0 - 20
Trichloropropane	117	124	6	50 - 150	0 - 20
Vinyl chloride	102	107	5	28 - 163	0 - 20

Analytical Services Inc. Batch QC
Volatiles

Matrix : Aqueous Batch # 35515 Method : EPA 8010

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Benzyl chloride	97	107	10	50 - 150	0 - 20
Bromobenzene	96	98	3	50 - 150	0 - 20
Bromodichloromethane	126	121	4	42 - 172	0 - 20
Bromoform	115	113	2	13 - 159	0 - 20
Bromomethane	134	144	7	D - 144	0 - 20
Carbon tetrachloride	132	133	1	43 - 143	0 - 20
Chlorobenzene	117	125	7	38 - 150	0 - 20
Chloroethane	117	120	3	46 - 137	0 - 20
Chloroform	129	128	1	49 - 133	0 - 20
2-Chloroethylvinyl ether	0	0	NC	14 - 186	0 - 20
Chloromethane	128	122	4	D - 193	0 - 20
Dibromochloromethane	123	122	1	24 - 191	0 - 20
Dibromomethane	126	121	4	50 - 150	0 - 20
1,2-Dichlorobenzene	109	118	7	D - 208	0 - 20
1,3-Dichlorobenzene	116	128	10	7 - 187	0 - 20
1,4-Dichlorobenzene	115	129	11	42 - 143	0 - 20
Dichlorodifluoromethane	109	116	6	50 - 150	0 - 20
1,1-Dichloroethane	126	124	1	47 - 132	0 - 20
1 [illegible]-Dichloroethane	122	124	2	51 - 147	0 - 20
1 [illegible]-Dichloroethene	127	128	1	28 - 167	0 - 20
trans-1,2-Dichloroethene	141	104	30	38 - 155	0 - 20
1,2-Dichloropropane	131	127	3	44 - 156	0 - 20
cis-1,3-Dichloropropene	127	123	3	22 - 178	0 - 20
trans-1,3-Dichloropropene	129	128	1	22 - 178	0 - 20
Methylene chloride	185	120	43	25 - 162	0 - 20
1,1,2,2-Tetrachloroethane	134	135	1	8 - 184	0 - 20
1,1,1,2-Tetrachloroethane	139	138	1	50 - 150	0 - 20
Tetrachloroethene	123	131	7	26 - 162	0 - 20
1,1,1-Trichloroethane	130	130	0	41 - 138	0 - 20
1,1,2-Trichloroethane	135	136	1	39 - 136	0 - 20
Trichloroethene	123	124	1	35 - 146	0 - 20
Trichlorofluoromethane	109	111	1	21 - 156	0 - 20
Trichloropropane	136	138	2	50 - 150	0 - 20
Vinyl chloride	107	119	11	28 - 163	0 - 20

NC = Not Calculated

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatiles

Matrix : Aqueous Batch # 35515 Method : EPA 8010

% Recovery Objectives

S1	Bromofluorobenzene	50 - 150

Sample	File	S1	S2	S3	S4	S5	S6
35515BLK	010997001F	116					
35515LCS	010998011F	93					
35515LCSD	010998012F	96					
90409-2MS	010998017F	104					
90409-2MSD	010998018F	106					
90409-1DUP	010998015F	113					
90409-1	010998014F	112					
90409-2	010998016F	123					
90564-3	011498003F	112					

^^Note: AIR

Blank Results Information
Volatiles Method : EPA 8010

Analyte	Blank Result	Detection Limit
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.22
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.42
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.49
1,3-Dichlorobenzene	BDL	0.32
1,4-Dichlorobenzene	BDL	0.39
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.27
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.37
1,1,2,2-Tetrachloroethane	BDL	0.25
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.25
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

Q.C. Information for Batch # 35515 Printed: 01/20/98 18:43:47

Sample Batch Information
Volatiles Method : EPA 8010

Sample ID	Preparation Date	Time	By	Preparation Notes	Analysis Date	Time	By	Inst #
35515BLK	/ /				01/09/98	1729	DR	VGC1
35515LCS	/ /				01/10/98	1522	DR	VGC1
35515LCSD	/ /				01/10/98	1615	DR	VGC1
90409-2MS	/ /				01/10/98	2042	DR	VGC1
90409-2MSD	/ /				01/10/98	2135	DR	VGC1
90409-1DUP	/ /				01/10/98	1855	DR	VGC1
90409-1	/ /				01/10/98	1802	DR	VGC1
90409-2	/ /				01/10/98	1949	DR	VGC1
90564-3	/ /				01/14/98	1333	DR	VGC1

Analytical Services Inc. Batch QC
For Report Number :90409
Volatiles

Matrix : Aqueous Batch # 35516 Method : EPA 8020

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Benzene	97	99	2	39 - 150	0 - 20
Chlorobenzene	0	0	NC	55 - 135	0 - 20
1,4-Dichlorobenzene	0	0	NC	42 - 143	0 - 20
1,3-Dichlorobenzene	0	0	NC	50 - 141	0 - 20
1,2-Dichlorobenzene	0	0	NC	37 - 154	0 - 20
Ethylbenzene	97	100	3	32 - 160	0 - 20
Toluene	95	97	1	46 - 148	0 - 20
Xylenes	92	96	4	71 - 133	0 - 20

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Benzene	103	103	1	39 - 150	0 - 20
Chlorobenzene	0	0	NC	55 - 135	0 - 20
1,4-Dichlorobenzene	0	0	NC	42 - 143	0 - 20
1 [illegible]-Dichlorobenzene	0	0	NC	50 - 141	0 - 20
1 [illegible]-Dichlorobenzene	0	0	NC	37 - 154	0 - 20
Ethylbenzene	100	101	0	32 - 160	0 - 20
Toluene	101	101	1	46 - 148	0 - 20
Xylenes	95	96	0	71 - 133	0 - 20

NC = Not Calculated

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatiles

Matrix : Aqueous Batch # 35516 Method : EPA 8020

% Recovery Objectives

S1	Bromofluorobenzene	50 - 150

Sample	File	S1	S2	S3	S4	S5	S6
35516BLK	010997001R	103					
35516LCS	010998011R	90					
35516LCSD	010998012R	94					
90409-2MS	010998017R	94					
90409-2MSD	010998018R	95					
90409-1DUP	010998015R	105					
90409-1	010998014R	104					
90409-2	010998016R	103					

Q.C. Information for Batch # 35516 Printed: 01/20/98 18:43:48

Blank Results Information
Volatiles Method : EPA 8020

Analyte	Blank Result	Detection Limit
Benzene	BDL	0.26
Ethylbenzene	BDL	0.24
Toluene	BDL	0.48
Xylenes	BDL	0.82

Q.C. Information for Batch # 35516 Printed: 01/20/98 18:43:48

Sample Batch Information
Volatiles Method : EPA 8020

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
35516BLK	/ /				01/09/98	1729	DR	VGC1
35516LCS	/ /				01/10/98	1522	DR	VGC1
35516LCSD	/ /				01/10/98	1615	DR	VGC1
90409-2MS	/ /				01/10/98	2042	DR	VGC1
90409-2MSD	/ /				01/10/98	2135	DR	VGC1
90409-1DUP	/ /				01/10/98	1855	DR	VGC1
90409-1	/ /				01/10/98	1802	DR	VGC1
90409-2	/ /				01/10/98	1949	DR	VGC1

Analytical Services Inc. Batch QC
For Report Number :90409

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
34861	Hg	EPA 7470	Aqueous	<	0.0002	
34992	Ag	EPA 6010	Aqueous	<	0.0009	
34992	As	EPA 6010	Aqueous	<	0.0050	
34992	Ba	EPA 6010	Aqueous	<	0.0010	
34992	Cd	EPA 6010	Aqueous	<	0.0010	
34992	Cr	EPA 6010	Aqueous	<	0.0010	
34992	Pb	EPA 6010	Aqueous	<	0.0040	
34992	Se	EPA 6010	Aqueous	<	0.0060	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
34861	Hg	EPA 7470	95	95	0	76 - 124	0 - 20
34992	Ag	EPA 6010	94	98	4	76 - 124	0 - 20
34992	As	EPA 6010	93	99	6	76 - 124	0 - 20
34992	Ba	EPA 6010	96	100	4	76 - 124	0 - 20
34992	Cd	EPA 6010	89	94	5	76 - 124	0 - 20
34992	Cr	EPA 6010	84	89	6	76 - 124	0 - 20
34992	Pb	EPA 6010	93	98	5	76 - 124	0 - 20
34992	Se	EPA 6010	88	92	4	76 - 124	0 - 20

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
34861	Hg	EPA 7470	99	98	1	76 - 124	0 - 20
34992	Ag	EPA 6010	96	96	0	76 - 124	0 - 20
34992	As	EPA 6010	98	97	1	76 - 124	0 - 20
34992	Ba	EPA 6010	100	98	2	76 - 124	0 - 20
34992	Cd	EPA 6010	93	92	1	76 - 124	0 - 20
34992	Cr	EPA 6010	89	89	0	76 - 124	0 - 20
34992	Pb	EPA 6010	97	96	1	76 - 124	0 - 20
34992	Se	EPA 6010	91	91	0	76 - 124	0 - 20

Analytical Services Inc. Batch QC
For Report Number :90409

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
34992	Ag	EPA 6010	94	76 - 124
34992	As	EPA 6010	99	76 - 124
34992	Ba	EPA 6010	100	76 - 124
34992	Cd	EPA 6010	93	76 - 124
34992	Cr	EPA 6010	89	76 - 124
34992	Pb	EPA 6010	97	76 - 124
34992	Se	EPA 6010	92	76 - 124

Q.C. Information for Batch # 34861 For Report Number :90409

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
34861BLANK	HG	01/02/98	2000	MB		01/04/98	0856	FBS	HG1
34861LCS	HG	01/02/98	2000	MB		01/04/98	0858	FBS	HG1
34861LCSD	HG	01/02/98	2000	MB		01/04/98	0900	FBS	HG1
90409-1MS	HG	01/02/98	2000	MB		01/04/98	0902	FBS	HG1
90409-1MSD	HG	01/02/98	2000	MB		01/04/98	0905	FBS	HG1
90409-2DUP	HG	01/02/98	2000	MB		01/04/98	0907	FBS	HG1
90386-1	HG	01/02/98	2000	MB		01/04/98	0914	FBS	HG1
90389-10	HG	01/02/98	2000	MB		01/04/98	0916	FBS	HG1
90389-9	HG	01/02/98	2000	MB		01/04/98	0923	FBS	HG1
90399-1	HG	01/02/98	2000	MB		01/04/98	0928	FBS	HG1
90408	HG	01/02/98	2000	MB		01/04/98	0930	FBS	HG1
90409-1	HG	01/02/98	2000	MB		01/04/98	0909	FBS	HG1
90409-2	HG	01/02/98	2000	MB		01/04/98	0912	FBS	HG1
90415-1	HG	01/02/98	2000	MB		01/04/98	0933	FBS	HG1
90415-2	HG	01/02/98	2000	MB		01/04/98	0935	FBS	HG1
90417-1	HG	01/02/98	2000	MB		01/04/98	0937	FBS	HG1
90423-1	HG	01/02/98	2000	MB		01/04/98	0939	FBS	HG1
90423-10	HG	01/02/98	2000	MB		01/04/98	0942	FBS	HG1
9[illegible]23-11	HG	01/02/98	2000	MB		01/04/98	0944	FBS	HG1
9[illegible]23-12	HG	01/02/98	2000	MB		01/04/98	0951	FBS	HG1
90423-13	HG	01/02/98	2000	MB		01/04/98	0954	FBS	HG1
90423-14	HG	01/02/98	2000	MB		01/04/98	0956	FBS	HG1
90423-15	HG	01/02/98	2000	MB		01/04/98	0958	FBS	HG1

Q.C. Information for Batch # 34992 For Report Number :90409

Sample Batch Information
Analysis : Ag, As, Ba, Cd, Cr, Pb, Se

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
90383-10		01/02/98	0920	DCM	TRACE	01/05/98	1718	MAB	ICP2
34992BLANK		01/02/98	0920	DCM	TRACE	01/05/98	1650	MAB	ICP2
34992LCS		01/02/98	0920	DCM	TRACE	01/05/98	1653	MAB	ICP2
34992LCSD		01/02/98	0920	DCM	TRACE	01/05/98	1656	MAB	ICP2
90383-6MS		01/02/98	0920	DCM	TRACE	01/05/98	1659	MAB	ICP2
90383-6MSD		01/02/98	0920	DCM	TRACE	01/05/98	1702	MAB	ICP2
90409-1PDS		01/02/98	0920	DCM	TRACE	01/05/98	1706	MAB	ICP2
90409-1DUP		01/02/98	0920	DCM	TRACE	01/05/98	1709	MAB	ICP2
90383-6		01/02/98	0920	DCM	TRACE	01/05/98	1712	MAB	ICP2
90383-7		01/02/98	0920	DCM	TRACE	01/05/98	1727	MAB	ICP2
90383-8		01/02/98	0920	DCM	TRACE	01/05/98	1730	MAB	ICP2
90383-9		01/02/98	0920	DCM	TRACE	01/05/98	1734	MAB	ICP2
90389-1		01/02/98	0920	DCM	TRACE	01/05/98	1737	MAB	ICP2
90389-2		01/02/98	0920	DCM	TRACE	01/05/98	1740	MAB	ICP2
90389-3		01/02/98	0920	DCM	TRACE	01/05/98	1743	MAB	ICP2
90389-4		01/02/98	0920	DCM	TRACE	01/05/98	1746	MAB	ICP2
90389-5		01/02/98	0920	DCM	TRACE	01/05/98	1749	MAB	ICP2
90389-6		01/02/98	0920	DCM	TRACE	01/05/98	1752	MAB	ICP2
90389-7		01/02/98	0920	DCM	TRACE	01/05/98	1804	MAB	ICP2
9 9-8		01/02/98	0920	DCM	TRACE	01/05/98	1814	MAB	ICP2
90409-1		01/02/98	0920	DCM	TRACE	01/05/98	1715	MAB	ICP2
90409-2		01/02/98	0920	DCM	TRACE	01/05/98	1817	MAB	ICP2
90389-10		01/02/98	0920	DCM	TRACE	01/05/98	1820	MAB	ICP2
90389-9		01/02/98	0920	DCM	TRACE	01/05/98	1823	MAB	ICP2

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: SAFETY KLEEN CORP. / ECT

CLIENT ADDRESS AND PHONE NUMBER: 5405 CYPRESS CENTER DR #200 TAMPA FL 33609 (813) 289 9338

PROJECT MANAGER: Rick. STEBNISKY

COPY TO (if applicable):

REQUESTED COMPLETION DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☒ OTHER ____

PROJECT NAME: SK-MA

PROJECT NUMBER: 97044-1111

PURCHASE ORDER NO.:

FOR LAB USE ONLY

LAB #: 90409

PROJECT NO.:

ACK: VERIFIED:

QUOTE #: BS:

NO. OF SAMP: 3 PG: 1 OF: 1

ANALYSES REQUESTED

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	8010/8020	RCRA METALS	Hg	LAB ID	REMARKS/ADDITIONAL INFORMATION
1	12/30/97	15:05		✓		INFLUENT.123097	5	✓	✓	✓	1	Groundwater per
2	↓	15:03		✓		INTERCARBON.123097	5	✓	✓	✓	2	SH
3	↓	15:00		✓		EFFLUENT.123097	5	✓	✓	✓	3	

