Photocircuits
CORPORATION

16 July 2000

By Certified Mail, R.R.R.

Dr. Chttibabu Vasudevan, Ph.D., P.E.
Chief, Remedial Section A
Bureau of Eastern Remedial Action
Division of Environmental Remediation
New York State Department of
Environmental Conservation
625 Broadway
Albany, NY 12233

Re: Site Numbers 1-30-009 and 1-30-053A
First Quarter 2001 Progress Report

Dear Dr. Vasudevan:

Enclosed please find the First Quarter 2001 Progress Report for the subject sites.

Should you have any questions regarding the enclosed, please feel free to contact me at 516-609-1164 or Charlie Nehrig at 516-609-1052. Thank you.

Sincerely,

for L. Stans

Louis J. Stans
Director of Technology

Enclosures

cc: Joseph Jones, NYSDEC, Albany, NY (3 copies)
G. Andres Carlson, Ph.D., NYSDOH, Albany, NY (2 copies)
Robert Becherer, NYSDEC, Region 1, Stony Brook, NY (1 copy)
John F. Byrne, Esq., NYSDEC-DEE, Tarrytown, NY (1 copy)
James Harrington, NYSDEC, Albany, NY (1 copy)
Andy Barber, Barton and Loguidice, P.C., Albany, NY (1 copy)

FIRST QUARTER 2001
PROGRESS REPORT

PHOTOCIRCUITS AND FORMER PASS & SEYMOUR SITES
31 & 45 SEA CLIFF AVENUE

SITE NUMBERS 1-30-009 AND 1-30-053A

Prepared for:
Photocircuits Corporation
31 Sea Cliff Avenue
Glen Cove, New York 11542

Prepared by:
Barton and Loguidice, P.C.
2 Corporate Plaza
264 Washington Avenue Extension
Albany, New York 12203

June, 2001

1.0 Introduction

This First Quarter 2001 Progress Report (1Q01) is being submitted pursuant to the 1997 Order on Consent between Photocircuits Corporation and the New York State Department of Environmental Conservation (NYSDEC).

During the First Quarter of 2001, the following tasks were accomplished:

- Operation of the Soil Vapor Extraction (SVE) System at the 31 Sea Cliff Avenue site was continued using the catalytic oxidation (CatOx) unit to treat recovered vapors; this system was shut off in March due to high water table conditions.

- One round of groundwater sampling and analysis was conducted March at the 31 Sea Cliff Avenue site in support of the bioremediation pilot test; this sampling event included several wells located along Sea Cliff Avenue.

- Operation of the SVE system at Building 7 (45 Sea Cliff Avenue) was continued and using activated carbon to treat collected vapors. The air sparging (AS) component of this system was started in March.

2.0 Discussion of Results

2.1 SVE System at 31 Sea Cliff Avenue

The SVE system at the 31 Sea Cliff Avenue site was installed as an Interim Remedial Measure (IRM), and started operation in April 2000. The SVE system, equipped with the CatOx/scrubber for extracted vapor treatment, was restarted on July 21, 2000 and has operated continuously with only a few brief shutdowns for maintenance activities. An additional SVE well was connected to the system in December; well SVE-6 is located due west of the SVE system against the wall of the Photocircuits Main Building. The system was shut down in March 2001 because high water-table conditions prevented meaningful contaminant removal. (Note: the system was restarted on May 15).

Monitoring data for the SVE system are provided in the attached tables, which include the results of vapor sample analyses. Concentrations of recovered vapor phase contaminants are provided in micrograms per cubic meter (ug/m3) and in parts per million by volume (ppmv). Contaminant concentrations have also been multiplied by the system flow rate to express the rate of contaminant mass recovery in pounds per day (lbs/day). Several figures have also been prepared, showing the mass removal of individual VOCs versus time (influent to the CatOx treatment system). These figures demonstrate that the relationship of total contaminant mass removal versus time was clearly becoming asymptotic in the latter part of 2000 and in early 2001.

After the local water table drops, the system will be re-started and data from ongoing monitoring will be used to establish when the mass removal versus time relationship again becomes asymptotic (Note: the system was restarted on May 15). When that condition is established, the system will be shut down for a several day period to allow the subsurface to re-establish equilibrium conditions. The system will then be re-started and extracted soil vapor concentrations will be monitored. The system will again be shut down when mass removal becomes asymptotic, which will likely occur within a period of a few hours to a few days. This process will be repeated twice more (allowing successively longer time periods for the establishment of subsurface equilibrium) to demonstrate that there is little or no residual contamination and that further contaminant removal is infeasible.

2.2 Bioremediation Pilot Test

The bioremediation pilot test was started during the week of August 28, 2000 when Terra Systems conducted the injection of a nutrient solution (substrate) into the subsurface at the 31 Sea Cliff Avenue site. Following the injection, groundwater samples were collected from the following monitoring wells/points: MW-7, MW-14, SMP-1, DMP-1, SMP-3, DMP-3, SMP-4 and DMP-4. These wells/points were sampled again on October 18-19, December 20, 2000 and March 27-28, 2001; the March sampling event included several wells located along Sea Cliff Avenue (MW-8, MW-9, MW-12 and MW-13) along with the wells sampled during the previous events. The results of the most recent sampling round are attached to this report.

A status report on the pilot test (including the data from the samples collected in March 2001) was prepared by Terra Systems and is included as Appendix A to this Progress Report. The main conclusion of the report is that conditions continue to be favorable for accelerated anaerobic degradation of chlorinated VOCs within the pilot test area. The report discusses the decreases in parent compounds and increases in daughter compounds in support of this conclusion. However, the most important finding of this report is the relatively large total VOC decreases identified in wells SMP-3 and DMP-3. The report goes on to discuss the high rate of utilization of the substrate in part of the pilot test area. Finally, the report recommends the injection of additional substrate in the pilot test area as well as substrate injection into the deeper zones in and around the pilot test area. To illustrate the pilot test progress, concentrations of 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane are plotted versus time (starting from 1999 to the present); these figures follow the Terra Systems Report in Appendix A.

As indicated earlier, samples were collected from wells located north of the bioremediation pilot test area, along Sea Cliff Avenue (MW-8, MW-9, MW-12 and MW-13). These wells were last sampled in 1998 and/or 1999. The concentrations detected during the 2001 sampling event are generally similar to the previous results, both in the compounds detected and their respective concentrations.

2.3 IRM at 45 Sea Cliff Avenue

As discussed in the 4Q 2000 report, SVE/AS equipment was procured and delivered to the site. The SVE/AS system consists of a 10 horsepower (hp) regenerative blower and 5 hp compressor, along with electrical controls, filters, moisture separators, and valves; the system is contained within an insulated trailer, which has been located just outside of Building 7. Following delivery, the system components were connected to the piping networks for the AS and SVE wells. Two 1200 lb activated carbon adsorbers were attached in series to the blower outlet to treat recovered vapors. The SVE system was started on November 1, 2000; because the initial contaminant concentrations were relatively high, the AS portion of the system was not started. The AS component of this system was started on March 28, 2001.

Monitoring data for January through March 2001 are presented in the attached tables; these tables present data from sampling of individual SVE wells (March 2001) and sampling of total SVE system effluent over time. Data from sampling of total SVE system effluent conducted in April 2001 has also been included in this table. The following conclusions can be drawn from these data tables:

- The activated carbon drums have been operating effectively to remove extracted VOCs.

- Wells #1 and #5 (which are located closest to the former tetrachloroethene tank) provide the greatest contaminant mass removal (>90%).

- Prior to the start of the AS component, the relationship of total contaminant mass removal versus time was clearly becoming asymptotic. The start of the AS component has increased contaminant mass recovery somewhat (see the April 2001 sample results).

Data from ongoing monitoring will be used to establish when the mass removal versus time relationship again becomes asymptotic (with the AS component in operation). When that condition is established, the system will be shut down for a several day period to allow the subsurface to re-establish equilibrium conditions. The system will then be re-started and extracted soil vapor concentrations will be monitored. The system will again be shut down when mass removal becomes asymptotic, which will likely occur within a period of a few hours to a few days. This process will be repeated twice more (allowing successively longer time periods for the establishment of subsurface equilibrium) to demonstrate that there is little or no residual contamination and that further contaminant removal is infeasible.

3.0 Schedule

The planned schedule of activities for the next few months is attached.

ATTACHMENT A
MONITORING DATA
SOIL VAPOR EXTRACTION SYSTEMS

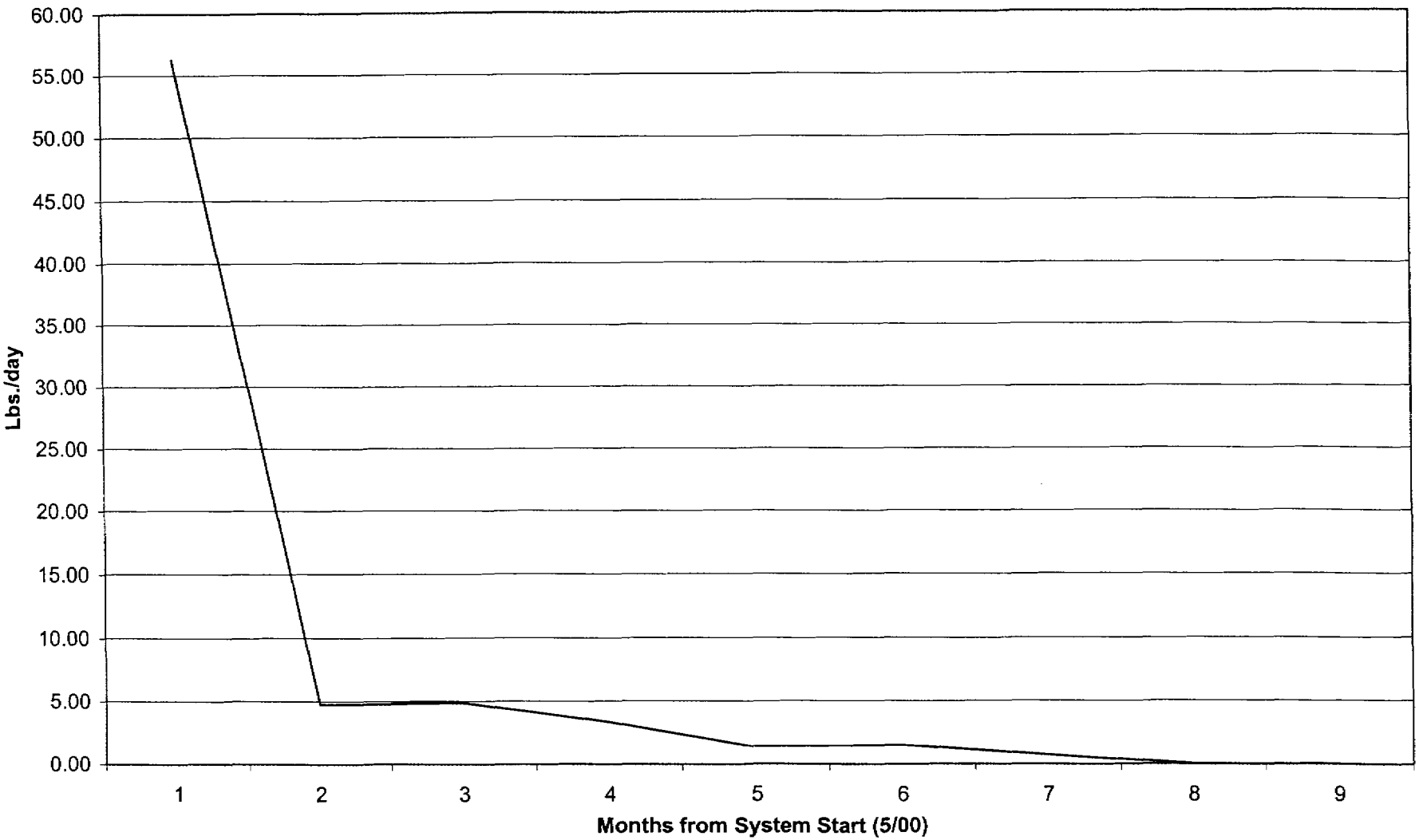
TABLE 1
SVE INLET MONITORING DATA - INLET LOAD CALCULATIONS
31 SEA CLIFF AVENUE

		MONITORING EVENT						
PARAMETER	**UNITS**	**04/19/00**	**04/28/2000**	**05/22/2000**	**08/11/2000**	**09/28/2000**	**10/26/2000**	**11/16/2000**
Flow	cfm	300	300	300	300	300	300	300
1,1,1-Trichloroethane	ug/m3	273,000	675,000	2,090,000	176,000	181,000	124,000	50,800
1,1-Dichloroethane	ug/m3	6,000	29,000	133,000	7,890	8,080	7,750	2,120
Chloroethane	ug/m3	ND	3,200	26,500	496	514	623	547
PCE	ug/m3	ND	445	2,600	347	19.2	86	133
TCE	ug/m3	ND	<165	1,700	583	530	730	266
1,1-Dichloroethylene	ug/m3	ND	949	7,700	608	954	501	219
cis-1,2-Dichloroethylene	ug/m3	ND	<203	1,800	471	834	1,340	328
trans-1,2-Dichloroethylene	ug/m3	ND	<198	130	422	46.3	40	320
Vinyl Chloride	ug/m3	ND	1,410	8,500	508	46.3	1,930	320
Methylene Chloride-[Dichloromethane]	ug/m3	ND	3,190	15,600	486	157	2,480	1,090
1,1,1-Trichloroethane	ppmv	50.05	123.76	383.20	32.27	33.19	22.74	9.31
1,1-Dichloroethane	ppmv	1.48	7.17	32.88	1.95	2.00	1.92	0.52
Chloroethane	ppmv		1.21	10.05	0.19	0.19	0.24	0.21
PCE	ppmv		0.07	0.38	0.05	0.00	0.01	0.02
TCE	ppmv			0.32	0.11	0.10	0.14	0.05
1,1-Dichloroethylene	ppmv		0.24	1.94	0.15	0.24	0.13	0.06
cis-1,2-Dichloroethylene	ppmv			0.45	0.12	0.21	0.34	0.08
trans-1,2-Dichloroethylene	ppmv			0.03	0.11	0.01	0.01	0.08
Vinyl Chloride	ppmv		0.55	3.33	0.20	0.02	0.76	0.13
Methylene Chloride-[Dichloromethane]	ppmv		0.92	4.49	0.14	0.05	0.71	0.31
1,1,1-Trichloroethane	lb/day	7.34	18.16	56.213	4.734	4.868	3.335	1.3663
1,1-Dichloroethane	lb/day	0.16	0.78	3.577	0.212	0.217	0.208	0.0570
Chloroethane	lb/day		0.09	0.713	0.013	0.014	0.017	0.0147
PCE	lb/day		0.01	0.070	0.009	0.001	0.002	0.0036
TCE	lb/day			0.046	0.016	0.014	0.020	0.0072
1,1-Dichloroethylene	lb/day		0.03	0.207	0.016	0.026	0.013	0.0059
cis-1,2-Dichloroethylene	lb/day			0.048	0.013	0.022	0.036	0.0088
trans-1,2-Dichloroethylene	lb/day			0.003	0.011	0.001	0.001	0.0086
Vinyl Chloride	lb/day		0.04	0.229	0.014	0.001	0.052	0.0086
Methylene Chloride-[Dichloromethane]	lb/day		0.09	0.420	0.013	0.004	0.067	0.0293
TOTAL	lb/day	**7.50**	**19.18**	**61.53**	**5.05**	**5.17**	**3.75**	**1.51**