SAMPLED BY AND TITLE: R COLBERG CHG

DATE/TIME:

RELINQUISHED BY: LAB *

DATE/TIME:

RECEIVED BY: Wally

DATE/TIME: 12/30/97 1300

RELINQUISHED BY: Wally

DATE/TIME: 12/30/97 1600

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

HAZWRAP/NEESA Y N

QC LEVEL 1 2 3

COC ✓ ICE ✓

ANA REQ TEMP 3C

CUST SEAL none PH 1(metals)

SAMPLE COND. good

RECEIVED BY LAB: [signature]

DATE/TIME: 12/31/97 0950

SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____

AIR BILL # 5270310463

REMARKS: * HOLD EFFLUENT - DO NOT ANALYZE. CALL STEBNISKY BEFORE ANALYZING

ENTERED INTO LIMS ____ COC REVIEWD ____

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

February 18, 1998

P.O. No. E13353

Report No. 91330-1

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent 012998, 01/29/98, 10:35, received 01/30/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	0.001	0.001
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Selenium (Se) (EPA 6010)	BDL	0.006
Total Silver (Ag) (EPA 6010)	BDL	0.0009
BTEX Volatiles (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzene	1.0	0.76
Ethylbenzene	3.1	0.34
Toluene	1.0	0.51
Xylenes	6.3	1.46

BDL - Below Detection Limit

February 18, 1998
Report No. 91330-1

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent 012998, 01/29/98, 10:35, received 01/30/98

RESULTS

Halogenated Volatile Organics (EPA 8021)	Result (ug/l)	Detection Limit (ug/l)
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.22
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	2.9	0.64
Chloroethane	BDL	0.77
Chloroform	0.34	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.63
1,3-Dichlorobenzene	BDL	0.43
1,4-Dichlorobenzene	0.67	0.50
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.47
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit

Respectfully submitted,

Shari Karpen
Project Manager

Aaron Tuck
Quality Assurance

cc: Mr. Rick Stebnisky

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

February 18, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 91330-2

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Intercarbon 012998, 01/29/98, 10:40, received 01/30/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.009	0.001
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	0.002	0.001
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Selenium (Se) (EPA 6010)	BDL	0.006
Total Silver (Ag) (EPA 6010)	BDL	0.0009
BTEX Volatiles (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.76
Ethylbenzene	BDL	0.34
Toluene	0.67	0.51
Xylenes	BDL	1.46

BDL - Below Detection Limit

February 18, 1998
Report No. 91330-2

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Intercarbon 012998, 01/29/98, 10:40, received 01/30/98

RESULTS

Halogenated Volatile Organics (EPA 8021)	Result (ug/l)	Detection Limit (ug/l)
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.22
Bromodichloromethane	BDL	0.36
Bromoform	0.44	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.63
1,3-Dichlorobenzene	BDL	0.43
1,4-Dichlorobenzene	BDL	0.50
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.47
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

Adria N Trell
Quality Assurance

cc: Mr. Rick Stebnisky

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ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

February 18, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 91330-3

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Effluent 012998, 01/29/98, 10:45, received 01/30/98

RESULTS

Hold until further notice.

Respectfully submitted,

Sheri Harper
Project Manager

Adrian Turk
Quality Assurance

cc: Mr. Rick Stebnisky

Analytical Services Inc. Batch QC
For Report Number :91330
Volatiles

Matrix : Aqueous Batch # 35764 Method : EPA 8021

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Benzene	104	105	1	39 - 150	0 - 20
Chlorobenzene	103	104	1	55 - 135	0 - 20
1,4-Dichlorobenzene	107	105	2	42 - 143	0 - 20
1,3-Dichlorobenzene	104	102	2	50 - 141	0 - 20
1,2-Dichlorobenzene	111	108	3	37 - 154	0 - 20
Ethylbenzene	104	104	0	32 - 160	0 - 20
Toluene	103	104	1	46 - 148	0 - 20

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Benzene	100	95	5	39 - 150	0 - 20
Chlorobenzene	100	98	1	55 - 135	0 - 20
1,4-Dichlorobenzene	104	100	4	42 - 143	0 - 20
1,3-Dichlorobenzene	101	98	3	50 - 141	0 - 20
1,2-Dichlorobenzene	100	99	2	37 - 154	0 - 20
Ethylbenzene	101	96	5	32 - 160	0 - 20
Toluene	100	95	6	46 - 148	0 - 20

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatiles

Matrix : Aqueous Batch # 35764 Method : EPA 8021

% Recovery Objectives

S1	1,4-Dichlorobutane	75 - 125
S2	4-Bromochlorobenzene	75 - 125

Sample	File	S1	S2	S3	S4	S5	S6
35764BLK	012198001	102	108				
35764LCS	012198011	101	97				
35764LCSD	012198012	102	99				
90923-1	012298002	107	107				
90923-2(-1MS)	012298003	100	98				
90923-3(-1MSD)	012298004	104	97				
90923-4(-1DUP)	012298005	108	105				
90923-5	012298006	104	106				
90923-6	012298007	104	102				
90923-7	012298009	103	101				
90923-8	012298010	103	103				
90923-9	012298011	106	105				
90923-10	012298012	105	104				
90923-11	012298015	103	102				
90923-12	012298017	102	107				
90923-13	012298018	106	105				
90923-14	012298019	105	106				
BLK 02/03/98	020398003	111	107				
91330-1	020398009	103	114				
91330-2	020298009	103	108				

Q.C. Information for Batch # 35764 Printed: 02/18/98 19:03:29

Blank Results Information
Volatiles Method : EPA 8021

Analyte	Blank Result	Detection Limit
Benzene	BDL	0.76
Ethylbenzene	BDL	0.34
Toluene	BDL	0.51
Xylenes	BDL	1.46
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.22
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.63
1,3-Dichlorobenzene	BDL	0.43
1,4-Dichlorobenzene	BDL	0.50
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.47
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

Q.C. Information for Batch # 35764 Printed: 02/18/98 19:03:29

Sample Batch Information
Volatiles Method : EPA 8021

Sample ID	Preparation Date	Preparation Time	By	Preparation Notes	Analysis Date	Analysis Time	By	Inst #
35764BLK	/ /				01/21/98	2041	DR	VGC1
35764LCS	/ /				01/22/98	0334	DR	VGC1
35764LCSD	/ /				01/22/98	0416	DR	VGC1
90923-1	/ /				01/22/98	1610	DR	VGC1
90923-2(-1MS)	/ /				01/22/98	1651	DR	VGC1
90923-3(-1MSD)	/ /				01/22/98	1733	DR	VGC1
90923-4(-1DUP)	/ /				01/22/98	1814	DR	VGC1
90923-5	/ /				01/22/98	1922	DR	VGC1
90923-6	/ /				01/22/98	2003	DR	VGC1
90923-7	/ /				01/22/98	2125	DR	VGC1
90923-8	/ /				01/22/98	2207	DR	VGC1
90923-9	/ /				01/22/98	2248	DR	VGC1
90923-10	/ /				01/22/98	2329	DR	VGC1
90923-11	/ /				01/23/98	0133	DR	VGC1
90923-12	/ /				01/23/98	0256	DR	VGC1
90923-13	/ /				01/22/98	0338	DR	VGC1
90923-14	/ /				01/22/98	0419	DR	VGC1
BLK 02/02/98	/ /				02/02/98	1223	DR	VGC1
9 30-1	/ /				02/03/98	2053	DR	VGC1
9 30-2	/ /				02/03/98	1612	DR	VGC1
BLK 02/03/98	/ /				02/03/98	1242	DR	VGC1

Analytical Services Inc. Batch QC
For Report Number :91330

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
35448	Ag	EPA 6010	Aqueous	<	0.0009	
35448	As	EPA 6010	Aqueous	<	0.0050	
35448	Ba	EPA 6010	Aqueous	<	0.0010	
35448	Cd	EPA 6010	Aqueous	<	0.0010	
35448	Cr	EPA 6010	Aqueous	<	0.0010	
35448	Pb	EPA 6010	Aqueous	<	0.0040	
35448	Se	EPA 6010	Aqueous	<	0.0060	
35739	Hg	EPA 7470	Aqueous	<	0.0002	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
35448	Ag	EPA 6010	100	110	10	76 - 124	0 - 20
35448	As	EPA 6010	87	95	9	76 - 124	0 - 20
35448	Ba	EPA 6010	89	98	10	76 - 124	0 - 20
3[illegible]48	Cd	EPA 6010	84	92	9	76 - 124	0 - 20
3[illegible]48	Cr	EPA 6010	92	100	8	76 - 124	0 - 20
35448	Pb	EPA 6010	89	98	10	76 - 124	0 - 20
35448	Se	EPA 6010	79	86	8	76 - 124	0 - 20
35739	Hg	EPA 7470	94	94	0	76 - 124	0 - 20

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
35448	Ag	EPA 6010	110	100	10	76 - 124	0 - 20
35448	As	EPA 6010	93	88	6	76 - 124	0 - 20
35448	Ba	EPA 6010	94	89	5	76 - 124	0 - 20
35448	Cd	EPA 6010	87	82	6	76 - 124	0 - 20
35448	Cr	EPA 6010	97	91	6	76 - 124	0 - 20
35448	Pb	EPA 6010	93	88	6	76 - 124	0 - 20
35448	Se	EPA 6010	85	80	6	76 - 124	0 - 20
35739	Hg	EPA 7470	101	96	5	76 - 124	0 - 20

Analytical Services Inc. Batch QC
For Report Number :91330

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
35448	Ag	EPA 6010	110	76 - 124
35448	As	EPA 6010	92	76 - 124
35448	Ba	EPA 6010	96	76 - 124
35448	Cd	EPA 6010	89	76 - 124
35448	Cr	EPA 6010	99	76 - 124
35448	Pb	EPA 6010	95	76 - 124
35448	Se	EPA 6010	85	76 - 124

Q.C. Information for Batch # 35448 For Report Number :91330

Sample Batch Information
Analysis : Ag, As, Ba, Cd, Cr, Pb, Se

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
91330-1		02/03/98	0915	KSP	TRACE	02/03/98	1750	MAB	ICP2
91330-2		02/03/98	0915	KSP	TRACE	02/03/98	1759	MAB	ICP2
91332-1		02/03/98	0915	KSP	TRACE	02/03/98	1750	MAB	ICP2
91332-10		02/03/98	0915	KSP	TRACE	02/03/98	1803	MAB	ICP2
91332-11		02/03/98	0915	KSP	TRACE	02/03/98	1743	MAB	ICP2
91332-12		02/03/98	0915	KSP	TRACE	02/03/98	1746	MAB	ICP2
91332-13		02/03/98	0915	KSP	TRACE	02/03/98	1806	MAB	ICP2
91332-14		02/03/98	0915	KSP	TRACE	02/03/98	1809	MAB	ICP2
91332-15		02/03/98	0915	KSP	TRACE	02/03/98	1813	MAB	ICP2
91332-16		02/03/98	0915	KSP	TRACE	02/03/98	1816	MAB	ICP2
91332-17		02/03/98	0915	KSP	TRACE	02/03/98	1819	MAB	ICP2
91332-18		02/03/98	0915	KSP	TRACE	02/03/98	1823	MAB	ICP2
91332-19		02/03/98	0915	KSP	TRACE	02/03/98	1826	MAB	ICP2
91332-2		02/03/98	0915	KSP	TRACE	02/03/98	1759	MAB	ICP2
91332-20		02/03/98	0915	KSP	TRACE	02/03/98	1829	MAB	ICP2
91332-21		02/03/98	0915	KSP	TRACE	02/03/98	1839	MAB	ICP2
91332-22		02/03/98	0915	KSP	TRACE	02/03/98	1742	MAB	ICP2
91332-23		02/03/98	0915	KSP	TRACE	02/03/98	1846	MAB	ICP2
3 48BLANK		02/03/98	0915	KSP	TRACE	02/03/98	1720	MAB	ICP2
3 48LCS		02/03/98	0915	KSP	TRACE	02/03/98	1723	MAB	ICP2
35448LCSD		02/03/98	0915	KSP	TRACE	02/03/98	1726	MAB	ICP2
91332-11MS		02/03/98	0915	KSP	TRACE	02/03/98	1730	MAB	ICP2
91332-11MSD		02/03/98	0915	KSP	TRACE	02/03/98	1733	MAB	ICP2
91332-12PDS		02/03/98	0915	KSP	TRACE	02/03/98	1736	MAB	ICP2
91332-12DUP		02/03/98	0915	KSP	TRACE	02/03/98	1740	MAB	ICP2
91114-1		02/03/98	0915	KSP	TRACE	02/03/98	1554	MAB	ICP2
91114-2		02/03/98	0915	KSP	TRACE	02/03/98	1556	MAB	ICP2

Q.C. Information for Batch # 35739 For Report Number :91330

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
35739BLANK	HG	02/01/98	0940	MB		02/02/98	0706	FBS	HG1
35739LCS	HG	02/01/98	0940	MB		02/02/98	0708	FBS	HG1
35739LCSD	HG	02/01/98	0940	MB		02/02/98	0710	FBS	HG1
91301-1MS	HG	02/01/98	0940	MB		02/02/98	0713	FBS	HG1
91301-1MSD	HG	02/01/98	0940	MB		02/02/98	0715	FBS	HG1
91301-2DUP	HG	02/01/98	0940	MB		02/02/98	0717	FBS	HG1
91254-1	HG	02/01/98	0940	MB	TOT	02/02/98	0726	FBS	HG1
91254-2	HG	02/01/98	0940	MB	TOT	02/02/98	0734	FBS	HG1
91254-3	HG	02/01/98	0940	MB	TOT	02/02/98	0736	FBS	HG1
91254-4	HG	02/01/98	0940	MB	TOT	02/02/98	0738	FBS	HG1
91260-10	HG	02/01/98	0940	MB		02/02/98	0740	FBS	HG1
91260-15	HG	02/01/98	0940	MB		02/02/98	0743	FBS	HG1
91260-2	HG	02/01/98	0940	MB		02/02/98	0745	FBS	HG1
91260-4	HG	02/01/98	0940	MB		02/02/98	0747	FBS	HG1
91266-26	HG	02/01/98	0940	MB		02/02/98	0806	FBS	HG1
91301-1	HG	02/01/98	0940	MB		02/02/98	0719	FBS	HG1
91301-2	HG	02/01/98	0940	MB		02/02/98	0722	FBS	HG1
91301-3	HG	02/01/98	0940	MB		02/02/98	0724	FBS	HG1
9[illegible]23-1	HG	02/01/98	0940	MB		02/02/98	0754	FBS	HG1
9[illegible]27-1	HG	02/01/98	0940	MB		02/02/98	0801	FBS	HG1
91327-3	HG	02/01/98	0940	MB		02/02/98	0804	FBS	HG1
91330-1	HG	02/01/98	0940	MB		02/02/98	0750	FBS	HG1
91330-2	HG	02/01/98	0940	MB		02/02/98	0752	FBS	HG1

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: SAFETY KLEEN / ECT

CLIENT ADDRESS AND PHONE NUMBER: 5405 Cypress Center Dr #200 Tampa FL 33609

PROJECT MANAGER: Rick STEBLNSKY

COPY TO (if applicable):

REQUESTED COMPLETION DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☑ OTHER ____

PROJECT NAME: SK-MANHATTAN

PROJECT NUMBER: 98033-1111

PURCHASE ORDER NO.:

FOR LAB USE ONLY

LAB #: 91330

PROJECT NO.:

ACK: | VERIFIED:

QUOTE #: | BS:

NO. OF SAMP: 3 | PG 1 | OF 1

ANALYSES REQUESTED

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	8010/8020	RCRA 7	Hg							LAB ID	REMARKS/ADDITIONAL INFORMATION
1	1/29/98	1035		✓		INFLUENT.012998	5	✓	✓	✓							1	
2	1/29/98	1040		✓		INTERCARBON.012998	5	✓	✓	✓							2	
3	1/29/98	1045		✓		EFFLUENT.012998	5	✓	✓	✓							3	HOLD EFFLUENT
																		Drip Blank
																		receive & - hold

SAMPLED BY AND TITLE: R Colberg Proj. Eng	DATE/TIME: 1/29/98 1030	RELINQUISHED BY: LAB	DATE/TIME	HAZWRAP/NEESA Y N
RECEIVED BY: [signature]	DATE/TIME: 1/29/98 945	RELINQUISHED BY: [signature]	DATE/TIME: 1/29/98 1130	QC LEVEL 1 2 3
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME	COC ✓ ICE ✓
				ANA REQ — TEMP 0°
				CUST SEAL INTACT PH 1 (met)
				SAMPLE COND. Good
RECEIVED BY LAB: [signature]	DATE/TIME: 1/30/91 09:20	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____		AIR BILL # 8018564697 58

REMARKS: 15 cont.

ENTERED INTO LIMS ____ COC REVIEWD ____

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RECEIVED
MAR 26 1998

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 18, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92414-1

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent 022798, 02/27/98, 9:40, received 02/28/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.001
Total Barium (Ba)(EPA 6010)	BDL	0.001
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Selenium (Se)(EPA 6010)	0.006	0.006
Total Silver (Ag)(EPA 6010)	BDL	0.0009
BTEX Volatiles (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzene	1.5	0.76
Ethylbenzene	4.9	0.34
Toluene	0.69	0.51
Xylenes	8.9	1.46

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

March 18, 1998
Report No. 92414-1

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Influent 022798, 02/27/98, 9:40, received 02/28/98

RESULTS

Halogenated Volatile Organics (EPA 8021)	Result (ug/l)	Detection Limit (ug/l)
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.34
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	5.3	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.63
1,3-Dichlorobenzene	BDL	0.43
1,4-Dichlorobenzene	BDL	0.43
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.25
Trichloroethene	BDL	0.47
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Pickett
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 18, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92414-2

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Intercarbon 022798, 02/27/98, 9:45, received 02/28/98

RESULTS

Metals	Result (mg/l)	Detection Limit (mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.001	0.001
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Selenium (Se) (EPA 6010)	BDL	0.006
Total Silver (Ag) (EPA 6010)	BDL	0.0009
BTEX Volatiles (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzene	BDL	0.76
Ethylbenzene	BDL	0.34
Toluene	BDL	0.51
Xylenes	BDL	1.46
Halogenated Volatile Organics (EPA 8021)	**(ug/l)**	**(ug/l)**
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.34
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97

BDL - Below Detection Limit

March 18, 1998
Report No. 92414-2

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Intercarbon 022798, 02/27/98, 9:45, received 02/28/98

RESULTS

Halogenated Volatile Organics (EPA 8021)	Result (ug/l)	Detection Limit (ug/l)
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.63
1,3-Dichlorobenzene	BDL	0.43
1,4-Dichlorobenzene	BDL	0.43
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.47
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Christina C. Rufeth
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

March 18, 1998

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 92414-3

Sample Description

Groundwater, grab, SK-Tampa (Manhattan Ave), Project #98033-1111, Effluent 022798, 02/27/98, 9:48, received 02/28/98

RESULTS

Hold until further notice.

Respectfully submitted,

Shari Harper
Project Manager

Christina A. Pufotti
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

Analytical Services Inc. Batch QC
For Report Number :92414
Volatiles

Matrix : Aqueous Batch # 36977 Method : EPA 8021

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Benzene	88	88	0	39 - 150	0 - 20
Chlorobenzene	92	90	2	55 - 135	0 - 20
1,4-Dichlorobenzene	100	95	5	42 - 143	0 - 20
1,3-Dichlorobenzene	98	93	5	50 - 141	0 - 20
1,2-Dichlorobenzene	92	88	4	37 - 154	0 - 20
Ethylbenzene	90	90	0	32 - 160	0 - 20
Toluene	89	89	1	46 - 148	0 - 20

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Benzene	85	86	2	39 - 150	0 - 20
Chlorobenzene	91	91	0	55 - 135	0 - 20
1,4-Dichlorobenzene	94	93	2	42 - 143	0 - 20
1 -Dichlorobenzene	94	92	3	50 - 141	0 - 20
1, -Dichlorobenzene	91	90	1	37 - 154	0 - 20
Ethylbenzene	88	88	1	32 - 160	0 - 20
Toluene	86	87	1	46 - 148	0 - 20

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatiles

Matrix : Aqueous Batch # 36977 Method : EPA 8021

% Recovery Objectives

S1	1,4-Dichlorobutane	75 - 125
S2	4-Bromochlorobenzene	75 - 125

Sample	File	S1	S2	S3	S4	S5	S6
36977BLK	030398003FR	103	100				
36977LCS	030398009FR	95	92				
36977LCSD	030398010FR	100	89				
92414-2MS	030398011FR	97	89				
92414-2MSD	030398012FR	98	89				
92414-1DUP	030498005FR	104	100				
92414-1	030498004FR	106	100				
92414-2	030498018FR	105	103				

Q.C. Information for Batch # 36977 Printed: 03/18/98 16:59:48

Blank Results Information
Volatiles Method : EPA 8021

Analyte	Blank Result	Detection Limit
Benzene	BDL	0.76
Ethylbenzene	BDL	0.34
Toluene	BDL	0.51
Xylenes	BDL	1.46
Benzyl chloride	BDL	0.84
Bromobenzene	BDL	0.34
Bromodichloromethane	BDL	0.36
Bromoform	BDL	0.34
Bromomethane	BDL	0.97
Carbon tetrachloride	BDL	0.34
Chlorobenzene	BDL	0.64
Chloroethane	BDL	0.77
Chloroform	BDL	0.25
2-Chloroethylvinyl ether	BDL	0.65
Chloromethane	BDL	0.61
Dibromochloromethane	BDL	0.50
Dibromomethane	BDL	0.28
1,2-Dichlorobenzene	BDL	0.63
1,3-Dichlorobenzene	BDL	0.43
1,4-Dichlorobenzene	BDL	0.43
Dichlorodifluoromethane	BDL	0.49
1,1-Dichloroethane	BDL	0.43
1,2-Dichloroethane	BDL	0.40
1,1-Dichloroethene	BDL	0.72
trans-1,2-Dichloroethene	BDL	0.45
1,2-Dichloropropane	BDL	0.28
cis-1,3-Dichloropropene	BDL	0.43
trans-1,3-Dichloropropene	BDL	0.21
Methylene chloride	BDL	0.57
1,1,2,2-Tetrachloroethane	BDL	0.26
1,1,1,2-Tetrachloroethane	BDL	0.21
Tetrachloroethene	BDL	2
1,1,1-Trichloroethane	BDL	0.38
1,1,2-Trichloroethane	BDL	0.25
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	1.79
Vinyl chloride	BDL	1.28

Q.C. Information for Batch # 36977 Printed: 03/18/98 16:59:48

Sample Batch Information
Volatiles Method : EPA 8021

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
36977BLK	/ /				03/03/98	1404	DR	VGC1
36977LCS	/ /				03/03/98	1941	DR	VGC1
36977LCSD	/ /				03/03/98	1834	DR	VGC1
92414-2MS	/ /				03/03/98	1927	DR	VGC1
92414-2MSD	/ /				03/03/98	2220	DR	VGC1
92414-1DUP	/ /				03/04/98	1923	DR	VGC1
92414-1	/ /				03/04/98	1830	DR	VGC1
92414-2	/ /				03/04/98	0338	DR	VGC1

Analytical Services Inc. Batch QC
For Report Number :92414

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
36552	Hg	EPA 7470	Aqueous	<	0.0002	
36618	Ag	EPA 6010	Aqueous	<	0.0009	
^^Note : BATCH PASSES ON LCS/LCSD/MS/MSD						
36618	As	EPA 6010	Aqueous	<	0.0010	
36618	Ba	EPA 6010	Aqueous	<	0.0010	
36618	Cd	EPA 6010	Aqueous	<	0.0010	
36618	Cr	EPA 6010	Aqueous	<	0.0010	
^^Note : BATCH PASSES ON LCS/LCSD/MSD/PDS						
36618	Pb	EPA 6010	Aqueous	<	0.0040	
36618	Se	EPA 6010	Aqueous	<	0.0060	
36856	Ag	EPA 6010	Aqueous	<	0.0009	
^^Note : QC PASSES ON LCS,LCSD,MS,MSD						
36856	As	EPA 6010	Aqueous	<	0.0050	
36856	Ba	EPA 6010	Aqueous	<	0.0010	
36856	Cd	EPA 6010	Aqueous	<	0.0010	
36856	Cr	EPA 6010	Aqueous	<	0.0010	
36856	Pb	EPA 6010	Aqueous	<	0.0040	
36856	Se	EPA 6010	Aqueous	<	0.0060	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
36552	Hg	EPA 7470	102	98	4	76 - 124	0 - 20
36618	Ag	EPA 6010	100	100	0	76 - 124	0 - 20
36618	As	EPA 6010	93	88	6	76 - 124	0 - 20
36618	Ba	EPA 6010	93	88	6	76 - 124	0 - 20
36618	Cd	EPA 6010	89	84	6	76 - 124	0 - 20
36618	Cr	EPA 6010	87	82	6	76 - 124	0 - 20
36618	Pb	EPA 6010	90	86	5	76 - 124	0 - 20
36618	Se	EPA 6010	91	86	6	76 - 124	0 - 20
36856	Ag	EPA 6010	120	120	0	76 - 124	0 - 20
36856	As	EPA 6010	110	100	10	76 - 124	0 - 20
36856	Ba	EPA 6010	110	100	10	76 - 124	0 - 20
36856	Cd	EPA 6010	96	91	5	76 - 124	0 - 20
36856	Cr	EPA 6010	95	90	5	76 - 124	0 - 20
36856	Pb	EPA 6010	100	97	3	76 - 124	0 - 20
36856	Se	EPA 6010	110	100	10	76 - 124	0 - 20

Analytical Services Inc. Batch QC
For Report Number :92414

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
36552	Hg	EPA 7470	84	88	5	76 - 124	0 - 20
36618	Ag	EPA 6010	97	95	2	76 - 124	0 - 20
36618	As	EPA 6010	83	88	6	76 - 124	0 - 20
36618	Ba	EPA 6010	80	85	6	76 - 124	0 - 20
36618	Cd	EPA 6010	77	82	6	76 - 124	0 - 20
36618	Cr	EPA 6010	73	78	7	76 - 124	0 - 20
36618	Pb	EPA 6010	78	83	6	76 - 124	0 - 20
36618	Se	EPA 6010	80	85	6	76 - 124	0 - 20
36856	Ag	EPA 6010	120	120	0	76 - 124	0 - 20
36856	As	EPA 6010	100	110	10	76 - 124	0 - 20
36856	Ba	EPA 6010	110	110	0	76 - 124	0 - 20
36856	Cd	EPA 6010	94	97	3	76 - 124	0 - 20
36856	Cr	EPA 6010	93	96	3	76 - 124	0 - 20
36856	Pb	EPA 6010	100	100	0	76 - 124	0 - 20
36856	Se	EPA 6010	110	110	0	76 - 124	0 - 20

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
36618	Ag	EPA 6010	62	76 - 124
36618	As	EPA 6010	93	76 - 124
36618	Ba	EPA 6010	91	76 - 124
36618	Cd	EPA 6010	88	76 - 124
36618	Cr	EPA 6010	84	76 - 124
36618	Pb	EPA 6010	89	76 - 124
36618	Se	EPA 6010	91	76 - 124
36856	Ag	EPA 6010	66	76 - 124
36856	As	EPA 6010	100	76 - 124
36856	Ba	EPA 6010	100	76 - 124
36856	Cd	EPA 6010	92	76 - 124
36856	Cr	EPA 6010	91	76 - 124
36856	Pb	EPA 6010	98	76 - 124
36856	Se	EPA 6010	100	76 - 124

Q.C. Information for Batch # 36552 For Report Number :92414

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
36552BLANK	hg	03/03/98	0830	fbs		03/03/98	1259	fbs	hg1
36552LCS	hg	03/03/98	0830	fbs		03/03/98	1301	fbs	hg1
36552LCSD	hg	03/03/98	0830	fbs		03/03/98	1303	fbs	hg1
92405-2MS	hg	03/03/98	0830	fbs		03/03/98	1306	fbs	hg1
92405-2MSD	hg	03/03/98	0830	fbs		03/03/98	1308	fbs	hg1
92405-1DUP	hg	03/03/98	0830	fbs		03/03/98	1310	fbs	hg1
92398	hg	03/03/98	0830	fbs		03/03/98	1317	fbs	hg1
92405-1	hg	03/03/98	0830	fbs		03/03/98	1313	fbs	hg1
92405-2	hg	03/03/98	0830	fbs		03/03/98	1315	fbs	hg1
92368	hg	03/03/98	0830	fbs		03/03/98	1319	fbs	hg1
92392-1	hg	03/03/98	0830	fbs		03/03/98	1327	fbs	hg1
92258-1	hg	03/03/98	0830	fbs		03/03/98	1329	fbs	hg1
92358	hg	03/03/98	0830	fbs		03/03/98	1406	fbs	hg1
92363-1	hg	03/03/98	0830	fbs		03/03/98	1331	fbs	hg1
92270-30	hg	03/03/98	0830	fbs		03/03/98	1334	fbs	hg1
92270-31	hg	03/03/98	0830	fbs		03/03/98	1336	fbs	hg1
92332-1	hg	03/03/98	0830	fbs		03/03/98	1338	fbs	hg1
92332-2	hg	03/03/98	0830	fbs		03/03/98	1340	fbs	hg1
92332-3	hg	03/03/98	0830	fbs		03/03/98	1343	fbs	hg1
92332-4	hg	03/03/98	0830	fbs		03/03/98	1345	fbs	hg1
92332-5	hg	03/03/98	0830	fbs		03/03/98	1347	fbs	hg1
92332-6	hg	03/03/98	0830	fbs		03/03/98	1355	fbs	hg1
92414-1	hg	03/03/98	0830	fbs		03/03/98	1357	fbs	hg1
92414-2	hg	03/03/98	0830	fbs		03/03/98	1359	fbs	hg1
92421-1	hg	03/03/98	0830	fbs		03/03/98	1402	fbs	hg1
92421-2	hg	03/03/98	0830	fbs		03/03/98	1404	fbs	hg1