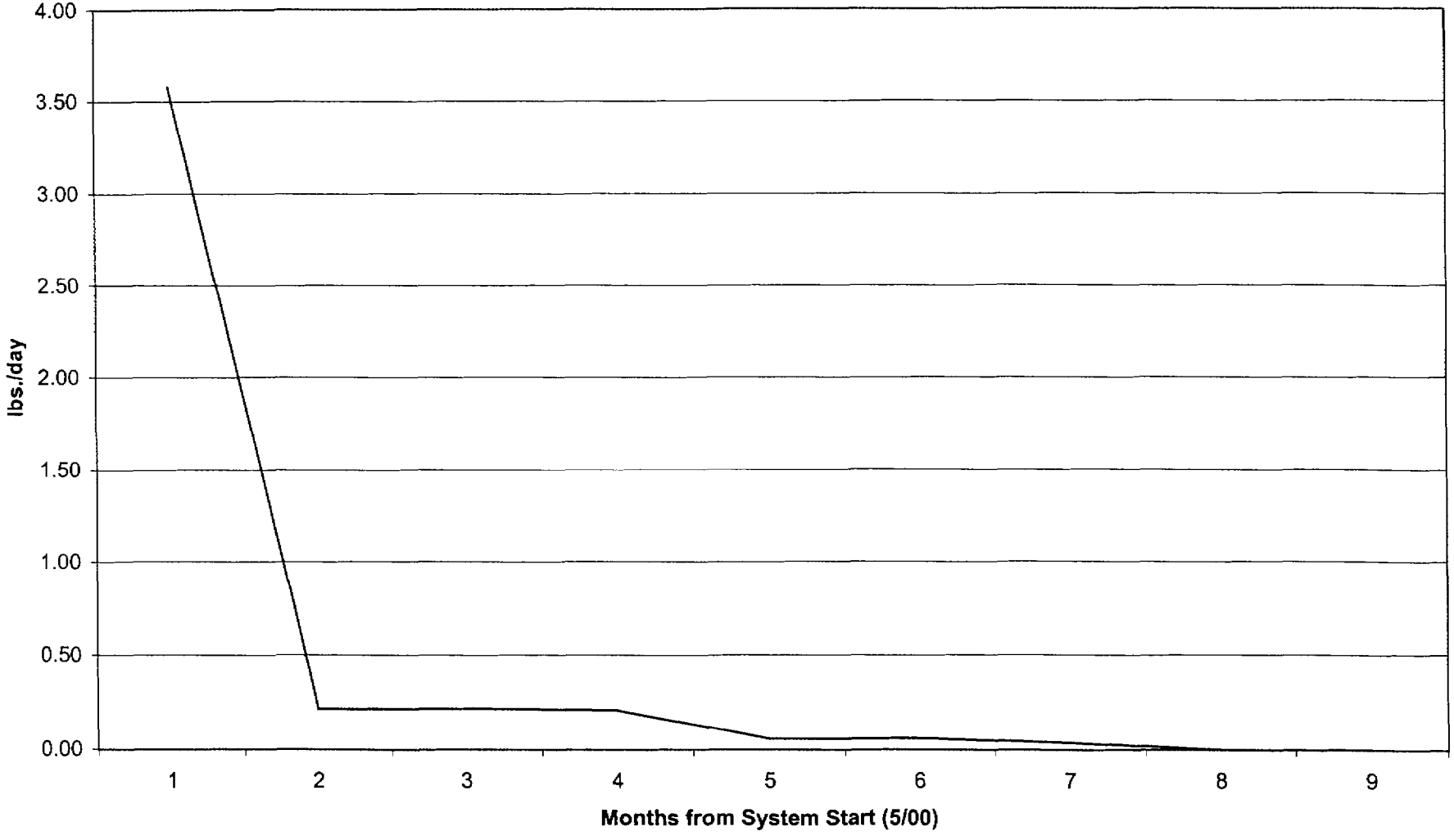
TABLE 1
SVE INLET MONITORING DATA - INLET LOAD CALCULATIONS
31 SEA CLIFF AVENUE

MONITORING EVENT			
12/07/2000	01/24/2001	02/14/2001	03/28/2001
300	300		
55,000	26,600	8.86	13.6
2,220	1,350	0.49	0.022
1,910	51.6	0.02	0.035
602	36.1	0.014	0.0085
267	135	0.023	0.017
668	63.2	0.024	0.014
688	330	0.019	0.021
382	43.9	0.017	0.021
898	52.9	0.021	0.021
6,150	54.2	0.021	0.72
10.08	4.88	0.00	0.00
0.55	0.33	0.00	0.00
0.72	0.02	0.00	0.00
0.09	0.01	0.00	0.00
0.05	0.03	0.00	0.00
0.17	0.02	0.00	0.00
0.17	0.08	0.00	0.00
0.10	0.01	0.00	0.00
0.35	0.02	0.00	0.00
1.77	0.02	0.00	0.00
1.4793	0.7154	-	-
0.0597	0.0363	-	-
0.0514	0.0014	-	-
0.0162	0.0010	-	-
0.0072	0.0036	-	-
0.0180	0.0017	-	-
0.0185	0.0089	-	-
0.0103	0.0012	-	-
0.0242	0.0014	-	-
0.1654	0.0015	-	-
1.85	**0.77**	**-**	**-**

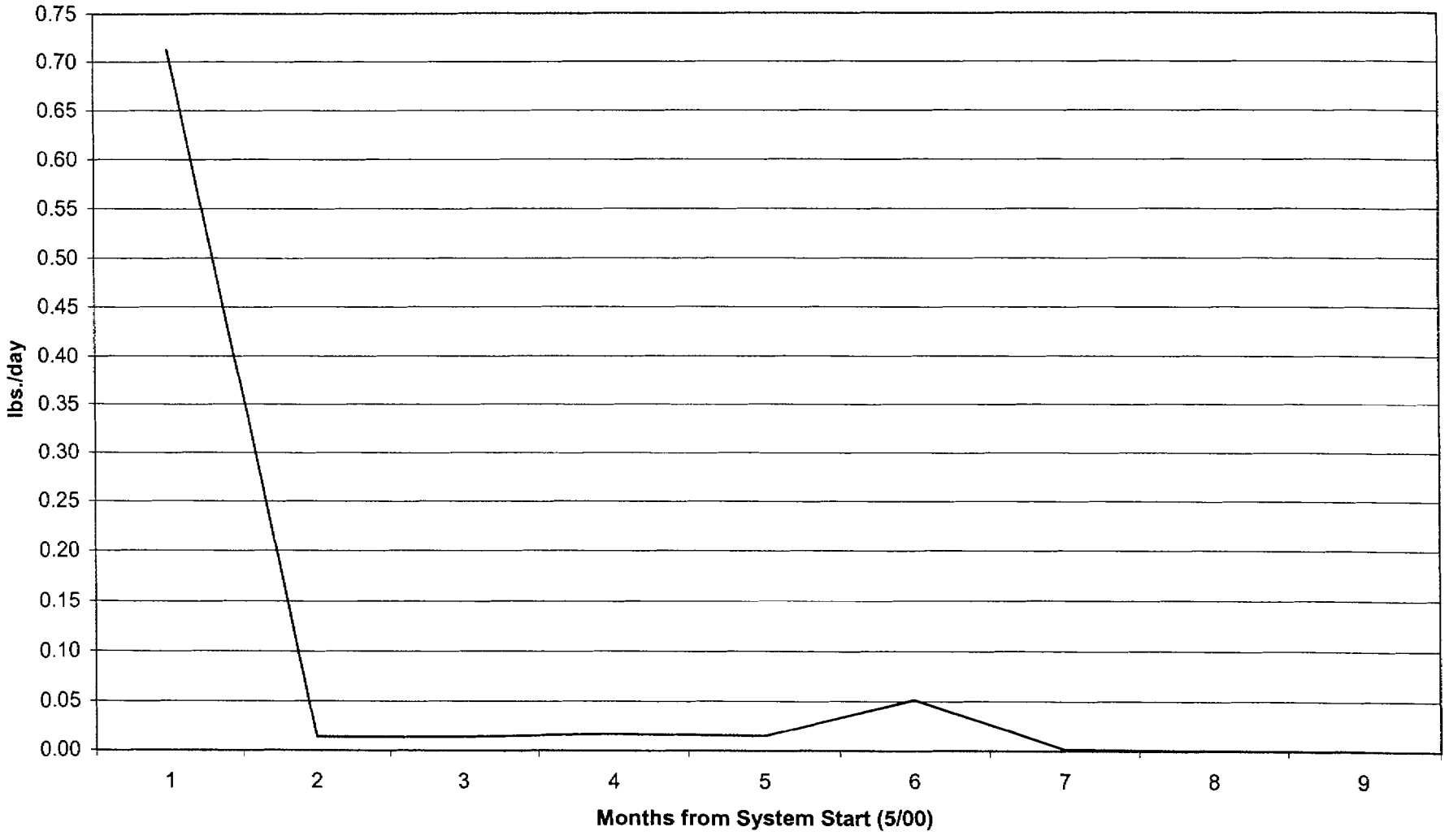
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
1,1,1-Trichloroethane



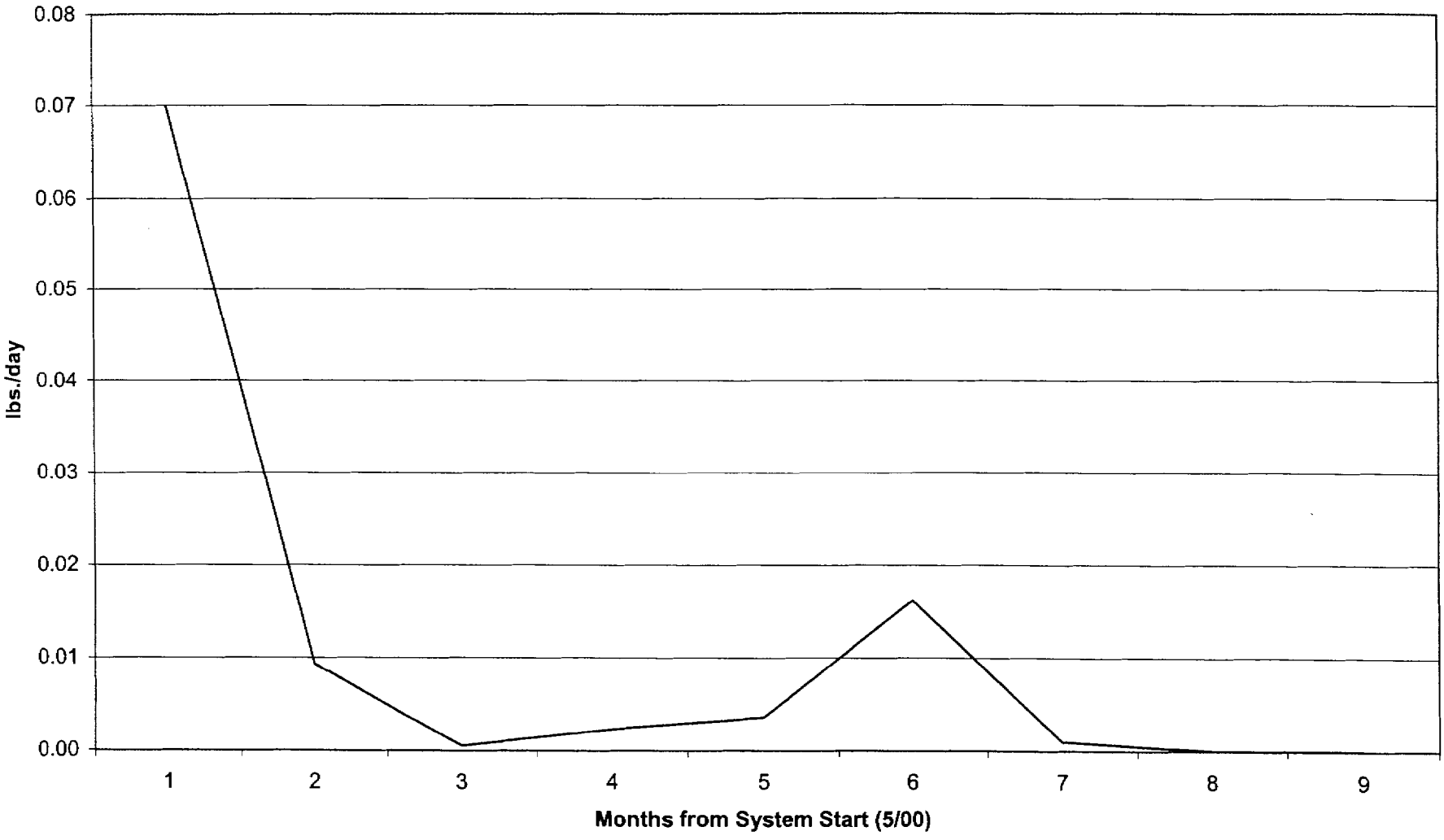
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
1,1-Dichloroethane



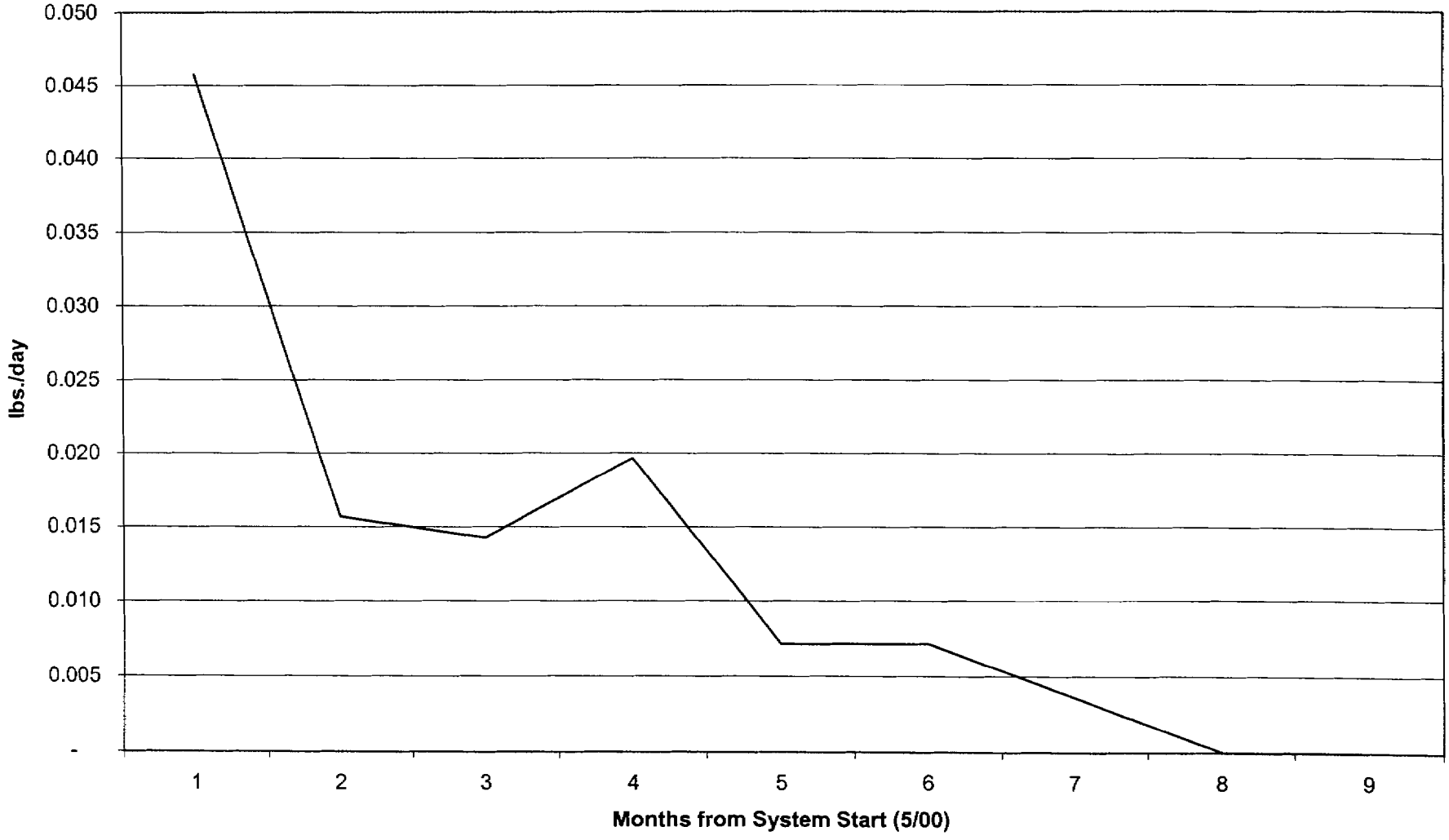
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
Chloroethane



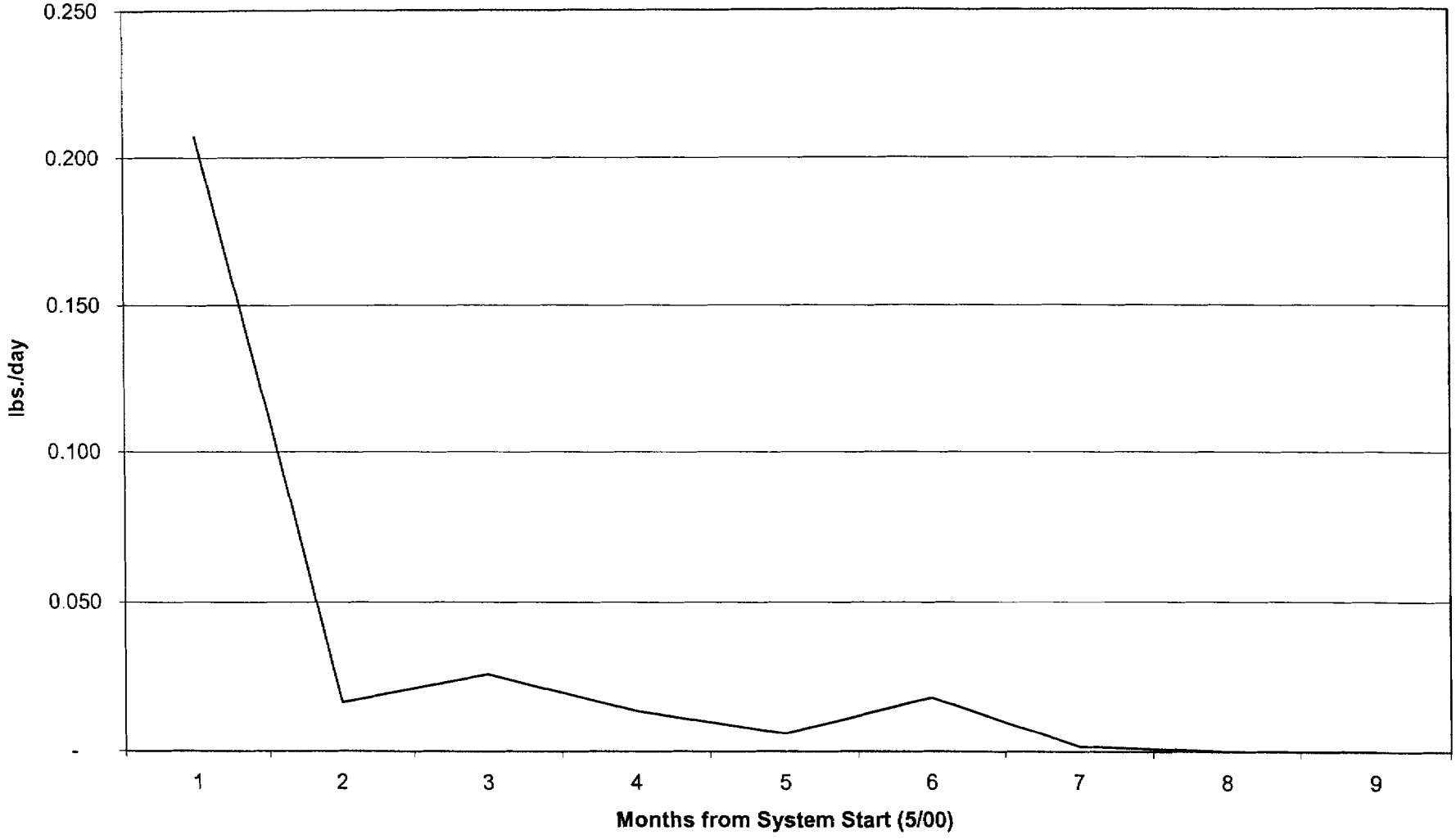
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
PCE (Perchloroethylene)