Q.C. Information for Batch # 36618 For Report Number :92414

Sample Batch Information
Analysis : Ag, As, Ba, Cd, Cr, Pb, Se

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
36618BLANK		03/03/98	1005	DCM	TRACE	03/03/98	1915	MAB	ICP2
36618LCS		03/03/98	1005	DCM	TRACE	03/03/98	1918	MAB	ICP2
36618LCSD		03/03/98	1005	DCM	TRACE	03/03/98	1921	MAB	ICP2
92325-2MS		03/03/98	1005	DCM	TRACE	03/03/98	1925	MAB	ICP2
92325-2MSD		03/03/98	1005	DCM	TRACE	03/03/98	1928	MAB	ICP2
92325-6PDS		03/03/98	1005	DCM	TRACE	03/03/98	1931	MAB	ICP2
92325-6DUP		03/03/98	1005	DCM	TRACE	03/03/98	1935	MAB	ICP2
92352-1		03/03/98	1005	DCM	TRACE	03/03/98	2034	MAB	ICP2
92352-2		03/03/98	1005	DCM	TRACE	03/03/98	2037	MAB	ICP2
92228-12		03/03/98	1005	DCM	TRACE	03/03/98	2047	MAB	ICP2
92228-13		03/03/98	1005	DCM	TRACE	03/03/98	2050	MAB	ICP2
92228-14		03/03/98	1005	DCM	TRACE	03/03/98	2054	MAB	ICP2
92325-1		03/03/98	1005	DCM	TRACE	03/03/98	1944	MAB	ICP2
92325-10		03/03/98	1005	DCM	TRACE	03/03/98	2014	MAB	ICP2
92325-11		03/03/98	1005	DCM	TRACE	03/03/98	2017	MAB	ICP2
92325-12		03/03/98	1005	DCM	TRACE	03/03/98	2021	MAB	ICP2
92325-13		03/03/98	1005	DCM	TRACE	03/03/98	2024	MAB	ICP2
92325-2		03/03/98	1005	DCM	TRACE	03/03/98	1938	MAB	ICP2
92325-3		03/03/98	1005	DCM	TRACE	03/03/98	1954	MAB	ICP2
92325-4		03/03/98	1005	DCM	TRACE	03/03/98	1958	MAB	ICP2
92325-5		03/03/98	1005	DCM	TRACE	03/03/98	2001	MAB	ICP2
92325-6		03/03/98	1005	DCM	TRACE	03/03/98	1941	MAB	ICP2
92325-7		03/03/98	1005	DCM	TRACE	03/03/98	2004	MAB	ICP2
92325-8		03/03/98	1005	DCM	TRACE	03/03/98	2008	MAB	ICP2
92325-9		03/03/98	1005	DCM	TRACE	03/03/98	2011	MAB	ICP2
92398		03/03/98	1005	DCM	TRACE	03/03/98	2041	MAB	ICP2
92414-1		03/03/98	1005	DCM	TRACE	03/03/98	2044	MAB	ICP2
QC BLK		03/03/98	1005	DCM	TRACE	03/03/98	2057	MAB	ICP2

Q.C. Information for Batch # 36856 For Report Number :92414

Sample Batch Information
Analysis : Ag, As, Ba, Cd, Cr, Pb, Se

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
36856BLANK		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1824	MAB	ICP2
36856LCS		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1827	MAB	ICP2
36856LCSD		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1830	MAB	ICP2
92506-5MS		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1833	MAB	ICP2
92506-5MSD		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1836	MAB	ICP2
92506-6PDS		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1840	MAB	ICP2
92506-6DUP		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1843	MAB	ICP2
92506-1		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1855	MAB	ICP2
92506-2		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1904	MAB	ICP2
92506-3		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1907	MAB	ICP2
92506-4		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1911	MAB	ICP2
92506-5		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1846	MAB	ICP2
92506-6		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1851	MAB	ICP2
92506-7		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	1914	MAB	ICP2
92327-1		03/06/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2101	MAB	ICP2
92414-2		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2104	MAB	ICP2
92461-12		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2107	MAB	ICP2
92461-13		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2111	MAB	ICP2
92461-14		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2114	MAB	ICP2
92461-15		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2117	MAB	ICP2
92461-16		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2204	MAB	ICP2
92597-1		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2207	MAB	ICP2
92597-10		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2214	MAB	ICP2
92597-11		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2217	MAB	ICP2
92597-2		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2211	MAB	ICP2
QC BLANK		03/09/98	1010	KSP	TRACE/BLK DIGES	03/10/98	2220	MAB	ICP2

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: SAFETY-KLEEN / ECT

CLIENT ADDRESS AND PHONE NUMBER: 5405 CYPRESS CENTER DR #200, TAMPA FL 33609

PROJECT MANAGER: R. STEBNISKY

COPY TO (if applicable):

REQUESTED COMPLETION DATE:

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☒ OTHER ____

PROJECT NAME: SK-MA

PROJECT NUMBER: 98033-1111

PURCHASE ORDER NO.:

FOR LAB USE ONLY

LAB #: 92414

PROJECT NO.:

ACK: VERIFIED:

QUOTE #: BS:

NO. OF SAMP: 3 PG 1 OF 1

SAMPLE ID #	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	8010/8020	METALS	Hg	LAB ID	REMARKS/ADDITIONAL INFORMATION
1	2/27/98	940		✓		INFLUENT-022798	5	✓	✓	✓	1	
2	↓	945		✓		INTERCARBON-022798	5	✓	✓	✓	2	
3	↓	948		✓		EFFLUENT-022798	5	✓	✓	✓	3	Hold
						Trip Blank	3				~~4~~ 3/2	

SAMPLED BY AND TITLE: [signature] DATE/TIME:

RECEIVED BY: [signature] DATE/TIME: 2/27/98 800

RECEIVED BY: DATE/TIME:

RECEIVED BY LAB: DATE/TIME: 2/28/98 0930

RELINQUISHED BY: LAB DATE/TIME:

RELINQUISHED BY: [signature] DATE/TIME: 2/27/98 1015

RELINQUISHED BY: DATE/TIME:

SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____

AIR BILL # 801856467769

HAZWRAP/NEESA Y N

QC LEVEL 1 2 3

COC ✓ ICE ✓

ANA REQ TEMP 6°C

CUST SEAL ✓ PH = 1 mo

SAMPLE COND. good

ENTERED INTO LIMS ____ COC REVIEWD ____

REMARKS: HOLD EFFLUENT. CONTACT P.M. TO ANALYZE IF HITS IN INTERCARBON

[signature]

APPENDIX IX-C

1997 4th QUARTER MONITORING REPORT
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA

PREPARED FOR:

SAFETY-KLEEN CORP.
1 Brinkman Way
Elgin, Illinois 60123

PREPARED BY:

ECT
Environmental Consulting & Technology, Inc.
5405 Cypress Center Drive
Suite 200
Tampa, Florida 33609
(813) 289-9338

97044-1111

JANUARY 1998

ECT
Environmental Consulting & Technology, Inc.

January 20, 1998
97044-1111

D.E.P.
JAN 21 1998
SOUTHWEST
TAMPA

Hazardous Waste Supervisor
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619-8318

Attention: Bill Crawford

Re: 1997 4th Quarter Monitoring Report
Safety-Kleen Corp., Manhattan Avenue, Tampa Facility
Closure Permit No. HF29-158003
EPA ID No. FLD 049 557 408

Dear Mr. Crawford:

On behalf of Safety-Kleen Corp., Environmental Consulting & Technology, Inc. (ECT) herein submits results of the November 1997 quarterly ground water monitoring pursuant to Specific Conditions (S.C.) IV.4 and IV.11 of the referenced permit.

Safety-Kleen currently awaits FDEP issuance of the renewal permit; the permit application was submitted on March 27, 1997. Safety-Kleen also awaits Department approval to implement the March 1997 soil sampling plan to document clean closure of the soil. Safety-Kleen wishes to proactively close this facility without further delays by FDEP.

QUARTERLY GROUND WATER MONITORING REPORT

Ground water samples and water level data were collected in November 1997 according to procedures described in the closure permit for the facility. The ground water samples were submitted to Analytical Services, Inc. (ASI) for analysis of the parameters listed in Specific Condition IV.3 of the closure permit as modified on August 7, 1996.

Ground water samples were collected from nine monitor wells on November 18 and 19, 1997. As is commonly the case during wet periods, two monitor wells located offsite to the east (SA-3 and DA-4D) were under water and could not be sampled. Monitor well sampling data forms are provided in Appendix A. Ground water levels and total well depths were measured at each well sampled. Ground water elevation data for November 18, are presented in Table 1, and a water table elevation contour map is shown in Figure 1. The inferred ground water flow direction is toward the east/northeast, consistent with historical data for ambient, nonpumping conditions.

The laboratory report of ground water quality analytical methods and results is presented as Appendix B. Table 2 provides a summary of all constituents detected in ground water. Concentration trends for select analytes are illustrated in Figure 2 for monitor well POC-2 and Figure 3 for monitor well POC-3. Well locations are shown in Figure 1.

5405 Cypress Center Drive
Suite 200
Tampa, FL
33609

(813)
289-9338

FAX (813)
289-9388

Several organic compounds were detected in low concentrations at monitor well POC-3: naphthalene was detected at a concentration of 26 µg/L, which is above its organoleptic based ground water guidance concentration, yet almost 60 times lower than EPA's 1,500 µg/L drinking water standard; total xylenes was detected at 30 µg/L, which is also slightly above its organoleptic based standard, yet 333 times lower than its health-based primary drinking water standard of 10,000 µg/L. Monitor well POC-2 has not exceeded any ground water standard since November 1996. Period of record trends show that all constituent concentrations have decreased significantly at these wells (Figures 2 and 3). The observed decreases are likely the result of ground water recovery and the treatment system adjustments previously reported. As usual, concentrations of metals were generally below detection limits or very low. Metals are clearly not a problem at this facility.

As previously reported, the ground water and soil remediation systems were deactivated on May 23, 1997, in accordance with S.C. IV.10 and X.3. Safety-Kleen continues to diligently maintain the remedial systems to keep them operable and minimize deterioration of the equipment. This quarter the POC wells were redeveloped, and the systems were operated temporarily on three occasions. Well POC-3 was pumping during this quarter's sampling event.

If you have any questions or comments regarding this quarterly monitoring report, please contact me at (813) 289-9338 or Gary Risse of Safety-Kleen at (770) 418-1860. Thank you.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Richard J. Stebnisky, P.G.
Senior Hydrogeologist, N

1-20-98
Date

Attachments: Tables 1 and 2
Figures 1, 2, and 3
Appendices A and B

cc: Gary Risse, SK
Keith Marcott, SK
999 Site File No. 1760 c/o Russ Giambrone, SK
Clare Burr
FDEP, Tallahassee (2 copies)
Davy Simonson, EPA, Region 4
Brad Pekas, ECT

TABLES

Table 1. Water Table Elevations (November 18, 1997)
Safety-Kleen Corp.
Manhattan Avenue Facility, Tampa, Florida

Well No.	MP Elevation (ft-msl)	Depth to Water (ft)	Water Table Elevation (ft-msl)
POC-1	32.80	4.37	28.43
POC-2	32.77	4.29	28.48
POC-3	32.30	4.41	27.89
SA-1	28.29	0.00	28.29
SA-2	29.72	1.32	28.40
SA-3	27.49	**	
SA-4	30.05	1.46	28.59
BG-1	32.83	4.03	28.80
DA-1A*	30.90	3.70	27.20
DA-4D*	27.55	**	
DA-5D*	29.70	6.30	23.40

Notes: MP = Measuring point.
ft-msl = Feet above mean sea level.
MPs for POC-2 and POC-3 are for nonpumping and pumping conditions, respectively.
MP for DA-1A is approximate (to ~0.1 ft).
* = Not a water table monitor well, a deeper well.
** = Well under water.

Source: ECT, 1998.

Table 2. Summary of All Constituents Detected in Ground Water - November 1997
Safety-Kleen Corp.
Manhattan Avenue

Constituent	Units	Monitor Well												
		POC-1	POC-2	POC-3	POC-3 Dupe-1	BG-1	DA-1A	DA-5D	SA-1	SA-2	SA-4	Trip Blank	Equip Blank T-1	Equip Blank B-2
Turbidity	NTU	0.24	1.8	6.8	6.2	1.0	13	28	5.0	5.7	0.52			
Total Arsenic (As)(EPA 6010)	mg/L					0.006								
Total Barium (Ba)(EPA 6010)	mg/L	0.01	0.02	0.009	0.01	0.02	0.01	0.01	0.009	0.008	0.03			
Total Chromium (Cr)(EPA 6010)	mg/L								0.002					
Total Copper (Cu)(EPA 6010)	mg/L		0.01	0.06	0.02	0.02							0.01	
Total Lead (Pb)(EPA 6010)	mg/L			0.01										
Total Nickel (Ni)(EPA 6010)	mg/L			0.020	0.007	0.013		0.007	0.003	0.003	0.005		0.009	
Total Silver (Ag)(EPA 6010)	mg/L		0.0025	0.0009		0.0017								
Total Zinc (Zn)(EPA 6010)	mg/L	0.019	0.014	0.173	0.0355	0.034	0.015	0.017	0.046	0.034	0.026		0.035	
Total Vanadium (V)(EPA 6010)	mg/L		0.019	0.004	0.006	0.003	0.014		0.023				0.02	
Total Sulfide (S)	mg/L	2.5	0.1	0.4	0.35				2	1.8	1.9			
Benzene	µg/L			0.87	0.89									
1,2-Dichlorobenzene	µg/L			2.7	2.4									
1,3-Dichlorobenzene	µg/L			2.3	2.4									
1,4-Dichlorobenzene	µg/L			1.7	2.1									
Ethylbenzene	µg/L			11	6.2						0.41			
Naphthalene	µg/L			26	41		0.87		1.3	2.1		0.83		3.9
Toluene	µg/L		1.3	8	5.1						1.2			0.59
Xylenes (total)	µg/L		0.98	30	16				0.57		1.7			0.99

Notes: µg/L = Micrograms per liter.
mg/L = Milligrams per liter.
NTU = Nephleometric turbidity units.

Source: ECT, 1997.

FIGURES

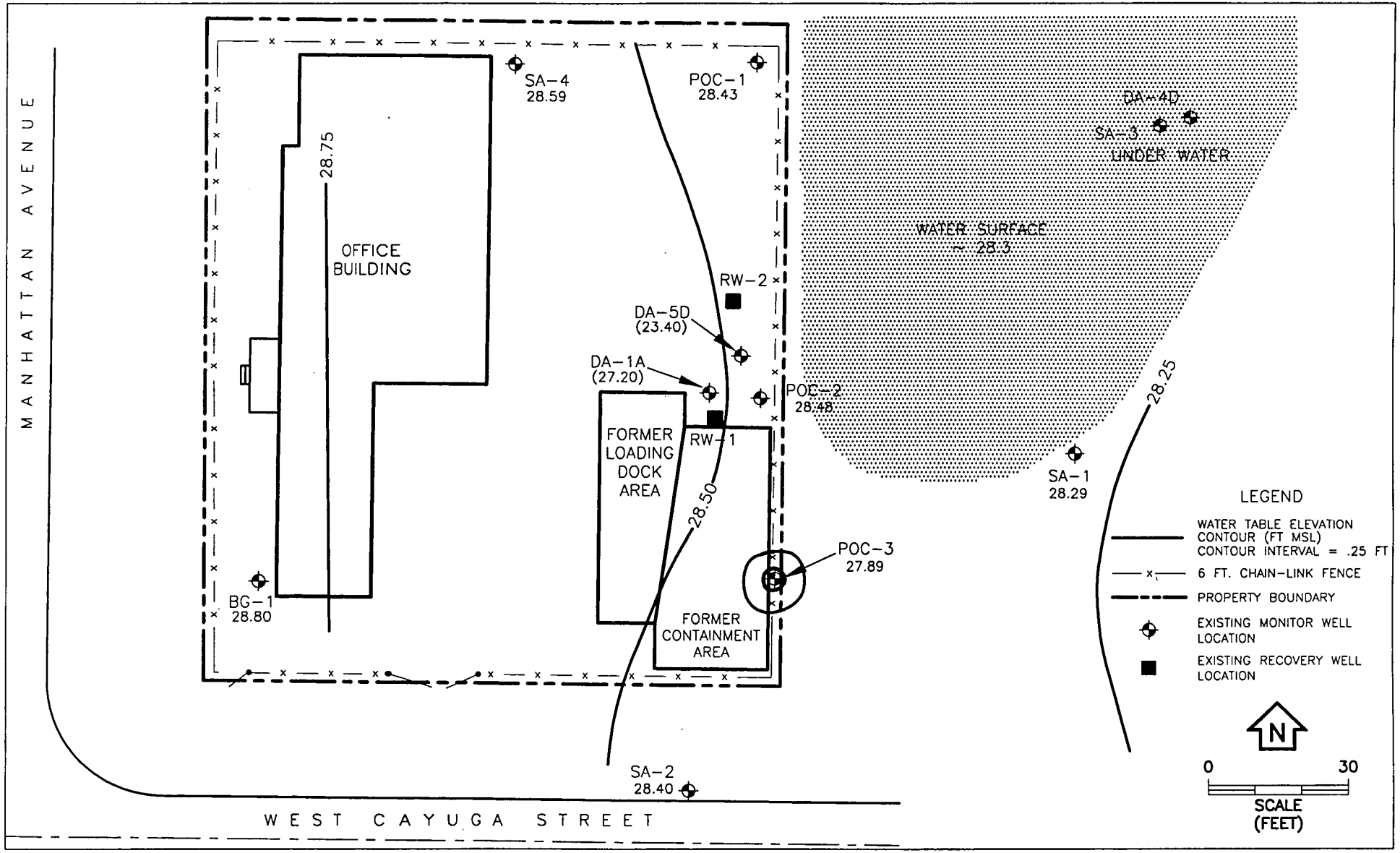
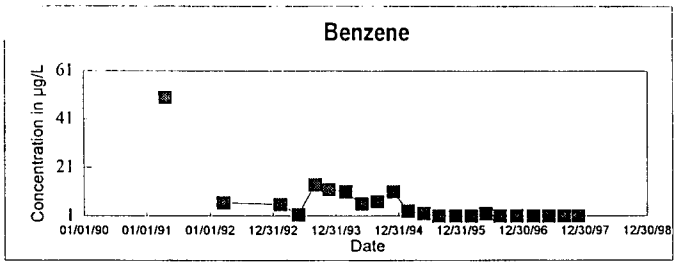


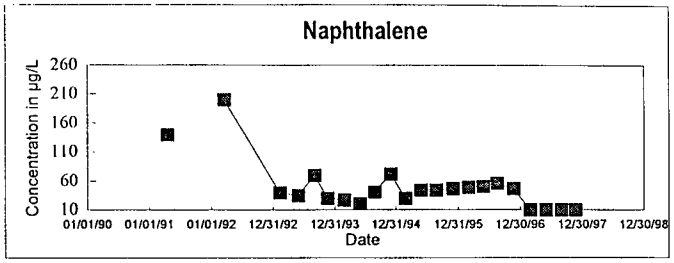
FIGURE 1.
WATER TABLE ELEVATION CONTOUR MAP, NOVEMBER 18, 1997
SAFETY-KLEEN CORP.
MANHATTAN AVENUE FACILITY
TAMPA, FLORIDA
Source: ECT, 1998.

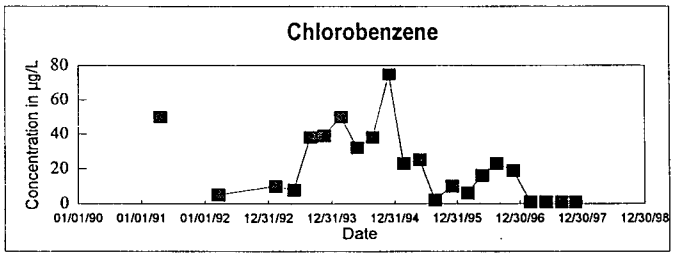
ECT
Environmental Consulting & Technology, Inc.

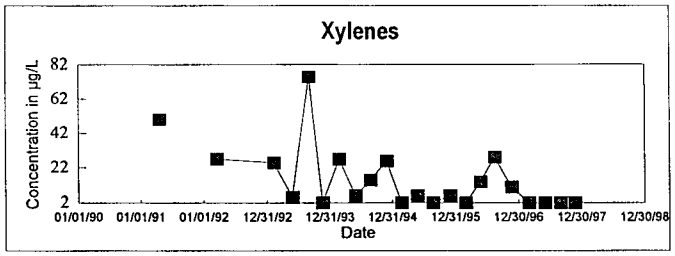
Figure 2. Period of Record Ground Water Quality - POC-2

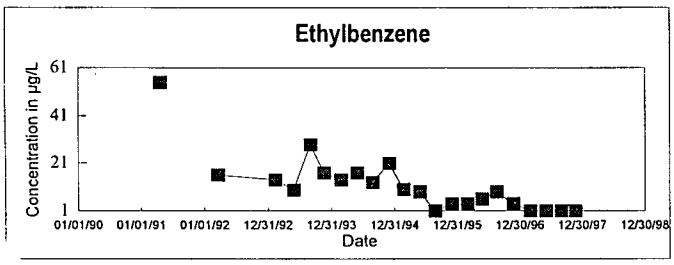
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-2 Sample Date											
		06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/25/94	11/29/94
Benzene	µg/L		<50		6.5	5.8	1.5	14	12	11	6	7	11
Chlorobenzene	µg/L		<50		<5	10	7.8	38	39	50	32	38	75
Ethylbenzene	µg/L		55		16	14	9.7	29	17	14	17	13	21
Xylenes	µg/L		<50		27	25	5.3	75	<2	27	6	15	26
Naphthalene	µg/L		140		<200	40	35	70	30	27	21	41	72

Parameter	Units	POC-2 Sample Date											
		02/22/95	05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	05/29/97	08/28/97	11/18/97
Benzene	µg/L	3	2	<1	1	<1	2	<1	1	<1	<1	<1	<1
Chlorobenzene	µg/L	23	25	2	10	6	16	23	19	<1	<1	<1	<1
Ethylbenzene	µg/L	10	9	<1	4	4	6	9	4	<1	<1	<1	<1
Xylenes	µg/L	2	6	<2	6	2	14	28	11	<2	<2	<2	<2
Naphthalene	µg/L	30	44	44	47	49	51	56	47	<10	<10	<10	<10

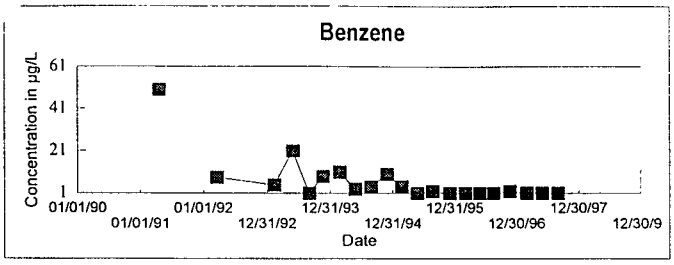
Notes: µg/L = Micrograms per liter.

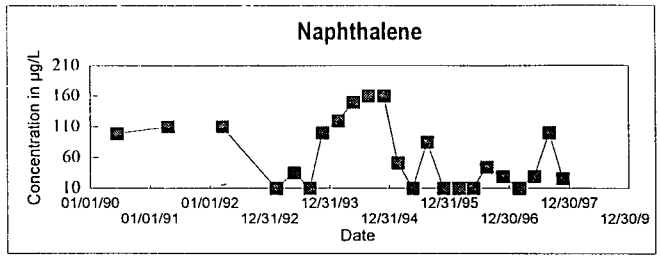
Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

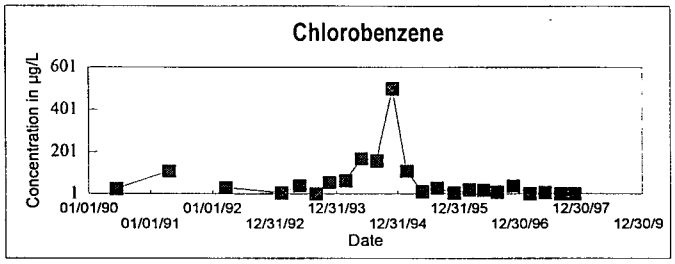
Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

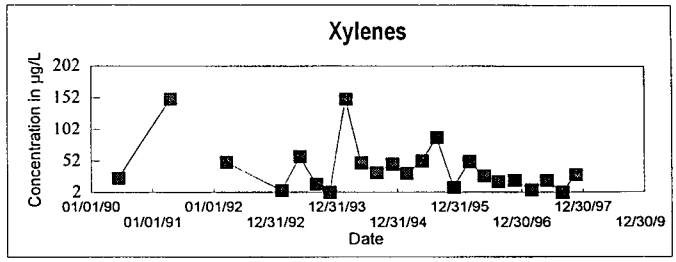
Figure 3. Period of Record Ground Water Quality - POC-3

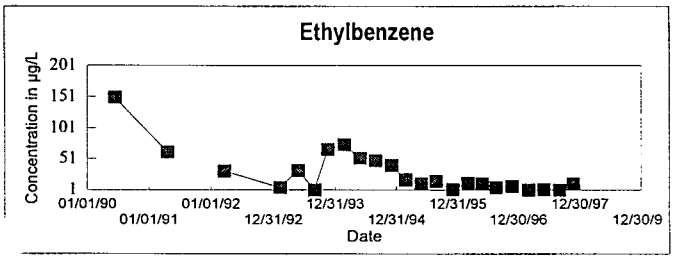
Safety-Kleen Corp.
Manhattan Avenue, Tampa, Florida











Parameter	Units	POC-3 Sample Date 06/12/90	04/18/91	05/21/91	03/17/92	02/09/93	05/27/93	08/31/93	11/18/93	02/23/94	05/27/94	08/26/94	11/29/94
Benzene	µg/L		<50		8.6	<5.0	21	<1.0	9	11	3	4	10
Chlorobenzene	µg/L	<25	110		31	<5.0	40	1	55	64	170	160	500
Ethylbenzene	µg/L	150	62		31	<5.0	32	1	66	74	52	48	40
Xylenes	µg/L	<25	150		50	<5.0	59	15	<2	150	49	33	47
Naphthalene	µg/L	99	110		110	<10	35	10	100	120	150	160	160

Parameter	Units	POC-3 Sample Date 02/22/95	05/25/95	08/21/95	11/29/95	02/28/96	05/24/96	08/15/96	11/20/96	02/28/97	Dupe 05/29/97	08/28/97	11/18/97
Benzene	µg/L	4	<1	2	<1	<1	<1	<1	2	<1	<1	<1	0.87
Chlorobenzene	µg/L	110	11	30	6	20	19	10	39	3	7	<11	<1
Ethylbenzene	µg/L	17	11	15	2	12	11	5	7	<1	2	<15	11
Xylenes	µg/L	32	52	89	10	51	28	19	21	6	21	<18	30
Naphthalene	µg/L	51	<10	85	<10	<10	<10	44	29	<10	29	100	26

Notes: µg/L = Micrograms per liter.

Blanks indicate not analyzed.
< Indicates parameter was not detected at or above the method detection limit.
Data reported as less than a detection limit are plotted on the graphs as being equal to the normal reporting limit.

Sources: ERM-CAP and (3) quarterly reports.
ECT quarterly reports.

APPENDIX A

MONITOR WELL SAMPLING DATA FORMS

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #: 97044-1111

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
Myron L pH/Cond	1248485F	pH	S.U.	900	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM	~~200~~	200	200		
		Conductivity	µHos/CM	~~720~~	720	700		
		pH	S.U.	1300	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	700		
		pH	S.U.	1530	7.0	7.0		
		pH	S.U.		4.0	40		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	720		

NIST Traceable Thermometer No. #30

Standard pH 7.0 Lot No. P070 Exp. Date 11/97

Standard pH 4.0 Lot No. G081 Exp. Date 8/98

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity 200 Lot No. 2856 Exp. Date 10/99

Standard Conductivity 720 Lot No. 3156 Exp. Date 2/99

Standard Conductivity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: Robert Harnett Date: 11/18/97 Reviewed by: Date:

ECT FIELD EQUIPMENT CALIBRATION FORM

PROJECT INFORMATION

Project & Task #: 97044-1111

CALIBRATION DATA

Instrument Description	ID # or Serial #	Parameter Description	Units	Time	Standard	Reading	Final Readin	Comments
Hydrolab pH/Cond	1240489F	pH	S.U.	800	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	700	–	
		pH	S.U.	1030	7.0	7.0		
		pH	S.U.		4.0	4.0		
		Conductivity	µHos/CM		200	200		
		Conductivity	µHos/CM		720	700		
		pH	S.U.					
		pH	S.U.					
		Conductivity	µHos/CM					
		Conductivity	µHos/CM					

NIST Traceable Thermometer No. #30

Standard pH 7.0 Lot No. D070 Exp. Date 11/97

Standard pH 4.0 Lot No. G081 Exp. Date 8/98

Standard pH _____ Lot No. _____ Exp. Date _____

Standard Conductivity ~~200~~ Lot No. ~~200~~ Exp. Date _____

Standard Conductivity 200 Lot No. 2856 Exp. Date 10/99

Standard Conductivity 720 Lot No. 3156 Exp. Date 12/99

Standard Turbidity _____ Lot No. _____ Exp. Date _____

Standard Turbidity _____ Lot No. _____ Exp. Date _____

SIGNATURES (Signed Initials)

Calibrated by: Robert L Hansy Date: 11/19/97 Reviewed by: Date:

ECT GROUND WATER LEVEL DATA FORM

PROJECT INFORMATION

Project & Task #: 97044-1111

LEVEL DATA

Well #	Order	Time	Total Depth	Ref. Elevation	Depth to GW	GW Elevation	Observations/Comments
DA-4D							Under water
SA-3							" "
SA-1	1				0.00		Water at top of Casing.
SA-2					1.32		
BG-1					4.03		
PEC-3					~~3.41~~ 4.41		
SA-4					1.46		
PEC-1					4.37		
DA-5D					6.30		
DA-1A					3.70		
PEC-2					4.29		

SIGNED INITIALS

Measured by: Robert L Hay Date: 11/18/97

Recorded by: Date:

Reviewed by: Date:

EQUIPMENT DESCRIPTION & DECONTAMINATION

Description ID or S/N: #2

Decontaminate between wells? (Y) o (Circle One)

Procedure 4.1.9.1 (Y or N) or other (describe):

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date:

SAMPLING INFORMATION

Well Number: SA-3

Sample Time: Sampled By:

Duplicate Sample: Yes No

Total Depth of Well (ft): 11.02

Depth to Water (ft):

Column of Water in Well (ft):

Well Casing Diameter: 2"

Volume of Water in Well (gal.):

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume : Lite JA

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)					
Time (military)					
pH (standard units)					
Conductivity (µhmos/CM)					
Temperature (°C)					
Actual Volume of Water Removed					
Sediment/Turbidity					
Color					

Under Water Sample Dry

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Used peristaltic pump and C-Flex tubing to purge well (3 volumes), sampled through peristaltic pump for Metals, Hg, Turbidity. Purged one volume with bailer then sampled 8240, 8030, 82