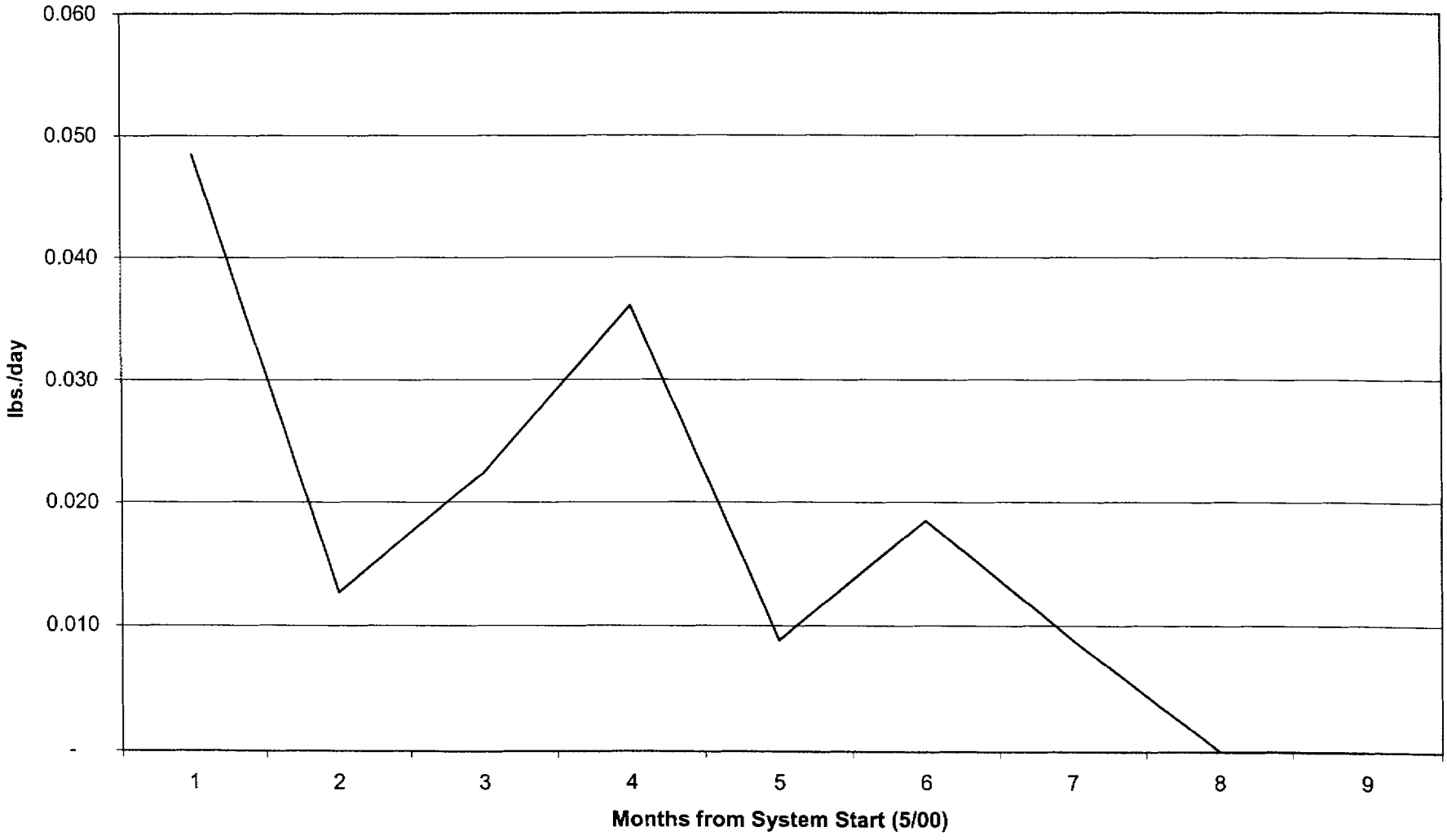
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
TCE (Trichloroethylene)



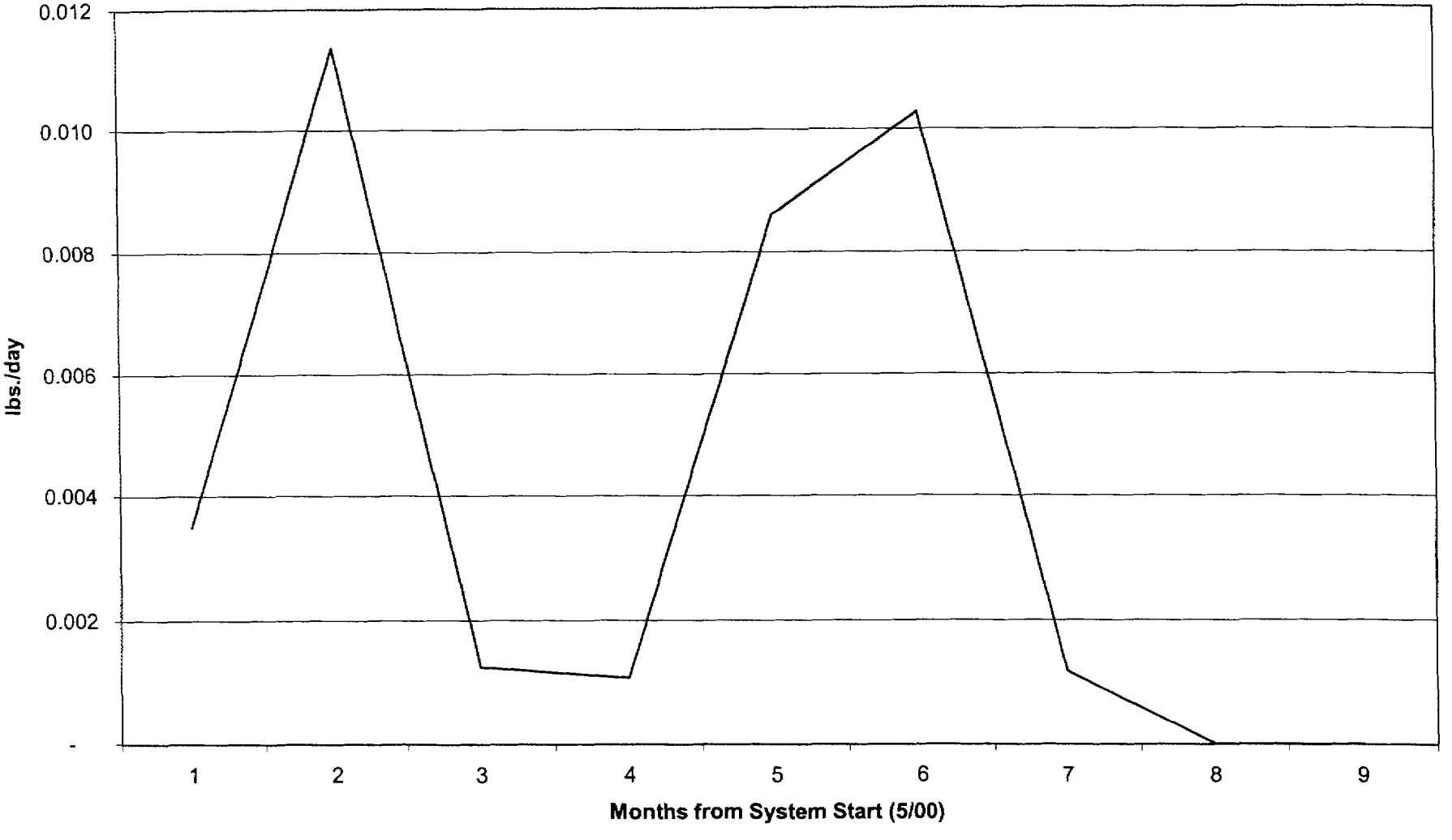
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
1,1-Dichloroethylene



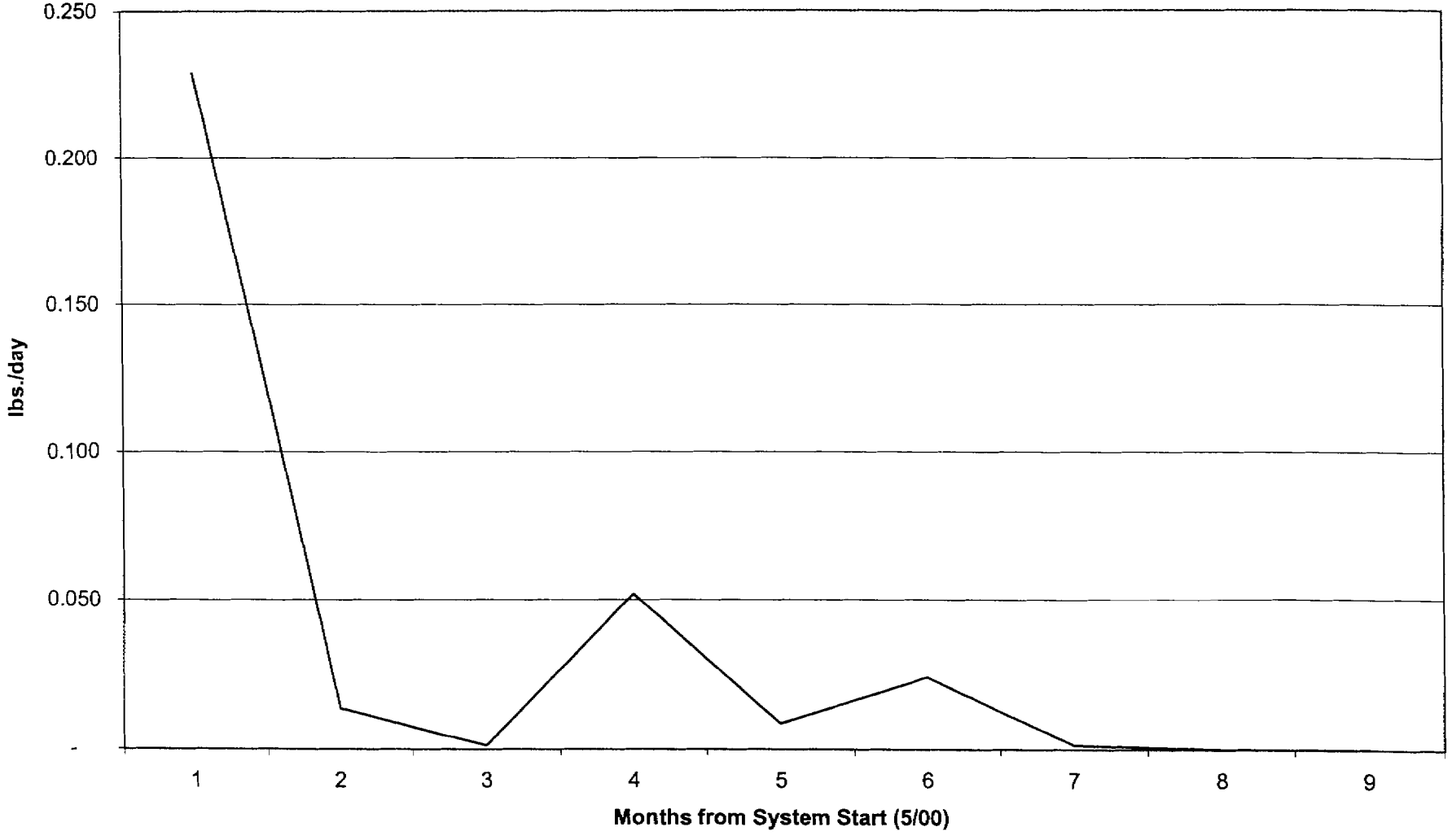
MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
cis-1,2-Dichloroethylene



MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
trans-1,2-Dichloroethylene



MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
Vinyl Chloride



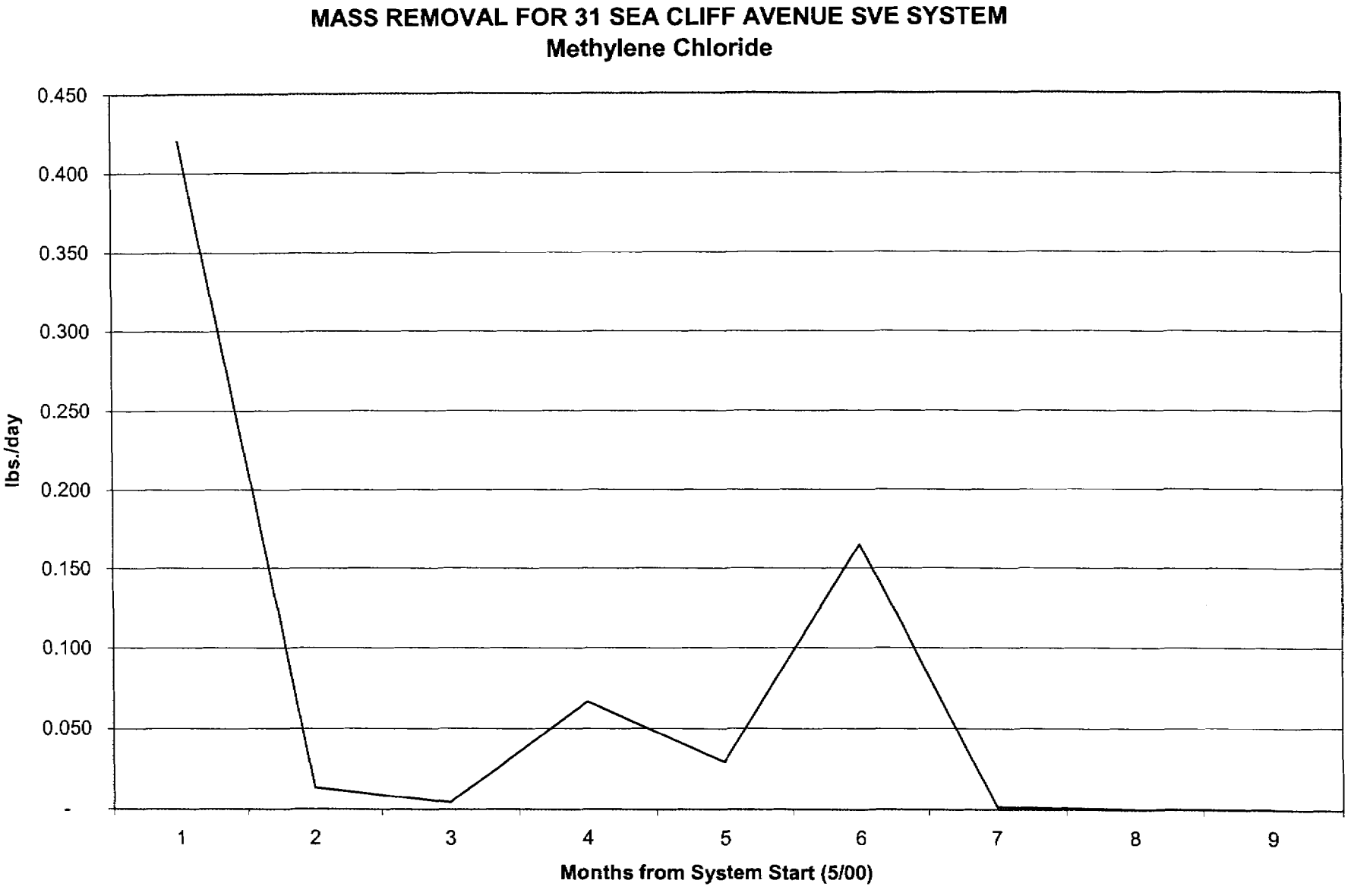

MASS REMOVAL FOR 31 SEA CLIFF AVENUE SVE SYSTEM
Methylene Chloride
0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
-
lbs./day
1
2
3
4
5
6
7
8
9
Months from System Start (5/00)

TABLE 2
SVE INLET MONITORING DATA - INLET LOAD CALCULATIONS
45 SEA CLIFF AVENUE

		MONITORING EVENT						
PARAMETER	**UNITS**	**11/02/2000**	**12/14/2000**	**12/20/2000**	**01/18/2001**	**02/14/2001**	**03/28/2001**	**04/30/2001**
Flow	cfm	275	275	275				
1,1,1-Trichloroethane	ug/m3	2,180	35.6	398	0.015	0.16	0.15	0.2
1,1-Dichloroethane	ug/m3	949	34.7	43.9	0.022	0.021	0.022	0.038
Chloroethane	ug/m3	1,540	33.9	42.8	0.035	0.02	0.035	0.015
PCE (127-18-4)	ug/m3	591,000	46,100.0	35,600	15.8	14.4	6.9	42.9
TCE (79-01-6)	ug/m3	750	124	144	0.017	0.023	0.017	0.014
1,1-Dichloroethylene	ug/m3	618	41.5	52.4	0.014	0.024	0.014	52.4
cis-1,2-Dichloroethylene	ug/m3	927	32.2	40.7	0.021	0.019	0.021	40.7
trans-1,2-Dichloroethylene	ug/m3	904	28.8	36.4	0.021	0.017	0.021	36.4
Vinyl Chloride	ug/m3	904	34.7	43.9	0.0035	0.021	0.021	43.9
Methylene Chloride-[Dichloromethane]	ug/m3	3,110	35.6	44.9	0.002	0.021	0.63	44.9
1,1,1-Trichloroethane	**ppmv**	**0.40**	**0.01**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**
1,1-Dichloroethane	**ppmv**	**0.23**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**
Chloroethane	**ppmv**	**0.58**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**
PCE	**ppmv**	**87.15**	**6.80**	**5.25**	**0.00**	**0.00**	**0.00**	**0.01**
TCE	**ppmv**	**0.14**	**0.02**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**
1,1-Dichloroethylene	**ppmv**	**0.16**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.01**
cis-1,2-Dichloroethylene	**ppmv**	**0.23**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.01**
trans-1,2-Dichloroethylene	**ppmv**	**0.23**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.01**
Vinyl Chloride	**ppmv**	**0.35**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.02**
Methylene Chloride-[Dichloromethane]	**ppmv**	**0.90**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.01**
1,1,1-Trichloroethane	lb/day	0.054	0.001	0.010	-	-	-	-
1,1-Dichloroethane	lb/day	0.023	0.001	0.001	-	-	-	-
Chloroethane	lb/day	0.038	0.001	0.001	-	-	-	-
PCE	lb/day	14.571	1.137	0.878	-	-	-	-
TCE	lb/day	0.018	0.003	0.004	-	-	-	-
1,1-Dichloroethylene	lb/day	0.015	0.001	0.001	-	-	-	-
cis-1,2-Dichloroethylene	lb/day	0.023	0.001	0.001	-	-	-	-
trans-1,2-Dichloroethylene	lb/day	0.022	0.001	0.001	-	-	-	-
Vinyl Chloride	lb/day	0.022	0.001	0.001	-	-	-	-
Methylene Chloride-[Dichloromethane]	lb/day	0.077	0.001	0.001	-	-	-	-
TOTAL		14.86	1.15	0.90				