SAMPLE COLLECTION ORDER: Metals, Hg, turbidity - Pump
8240, 8030, 8270 - Bailer

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/18/97

SAMPLING INFORMATION

Well Number: SA-1

Sample Time: 945 Sampled By: BA

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 13.95

Depth to Water (ft): 0.00

Column of Water in Well (ft): 13.95

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 2.28

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Liter Jar

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected: (Yes) ~~No~~ Equipment: Sample I.D. Eq-1 BLK-T-1 900 B-1

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	2.28	2.28	2.28		
Time (military)	920	930	940		
pH (standard units)	5.2	5.6	5.6		
Conductivity (µhmos/CM)	220	200	200		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.5	2.5	2.5		
Sediment/(Turbidity)	2.33	2.20	2.15		
Color	Clear				

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. Date:

SAMPLING INFORMATION

Well Number: PA-4D

Sample Time: Sampled By:

Duplicate Sample: Yes No

Total Depth of Well (ft): 40.25

Depth to Water (ft):

Column of Water in Well (ft):

Well Casing Diameter: 2"

Volume of Water in Well (gal.):

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Determining Purged Volume : Liter Jar

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)					
Time (military)					
pH (standard units)					
Conductivity (µhmos/CM)					
Temperature (°C)					
Actual Volume of Water Removed					
Sediment/Turbidity					
Color					

Under Water

didn't Sample

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/18/97

SAMPLING INFORMATION

Well Number: SA-2

Sample Time: 1045 Sampled By: BN

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 14.20

Depth to Water (ft): 1.32

Column of Water in Well (ft): 12.88

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 2.10

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: 2 tan Jn

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected: Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	2.10	2.10	2.10		
Time (military)	1010	1020	1030		
pH (standard units)	6.1	5.9	5.9		
Conductivity (µhmos/CM)	200	200	200		
Temperature (°C)	24	24	24		
Actual Volume of Water Removed	2.25	2.25	2.25		
Sediment/Turbidity	2.02	4.18	2.96		
Color	Clear	→	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-111 Date: 11/18/97

SAMPLING INFORMATION

Well Number: BG-1

Sample Time: 1145 Sampled By: BA

Duplicate Sample: Yes No

Total Depth of Well (ft): 15.07

Depth to Water (ft): 4.03

Column of Water in Well (ft): 11.04

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.80

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume : Lata Jar

Bailer No.: Disposable Bailer Source: Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.80	1.80	1.80		
Time (military)	1110	1120	1130		
pH (standard units)	6.4	6.7	6.7		
Conductivity (µhmos/CM)	500	500	500		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	0.57	0.46	0.38		
Color	Clear	Clear	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/18/97

SAMPLING INFORMATION

Well Number: SA-4

Sample Time: 1245 Sampled By: BLH

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 12.30

Depth to Water (ft): 1.46

Column of Water in Well (ft): 10.84

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.77

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume : Liter Jar

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.77	1.77	1.77		
Time (military)	1210	1220	1230		
pH (standard units)	6.6	6.4	6.4		
Conductivity (µhmos/CM)	530	510	510		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	0.69	0.58	0.58		
Color	Clear	→	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same ~~set-up~~ purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/18/97

SAMPLING INFORMATION

Well Number: POC-1

Sample Time: 1345 Sampled By: BH

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 15.15

Depth to Water (ft): 4.37

Column of Water in Well (ft): 10.78

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.76

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: 2 to 3

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected: Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.76	1.76	1.76		
Time (military)	1310	1320	1330		
pH (standard units)	6.4	6.4	6.4		
Conductivity (µhmos/CM)	330	330	330		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	2.0	2.0	2.0		
Sediment/Turbidity	0.35	0.34	0.33		
Color	Clear	→	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging, set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/18/97

SAMPLING INFORMATION

Well Number: DA-5D

Sample Time: 1515 Sampled By: BVA

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 64.0

Depth to Water (ft): 6.30

Column of Water in Well (ft): 57.70

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 9.41

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) ~~.25 gal/min~~ .50 gal min

Method of Determining Purged Volume : Lita Jan

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	9.41	9.41	9.41		
Time (military)	1430 ~~1330~~	1445 ~~1345~~	1500 ~~1400~~		
pH (standard units)	6.8	7.1	7.1		
Conductivity (µhmos/CM)	540	340	340		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	9.5	9.5	9.5		
Sediment/Turbidity	0.28	0.25	0.21		
Color	clear →	→	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: ~~Same purging set up as SA-3~~ Used submersible pump w/ tyvon tubing to purge and sample Hg, Metals and turbidity. Sample Rest w/ the Bailer

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/19/97

SAMPLING INFORMATION

Well Number: DA-1A

Sample Time: 1000 Sampled By: BA

Duplicate Sample: Yes (No)

Total Depth of Well (ft): 55.80

Depth to Water (ft): 3.70

Column of Water in Well (ft): 52.1

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 8.5

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) ~~25.50~~ gal/min

Method of Determining Purged Volume : 2 Liter Jar

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected : Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	8.5	8.5	8.5		
Time (military)	850	910	930		
pH (standard units)	7.8	7.8	7.8		
Conductivity (µhmos/CM)	300	300	300		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	8.5	8.5	8.5		
Sediment/Turbidity	9.59	52.2	21.5		
Color	Clear	→	→		

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/19/97

SAMPLING INFORMATION

Well Number: POC-2

Sample Time: 900 Sampled By:

Duplicate Sample: Yes No

Total Depth of Well (ft): 13.0

Depth to Water (ft): 4.29

Column of Water in Well (ft): 8.71

Well Casing Diameter: 2"

Volume of Water in Well (gal.): 1.42

Method of Purging: Pump Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume : Lt. Jan

Bailer No.: Disposable Bailer Source: Precleaned: Y N

Equipment Blank Collected : Yes No Equipment: Sample I.D.

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)	1.42	1.42	1.42		
Time (military)	840	846	852		
pH (standard units)	6.0	7.0	7.0		
Conductivity (µhmos/CM)	600	510	500		
Temperature (°C)	25	25	25		
Actual Volume of Water Removed	1.5	1.5	1.5		
Sediment/Turbidity	1.99	2.01	2.07		
Color	Clear	Clear			

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

ECT WELL SAMPLING DATA FORM

PROJECT INFORMATION

Project & Task No. 97044-1111 Date: 11/19/97

SAMPLING INFORMATION

Well Number: POC-3

Sample Time: 945 Sampled By: BH

Duplicate Sample: (Yes) No Dupe 1

Total Depth of Well (ft): 13.0

Depth to Water (ft): 4.41

Column of Water in Well (ft):

Well Casing Diameter: 2"

Volume of Water in Well (gal.):

Method of Purging: (Pump) Bailer (circle one)

Pump Rate: (gal/min) .25 gal/min

Method of Determining Purged Volume: Lita Jan

VOLUME/LINEAR FT. OF PIPE	
I.D.(in)	Gal
2	0.163
4	0.663
6	1.47

Bailer No.: Disposable Bailer Source: Precleaned: (Y) N

Equipment Blank Collected: Yes (No) Equipment: Sample I.D.

FIELD PARAMETER STABILIZATION

	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5
Volume of Water to be Removed (gal)					
Time (military)					
pH (standard units)	7.6				
Conductivity (µhmos/CM)	280				
Temperature (°C)	25				
Actual Volume of Water Removed					
Sediment/Turbidity	768				
Color					

Odor (Circle One or More): None / Natural Organic / Chemical Organic / Gasoline / Diesel (Oil) / Other (Describe):

OBSERVATIONS: Same purging set-up as SA-3
Pumping out of this well continues to system

SAMPLE COLLECTION ORDER: Same as SA-3

pH Verified with pH Paper: Yes No Additional Quantities of Preservative Added:

APPENDIX B

GROUND WATER ANALYTICAL LABORATORY REPORTS

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ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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(770) 734-4200 • FAX (770) 734-4201

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

December 8, 1997

P.O. No. E13353

Report No. 89028-1

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Equipment Blank T-1, 11/18/97, 9:00, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	BDL	0.05
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	BDL	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.01	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.009	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.035	0.008
Total Vanadium (V) (EPA 6010)	0.02	0.002

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky
ECT, Tampa

Respectfully submitted,

Shari Harper
Project Manager

Bonnie G. Hogue
Quality Assurance

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-2

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Equipment Blank B-2, 11/18/97, 9:00, received 11/19/97

RESULTS

	Result	Detection Limit
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D).....	BDL	0.1
Volatile Organics (EPA 8260)	(ug/l)	(ug/l)
Acetone.....	BDL	2.26
Benzene.....	BDL	0.17
Carbon disulfide.....	BDL	0.57
Carbon tetrachloride.....	BDL	0.11
Chlorobenzene.....	BDL	0.22
Chloroform.....	BDL	0.14
1,2-Dichlorobenzene.....	BDL	0.09
1,3-Dichlorobenzene.....	BDL	0.19
1,4-Dichlorobenzene.....	BDL	0.20
1,1-Dichloroethene.....	BDL	0.27
1,1-Dichloroethane.....	BDL	0.12
Ethylbenzene.....	BDL	0.29
Methylene chloride.....	BDL	0.21
Naphthalene.....	3.9	0.74
Tetrachloroethene.....	BDL	0.31
Toluene.....	0.59	0.20
1,2,4-Trichlorobenzene.....	BDL	0.74
1,1,1-Trichloroethane.....	BDL	0.21
1,1,2-Trichloroethane.....	BDL	0.23
Trichloroethene.....	BDL	0.26

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-2

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Equipment Blank B-2, 11/18/97, 9:00, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	0.99	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10
Base/Neutral Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2-Methylnaphthalene	BDL	10
2-Naphthylamine	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-3

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-1, 11/18/97, 9:45, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	5.0	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	2	0.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.009	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	0.002	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.003	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.046	0.008
Total Vanadium (V) (EPA 6010)	0.023	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-3

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-1, 11/18/97, 9:45, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	1.3	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	0.57	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-3

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-1, 11/18/97, 9:45, received 11/19/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie G. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

December 8, 1997

P.O. No. E13353

Report No. 89028-4

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-2, 11/18/97, 10:45, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	5.7	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	1.8	0.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.008	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.003	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.034	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-4

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-2, 11/18/97, 10:45, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	2.1	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-4

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-2, 11/18/97, 10:45, received 11/19/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-5

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, BG-1, 11/18/97, 11:45, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	1.0	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	0.006	0.005
Total Barium (Ba) (EPA 6010)	0.02	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.02	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.013	0.002
Total Silver (Ag) (EPA 6010)	0.0017	0.0009
Total Zinc (Zn) (EPA 6010)	0.034	0.008
Total Vanadium (V) (EPA 6010)	0.003	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-5

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, BG-1, 11/18/97, 11:45, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-5

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, BG-1, 11/18/97, 11:45, received 11/19/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

December 8, 1997

P.O. No. E13353

Report No. 89028-6

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-4, 11/18/97, 12:45, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	0.52	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	1.9	0.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.03	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.005	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.026	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-6

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-4, 11/18/97, 12:45, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	0.41	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	1.2	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	1.7	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-6

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, SA-4, 11/18/97, 12:45, received 11/19/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

ASI

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-7

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-1, 11/18/97, 13:45, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	0.24	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	2.5	0.5
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.019	0.008
Total Vanadium (V) (EPA 6010)	BDL	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-7

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-1, 11/18/97, 13:45, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-7

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-1, 11/18/97, 13:45, received 11/19/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-8

Sample Description

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-5D, 11/18/97, 15:15, received 11/19/97

RESULTS

	Result	Detection Limit
Turbidity (NTU)(EPA 180.1)	28	0.05
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D)	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.01	0.001
Total Beryllium (Be)(EPA 6010)	BDL	0.0004
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Copper (Cu)(EPA 6010)	BDL	0.01
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Nickel (Ni)(EPA 6010)	0.007	0.002
Total Silver (Ag)(EPA 6010)	BDL	0.0009
Total Zinc (Zn)(EPA 6010)	0.017	0.008
Total Vanadium (V)(EPA 6010)	BDL	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-8

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-5D, 11/18/97, 15:15, received 11/19/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-8

Groundwater, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-5D, 11/18/97, 15:15, received 11/19/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Kaiser
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-9

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-1A, 11/19/97, 10:00, received 11/20/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	13	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	BDL	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.01	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	BDL	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	BDL	0.0009
Total Zinc (Zn) (EPA 6010)	0.015	0.008
Total Vanadium (V) (EPA 6010)	0.014	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-9

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-1A, 11/19/97, 10:00, received 11/20/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	0.87	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-9

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, DA-1A, 11/19/97, 10:00, received 11/20/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-10

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-2, 11/19/97, 9:00, received 11/20/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	1.8	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	0.1	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.02	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.01	0.01
Total Lead (Pb) (EPA 6010)	BDL	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	BDL	0.002
Total Silver (Ag) (EPA 6010)	0.0025	0.0009
Total Zinc (Zn) (EPA 6010)	0.014	0.008
Total Vanadium (V) (EPA 6010)	0.019	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-10

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-2, 11/19/97, 9:00, received 11/20/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	BDL	0.74
Tetrachloroethene	BDL	0.31
Toluene	1.3	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	0.98	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-10

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-2, 11/19/97, 9:00, received 11/20/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ANALYTICAL SERVICES, INC.

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

December 8, 1997

P.O. No. E13353

Report No. 89028-11

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-3, 11/19/97, 9:45, received 11/20/97

RESULTS

	Result	Detection Limit
Turbidity (NTU) (EPA 180.1)	6.8	0.05
Total Sulfide (S) (mg/l) (SM 4500-S^{2-} D)	0.4	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As) (EPA 6010)	BDL	0.005
Total Barium (Ba) (EPA 6010)	0.009	0.001
Total Beryllium (Be) (EPA 6010)	BDL	0.0004
Total Cadmium (Cd) (EPA 6010)	BDL	0.001
Total Chromium (Cr) (EPA 6010)	BDL	0.001
Total Copper (Cu) (EPA 6010)	0.06	0.01
Total Lead (Pb) (EPA 6010)	0.01	0.004
Total Mercury (Hg) (EPA 7470)	BDL	0.0002
Total Nickel (Ni) (EPA 6010)	0.020	0.002
Total Silver (Ag) (EPA 6010)	0.0009	0.0009
Total Zinc (Zn) (EPA 6010)	0.173	0.008
Total Vanadium (V) (EPA 6010)	0.004	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-11

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-3, 11/19/97, 9:45, received 11/20/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	0.87	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	2.7	0.09
1,3-Dichlorobenzene	2.3	0.19
1,4-Dichlorobenzene	1.7	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	11	0.29
Methylene chloride	BDL	0.21
Naphthalene	26	0.74
Tetrachloroethene	BDL	0.31
Toluene	8	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	30	0.36
Acid Extractable Organics (EPA 8270)	**(ug/l)**	**(ug/l)**
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-11

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, POC-3, 11/19/97, 9:45, received 11/20/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J. Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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LABORATORY REPORT

Safety-Kleen Corporation
4800 S Old Peachtree Road
Norcross, GA 30071

December 8, 1997

P.O. No. E13353

Attention: Mr. Gary Risse

Report No. 89028-12

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Dupe-1, 11/19/97,, received 11/20/97

RESULTS

	Result	Detection Limit
Turbidity (NTU)(EPA 180.1)	6.2	0.05
Total Sulfide (S)(mg/l)(SM 4500-S^{2-} D)	0.35	0.1
Metals	(mg/l)	(mg/l)
Total Arsenic (As)(EPA 6010)	BDL	0.005
Total Barium (Ba)(EPA 6010)	0.01	0.001
Total Beryllium (Be)(EPA 6010)	BDL	0.0004
Total Cadmium (Cd)(EPA 6010)	BDL	0.001
Total Chromium (Cr)(EPA 6010)	BDL	0.001
Total Copper (Cu)(EPA 6010)	0.02	0.01
Total Lead (Pb)(EPA 6010)	BDL	0.004
Total Mercury (Hg)(EPA 7470)	BDL	0.0002
Total Nickel (Ni)(EPA 6010)	0.007	0.002
Total Silver (Ag)(EPA 6010)	BDL	0.0009
Total Zinc (Zn)(EPA 6010)	0.0355	0.008
Total Vanadium (V)(EPA 6010)	0.006	0.002

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-12

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Dupe-1, 11/19/97,, received 11/20/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	0.89	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	2.4	0.09
1,3-Dichlorobenzene	2.4	0.19
1,4-Dichlorobenzene	2.1	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	6.2	0.29
Methylene chloride	BDL	0.21
Naphthalene	41	0.74
Tetrachloroethene	BDL	0.31
Toluene	5.1	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	16	0.36

Acid Extractable Organics (EPA 8270)	(ug/l)	(ug/l)
2,4-Dimethylphenol	BDL	10
o-Cresol	BDL	10
m+p-Cresol	BDL	10

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-12

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Dupe-1, 11/19/97,, received 11/20/97

RESULTS

Base/Neutral Extractable Organics (EPA 8270)	Result (ug/l)	Detection Limit (ug/l)
2-Methylnaphthalene.....	BDL	10
2-Naphthylamine.....	BDL	10

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J Hogue
Quality Assurance

cc: Mr. Rick Stebnisky
ECT, Tampa

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ANALYTICAL SERVICES, INC.