SVE System Inlet Load Contribution - Well #1
45 Sea Cliff Avenue

	UNITS	03/28/2001
Flow	cfm	
1,1,1-Trichloroethane	ug/m3	0.13
1,1-Dichloroethane	ug/m3	0.00043
Chloroethane	ug/m3	0.00041
PCE	ug/m3	7.9
TCE	ug/m3	0.00034
1,1-Dichloroethylene	ug/m3	0.00028
cis-1,2-Dichloroethylene	ug/m3	0.00042
trans-1,2-Dichloroethylene	ug/m3	0.00041
Vinyl Chloride	ug/m3	0.00041
Methylene Chloride-[Dichloromethane]	ug/m3	0.71
1,1,1-Trichloroethane	**ppmv**	0.00
1,1-Dichloroethane	**ppmv**	0.00
Chloroethane	**ppmv**	0.00
PCE	**ppmv**	0.00
TCE	**ppmv**	0.00
1,1-Dichloroethylene	**ppmv**	0.00
cis-1,2-Dichloroethylene	**ppmv**	0.00
trans-1,2-Dichloroethylene	**ppmv**	0.00
Vinyl Chloride	**ppmv**	0.00
Methylene Chloride-[Dichloromethane]	**ppmv**	0.00
1,1,1-Trichloroethane	lb/day	
1,1-Dichloroethane	lb/day	
Chloroethane	lb/day	
PCE	lb/day	
TCE	lb/day	
1,1-Dichloroethylene	lb/day	
cis-1,2-Dichloroethylene	lb/day	
trans-1,2-Dichloroethylene	lb/day	
Vinyl Chloride	lb/day	
Methylene Chloride-[Dichloromethane]	lb/day	

SVE System Inlet Load Contribution - Well #2
45 Sea Cliff Avenue

	UNITS	03/28/2001
Flow	cfm	
1,1,1-Trichloroethane	ug/m3	0.015
1,1-Dichloroethane	ug/m3	0.022
Chloroethane	ug/m3	0.035
PCE	ug/m3	0.76
TCE	ug/m3	0.017
1,1-Dichloroethylene	ug/m3	0.014
cis-1,2-Dichloroethylene	ug/m3	0.021
trans-1,2-Dichloroethylene	ug/m3	0.021
Vinyl Chloride	ug/m3	0.021
Methylene Chloride-[Dichloromethane]	ug/m3	1.4
1,1,1-Trichloroethane	**ppmv**	**0.00**
1,1-Dichloroethane	**ppmv**	**0.00**
Chloroethane	**ppmv**	**0.00**
PCE	**ppmv**	**0.00**
TCE	**ppmv**	**0.00**
1,1-Dichloroethylene	**ppmv**	**0.00**
cis-1,2-Dichloroethylene	**ppmv**	**0.00**
trans-1,2-Dichloroethylene	**ppmv**	**0.00**
Vinyl Chloride	**ppmv**	**0.00**
Methylene Chloride-[Dichloromethane]	**ppmv**	**0.00**
1,1,1-Trichloroethane	lb/day	
1,1-Dichloroethane	lb/day	
Chloroethane	lb/day	
PCE	lb/day	
TCE	lb/day	
1,1-Dichloroethylene	lb/day	
cis-1,2-Dichloroethylene	lb/day	
trans-1,2-Dichloroethylene	lb/day	
Vinyl Chloride	lb/day	
Methylene Chloride-[Dichloromethane]	lb/day	

SVE System Inlet Load Contribution - Well #4
45 Sea Cliff Avenue

	UNITS	03/28/2001
Flow	cfm	
1,1,1-Trichloroethane	ug/m3	0.015
1,1-Dichloroethane	ug/m3	0.022
Chloroethane	ug/m3	0.035
PCE	ug/m3	0.0085
TCE	ug/m3	0.017
1,1-Dichloroethylene	ug/m3	0.014
cis-1,2-Dichloroethylene	ug/m3	0.021
trans-1,2-Dichloroethylene	ug/m3	0.021
Vinyl Chloride	ug/m3	0.021
Methylene Chloride-[Dichloromethane]	ug/m3	1.2
1,1,1-Trichloroethane	**ppmv**	0.00
1,1-Dichloroethane	**ppmv**	0.00
Chloroethane	**ppmv**	0.00
PCE	**ppmv**	0.00
TCE	**ppmv**	0.00
1,1-Dichloroethylene	**ppmv**	0.00
cis-1,2-Dichloroethylene	**ppmv**	0.00
trans-1,2-Dichloroethylene	**ppmv**	0.00
Vinyl Chloride	**ppmv**	0.00
Methylene Chloride-[Dichloromethane]	**ppmv**	0.00
1,1,1-Trichloroethane	lb/day	
1,1-Dichloroethane	lb/day	
Chloroethane	lb/day	
PCE	lb/day	
TCE	lb/day	
1,1-Dichloroethylene	lb/day	
cis-1,2-Dichloroethylene	lb/day	
trans-1,2-Dichloroethylene	lb/day	
Vinyl Chloride	lb/day	
Methylene Chloride-[Dichloromethane]	lb/day	

SVE System Inlet Load Contribution - Well #5
45 Sea Cliff Avenue

	UNITS	03/28/2001
Flow	cfm	
1,1,1-Trichloroethane	ug/m3	0.4
1,1-Dichloroethane	ug/m3	0.022
Chloroethane	ug/m3	0.021
PCE	ug/m3	19.8
TCE	ug/m3	0.017
1,1-Dichloroethylene	ug/m3	0.014
cis-1,2-Dichloroethylene	ug/m3	0.021
trans-1,2-Dichloroethylene	ug/m3	0.021
Vinyl Chloride	ug/m3	0.021
Methylene Chloride-[Dichloromethane]	ug/m3	1.2
1,1,1-Trichloroethane	**ppmv**	0.00
1,1-Dichloroethane	**ppmv**	0.00
Chloroethane	**ppmv**	0.00
PCE	**ppmv**	0.00
TCE	**ppmv**	0.00
1,1-Dichloroethylene	**ppmv**	0.00
cis-1,2-Dichloroethylene	**ppmv**	0.00
trans-1,2-Dichloroethylene	**ppmv**	0.00
Vinyl Chloride	**ppmv**	0.00
Methylene Chloride-[Dichloromethane]	**ppmv**	0.00
1,1,1-Trichloroethane	lb/day	
1,1-Dichloroethane	lb/day	
Chloroethane	lb/day	
PCE	lb/day	
TCE	lb/day	
1,1-Dichloroethylene	lb/day	
cis-1,2-Dichloroethylene	lb/day	
trans-1,2-Dichloroethylene	lb/day	
Vinyl Chloride	lb/day	
Methylene Chloride-[Dichloromethane]	lb/day	

SVE System Inlet Load Contribution - Well #6
45 Sea Cliff Avenue

	UNITS	03/28/2001
Flow	cfm	
1,1,1-Trichloroethane	ug/m3	0.015
1,1-Dichloroethane	ug/m3	0.022
Chloroethane	ug/m3	0.035
PCE	ug/m3	0.15
TCE	ug/m3	0.017
1,1-Dichloroethylene	ug/m3	0.014
cis-1,2-Dichloroethylene	ug/m3	0.021
trans-1,2-Dichloroethylene	ug/m3	0.021
Vinyl Chloride	ug/m3	0.021
Methylene Chloride-[Dichloromethane]	ug/m3	1.25
1,1,1-Trichloroethane	**ppmv**	0.00
1,1-Dichloroethane	**ppmv**	0.00
Chloroethane	**ppmv**	0.00
PCE	**ppmv**	0.00
TCE	**ppmv**	0.00
1,1-Dichloroethylene	**ppmv**	0.00
cis-1,2-Dichloroethylene	**ppmv**	0.00
trans-1,2-Dichloroethylene	**ppmv**	0.00
Vinyl Chloride	**ppmv**	0.00
Methylene Chloride-[Dichloromethane]	**ppmv**	0.00
1,1,1-Trichloroethane	lb/day	
1,1-Dichloroethane	lb/day	
Chloroethane	lb/day	
PCE	lb/day	
TCE	lb/day	
1,1-Dichloroethylene	lb/day	
cis-1,2-Dichloroethylene	lb/day	
trans-1,2-Dichloroethylene	lb/day	
Vinyl Chloride	lb/day	
Methylene Chloride-[Dichloromethane]	lb/day	

ATTACHMENT B
BIOREMEDIATION PILOT PROJECT
MARCH GROUNDWATER MONITORING
REPORT

Terra Systems
INCORPORATED

May 30, 2001

Charles Nehrig
Photocircuits Corporation
31 Sea Cliff Avenue
Glen Cove, NY 11542

RE: Interpretation of Results from Photocircuits Samples from 8/31/00, 10/18/00, 12/20/00, and 3/27/01

Dear Charlie:

Background
Photocircuits Corporation engaged Terra Systems, Inc. (TSI) to conduct an anaerobic bioremediation pilot study at the company's 31 Sea Cliff Avenue, Glen Cove, NY facility. The study area encompasses a triangular area roughly 70 feet wide and 90 long that had been used for drum storage. The groundwater has been impacted by chlorinated ethene and chlorinated ethane compounds. Eight monitoring points (MW-14, MW-7, SMP-1, DMP-1, SMP-3, DMP-3, SMP-4, and DMP-4) are being utilized to track the progress of the pilot study. In March 2001, groundwater samples were also collected from wells MW-8, MW-9, MW-12, and MW-13. The locations of these wells are shown in Figure 1 with the exception of MW-9 that is further to the west.

Historical data indicates that anaerobic biodegradation is occurring at the site as evidenced by the presence of daughter products from the breakdown of tetrachloroethene (PCE) and trichloroethene (TCE) including cis-1,2-dichloroethene (cDCE), vinyl chloride (VC), and ethene. 1,1,1-Trichloroethane (1TCA) breaks down to 1,1-dichloroethene (1DCE), trans-1,2-dichloroethene (tDCE), 1,1-dichloroethane (1DCA), chloroethane (CA), and ethane. However, VC and ethene can also be generated from the breakdown of the 1TCA,1DCA, and 1DCE. A review of the historical data indicated that the biological degradation process was limited by the availability of organic carbon.

One of the objectives of the pilot study is to determine if the addition of a food grade carbon source will enhance the extent and rate of chlorinated solvent biodegradation at the site. TSI formulated an emulsion containing soybean oil, lecithin (a soybean derivative that acts as an emulsifier), and water to provide required organic carbon.

Figure 2 depicts the location of the injection points and monitoring wells in the immediate vicinity of the pilot. Forty gallons of soybean oil and 117 gallons of water were injected into Point 1 using a Geoprobe and high-pressure pump. The remaining six points received 3,400 gallons of an emulsion of soybean oil, lecithin, and water prepared with a high shear mixer.

Organization of Data

The analytical data from the Photocircuits pilot collected on 8/31/00-9/1/00, 10/18/00-10/19-00, 12/20/00, and 3/27/01 are summarized in the following four tables.

Table 1 presents the volatile organic data (VOCs), final biodegradation byproducts (ethene and ethane), important electron acceptors (total iron, sulfate, nitrate, and methane), and electron donor as represented by total organic carbon (TOC).

Table 2 converts the concentrations of the chlorinated ethenes and chlorinated ethanes to micromolar units so that one unit of PCE is equivalent to one unit of TCE, cDCE, VC, and ethene. Similarly one unit of 1TCA is equivalent to one unit of 1DCE, tDCE, 1DCA, CA, or ethane.

Table 3 summarizes the changes between the samples collected immediately after the oil emulsion injection and the samples collected 7 months later. Positive changes indicate that the concentrations have decreased. A negative change indicates that the concentrations have increased. In a number of cases, the contaminants were not detected in the initial samples collected after oil injection or in the samples collected after seven months. In these cases, the percent change was calculated using the analyte detection limit and the percent changes are designated as greater than (>) or less than (<) the calculated change.

Table 4 summarizes the changes in the chloroethenes, chloroethanes, electron acceptors, and electron donor for each well from the beginning of the pilot in August-September 2000 to March 2001.

Chlorinated Ethene Results

In the original group of monitoring wells, cis-1,2-DCE and VC were the predominant chlorinated ethenes with little of the parent compounds, PCE or TCE, being detected except for TCE in SMP-1 in December 2000 and March 2001. Concentrations greater than 1,000 ug/L of chlorinated ethenes were initially only detected in SMP-1 and DMP-3.

There were increases in cDCE and VC concentrations in MW-7 and SMP-1. SMP-1 also had an increase in TCE. The increases may be a result of dissolution of PCE or TCE from a source zone and subsequent biodegradation.

Since cDCE was not detected in SMP-1 in March 2001, we suspect an analytical error as the concentrations of TCE and VC are similar to those in December 2000. We do not know of a mechanism that would selectively remove the cDCE.

In the supplemental group of monitoring wells sampled in March 2001, three of the four wells had parent compounds PCE and/or TCE (MW-8, MW-12, and MW-13). Concentrations greater than 1,000 ug/L of chlorinated ethenes were detected in MW-12 only.

Vinyl chloride concentrations increased in MW-14, MW-7, SMP-3, and DMP-4. Decreases in VC concentrations were noted in DMP-1, DMP-3, and SMP-4. While increases in VC are a

concern from a toxicological risk perspective, we expect that the VC will decrease as it is converted to ethene.

Ethene concentrations in March 2001 increased in well MW-14 and DMP-1 from the initial levels observed on 8/31/00-9/1/00. Ethene concentrations for the other six wells of the original group were lower than measured previously for an unknown reason.

The addition of soybean oil emulsion has resulted in an increase in intermediate daughter products from the chlorinated ethenes in wells MW-7, SMP-1, and SMP-3. Wells DMP-1, DMP-3, and SMP-4 showed decreases in the parent or daughter products.

Chlorinated Ethane Results

The analytical data for the pilot test to date provides evidence for biodegradation of the chlorinated ethanes. Wells DMP-1, SMP-3, DMP-3, and SMP-4 had the highest initial concentrations of total chlorinated ethanes with greater than 1,000 µg/L. 1TCA was the primary chloroethane contaminant in wells SMP-3 and DMP-3. Reduced products such as 1,1-dichloroethane, chloroethane, and ethane predominated in wells MW-14, MW-7, SMP-1, DMP-1, SMP-4, and DMP-4. Relatively low levels of 1TCA and daughter products were found in MW-12 and MW-13, which were first monitored, for this program in March 2001. No chlorinated ethanes were found in MW-8 or MW-9. Ethane concentrations increased during the seven months following oil injection in two wells (MW-7 and DMP-3). Ethane concentrations were generally lower in March 2001 than observed in the earlier samples for an unknown reason. However, ethane was typically present at low concentrations with a maximum of 130 in MW-7 in October 2000.

Wells SMP-3 and DMP-3 have shown 81% (178,000 µg/L to 33,700 µg/L) to 96% (19,700 to 793 µg/L) reductions in the 1TCA concentrations. Between 100% reduction (38,200 to <0.5 µg/L) and 85% (5,230 to 764 µg/L) reductions in the 1DCA concentrations were observed respectively in SMP-3 and DMP-3. CA concentrations have declined in SMP-3 and were only detected in SMP-3 in March 2001. Based upon these results and laboratory studies with a culture derived from the Photocircuits groundwater, we believe that direct utilization of 1TCA and 1DCA is occurring rather than a reductive dechlorination reaction where daughter products are produced and degraded.

Wells SMP-4 and DMP-4 showed decreases in the 1TCA and 1DCA concentrations and increases in the CA and decreases in the ethane concentrations over the seven months following injection of the oil emulsion. Well DMP-1 showed increased concentrations of 1DCA, but a decrease in the CA concentration and no ethane. Relatively little changes in the chlorinated ethane concentrations were seen in wells MW-7 and SMP-1. MW-14 showed an increase in the 1TCA, 1DCA, 1DCE, and CA concentrations between December 2000 and March 2001. .

Other Organic Compounds Results

Several other organic compounds were detected in the groundwater including 1,2-dichloroethane, acetone, methylene chloride, 2-butanone, toluene, benzene, p-ethyltoluene, 1,3,5-trimethylbenzene, 2-chlorotoluene, 4-chlorotoluene 1,2,4-trimethylbenzene, naphthalene, o-xylene, and n-propylbenzene. Over the seven months of the pilot operation to date, acetone

concentrations decreased by >99% in DMP-1 and >24% in MW-14, but increased in SMP-3 and DMP-3. Methylene chloride decreased in many wells with declines by as much as 98 percent in SMP-3 and SMP-4; methylene chloride levels were below the detection limits in wells SMP-1, MW-8, MW-9, MW-12, and MW-13 in the March 2001 samples. Methylene chloride can also be anaerobically degraded. Toluene concentrations have declined in five wells, but increased in three wells (MW-14, SMP-1, and DMP-1). Toluene can be also degraded anaerobically. The addition of soybean oil may have little effect on its biodegradation of toluene as dechlorinators are probably not involved in the biotransformation of toluene. 2-Chlorotoluene concentrations declined in all four wells in which it was detected initially. 2-Chlorotoluene may be biodegraded to toluene and potentially further under anaerobic conditions.

Sum of VOAs

The sum of the concentrations of all of the contaminants in each well was calculated excluding the final degradation endproduct gases, ethene and ethane. The sum of the VOAs has declined by up to 92% in DMP-3 with large decreases in DMP-1 (74%), DMP-1 85%), and SMP-3 (83%). More moderate declines were observed in SMP-4 (22%). The sum of VOAs has increased by 2712% in MW-14 as higher levels of 1TCA, 1DCA, 1DCE, CA, and VC were seen in March 2001. Increases in the sum of VOAs were also observed to a lesser degree in MW-7 (-13%) and DMP-4 (-45%).

Substrate Distribution

The total organic carbon concentrations in March 2001 ranged from 28 mg/L in DMP-3 to 2590 mg/L in MW-14. Well MW-14 had free-floating soybean oil. Wells MW-7, MW-14, and DMP-1 contained TOC levels of greater than 80 mg/L, which may represent contact with the emulsion, or the presence of co-contaminants. TOC levels were below 50 mg/L in March 2001 in wells SMP-3, DMP-3, SMP-4, and DMP-4. Of the nearby wells first monitored in March 2001, only well MW-12 had more than 10 mg/L TOC. TOC levels have declined from the beginning of the pilot in wells MW-14 (89%), SMP-1 (35%), DMP-1 (56%), SMP-3 (84%), DMP-3 (72%), SMP-4 (53%), and DMP-4 (21%), but increased in MW-7 (-88%). Additional substrate injection in the pilot area is warranted.

Electron Acceptor Results

As the microbes breakdown the emulsion, we would expect the sulfate to be depleted and the concentrations of iron and methane to increase. The predominant electron acceptor in the groundwater in March 2001 was sulfate with concentrations that ranged from 54 mg/L in SMP-4 to 1,700 mg/L in SMP-4. Sulfate concentrations have declined from the initial concentrations in September in wells MW-14 (94%), DMP-1 (98% from 23,500 to 715 mg/L), SMP-3 (46%), SMP-4 (53%), and DMP-4 (2%) as would be expected with consumption of the oil emulsion. Nitrate-nitrogen was present in March 2001 at low concentrations of <0.025 to 12.3 mg/L. Total iron concentrations in March 2001 ranged from 6.7 mg/L in DMP-1 to 187 mg/L in MW-14, which indicated that iron is also an important electron acceptor. Total iron concentrations have increased in three of the eight wells in the pilot area. The drop in dissolved iron concentrations in the other wells may be due to precipitation of the ferrous iron with sulfide produced from the utilization sulfate. During the most recent sampling event, methane was detected in all wells with methanogenic conditions (>1,000 µg/L) in MW-14, MW-7, SMP-1, DMP-1, and SMP-4. Methane concentrations increased in five wells between September 2000 to March 2001.

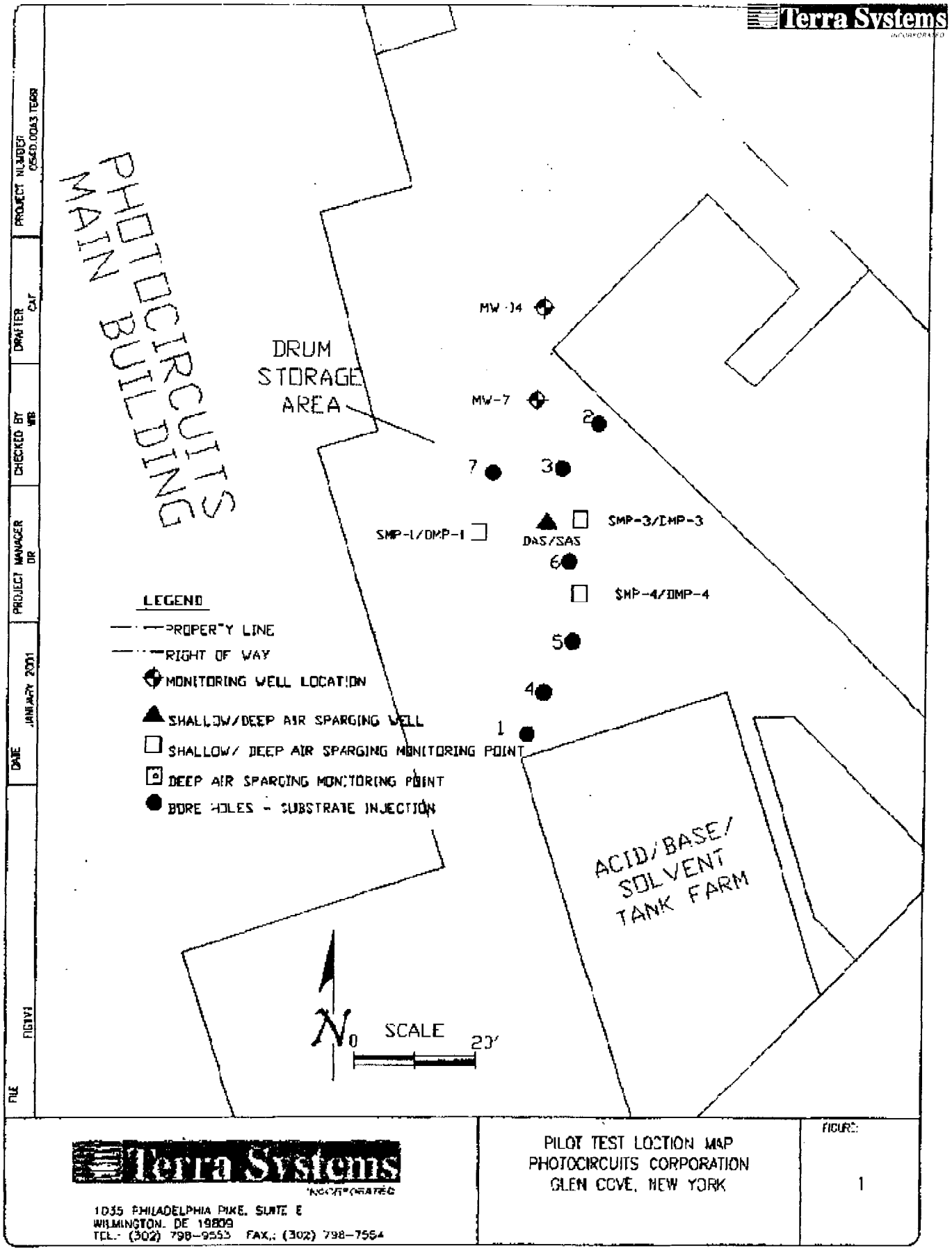
Summary

Based upon the positive results from the pilot to date, conditions continue to be favorable for accelerated anaerobic biodegradation of the chlorinated solvents at the Photocircuits site based upon the decreases in the parent compound concentrations observed in many wells and the increases in the daughter products in many of the wells. The large drops in the 1TCA and 1DCA concentrations in wells SMP-3 and DMP-3 are very encouraging.

As a result of the high utilization of the substrate in the area of wells SMP-3, DMP-3, SMP-4, and DMP-4, we recommend that additional emulsified oil be injected into the pilot area. We also recommend that the monitoring program be modified to include one sampling event immediately after substrate injection and one sampling event three months later. Based upon the positive results we have seen in the zone from 10 to 50 feet below ground surface, we believe that this technology should also be applicable to the intermediate and deeper zones.

Sincerely,
TERRA SYSTEMS, INC.

Michael D. Lee, Ph.D.
Vice-President



Terra Systems INCORPORATED

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WILMINGTON, DE 19809
TEL.: (302) 798-9553 FAX.: (302) 798-7564

PILOT TEST LOCTION MAP
PHOTOCIRCUITS CORPORATION
GLEN COVE, NEW YORK

FIGURE: 1

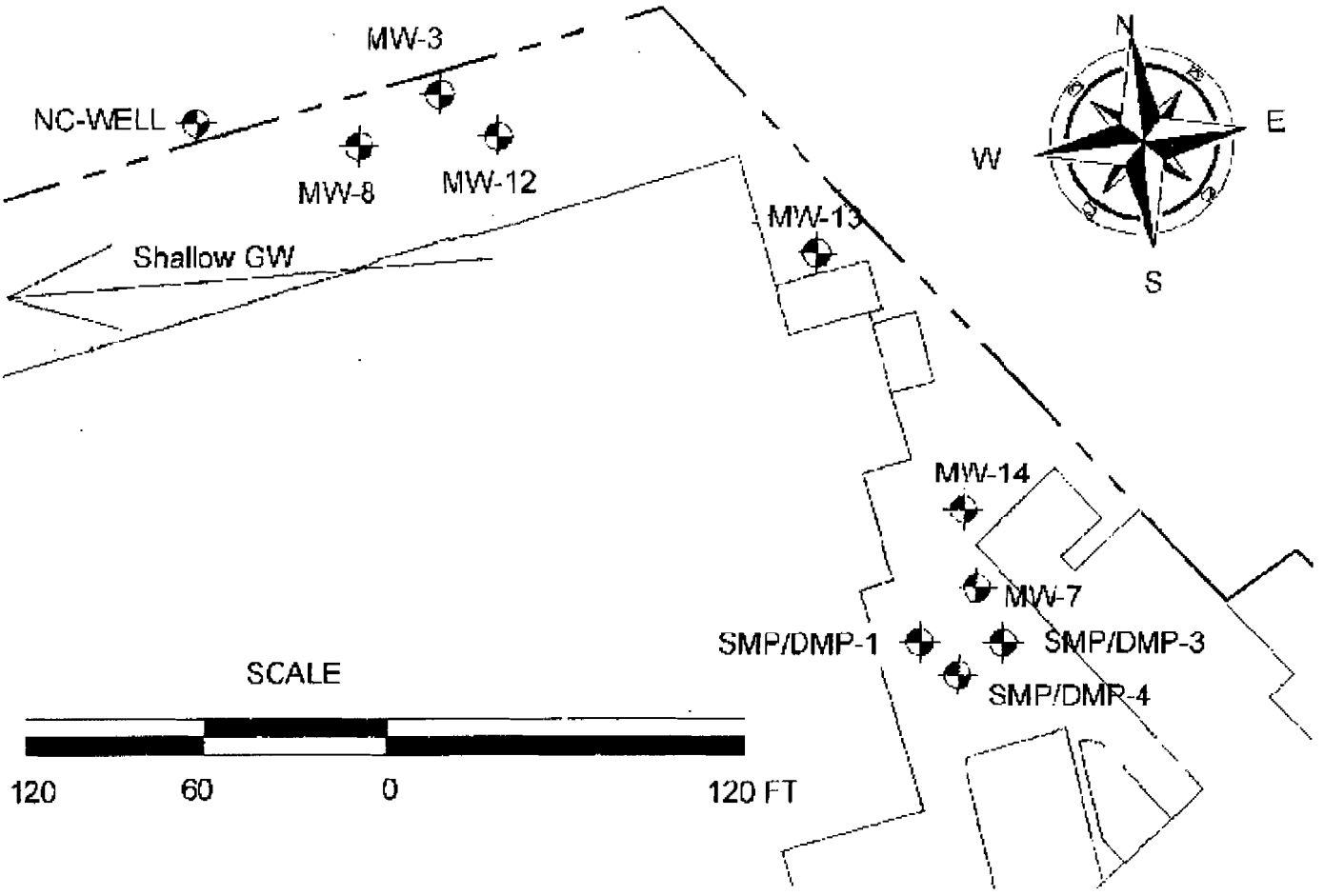

MW-3
NC-WELL
MW-8
MW-12
MW-13
Shallow GW
N
W
E
S
MW-14
MW-7
SMP/DMP-1
SMP/DMP-3
SMP/DMP-4
SCALE
120
60
0
120 FT

Table 1. Photocircuits Anaerobic Pilot Analytical Summary

Well		MW-14				MW-7				SMP-1			
Date		8/31/00	10/19/00	12/20/00	3/28/01	8/31/00	10/19/00	12/20/00	3/27/01	8/31/00	10/18/00	12/20/00	3/27/01
Tetrachloroethene	µg/L		<1.4	<0.40	<5.5	<0.40	<0.56	<0.40	<2.2	<16	<0.40	<22	<5.5
Trichloroethene	µg/L	<0.85	<1.35	<0.85	<10	<0.85	19.3	<0.85	<4	<34	79	860	1530
cis-1,2-Dichloroethene	µg/L	<0.95	<1.7	<0.95	<15	47.3	283	355	149	24900	37500	30100	<0.27
Vinyl Chloride	µg/L	<1.75	10.6	<1.75	114	39.3	67.1	139	60	4710	5990	5090	4770
Ethene	µg/L	43	47	60	65	63	170	110	33	930	2400	1140	900
1,1,1-Trichloroethane	µg/L	14.4	<1.7	8.9	994	<0.55	<0.62	<0.55	<4	<22	<0.55	<34	356
1,1-Dichloroethane	µg/L	126	216	293	9230	122	214	268	135	506	486	628	708
trans-1,2-Dichloroethene	µg/L	<1.35	<1.40	<1.35	<11	<1.35	<0.56	<1.35	<4.4	<54	69.9	<40	132
1,2-Dichloroethane	µg/L	<0.80	<0.95	<0.80	<10	<0.80	<0.38	<0.80	<4	<32	<0.80	<17	<10
1,1-Dichloroethene	µg/L	<1.05	6.3	<1.05	443	<1.05	<0.96	<1.05	<3.6	<42	64.3	<27	184
Chloroethane	µg/L	15.6	<1.25	<1.65	132	258	181	201	160	<72	71.6	<53	<15
Ethane	µg/L	52	69	48	34	<6	130	81	34	<6	<6	<25	<25
Acetone	µg/L	97.8	170	126	<74	<9.45	52.2	<9.45	<29.6	<378	<9.45	<166	<74
Methylene Chloride	µg/L	15.1	<1.50	<1.0	220	12.8	6.00	<1	51.6	482	43.1	<56	<20.5
2-Butanone	µg/L	124	75.3	<5.1	<125	<5.1	<1.64	<5.1	<50	<204	<5.1	<68	<125
Toluene	µg/L	3.0	<0.80	<0.80	<7.5	6.2	8.4	8.3	<3	<32	61.1	<19	126
Benzene	µg/L	<0.70	<0.70	<0.70	<5	4.0	3.5	<0.7	<2	<28	4.40	<34	<5
p-Ethyltoluene	µg/L	<1.2	<1.05	<1.2	<8	<1.2	<0.68	<1.2	<3.2	<48	<1.2	<20	<8
1,3,5-Trimethylbenzene	µg/L	<0.60	<1.50	<0..60	<17	<0.60	<0.60	<0.6	<6.8	<24	<0.60	<20	<17
2-Chlorotoluene	µg/L	<0.85	<1.35	<0.85	<10.5	<0.85	5.2	<0.85	<4.2	<34	16.3	<25	<10.5
1,2,4-Trimethylbenzene	µg/L	<0.65	<1.25	<0.65	<11	<0.65	<0.50	<0.65	<4.4	<26	<0.65	<0.65	<11
Naphthalene	µg/L	<1.35	<0.90	<1.35	<9.5	<1.35	<0.36	<1.35	<3.8	<54	<1.35	<16	<9.5
o-Xylene	µg/L	<0.40	<1.35	<0.40	<8	<0.40	<0.54	<0.4	<3.2	<16	<0.40	<18	<8
n-Propylbenzene	µg/L	<0.70	<1.40	<0.70	<10.5	<0.70	<0.56	<0.7	<4.2	<28	<0.70	<17	<10.5
Sum VOAs (w/o Gases)	µg/L	396	478	428	11133	490	840	971	556	30598	44386	36678	7806
Methane	µg/L	44	58	380	1800	660	1900	760	1050	3400	6200	2500	2060
Iron, Total	mg/L	55.2	13.2	69	197	2.22	1.84	3.93	6.72	19.8	11.6	15.1	11.1
Sulfate	mg/L	5470	779	32.6	307	104	117	264	203	236	360	443	813
Nitrate-Nitrogen	mg/L		0.15	0.17	<0.025		<0.015	0.023	0.029		0.054	0.071	12.3
Total Organic Carbon	mg/L	23500	868	1990	2590	38.8	53.1	60	72.9	91.7	83.4	88	59.7