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4800 S Old Peachtree Road
Norcross, GA 30071

Attention: Mr. Gary Risse

December 8, 1997

P.O. No. E13353

Report No. 89028-13

Sample Description

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Trip Blank,,, received 11/20/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
Acetone	BDL	2.26
Benzene	BDL	0.17
Carbon disulfide	BDL	0.57
Carbon tetrachloride	BDL	0.11
Chlorobenzene	BDL	0.22
Chloroform	BDL	0.14
1,2-Dichlorobenzene	BDL	0.09
1,3-Dichlorobenzene	BDL	0.19

BDL - Below Detection Limit

December 8, 1997
Report No. 89028-13

Water, SK-Tampa (Manhattan Ave), Project #97044-1111, Trip Blank,,, received 11/20/97

RESULTS

Volatile Organics (EPA 8260)	Result (ug/l)	Detection Limit (ug/l)
1,4-Dichlorobenzene	BDL	0.20
1,1-Dichloroethene	BDL	0.27
1,1-Dichloroethane	BDL	0.12
Ethylbenzene	BDL	0.29
Methylene chloride	BDL	0.21
Naphthalene	0.83	0.74
Tetrachloroethene	BDL	0.31
Toluene	BDL	0.20
1,2,4-Trichlorobenzene	BDL	0.74
1,1,1-Trichloroethane	BDL	0.21
1,1,2-Trichloroethane	BDL	0.23
Trichloroethene	BDL	0.26
Trichlorofluoromethane	BDL	0.13
Xylenes (total)	BDL	0.36

BDL - Below Detection Limit
Florida Certification No.'s: 87403/E87315
QA Plan No. 910158G

cc: Mr. Rick Stebnisky
ECT, Tampa

Respectfully submitted,

Shari Harper
Project Manager

Bonnie J Hogue
Quality Assurance

Analytical Services Inc. Batch QC
For Report Number :89028
Base Neutrals / Acids

Matrix : Aqueous Batch # 34248 Method : EPA 8270

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Phenol	28	25	8	12 - 89	0 - 42
2-Chlorophenol	58	52	11	27 - 123	0 - 40
1,4-Dichlorobenzene	54	42	25	36 - 97	0 - 28
N-Nitrosodipropylamine	77	61	23	41 - 116	0 - 38
1,2,4-Trichlorobenzene	62	50	23	44 - 142	0 - 28
4-Chloro-3-methylphenol	73	62	16	23 - 97	0 - 42
Acenaphthene	71	60	17	46 - 118	0 - 31
2,4-Dinitrotoluene	64	57	11	24 - 96	0 - 38
4-Nitrophenol	32	24	30	10 - 80	0 - 50
Pentachlorophenol	29	32	11	9 - 103	0 - 50
Pyrene	111	104	7	26 - 127	0 - 31

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Phenol	48	56	16	12 - 89	0 - 42
^ Chlorophenol	73	88	18	27 - 123	0 - 40
4-Dichlorobenzene	55	68	21	36 - 97	0 - 28
N-Nitrosodipropylamine	74	91	21	41 - 116	0 - 38
1,2,4-Trichlorobenzene	65	77	16	44 - 142	0 - 28
4-Chloro-3-methylphenol	85	93	8	23 - 97	0 - 42
Acenaphthene	83	90	8	46 - 118	0 - 31
2,4-Dinitrotoluene	84	87	4	24 - 96	0 - 38
4-Nitrophenol	46	47	2	10 - 80	0 - 50
Pentachlorophenol	84	70	18	9 - 103	0 - 50
Pyrene	115	118	2	26 - 127	0 - 31

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 34248 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
34248BLK	B2228	23	17	46	46	32	64
34248LCS	B2229	26	20	67	68	50	103
34248LCSD	B2230	32	19	54	53	58	99
89028-2	B2210	42	27	54	66	63	91
89028-3	B2211	37	23	48	32	79	82
89028-4	B2212	33	21	49	57	77	102
89028-5	B2213	41	27	69	77	78	94
89028-6	B2214	35	23	54	61	70	79
89028-7	B2215	39	25	64	70	74	103
89028-8	B2216	37	24	54	63	76	91
89028-9	B2217	42	26	63	73	82	83
89028-10	B2218	35	26	62	72	79	92
89028-11	B2219	55	28	111	83	77	93
89028-12	B2220	32	15	85	90	93	100
89112-3	B2301	8	16	83	84	10	113
89124-1	B2274			70	75		68
^^Note: BN ONLY							
89124-2	B2275			64	66		55
^^Note: BN ONLY							
89124-3	B2276			60	61		48
^^Note: BN ONLY							
89124-4	B2277			38	15		40
^^Note: BN ONLY							
89028-8MS	B2278	57	44	67	73	91	102
89028-8MSD	B2279	67	51	78	82	90	95
89028-9DUP	B2280	37	24	60	59	73	92
89074-16	B2298			12	68		57
^^Note: BN ONLY							
89326-1	B2352	54	51	70	84	72	100
89326-2	B2353	62	59	72	76	84	80

Analytical Services Inc. Batch QC
Surrogate Recovery
Base Neutrals / Acids

Matrix : Aqueous Batch # 34248 Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
89326-1D ^^Note: 1:10	B2357	55	52	66	86	60	101
89326-2D ^^Note: 1:10	B2358	57	56	59	75	68	86

Q.C. Information for Batch # 34248 Printed: 12/08/97 17:47:44

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
34248BLK	11/21/97	0900	JW/TB		11/22/97	2133	TAS	5971
34248LCS	11/21/97	0900	JW/TB		11/22/97	2205	TAS	5971
34248LCSD	11/21/97	0900	JW/TB		11/22/97	2237	TAS	5971
89028-2	11/21/97	0900	JW/TB		11/22/97	1246	TAS	5971
89028-3	11/21/97	0900	JW/TB		11/22/97	1318	TAS	5971
89028-4	11/21/97	0900	JW/TB		11/22/97	1350	TAS	5971
89028-5	11/21/97	0900	JW/TB		11/22/97	1423	TAS	5971
89028-6	11/21/97	0900	JW/TB		11/22/97	1455	TAS	5971
89028-7	11/21/97	0900	JW/TB		11/22/97	1528	TAS	5971
89028-8	11/21/97	0900	JW/TB		11/22/97	1600	TAS	5971
89028-9	11/21/97	0900	JW/TB		11/22/97	1633	TAS	5971
89028-10	11/21/97	0900	JW/TB		11/22/97	1705	TAS	5971
89028-11	11/21/97	0900	JW/TB		11/22/97	1737	TAS	5971
89028-12	11/21/97	0900	JW/TB		11/22/97	1809	TAS	5971
89028-8MS	11/21/97	1500	JW/TB		11/25/97	1936	TAS	5971
89028-8MSD	11/21/97	1500	JW/TB		11/25/97	2009	TAS	5971
89028-9DUP	11/21/97	1500	JW/TB		11/25/97	2043	TAS	5971
89112-3	11/24/97	0900	JW		11/26/97	0742	TAS	5971
89124-1	11/24/97	0900	JW	BN ONLY	11/25/97	1722	TAS	597[illegible]
89124-2	11/24/97	0900	JW	BN ONLY	11/25/97	1755	TAS	59[illegible]
89124-3	11/24/97	0900	JW	BN ONLY	11/25/97	1829	TAS	597[illegible]
89124-4	11/24/97	0900	JW	BN ONLY	11/25/97	1902	TAS	5971
89326-1	11/26/97	1800	DY		11/28/97	0953	TAS	5971
89326-2	11/26/97	1800	DY		11/28/97	1027	TAS	5971
89326-1D	/ /				11/28/97	1242	TAS	5971
89326-2D	/ /				11/28/97	1315	TAS	5971
89074-16	/ /				11/26/97	0603	TAS	5971

Analytical Services Inc. Batch QC
For Report Number :89028
Volatile Organics

Matrix : Aqueous Batch # 34522 Method : EPA 8260

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	87	90	4	61 - 145	0 - 14
Trichloroethene	80	85	5	71 - 120	0 - 14
Benzene	92	101	9	76 - 127	0 - 11
Toluene	95	100	6	76 - 125	0 - 13
Chlorobenzene	97	103	6	75 - 130	0 - 13

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	104	92	13	61 - 145	0 - 14
Trichloroethene	104	99	5	71 - 120	0 - 14
Benzene	120	119	1	76 - 127	0 - 11
Toluene	112	105	6	76 - 125	0 - 13
Chlorobenzene	99	102	4	75 - 130	0 - 13

Analytical Services Inc. Batch QC
Surrogate Recovery
Volatile Organics

Matrix : Aqueous Batch # 34522 Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
34522BLK	SB854	90	104	100	99		
34522LCS	SB848	86	103	99	101		
34522LCSD	SB849	88	104	97	100		
89028-2	SB828	100	101	101	100		
89028-3	SB829	101	99	99	100		
89028-4	SB830	105	100	100	101		
89028-5	SB831	98	100	98	99		
89028-6	SB832	96	102	99	100		
89028-7	SB833	100	105	95	102		
89028-8	SB834	96	105	93	105		
89028-9	SB835	96	105	94	104		
89028-10	SB836	100	106	98	97		
89028-11	SB837	99	307	174	219		
^^Note: MATRIX EFFECT							
89028-12	SB838	116	208	123	106		
^^Note: MATRIX EFFECT							
89028-13	SB839	118	107	100	112		
88592AT2	SB840	98	55	102	79		
^^Note: MATRIX EFFECT							
89178-11	SB814	98	107	106	101		
89074-21	SB813	98	108	109	103		
89074-19	SB811	92	107	109	104		
89074-20	SB812	98	107	106	104		
89272-1	SB863	87	101	98	96		
89272-2	SB864	87	99	97	96		
89273	SB865	88	102	98	98		
89028-5MS	B0802	107	99	89	87		
89028-5MSD	B0803	93	95	83	86		
89028-5DUP	B0804	99	95	91	86		

Q.C. Information for Batch # 34522 Printed: 12/08/97 17:47:45

Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst #
34522BLK	/ /				12/02/97	1134	DMB	VOA1
34522LCS	/ /				12/02/97	0742	DMB	VOA1
34522LCSD	/ /				12/02/97	0808	DMB	VOA1
89028-2	/ /				12/01/97	2258	DMB	VOA1
89028-3	/ /				12/01/97	2324	DMB	VOA1
89028-4	/ /				12/01/97	2350	DMB	VOA1
89028-5	/ /				12/02/97	0016	DMB	VOA1
89028-6	/ /				12/02/97	0042	DMB	VOA1
89028-7	/ /				12/02/97	0108	DMB	VOA1
89028-8	/ /				12/02/97	0134	DMB	VOA1
89028-9	/ /				12/02/97	0200	DMB	VOA1
89028-10	/ /				12/02/97	0226	DMB	VOA1
89028-11	/ /				12/02/97	0252	DMB	VOA1
89028-12	/ /				12/02/97	0318	DMB	VOA1
89028-13	/ /				12/02/97	0344	DMB	VOA1
88592AT2	/ /				12/02/97	0409	DMB	VOA1
89178-11	/ /				11/30/97	2135	DMB	VOA1
89074-21	/ /				11/30/97	2103	DMB	VOA1
89074-19	/ /				11/30/97	1825	DMB	VOA1
89074-20	/ /				11/30/97	2032	DMB	VOA1
272-1	/ /				12/02/97	1325	LLP	VOA1
89272-2	/ /				12/02/97	1353	LLP	VOA1
89273	/ /				12/02/97	1420	LLP	VOA1
89028-5MS	/ /				12/03/97	0943	DMB	VOA2
89028-5MSD	/ /				12/03/97	1010	DMB	VOA2
89028-5DUP	/ /				12/03/97	1153	DMB	VOA2

Analytical Services Inc. Batch QC
For Report Number :89028

QC Batch General Information

Batch Number	Analyte	Analysis Method	Matrix		Blank Result	Prep. Method
34007	Hg	EPA 7470	Aqueous	<	0.0002	
34163	NTU	EPA 180.1	Aqueous	<	0.0500	
34183	Ag	EPA 6010	Aqueous	<	0.0009	
34183	As	EPA 6010	Aqueous	<	0.0050	
34183	Ba	EPA 6010	Aqueous	<	0.0010	
34183	Be	EPA 6010	Aqueous	<	0.0004	
34183	Cd	EPA 6010	Aqueous	<	0.0010	
34183	Cr	EPA 6010	Aqueous	<	0.0010	
34183	Cu	EPA 6010	Aqueous	<	0.0100	
34183	Ni	EPA 6010	Aqueous	<	0.0020	
34183	Pb	EPA 6010	Aqueous	<	0.0040	
34183	V	EPA 6010	Aqueous	<	0.0020	
34183	Zn	EPA 6010	Aqueous	<	0.0080	
34263	NTU	EPA 180.1	Aqueous	<	0.0500	
34358	S	SM 4500-S	Aqueous	<	0.1000	

Lab Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
34007	Hg	EPA 7470	106	108	2	76 - 124	0 - 20
34183	Ag	EPA 6010	120	119	1	76 - 124	0 - 20
34183	As	EPA 6010	87	90	3	76 - 124	0 - 20
34183	Ba	EPA 6010	92	96	4	76 - 124	0 - 20
34183	Be	EPA 6010	91	95	4	76 - 124	0 - 20
34183	Cd	EPA 6010	89	93	4	76 - 124	0 - 20
34183	Cr	EPA 6010	89	93	4	76 - 124	0 - 20
34183	Cu	EPA 6010	90	95	5	76 - 124	0 - 20
34183	Ni	EPA 6010	84	88	5	76 - 124	0 - 20
34183	Pb	EPA 6010	89	93	4	76 - 124	0 - 20
34183	V	EPA 6010	100	110	10	76 - 124	0 - 20
34183	Zn	EPA 6010	85	91	7	76 - 124	0 - 20
34358	S	SM 4500-S	101	96	5	60 - 140	0 - 40