Terra Systems INCORPORATED

Table 1 Continued. Photocircuits Anaerobic Pilot Analytical Summary

Well		DMP-1			SMP-3				DMP-3				
Date		8/31/00	10/18/00	12/20/00	3/27/01	9/1/00	10/19/00	12/20/00	3/27/01	9/1/00	10/19/00	12/20/00	3/27/01
Tetrachloroethene	µg/L	<0.40	<0.080	<0.40	<5.5	<80	<80	<8	13.7	<16	60.5	<4.0	<1.1
Trichloroethene	µg/L	<0.85	<0.17	<0.85	<10	<170	<170	<17	<0.2	<34	<13.5	<8.5	<2
cis-1,2-Dichloroethene	µg/L	50.4	1.70	17.4	73.5	<190	<190	<19	2.3	<38	<17	<9.5	<3
Vinyl Chloride	µg/L	188	3.5	40	125	<350	<350	<35	38.8	1040	928	818	145
Ethene	µg/L	560	1080	920	690	84	98	39	18	430	450	310	290
1,1,1-Trichloroethane	µg/L	<0.55	<0.11	<0.55	193	178000	235000	32600	33700	19700	14300	23400	793
1,1-Dichloroethane	µg/L	91.8	17.6	357	1130	38200	47800	4770	<0.5	5230	4860	4200	764
trans-1,2-Dichloroethene	µg/L	<1.35	<0.27	<1.35	<11	<270	<270	<27	<0.22	<54	<14	<13.5	<2.2
1,2-Dichloroethane	µg/L	<0.80	<0.16	<0.80	<10	<160	<160	<16	6	<32	<9.5	<8.0	<2
1,1-Dichloroethene	µg/L	<1.05	<0.21	<1.05	<9	<210	<210	<21	<0.27	156	<24	<10.5	<1.8
Chloroethane	µg/L	3290	43.4	232	159	<330	<330	<33	76.6	5370	6970	3760	729
Ethane	µg/L	<6	<6	<50	<100	39	45	41	23	5.7	9.4	44	12
Acetone	µg/L	8670	139	557	<74	<1890	<1890	<189	3690	<378	<65	<94.5	<14.8
Methylene Chloride	µg/L	68.3	1.40	22.4	191	2400	<200	<20	14.6	436	149	<10	31.8
2-Butanone	µg/L	<5.1	<1.02	5.1	<125	<1020	<1020	<102	<2.5	<204	<41	<51	<25
Toluene	µg/L	36.5	2.80	24.1	40.5	<160	<160	<16	31.7	232	134	103	15.7
Benzene	µg/L	<0.70	<0.14	5.5	<5	<140	<140	<14	<0.1	<28	<7.0	<7.0	<1
p-Ethyltoluene	µg/L	2.9	<0.24	<1.2	<8	<240	<240	<24	<0.16	<48	<17	<12	<1.6
1,3,5-Trimethylbenzene	µg/L	2.8	<0.12	<0.60	<17	<120	<120	<12	0.63	<24	<15	<6	<3.4
2-Chlorotoluene	µg/L	23.7	<0.17	18.2	<10.5	<170	<170	<17	5.1	<34	<13.5	<8.5	<2.1
1,2,4-Trimethylbenzene	µg/L	8.4	0.77	8.4	<11	<130	<130	<13	<0.22	<26	<12.5	<6.5	<2.2
Naphthalene	µg/L	3.1	<0.27	<1.35	<9.5	<270	<270	<27	<0.19	<54	<9.0	<13.5	<1.9
o-Xylene	µg/L	<0.40	<0.080	<0.40	<8	<80	<80	<8	<0.	<16	<13.5	<4.0	<1.6
n-Propylbenzene	µg/L	<0.70	<0.14	16.9	<10.5	<140	<140	<14	<0.21	<28	<14.0	<7.0	<2.1
Sum VOAs (w/o Gases)	µg/L	12436	210	1304	1912	218600	282800	37370	37579	32164	27402	32281	2479
Methane	µg/L	8200	23000	10300	4660	100	140	44	36	390	890	800	930
Iron, Total	mg/L	88.5	4.45	3.1	21.7	50.6	5.91	69.6	11.1	60.4	66.8	74.3	20.8
Sulfate	mg/L	29600	37.7	179	715	286	392	154	53.7	124	186	137	94.6
Nitrate-Nitrogen	mg/L		0.20	0.024	0.05		<0.015	0.53	0.037		0.93	0.35	0.073
Total Organic Carbon	mg/L	299	224	137	132	294	432	22.7	48.1	98.2	88.6	104	27.8

Table 1 Continued. Photocircuits Anaerobic Pilot Analytical Summary

Well		SMP-4				DMP-4				MW-8	MW-9	MW-12	MW-13
Date		9/1/00	10/19/00	12/20/00	3/27/01	9/1/00	10/19/00	12/20/00	3/27/01	3/28/01	3/28/01	3/28/01	3/28/01
Tetrachloroethene	µg/L	13.2	<5.6	<0.80	<5.5	<0.40	<0.080	<0.080	<0.11	<0.11	<0.11	<0.11	82.8
Trichloroethene	µg/L	<0.85	<5.4	<1.7	<10	<0.85	<1.70	<0.17	<0.20	1.8	<0.20	122	85.9
cis-1,2-Dichloroethene	µg/L	143	<6.8	<1.9	<15	<0.95	<1.90	<0.19	<0.30	<0.30	<0.30	1280	784
Vinyl Chloride	µg/L	175	34.6	37.6	72.5	<1.75	<3.50	<0.35	2.9	<0.25	<0.25	244	38.6
Ethene	µg/L	220	190	220	170	250	260	220	160	<6	<6	6.7	<6
1,1,1-Trichloroethane	µg/L	3150	246	997	3100	56.3	130	<0.11	15.3	<0.20	<0.20	<0.20	40
1,1-Dichloroethane	µg/L	4070	1740	1180	2230	29.7	20.1	<0.14	50.1	<0.14	<0.14	72.2	323
trans-1,2-Dichloroethene	µg/L	<1.35	<5.6	<2.7	<11	<1.35	<2.70	<0.27	3.4	<0.22	<0.22	7.3	3.6
1,2-Dichloroethane	µg/L	26.2	<3.8	<1.6	<10	<0.80	<1.60	<0.16	8.7	<0.20	<0.20	2.9	2.6
1,1-Dichloroethene	µg/L	105	<9.6	<2.1	<9	<1.05	<2.10	<0.21	<0.18	<0.18	<0.18	8.4	60.6
Chloroethane	µg/L	1220	827	3000	1590	2420	2580	3300	3680	<0.30	<0.3	<0.30	<0.30
Ethane	µg/L	<6	<6	39	<10	<6	<6	37	<6	<6	<6	<6	5.8
Acetone	µg/L	<9.4	<26	<18.9	<74	<9.45	<18.9	<1.89	58.4	<1.48	<1.48	<1.48	<1.48
Methylene Chloride	µg/L	295	123	<2	278	22.8	16.6	3.9	19.8	<0.41	<0.41	<0.41	<0.41
2-Butanone	µg/L	<5.1	<16.4	<10.2	<125	<5.1	<10.2	<1.02	<2.5	<2.5	<2.5	<2.5	<2.5
Toluene	µg/L	116	37.6	25.5	<7.5	11	7.50	3.1	6.1	<0.15	<0.15	0.97	<0.15
Benzene	µg/L	<0.70	<2.8	<1.4	<5	<0.70	<1.40	<0.14	<0.10	<0.10	<0.10	5.3	7.1
p-Ethyltoluene	µg/L	4.8	<6.8	<2.4	<8	3.7	<2.40	<0.24	1.2	<0.16	<0.16	<0.16	<0.16
1,3,5-Trimethylbenzene	µg/L	3.2	<6.0	<1.2	<17	9.2	<1.20	2.5	3.4	<0.34	<0.34	<0.34	<0.34
2-Chlorotoluene	µg/L	45.5	<5.4	<1.7	<10.5	64.5	44.5	17.1	31.6	<0.21	<0.21	393	16.3
1,2,4-Trimethylbenzene	µg/L	8.6	<5.0	<1.3	<11	18.3	15.9	5.3	<0.22	<0.22	<0.22	<0.22	<0.22
Naphthalene	µg/L	<1.35	<3.6	<2.7	<9.5	4.3	<2.70	<0.27	1.6	<0.19	<0.19	<0.19	<0.19
o-Xylene	µg/L	<0.40	<5.4	<0.8	<8	4.8	<0.80	<0.008	5.0	<0.16	<0.16	<0.16	<0.16
n-Propylbenzene	µg/L	<0.70	<5.6	<1.4	<10.5	44.3	<1.40	<0.14	<0.21	<0.21	<0.21	<0.21	<0.21
Sum VOAs (w/o Gases)	µg/L	9376	3008	5240	7271	2689	2815	3332	3888	1.8	0.0	2136	1445
Methane	µg/L	450	470	1100	3650	180	210	190	300	<6	300	420	12
Iron, Total	mg/L	76.2	38.9	47.1	54.5	48.2	39.2	42.5	85.4	0.023	10.4	7.29	0.54
Sulfate	mg/L	933	470	435	1700	133	171	98.5	209	22.6	4.43	417	597
Nitrate-Nitrogen	mg/L		<0.015	0.31	0.19		0.22	0.31	0.17	6.1	<0.025	<0.025	3.95
Total Organic Carbon	mg/L	73.6	60.4	<0.94	34.6	43.7	52.4	50.9	34.6	4.97	7.98	33.3	9.52

Table 2. Photocircuits Anaerobic Pilot Chlorinated Solvents in Micromolar Concentrations

Contaminant	Well	MW-14				MW-7				SMP-1			
Date		8/31/00	10/19/00	12/20/00	3/28/01	8/31/00	10/19/00	12/20/00	3/27/01	8/31/00	10/18/00	12/20/00	3/27/01
Tetrachloroethene	µM		<0.0084	<0.0024	<0.033	<0.0024	<0.0034	<0.0024	<0.013	<0.096	<0.0024	<0.13	<0.033
Trichloroethene	µM	<0.0065	<0.010	<0.0065	<0.076	<0.0065	0.15	<0.0065	<0.030	<0.026	0.60	6.5	11.6
cis-1,2-Dichloroethene	µM	<0.0098	<0.018	<0.0098	<0.15	0.49	2.9	3.7	1.5	257	387	311	<0.0028
Vinyl Chloride	µM	<0.028	0.17	<0.028	1.8	0.63	1.1	2.2	1.0	75	96	81	76
Ethene	µM	1.5	1.7	2.1	2.3	2.3	6.1	3.9	1.2	33	86	41	32
1,1,1-Trichloroethane	µM	0.11	<0.013	0.067	7.5	<0.0041	<0.046	<0.0041	<0.030	<0.16	<0.0041	<0.25	2.7
1,1-Dichloroethane	µM	1.3	2.2	3.0	93.2	1.2	2.2	2.7	1.4	5.1	4.9	6.3	7.2
trans-1,2-Dichloroethene	µM	<0.014	<0.014	<0.014	<0.11	<0.014	<0.0058	<0.014	<0.045	<0.56	0.72	<0.41	1.4
1,2-Dichloroethane	µM	<0.0081	<0.0096	<0.0081	<0.10	<0.0081	<0.0038	<0.0081	<0.040	<0.32	<0.0081	<0.17	<0.033
1,1-Dichloroethene	µM	<0.011	0.065	<0.011	4.6	<0.011	<0.0099	<0.011	<0.037	<0.43	0.66	<0.27	1.9
Chloroethane	µM	0.24	<0.019	<0.026	2.0	4.0	2.8	3.1	2.5	<1.1	1.1	<0.82	<0.23
Ethane	µM	1.7	2.3	1.6	1.1	<0.20	4.3	2.7	1.1	<0.20	<0.20	<0.83	<0.83

Contaminant	Well	DMP-1				SMP-3				DMP-3			
Date		8/31/00	10/18/00	12/20/00	3/27/01	9/1/00	10/19/00	12/20/00	3/27/01	9/1/00	10/19/00	12/20/00	3/27/01
Tetrachloroethene	µM	<0.0024	<0.00048	<0.0024	<0.033	<0.48	<0.48	<0.048	0.083	<0.097	0.36	<0.024	<0.0066
Trichloroethene	µM	<0.0065	<0.0018	<0.0065	<0.076	<1.3	<1.3	<0.13	<0.0015	<0.26	<0.10	<0.065	<0.015
cis-1,2-Dichloroethene	µM	0.52	0.018	0.18	0.76	<2.0	<2.0	<0.20	0.024	<0.39	<0.18	<0.098	<0.031
Vinyl Chloride	µM	3.0	0.056	0.640	2.0	<5.6	<5.6	<0.56	0.62	17	15	13	2.3
Ethene	µM	20	39	33	25	3.0	3.5	1.4	0.64	15.4	16.1	11.1	10.4
1,1,1-Trichloroethane	µM	<0.0041	<0.00082	<0.0041	1.4	1334	1762	244	253	148	107	175	5.9
1,1-Dichloroethane	µM	0.93	0.18	3.61	11	386	483	48	<0.0051	53	49	42	7.7
trans-1,2-Dichloroethene	µM	<0.014	<0.0028	<0.014	<0.11	<2.8	<2.8	<0.28	<0.0023	<0.56	<0.14	<0.14	<0.023
1,2-Dichloroethane	µM	<0.0081	<0.0016	<0.0081	<0.10	<1.6	<1.6	<0.16	0.061	<0.32	<0.096	<0.081	<0.020
1,1-Dichloroethene	µM	<0.011	<0.0022	<0.011	<0.093	<2.2	<2.2	<0.22	<0.0028	1.6	<0.25	<0.11	<0.018
Chloroethane	µM	51.0	0.67	3.60	2.5	<5.1	<5.1	<0.51	1.2	83	108	58	11
Ethane	µM	<0.20	<0.20	<1.7	<3.3	1.3	1.5	1.4	0.77	0.19	0.31	1.5	0.40

Table 2 continued. Photocircuits Anaerobic Pilot Chlorinated Solvents in Micromolar Concentrations

Contaminant	Well	SMP-4				DMP-4				MW-8	MW-9	MW-12	MW-13
Date		9/1/00	10/19/00	12/20/00	3/27/01	9/1/00	10/19/00	12/20/00	3/27/01	3/28/01	3/28/01	3/28/01	3/28/01
Tetrachloroethene	µM	0.080	<0.0034	<0.0048	<0.033	<0.0024	<0.00048	<0.00048	<0.00066	<0.00066	<0.00066	<0.00066	0.50
Trichloroethene	µM	<0.0065	<0.041	<0.013	<0.076	<0.0065	<0.013	<0.013	<0.0015	0.014	<0.0015	0.93	0.65
cis-1,2-Dichloroethene	µM	1.5	<0.070	<0.0020	<0.15	<0.0098	<0.020	<0.0020	<0.0031	<0.0031	<0.0031	13.2	8.1
Vinyl Chloride	µM	2.8	0.55	0.60	1.2	<0.028	<0.056	<0.0056	0.046	<0.0040	<0.0040	3.9	0.6
Ethene	µM	7.9	6.8	7.9	6.1	8.9	9.3	7.9	5.7	<0.21	<0.21	0.24	<0.21
1,1,1-Trichloroethane	µM	24	1.8	7.5	23	0.42	0.97	<0.00082	0.11	<0.0015	<0.0015	<0.0015	0.30
1,1-Dichloroethane	µM	41	18	12	23	0.30	0.20	<0.0014	0.51	<0.0014	<0.0014	0.73	3.26
trans-1,2-Dichloroethene	µM	<0.014	<0.058	<0.0028	<0.11	<0.014	<0.028	<0.0028	0.035	<0.0022	<0.0022	0.075	0.037
1,2-Dichloroethane	µM	0.26	<0.038	<0.016	<0.10	<0.0081	<0.016	<0.0016	0.088	<0.0020	<0.0020	0.029	0.026
1,1-Dichloroethene	µM	1.1	<0.099	<0.022	<0.093	<0.011	<0.022	<0.0022	<0.0019	<0.0019	<0.0019	0.087	0.63
Chloroethane	µM	19	13	47	25	38	40	51	57	<0.0047	<0.0047	<0.0047	<0.0047
Ethane	µM	<0.20	<0.20	1.3	<0.33	<0.20	<0.20	1.2	<0.20	<0.20	<0.20	<0.20	0.19

Table 3. Photocircuits Anaerobic Pilot Percent Change Between 9/1/00 and 3/27/01

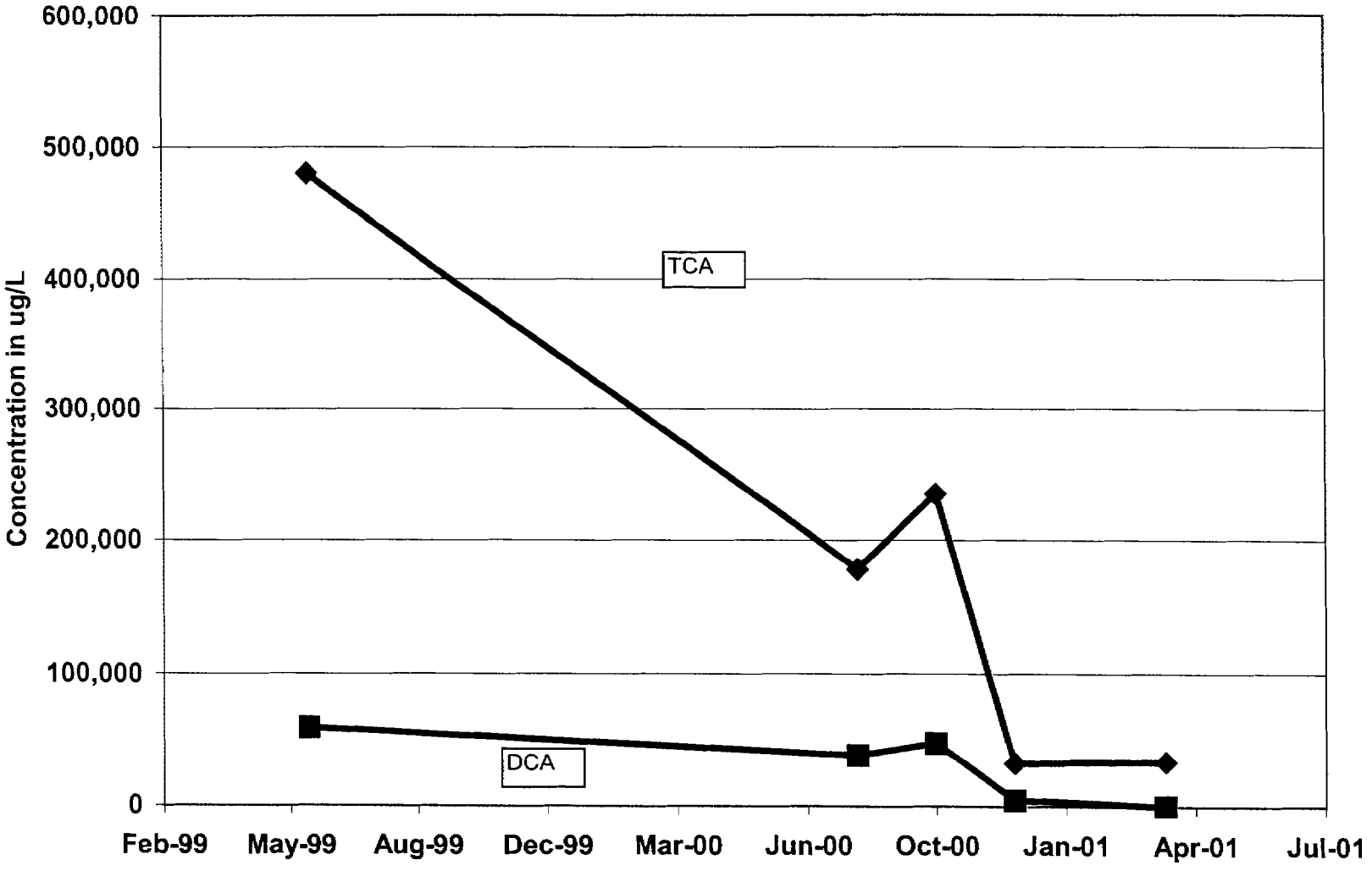
Compound	MW-14	MW-7	SMP-1	DMP-1	SMP-3	DMP-3	SMP-4	DMP-4
Acetone	>24			>99	>-95			>518
Methylene Chloride	-1357	-303	>96	-180	99	98	6	13
Toluene	<-150	>52	>-294	-11	<80	93	>94	46
2-Chlorotoluene				>56	<97		>77	51
Sum VOAs (w/o gases)	-2712	-13	74	85	83	92	22	-45
Methane	-3991	-59	39	43	64	-138	-711	-67
Iron	-257	-203	44	75	78	66	28	-77
Sulfate	94	-95	-244	98	81	24	-82	-57
TOC	89	-88	35	56	84	72	53	21
PCE					<83		>96	
TCE			>-4378					
cDCE		-215	100	-46	<99		>90	
VC	>-6414	-53	-1	34	<89	86	59	
Ethene	-51	48	3	-23	79	33	23	36
1TCA	88		>-1568	>-35187	81	96	2	73
1DCA	-7255	-11	-40	-1131	100	85	45	-69
1DCE	>-41461		>-342			>93	>91	
CA	-746	38		95	<77	86	-30	-52
Ethane	35	>-467			41	-111		

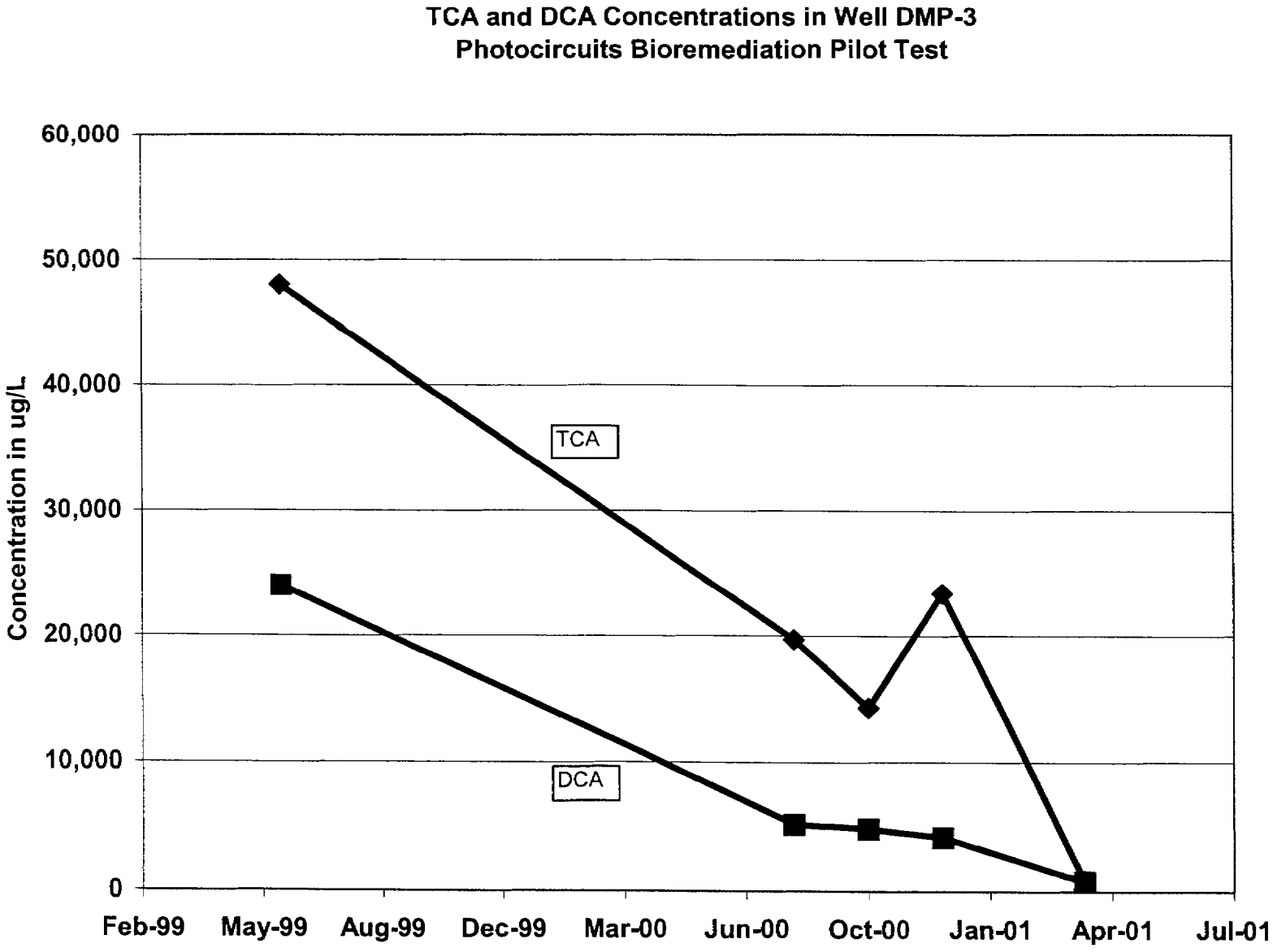
Explanations
- Concentration Increased
+ Concentration Decreased
> Compound Below Detection Limit; % Change Calculated Using Detection Limit for Missing Value

Table 4. Summary of Changes in Concentrations of Chloroethenes, Chloroethanes, Electron Acceptors, and Electron Donor by Well

Well	Chlorinated Ethene Dechlorination	Chlorinated Ethane Dechlorination	Electron Acceptors	Electron Donor Availability
MW-14	Ethene predominant, VC detected in March 2001	1TCA, 1DCA, 1DCE, and CA increased between December 2000 and March 2001, ethane down	Sulfate decreased by 94%, methane and iron up greatly	TOC availability good
MW-7	cDCE and VC up, ethene down	1DCA up, CA down, ethane produced	Sulfate increasing, methane and iron up	TOC increasing
SMP-1	TCE up, VC and ethene similar to start of pilot, cDCE questionable in March 2001	1TCA, 1DCA, tDCE, 1DCE up, little CA or ethane	Sulfate increasing, methane and iron decreasing,	TOC decreasing, but still sufficient
DMP-1	cDCE and ethene up slightly, VC down, ethene predominant	1TCA and 1DCA up, CA down by 95%, no ethane detected	Sulfate down 90%, methane and iron down	TOC decreasing, sufficient
SMP-3	Low levels of PCE, cDCE, and VC detected in March 2001, ethene declining	1TCA down by 81%, 1DCA down 100%, little CA and ethane	Sulfate, methane, and iron decreasing	TOC decreasing, now slightly lower than optimal
DMP-3	VC and ethene down	1TCA,1DCA, 1DCE, and CA down, ethane up slightly	Sulfate and iron decreasing, methane increasing	TOC decreasing, now slightly lower than optimal
SMP-4	PCE, cDCE, and VC down, ethene relatively stable	1TCA,1DCA, and 1DCE, CA and ethane up	Sulfate and methane increasing, iron down	TOC decreasing, now slightly lower than optimal
DMP-4	No CE except ethene	1TCA down, low levels of 1DCA, tDCE, and 2DCA detected in March 2001, CA up, ethane not detected March 2001	Sulfate, iron, and methane up	TOC declining, now slightly lower than optimal

TCA and DCA Concentrations in Well SMP-3
Photocircuits Bioremediation Pilot Test




TCA and DCA Concentrations in Well DMP-3
Photocircuits Bioremediation Pilot Test
Concentration in ug/L
60,000
50,000
40,000
30,000
20,000
10,000
0
TCA
DCA
Feb-99
May-99
Aug-99
Dec-99
Mar-00
Jun-00
Oct-00
Jan-01
Apr-01
Jul-01

ATTACHMENT C
BIOREMEDIATION PILOT PROJECT
MARCH GROUNDWATER MONITORING
LABORATORY REPORT

Environmental Testing Laboratories, Inc.
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/26/2001

Custody Document: L2129

Received: 03/29/2001 09:55
Sampled by: Dave Hanny

Client: Photo Circuits

31 Sea Cliff Avenue
Glen Cove,
NY 11542

Project: Photocircuits Corp.

31 Sea Cliff Avenue
Glen Cove,
NY

Manager: Andy Barber

Respectfully submitted,

Laboratory Director

NYS Lab ID # 10969
NJ Cert. # 73812
CT Cert. # PH0645
MA Cert. # NY061
PA Cert. # 68-535
VA Cert. # 108
NH Cert. # 252592-BA
RI Cert. # 161

Environmental Testing Laboratories, Inc.
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/26/2001

EPA 8260B

Sample: L2129-1
Client Sample ID: MW-8
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	0.25	0.25	ppb	U
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	0.30	0.30	ppb	U
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.18	0.18	ppb	U
67-64-1	Acetone	1.48	1.48	ppb	U
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	0.41	ppb	U
156-60-5	t-1,2-Dichloroethene	0.22	0.22	ppb	U
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	0.14	0.14	ppb	U
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	0.30	0.30	ppb	U
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.20	0.20	ppb	U
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	0.10	ppb	U
107-06-2	1,2-Dichloroethane	0.20	0.20	ppb	U
79-01-6	Trichloroethene	0.20	**1.80**	ppb	B
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	0.15	ppb	U
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-1...continue
Client Sample ID: MW-8
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	0.11	ppb	U
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	0.19	ppb	U
108-38-3	m,p-xylene	0.28	0.28	ppb	U
95-47-6	o-xylene	0.16	0.16	ppb	U
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	0.16	ppb	U
108-67-8	1,3,5-Trimethylbenzene	0.34	0.34	ppb	U
95-49-8	2-Chlorotoluene	0.21	0.21	ppb	U
106-43-4	4-Chlorotoluene	0.36	0.36	ppb	U
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	0.14	ppb	U
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	0.19	ppb	U

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Sample: L2129-1...continue

Client Sample ID: MW-8
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Sample: L2129-2
Client Sample ID: MW-9
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	0.25	0.25	ppb	U
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	0.30	0.30	ppb	U
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.18	0.18	ppb	U
67-64-1	Acetone	1.48	1.48	ppb	U
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	0.41	ppb	U
156-60-5	t-1,2-Dichloroethene	0.22	0.22	ppb	U
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	0.14	0.14	ppb	U
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	0.30	0.30	ppb	U
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.20	0.20	ppb	U
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	0.10	ppb	U
107-06-2	1,2-Dichloroethane	0.20	0.20	ppb	U
79-01-6	Trichloroethene	0.20	0.20	ppb	U
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	0.15	ppb	U
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-2...continue

Client Sample ID: MW-9 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	0.11	ppb	U
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	0.19	ppb	U
108-38-3	m,p-xylene	0.28	0.28	ppb	U
95-47-6	o-xylene	0.16	0.16	ppb	U
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	0.16	ppb	U
108-67-8	1,3,5-Trimethylbenzene	0.34	0.34	ppb	U
95-49-8	2-Chlorotoluene	0.21	0.21	ppb	U
106-43-4	4-Chlorotoluene	0.36	0.36	ppb	U
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	0.14	ppb	U
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	0.19	ppb	U

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Sample: L2129-2...continue
Client Sample ID: MW-9
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Sample: L2129-3
Client Sample ID: MW-12 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	5.00	**244**	ppb	
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	0.30	0.30	ppb	U
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.18	**8.40**	ppb	
67-64-1	Acetone	1.48	1.48	ppb	U
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	0.41	ppb	U
156-60-5	t-1,2-Dichloroethene	0.22	**7.30**	ppb	
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	0.14	**72.2**	ppb	
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	6.00	**1280**	ppb	
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.20	0.20	ppb	U
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	**5.30**	ppb	
107-06-2	1,2-Dichloroethane	0.20	**2.90**	ppb	
79-01-6	Trichloroethene	0.20	**122**	ppb	
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	**0.97**	ppb	
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-3...continue

Client Sample ID: MW-12
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	0.11	ppb	U
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	0.19	ppb	U
108-38-3	m,p-xylene	0.28	0.28	ppb	U
95-47-6	o-xylene	0.16	0.16	ppb	U
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	0.16	ppb	U
108-67-8	1,3,5-Trimethylbenzene	0.34	0.34	ppb	U
95-49-8	2-Chlorotoluene	4.20	**393**	ppb	
106-43-4	4-Chlorotoluene	0.36	**14.5**	ppb	
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	0.14	ppb	U
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	0.19	ppb	U

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Sample: L2129-3...continue

Client Sample ID: MW-12
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Sample: L2129-4
Client Sample ID: MW-13
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	0.25	**38.6**	ppb	
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	0.30	0.30	ppb	U
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.18	**60.6**	ppb	
67-64-1	Acetone	1.48	1.48	ppb	U
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	0.41	ppb	U
156-60-5	t-1,2-Dichloroethene	0.22	**3.60**	ppb	
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	1.40	**323**	ppb	
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	3.00	**784**	ppb	
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.20	**40.0**	ppb	
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	**7.10**	ppb	
107-06-2	1,2-Dichloroethane	0.20	**2.60**	ppb	
79-01-6	Trichloroethene	0.20	**85.9**	ppb	
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	0.15	ppb	U
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-4...continue

Client Sample ID: MW-13
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	**82.8**	ppb	
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	0.19	ppb	U
108-38-3	m,p-xylene	0.28	0.28	ppb	U
95-47-6	o-xylene	0.16	0.16	ppb	U
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	0.16	ppb	U
108-67-8	1,3,5-Trimethylbenzene	0.34	0.34	ppb	U
95-49-8	2-Chlorotoluene	0.21	**16.3**	ppb	
106-43-4	4-Chlorotoluene	0.36	0.36	ppb	U
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	0.14	ppb	U
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	0.19	ppb	U

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Sample: L2129-4...continue

Client Sample ID: MW-13 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Sample: L2129-5
Client Sample ID: MW-14
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	14.5	14.5	ppb	U
75-45-6	Chlorodifluoromethane	5.50	5.50	ppb	U
74-87-3	Chloromethane	16.0	16.0	ppb	U
75-01-4	Vinyl Chloride	12.5	**114**	ppb	
74-83-9	Bromomethane	6.00	6.00	ppb	U
75-00-3	Chloroethane	15.0	**132**	ppb	
75-69-4	Trichlorofluoromethane	8.00	8.00	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10.0	10.0	ppb	U
75-35-4	1,1-Dichloroethene	9.00	**443**	ppb	
67-64-1	Acetone	74.0	74.0	ppb	U
75-15-0	Carbon disulfide	15.5	15.5	ppb	U
75-09-2	Methylene Chloride	20.5	**220**	ppb	
156-60-5	t-1,2-Dichloroethene	11.0	11.0	ppb	U
1634-04-4	Methyl t-butyl ether	14.0	14.0	ppb	U
75-34-3	1,1-Dichloroethane	14.0	**9230**	ppb	
590-20-7	2,2-Dichloropropane	9.00	9.00	ppb	U
156-59-2	c-1,2-Dichloroethene	15.0	15.0	ppb	U
78-93-3	2-Butanone	125	125	ppb	U
74-97-5	Bromochloromethane	16.0	16.0	ppb	U
67-66-3	Chloroform	7.50	7.50	ppb	U
71-55-6	1,1,1-Trichloroethane	10.0	**994**	ppb	
56-23-5	Carbon Tetrachloride	9.00	9.00	ppb	U
563-58-6	1,1-Dichloropropene	33.5	33.5	ppb	U
71-43-2	Benzene	5.00	5.00	ppb	U
107-06-2	1,2-Dichloroethane	10.0	10.0	ppb	U
79-01-6	Trichloroethene	10.0	10.0	ppb	U
78-87-5	1,2-Dichloropropane	8.00	8.00	ppb	U
74-95-3	Dibromomethane	9.00	9.00	ppb	U
75-27-4	Bromodichloromethane	6.50	6.50	ppb	U
110-75-8	2-Chloroethylvinylether	18.0	18.0	ppb	U
10061-01-5	c-1,3-Dichloropropene	7.50	7.50	ppb	U
108-10-1	4-Methyl-2-pentanone	25.0	25.0	ppb	U
108-88-3	Toluene	7.50	7.50	ppb	U
10061-02-6	t-1,3-Dichloropropene	7.50	7.50	ppb	U
79-00-5	1,1,2-Trichloroethane	10.0	10.0	ppb	U