Analytical Services Inc. Batch QC
For Report Number :89028

ıtrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
34007	Hg	EPA 7470	98	102	4	76 - 124	0 - 20
34183	Ag	EPA 6010	120	120	0	76 - 124	0 - 20
34183	As	EPA 6010	87	85	2	76 - 124	0 - 20
34183	Ba	EPA 6010	93	91	2	76 - 124	0 - 20
34183	Be	EPA 6010	92	89	3	76 - 124	0 - 20
34183	Cd	EPA 6010	90	88	2	76 - 124	0 - 20
34183	Cr	EPA 6010	91	88	3	76 - 124	0 - 20
34183	Cu	EPA 6010	91	87	4	76 - 124	0 - 20
34183	Ni	EPA 6010	85	83	2	76 - 124	0 - 20
34183	Pb	EPA 6010	91	88	3	76 - 124	0 - 20
34183	V	EPA 6010	100	100	0	76 - 124	0 - 20
34183	Zn	EPA 6010	86	83	4	76 - 124	0 - 20
34358	S	SM 4500-S	80	75	6	60 - 140	0 - 40

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
34183	Ag	EPA 6010	92	76 - 124
34183	As	EPA 6010	87	76 - 124
34183	Ba	EPA 6010	94	76 - 124
34183	Be	EPA 6010	93	76 - 124
34183	Cd	EPA 6010	91	76 - 124
34183	Cr	EPA 6010	92	76 - 124
34183	Cu	EPA 6010	100	76 - 124
34183	Ni	EPA 6010	92	76 - 124
34183	Pb	EPA 6010	92	76 - 124
34183	V	EPA 6010	110	76 - 124
34183	Zn	EPA 6010	95	76 - 124

Unspiked Sample Duplicate Information

Batch Number	Analyte	Method	Sample 1 RPD	Sample 2 RPD	RPD Range
34163	NTU	EPA 180.1	2		0 - 30
34263	NTU	EPA 180.1	1		0 - 30
34358	S	SM 4500-S	0	0	0 - 40

Q.C. Information for Batch # 34007 For Report Number :89028

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
34007BLANK	HG	11/24/97	0730	FBS		11/24/97	1228	FBS	HG1
34007LCS	HG	11/24/97	0730	FBS		11/24/97	1230	FBS	HG1
34007LCSD	HG	11/24/97	0730	FBS		11/24/97	1232	FBS	HG1
89028-1MS	HG	11/24/97	0730	FBS		11/24/97	1235	FBS	HG1
89028-1MSD	HG	11/24/97	0730	FBS		11/24/97	1237	FBS	HG1
89028-3DUP	HG	11/24/97	0730	FBS		11/24/97	1239	FBS	HG1
89028-1	HG	11/21/97	0730	FBS		11/24/97	1242	FBS	HG1
89028-10	HG	11/21/97	0730	FBS		11/24/97	1306	FBS	HG1
89028-11	HG	11/21/97	0730	FBS		11/24/97	1308	FBS	HG1
89028-12	HG	11/21/97	0730	FBS		11/24/97	1311	FBS	HG1
89028-3	HG	11/21/97	0730	FBS		11/24/97	1244	FBS	HG1
89028-4	HG	11/21/97	0730	FBS		11/24/97	1247	FBS	HG1
89028-5	HG	11/21/97	0730	FBS		11/24/97	1249	FBS	HG1
89028-6	HG	11/21/97	0730	FBS		11/24/97	1256	FBS	HG1
89028-7	HG	11/21/97	0730	FBS		11/24/97	1259	FBS	HG1
89028-8	HG	11/21/97	0730	FBS		11/24/97	1301	FBS	HG1
89028-9	HG	11/21/97	0730	FBS		11/24/97	1304	FBS	HG1
89074-1	HG	11/21/97	0730	FBS		11/24/97	1313	FBS	HG1
89074-2	HG	11/21/97	0730	FBS		11/24/97	1316	FBS	HG1
89074-3	HG	11/21/97	0730	FBS		11/24/97	1318	FBS	HG1
89074-4	HG	11/21/97	0730	FBS		11/24/97	1325	FBS	HG1
89074-5	HG	11/21/97	0730	FBS		11/24/97	1328	FBS	HG1
89074-6	HG	11/21/97	0730	FBS		11/24/97	1330	FBS	HG1
89074-7	HG	11/21/97	0730	FBS		11/24/97	1333	FBS	HG1
89164-1	HG	11/21/97	0730	FBS		11/24/97	1335	FBS	HG1
89164-2	HG	11/21/97	0730	FBS		11/24/97	1337	FBS	HG1

Q.C. Information for Batch # 34163 For Report Number :89028

Sample Batch Information
Analysis : NTU

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
34163BLK		/ /				11/19/97	1600	EKT	HACH
89028-1		/ /				11/19/97	1600	EKT	HACH
89028-3		/ /				11/19/97	1600	EKT	HACH
89028-3DUP		/ /				11/19/97	1600	EKT	HACH
89028-4		/ /				11/19/97	1600	EKT	HACH
89028-5		/ /				11/19/97	1600	EKT	HACH
89028-6		/ /				11/19/97	1600	EKT	HACH
89028-7		/ /				11/19/97	1600	EKT	HACH
89028-8		/ /				11/19/97	1600	EKT	HACH

Q.C. Information for Batch # 34183 For Report Number :89028

Sample Batch Information
Analysis : Ag, As, Ba, Be, Cd, Cr, Cu, Ni, Pb, V, Zn

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
34183BLANK		11/24/97	0915	KSP	TRACE	11/24/97	1512	MLR	ICP2
34183LCS		11/24/97	0915	KSP	TRACE	11/24/97	1516	MLR	ICP2
34183LCSD		11/24/97	0915	KSP	TRACE	11/24/97	1519	MLR	ICP2
88990-3MS		11/24/97	0915	KSP	TRACE	11/24/97	1523	MLR	ICP2
88990-3MSD		11/24/97	0915	KSP	TRACE	11/24/97	1526	MLR	ICP2
88990-4PDS		11/24/97	0915	KSP	TRACE	11/24/97	1530	MLR	ICP2
88990-4DUP		11/24/97	0915	KSP	TRACE	11/24/97	1533	MLR	ICP2
88990-3		11/24/97	0915	KSP	TRACE	11/24/97	1537	MLR	ICP2
88990-4		11/24/97	0915	KSP	TRACE	11/24/97	1540	MLR	ICP2
88990-5		11/24/97	0915	KSP	TRACE	11/24/97	1544	MLR	ICP2
88990-6		11/24/97	0915	KSP	TRACE	11/24/97	1800	MLR	ICP2
89002		11/24/97	0915	KSP	TRACE	11/24/97	1803	MLR	ICP2
89028-1		11/24/97	0915	KSP	TRACE	11/24/97	1807	MLR	ICP2
89028-10		11/24/97	0915	KSP	TRACE	11/25/97	1103	MLR	ICP2
89028-11		11/24/97	0915	KSP	TRACE	11/25/97	1106	MLR	ICP2
89028-12		11/24/97	0915	KSP	TRACE	11/25/97	1110	MLR	ICP2
89028-3		11/24/97	0915	KSP	TRACE	11/24/97	1810	MLR	ICP2
89028-4		11/24/97	0915	KSP	TRACE	11/25/97	1034	MLR	ICP2
89028-5		11/24/97	0915	KSP	TRACE	11/25/97	1038	MLR	ICP2
89028-6		11/24/97	0915	KSP	TRACE	11/25/97	1041	MLR	ICP2
89028-7		11/24/97	0915	KSP	TRACE	11/25/97	1045	MLR	ICP2
89028-8		11/24/97	0915	KSP	TRACE	11/25/97	1048	MLR	ICP2
89028-9		11/24/97	0915	KSP	TRACE	11/25/97	1052	MLR	ICP2
89054-1		11/24/97	0915	KSP	TRACE	11/25/97	1113	MLR	ICP2
89054-10		11/24/97	0915	KSP	TRACE	11/25/97	1117	MLR	ICP2
89054-11		11/24/97	0915	KSP	TRACE	11/25/97	1120	MLR	ICP2
89054-12		11/24/97	0915	KSP	TRACE	11/25/97	1124	MLR	ICP2

Q.C. Information for Batch # 34358 For Report Number :89028

Sample Batch Information
Analysis : S

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
34358BLK		/ /				11/26/97	0900	JN	HACH
34358LCS		/ /				11/26/97	0900	JN	HACH
34358LCSD		/ /				11/26/97	0900	JN	HACH
34358CALCHK		/ /				11/26/97	0900	JN	HACH
89140MS		/ /				11/26/97	0900	JN	HACH
89140MSD		/ /				11/26/97	0900	JN	HACH
89068-3		/ /				11/26/97	0900	JN	HACH
89068-7		/ /				11/26/97	0900	JN	HACH
89068-11		/ /				11/26/97	0900	JN	HACH
89068-15		/ /				11/26/97	0900	JN	HACH
89068-19		/ /				11/26/97	0900	JN	HACH
89068-23		/ /				11/26/97	0900	JN	HACH
89068-27		/ /				11/26/97	0900	JN	HACH
89140		/ /				11/26/97	0900	JN	HACH
89246		/ /				11/26/97	0900	JN	HACH
89028-2		/ /				11/26/97	0900	JN	HACH
89028-3		/ /				11/26/97	0900	JN	HACH
89028-4		/ /				11/26/97	0900	JN	HACH
89028-5		/ /				11/26/97	0900	JN	HACH
89028-6		/ /				11/26/97	0900	JN	HACH
89028-7		/ /				11/26/97	0900	JN	HACH
89028-8		/ /				11/26/97	0900	JN	HACH
89028-8DUP		/ /				11/26/97	0900	JN	HACH
89028-9DUP		/ /				11/26/97	0900	JN	HACH
89028-9		/ /				11/26/97	0900	JN	HACH
89028-10		/ /				11/26/97	0900	JN	HACH
89028-11		/ /				11/26/97	0900	JN	HACH
89028-12		/ /				11/26/97	0900	JN	HACH

Q.C. Information for Batch # 34263 For Report Number :89028

Sample Batch Information
Analysis : NTU

Sample ID	Tag	Preparation Date	Preparation Time	Preparation By	Preparation Notes	Analysis Date	Analysis Time	Analysis By	Inst
34263BLK		/ /				11/21/97	0730	EKT	HACH
89028-9		/ /				11/21/97	0730	EKT	HACH
89028-9DUP		/ /				11/21/97	0730	EKT	HACH
89028-10		/ /				11/21/97	0730	EKT	HACH
89028-11		/ /				11/21/97	0730	EKT	HACH
89028-12		/ /				11/21/97	0730	EKT	HACH

ASI ANALYTIC L SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: ECT / Safety Kleen

CLIENT ADDRESS AND PHONE NUMBER: 5405 Cypress Center Drive Suite 300, Tampa FL 33609 813-289-8331

PROJECT MANAGER: Rick Stebnisky

COPY TO (if applicable):

REQUESTED COMPLETION DATE: Standard

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☒ OTHER ____

PROJECT NAME: SK-MA

PROJECT NUMBER: 97044-1111

PURCHASE ORDER NO.:

FOR LAB USE ONLY

LAB #: 89028

PROJECT NO.:

ACK: VERIFIED:

QUOTE #: BS:

NO. OF SAMP: 13-8 PG 1 OF 2

ANALYSES REQUESTED

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	Metals	Tuds.dt	MeaCury (Hg)	8270	9030						LAB ID	REMARKS/ADDITIONAL INFORMATION
	11/17/97	900				Equip BLK-T-1	3	1	1	1								-1	
		900				Equip BLK. B-2	3				2	1						-2	
		945				SA-1	6	1	1	1	2	1						-3	
		1045				SA-2	6	1	1	1	2	1						-4	
		1145				BG-1	6	1	1	1	2	1						-5	
		1245				SA-4	6	1	1	1	2	1						-6	
		1345				POC-1	6	1	1	1	2	1						-7	
		1515				DA-5D	6	1	1	1	2	1						-8	

vials preserved

SAMPLED BY AND TITLE: Robert Harrison / F.S. man — DATE/TIME: 11/18/97

RELINQUISHED BY: Robert Harr — DATE/TIME: 11/18/97 11:00

RECEIVED BY: — DATE/TIME: — RELINQUISHED BY: — DATE/TIME:

RECEIVED BY: — DATE/TIME: — RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: Nancy Lindsell — DATE/TIME: 11/19/97 09:45

SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____

AIR BILL #: 5270310393

HAZWRAP/NEESA Y N

QC LEVEL 1 2 3

COC ✓ ICE ✓

ANA REQ — TEMP 5°C

CUST SEAL INTACT — PH 1 (metals)

SAMPLE COND. good

REMARKS

ENTERED INTO LIMS ____ COC REVIEWD ____

ASI ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS
110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: ECT / Safety Kleen

CLIENT ADDRESS AND PHONE NUMBER: 5405 Cypress Center Drive Ste 200 Tampa Fl 33609 813-289-9338

PROJECT MANAGER: Rick Stabnisky

COPY TO (if applicable):

REQUESTED COMPLETION DATE: Standard

SAMPLING REQUIREMENTS: SDWA ☐ NPDES ☐ RCRA ☒ OTHER ____

PROJECT NAME: SK - MA

PROJECT NUMBER: 97044-1111

PURCHASE ORDER NO.

FOR LAB USE ONLY

LAB #: 89028

PROJECT NO.

ACK | VERIFIED

QUOTE # | BS

NO. OF SAMP 13 | PG 2 | OF 2

ANALYSES REQUESTED

SAMPLE ID	DATE	TIME	COMP	GRAB	SOIL	SAMPLE DESCRIPTIONS	# OF CONTAINERS	8240	Metals	Turb. & Ty	Mercury	8270	8330					LAB ID	REMARKS/ADDITIONAL INFORMATION
	11/18/97	800				Equip BK-B-2		3										2	
		945				SA-1		3										3	
		1045				SA-2		3										4	
		1145				BG-1		3										5	
		1245				SA-4		3										6	
		1345				POC-1		3										7	
		1515				DA-SD		3										8	
	11/19/97	1000				DA-1A		3	1	1	1	2	1					9	
		900				POC-2		3	1	1	1	2	1					10	
		945				POC-3		3	1	1	1	2	1					11	
		—				Dupe-1		3	1	1	1	2	1					12	
						TRIP		3										13	

SAMPLED BY AND TITLE: Bob Harrison F.S. Manager | DATE/TIME: 11/18-19/97

RELINQUISHED BY: Robert Harrison | DATE/TIME: 11/19/97 1200

RECEIVED BY: | DATE/TIME:

RELINQUISHED BY: | DATE/TIME:

RECEIVED BY: | DATE/TIME:

RELINQUISHED BY: | DATE/TIME:

RECEIVED BY LAB: Nancy McDonald | DATE/TIME: 11/20/97 09:55

SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER ____

AIR BILL # 5270310360

HAZWRAP/NEESA Y N

QC LEVEL 1 2 3

COC ✓ | ICE ✓

ANA REQ | TEMP 6°

CUST SEAL INTACT | PH (metals)

SAMPLE COND. good

REMARKS

ENTERED INTO LIMS ____ | COC REVIEWD ____