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Sample: L2129-5...continue

Client Sample ID: MW-14
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	5.50	5.50	ppb	U
142-28-9	1,3-Dichloropropane	8.00	8.00	ppb	U
591-78-6	2-Hexanone	20.0	20.0	ppb	U
124-48-1	Dibromochloromethane	7.00	7.00	ppb	U
106-93-4	1,2-Dibromoethane	11.5	11.5	ppb	U
108-90-7	Chlorobenzene	5.50	5.50	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	17.5	17.5	ppb	U
100-41-4	Ethylbenzene	9.50	9.50	ppb	U
108-38-3	m,p-xylene	14.0	14.0	ppb	U
95-47-6	o-xylene	8.00	8.00	ppb	U
100-42-5	Styrene	11.5	11.5	ppb	U
75-25-2	Bromoform	4.50	4.50	ppb	U
98-82-8	Isopropylbenzene	13.0	13.0	ppb	U
108-86-1	Bromobenzene	13.5	13.5	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	11.0	11.0	ppb	U
103-65-1	n-Propylbenzene	10.5	10.5	ppb	U
96-18-4	1,2,3-Trichloropropane	31.0	31.0	ppb	U
622-96-8	p-Ethyltoluene	8.00	8.00	ppb	U
108-67-8	1,3,5-Trimethylbenzene	17.0	17.0	ppb	U
95-49-8	2-Chlorotoluene	10.5	10.5	ppb	U
106-43-4	4-Chlorotoluene	18.0	18.0	ppb	U
98-06-6	tert-Butylbenzene	18.5	18.5	ppb	U
95-63-6	1,2,4-Trimethylbenzene	11.0	11.0	ppb	U
135-98-8	sec-Butylbenzene	14.0	14.0	ppb	U
99-87-6	4-Isopropyltoluene	12.0	12.0	ppb	U
541-73-1	1,3-Dichlorobenzene	6.50	6.50	ppb	U
106-46-7	1,4-Dichlorobenzene	4.00	4.00	ppb	U
95-50-1	1,2-Dichlorobenzene	7.00	7.00	ppb	U
105-05-5	p-Diethylbenzene	9.00	9.00	ppb	U
104-51-8	n-Butylbenzene	6.00	6.00	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	9.50	9.50	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	26.5	26.5	ppb	U
120-82-1	1,2,4-Trichlorobenzene	9.50	9.50	ppb	U
87-68-3	Hexachlorobutadiene	16.5	16.5	ppb	U
91-20-3	Naphthalene	9.50	9.50	ppb	U

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Sample: L2129-5...continue

Client Sample ID: MW-14
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/28/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	11.5	11.5	ppb	U

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Sample: L2129-6
Client Sample ID: MW-7
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	5.80	5.80	ppb	U
75-45-6	Chlorodifluoromethane	2.20	2.20	ppb	U
74-87-3	Chloromethane	6.40	6.40	ppb	U
75-01-4	Vinyl Chloride	5.00	**60.0**	ppb	
74-83-9	Bromomethane	2.40	2.40	ppb	U
75-00-3	Chloroethane	6.00	**160**	ppb	
75-69-4	Trichlorofluoromethane	3.20	3.20	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.00	4.00	ppb	U
75-35-4	1,1-Dichloroethene	3.60	3.60	ppb	U
67-64-1	Acetone	29.6	29.6	ppb	U
75-15-0	Carbon disulfide	6.20	6.20	ppb	U
75-09-2	Methylene Chloride	8.20	**51.6**	ppb	
156-60-5	t-1,2-Dichloroethene	4.40	4.40	ppb	U
1634-04-4	Methyl t-butyl ether	5.60	5.60	ppb	U
75-34-3	1,1-Dichloroethane	2.80	**135**	ppb	
590-20-7	2,2-Dichloropropane	3.60	3.60	ppb	U
156-59-2	c-1,2-Dichloroethene	6.00	**149**	ppb	
78-93-3	2-Butanone	50.0	50.0	ppb	U
74-97-5	Bromochloromethane	6.40	6.40	ppb	U
67-66-3	Chloroform	3.00	3.00	ppb	U
71-55-6	1,1,1-Trichloroethane	4.00	4.00	ppb	U
56-23-5	Carbon Tetrachloride	3.60	3.60	ppb	U
563-58-6	1,1-Dichloropropene	13.4	13.4	ppb	U
71-43-2	Benzene	2.00	2.00	ppb	U
107-06-2	1,2-Dichloroethane	4.00	4.00	ppb	U
79-01-6	Trichloroethene	4.00	4.00	ppb	U
78-87-5	1,2-Dichloropropane	3.20	3.20	ppb	U
74-95-3	Dibromomethane	3.60	3.60	ppb	U
75-27-4	Bromodichloromethane	2.60	2.60	ppb	U
110-75-8	2-Chloroethylvinylether	7.20	7.20	ppb	U
10061-01-5	c-1,3-Dichloropropene	3.00	3.00	ppb	U
108-10-1	4-Methyl-2-pentanone	10.0	10.0	ppb	U
108-88-3	Toluene	3.00	3.00	ppb	U
10061-02-6	t-1,3-Dichloropropene	3.00	3.00	ppb	U
79-00-5	1,1,2-Trichloroethane	4.00	4.00	ppb	U

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Sample: L2129-6...continue
Client Sample ID: MW-7
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	2.20	2.20	ppb	U
142-28-9	1,3-Dichloropropane	3.20	3.20	ppb	U
591-78-6	2-Hexanone	8.00	8.00	ppb	U
124-48-1	Dibromochloromethane	2.80	2.80	ppb	U
106-93-4	1,2-Dibromoethane	4.60	4.60	ppb	U
108-90-7	Chlorobenzene	2.20	2.20	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	7.00	7.00	ppb	U
100-41-4	Ethylbenzene	3.80	3.80	ppb	U
108-38-3	m,p-xylene	5.60	5.60	ppb	U
95-47-6	o-xylene	3.20	3.20	ppb	U
100-42-5	Styrene	4.60	4.60	ppb	U
75-25-2	Bromoform	1.80	1.80	ppb	U
98-82-8	Isopropylbenzene	5.20	5.20	ppb	U
108-86-1	Bromobenzene	5.40	5.40	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	4.40	4.40	ppb	U
103-65-1	n-Propylbenzene	4.20	4.20	ppb	U
96-18-4	1,2,3-Trichloropropane	12.4	12.4	ppb	U
622-96-8	p-Ethyltoluene	3.20	3.20	ppb	U
108-67-8	1,3,5-Trimethylbenzene	6.80	6.80	ppb	U
95-49-8	2-Chlorotoluene	4.20	4.20	ppb	U
106-43-4	4-Chlorotoluene	7.20	7.20	ppb	U
98-06-6	tert-Butylbenzene	7.40	7.40	ppb	U
95-63-6	1,2,4-Trimethylbenzene	4.40	4.40	ppb	U
135-98-8	sec-Butylbenzene	5.60	5.60	ppb	U
99-87-6	4-Isopropyltoluene	4.80	4.80	ppb	U
541-73-1	1,3-Dichlorobenzene	2.60	2.60	ppb	U
106-46-7	1,4-Dichlorobenzene	1.60	1.60	ppb	U
95-50-1	1,2-Dichlorobenzene	2.80	2.80	ppb	U
105-05-5	p-Diethylbenzene	3.60	3.60	ppb	U
104-51-8	n-Butylbenzene	2.40	2.40	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	3.80	3.80	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	10.6	10.6	ppb	U
120-82-1	1,2,4-Trichlorobenzene	3.80	3.80	ppb	U
87-68-3	Hexachlorobutadiene	6.60	6.60	ppb	U
91-20-3	Naphthalene	3.80	3.80	ppb	U

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Sample: L2129-6...continue

Client Sample ID: MW-7
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	4.60	4.60	ppb	U

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Sample: L2129-7
Client Sample ID: SMP-1
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/03/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	14.5	14.5	ppb	U
75-45-6	Chlorodifluoromethane	5.50	5.50	ppb	U
74-87-3	Chloromethane	16.0	16.0	ppb	U
75-01-4	Vinyl Chloride	12.5	**4770**	ppb	
74-83-9	Bromomethane	6.00	6.00	ppb	U
75-00-3	Chloroethane	15.0	15.0	ppb	U
75-69-4	Trichlorofluoromethane	8.00	8.00	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10.0	10.0	ppb	U
75-35-4	1,1-Dichloroethene	9.00	**184**	ppb	
67-64-1	Acetone	74.0	74.0	ppb	U
75-15-0	Carbon disulfide	15.5	15.5	ppb	U
75-09-2	Methylene Chloride	20.5	20.5	ppb	U
156-60-5	t-1,2-Dichloroethene	11.0	**132**	ppb	
1634-04-4	Methyl t-butyl ether	14.0	14.0	ppb	U
75-34-3	1,1-Dichloroethane	7.00	**708**	ppb	
590-20-7	2,2-Dichloropropane	9.00	9.00	ppb	U
156-59-2	c-1,2-Dichloroethene	0.27	0.27	ppb	U
78-93-3	2-Butanone	125	125	ppb	U
74-97-5	Bromochloromethane	16.0	16.0	ppb	U
67-66-3	Chloroform	7.50	7.50	ppb	U
71-55-6	1,1,1-Trichloroethane	10.0	**356**	ppb	
56-23-5	Carbon Tetrachloride	9.00	9.00	ppb	U
563-58-6	1,1-Dichloropropene	33.5	33.5	ppb	U
71-43-2	Benzene	5.00	5.00	ppb	U
107-06-2	1,2-Dichloroethane	10.0	10.0	ppb	U
79-01-6	Trichloroethene	10.0	**1530**	ppb	
78-87-5	1,2-Dichloropropane	8.00	8.00	ppb	U
74-95-3	Dibromomethane	9.00	9.00	ppb	U
75-27-4	Bromodichloromethane	6.50	6.50	ppb	U
110-75-8	2-Chloroethylvinylether	18.0	18.0	ppb	U
10061-01-5	c-1,3-Dichloropropene	7.50	7.50	ppb	U
108-10-1	4-Methyl-2-pentanone	25.0	25.0	ppb	U
108-88-3	Toluene	7.50	**126**	ppb	
10061-02-6	t-1,3-Dichloropropene	7.50	7.50	ppb	U
79-00-5	1,1,2-Trichloroethane	10.0	10.0	ppb	U

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Sample: L2129-7...continue

Client Sample ID: SMP-1
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/03/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	5.50	5.50	ppb	U
142-28-9	1,3-Dichloropropane	8.00	8.00	ppb	U
591-78-6	2-Hexanone	20.0	20.0	ppb	U
124-48-1	Dibromochloromethane	7.00	7.00	ppb	U
106-93-4	1,2-Dibromoethane	11.5	11.5	ppb	U
108-90-7	Chlorobenzene	5.50	5.50	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	17.5	17.5	ppb	U
100-41-4	Ethylbenzene	9.50	9.50	ppb	U
108-38-3	m,p-xylene	14.0	14.0	ppb	U
95-47-6	o-xylene	8.00	8.00	ppb	U
100-42-5	Styrene	11.5	11.5	ppb	U
75-25-2	Bromoform	4.50	4.50	ppb	U
98-82-8	Isopropylbenzene	13.0	13.0	ppb	U
108-86-1	Bromobenzene	13.5	13.5	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	11.0	11.0	ppb	U
103-65-1	n-Propylbenzene	10.5	10.5	ppb	U
96-18-4	1,2,3-Trichloropropane	31.0	31.0	ppb	U
622-96-8	p-Ethyltoluene	8.00	8.00	ppb	U
108-67-8	1,3,5-Trimethylbenzene	17.0	17.0	ppb	U
95-49-8	2-Chlorotoluene	10.5	10.5	ppb	U
106-43-4	4-Chlorotoluene	18.0	18.0	ppb	U
98-06-6	tert-Butylbenzene	18.5	18.5	ppb	U
95-63-6	1,2,4-Trimethylbenzene	11.0	11.0	ppb	U
135-98-8	sec-Butylbenzene	14.0	14.0	ppb	U
99-87-6	4-Isopropyltoluene	12.0	12.0	ppb	U
541-73-1	1,3-Dichlorobenzene	6.50	6.50	ppb	U
106-46-7	1,4-Dichlorobenzene	4.00	4.00	ppb	U
95-50-1	1,2-Dichlorobenzene	7.00	7.00	ppb	U
105-05-5	p-Diethylbenzene	9.00	9.00	ppb	U
104-51-8	n-Butylbenzene	6.00	6.00	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	9.50	9.50	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	26.5	26.5	ppb	U
120-82-1	1,2,4-Trichlorobenzene	9.50	9.50	ppb	U
87-68-3	Hexachlorobutadiene	16.5	16.5	ppb	U
91-20-3	Naphthalene	9.50	9.50	ppb	U

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Sample: L2129-7...continue

Client Sample ID: SMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/03/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	11.5	11.5	ppb	U

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04/26/2001

EPA 8260B

Sample: L2129-8
Client Sample ID: SMP-3
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/03/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	0.25	**38.8**	ppb	
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	0.30	**76.6**	ppb	
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.27	0.27	ppb	U
67-64-1	Acetone	148	**3690**	ppb	
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	**14.6**	ppb	
156-60-5	t-1,2-Dichloroethene	0.22	0.22	ppb	U
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	0.50	0.50	ppb	U
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	0.30	**2.30**	ppb	
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.34	**33700**	ppb	
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	0.10	ppb	U
107-06-2	1,2-Dichloroethane	0.20	**6.00**	ppb	
79-01-6	Trichloroethene	0.20	0.20	ppb	U
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	**31.7**	ppb	
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-8...continue

Client Sample ID: SMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/03/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	**13.7**	ppb	
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	0.19	ppb	U
108-38-3	m,p-xylene	0.28	0.28	ppb	U
95-47-6	o-xylene	0.16	0.16	ppb	U
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	0.16	ppb	U
108-67-8	1,3,5-Trimethylbenzene	0.34	**0.63**	ppb	
95-49-8	2-Chlorotoluene	0.21	**5.10**	ppb	
106-43-4	4-Chlorotoluene	0.36	0.36	ppb	U
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	0.14	ppb	U
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	0.19	ppb	U

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Sample: L2129-8...continue

Client Sample ID: SMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/03/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Sample: L2129-9
Client Sample ID: SMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	14.5	14.5	ppb	U
75-45-6	Chlorodifluoromethane	5.50	5.50	ppb	U
74-87-3	Chloromethane	16.0	16.0	ppb	U
75-01-4	Vinyl Chloride	12.5	**72.5**	ppb	
74-83-9	Bromomethane	6.00	6.00	ppb	U
75-00-3	Chloroethane	15.0	**1590**	ppb	
75-69-4	Trichlorofluoromethane	8.00	8.00	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10.0	10.0	ppb	U
75-35-4	1,1-Dichloroethene	9.00	9.00	ppb	U
67-64-1	Acetone	74.0	74.0	ppb	U
75-15-0	Carbon disulfide	15.5	15.5	ppb	U
75-09-2	Methylene Chloride	20.5	**278**	ppb	
156-60-5	t-1,2-Dichloroethene	11.0	11.0	ppb	U
1634-04-4	Methyl t-butyl ether	14.0	14.0	ppb	U
75-34-3	1,1-Dichloroethane	7.00	**2230**	ppb	
590-20-7	2,2-Dichloropropane	9.00	9.00	ppb	U
156-59-2	c-1,2-Dichloroethene	15.0	15.0	ppb	U
78-93-3	2-Butanone	125	125	ppb	U
74-97-5	Bromochloromethane	16.0	16.0	ppb	U
67-66-3	Chloroform	7.50	7.50	ppb	U
71-55-6	1,1,1-Trichloroethane	10.0	**3100**	ppb	
56-23-5	Carbon Tetrachloride	9.00	9.00	ppb	U
563-58-6	1,1-Dichloropropene	33.5	33.5	ppb	U
71-43-2	Benzene	5.00	5.00	ppb	U
107-06-2	1,2-Dichloroethane	10.0	10.0	ppb	U
79-01-6	Trichloroethene	10.0	10.0	ppb	U
78-87-5	1,2-Dichloropropane	8.00	8.00	ppb	U
74-95-3	Dibromomethane	9.00	9.00	ppb	U
75-27-4	Bromodichloromethane	6.50	6.50	ppb	U
110-75-8	2-Chloroethylvinylether	18.0	18.0	ppb	U
10061-01-5	c-1,3-Dichloropropene	7.50	7.50	ppb	U
108-10-1	4-Methyl-2-pentanone	25.0	25.0	ppb	U
108-88-3	Toluene	7.50	7.50	ppb	U
10061-02-6	t-1,3-Dichloropropene	7.50	7.50	ppb	U
79-00-5	1,1,2-Trichloroethane	10.0	10.0	ppb	U

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04/26/2001

EPA 8260B

Sample: L2129-9...continue
Client Sample ID: SMP-4
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	5.50	5.50	ppb	U
142-28-9	1,3-Dichloropropane	8.00	8.00	ppb	U
591-78-6	2-Hexanone	20.0	20.0	ppb	U
124-48-1	Dibromochloromethane	7.00	7.00	ppb	U
106-93-4	1,2-Dibromoethane	11.5	11.5	ppb	U
108-90-7	Chlorobenzene	5.50	5.50	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	17.5	17.5	ppb	U
100-41-4	Ethylbenzene	9.50	9.50	ppb	U
108-38-3	m,p-xylene	14.0	14.0	ppb	U
95-47-6	o-xylene	8.00	8.00	ppb	U
100-42-5	Styrene	11.5	11.5	ppb	U
75-25-2	Bromoform	4.50	4.50	ppb	U
98-82-8	Isopropylbenzene	13.0	13.0	ppb	U
108-86-1	Bromobenzene	13.5	13.5	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	11.0	11.0	ppb	U
103-65-1	n-Propylbenzene	10.5	10.5	ppb	U
96-18-4	1,2,3-Trichloropropane	31.0	31.0	ppb	U
622-96-8	p-Ethyltoluene	8.00	8.00	ppb	U
108-67-8	1,3,5-Trimethylbenzene	17.0	17.0	ppb	U
95-49-8	2-Chlorotoluene	10.5	10.5	ppb	U
106-43-4	4-Chlorotoluene	18.0	18.0	ppb	U
98-06-6	tert-Butylbenzene	18.5	18.5	ppb	U
95-63-6	1,2,4-Trimethylbenzene	11.0	11.0	ppb	U
135-98-8	sec-Butylbenzene	14.0	14.0	ppb	U
99-87-6	4-Isopropyltoluene	12.0	12.0	ppb	U
541-73-1	1,3-Dichlorobenzene	6.50	6.50	ppb	U
106-46-7	1,4-Dichlorobenzene	4.00	4.00	ppb	U
95-50-1	1,2-Dichlorobenzene	7.00	7.00	ppb	U
105-05-5	p-Diethylbenzene	9.00	9.00	ppb	U
104-51-8	n-Butylbenzene	6.00	6.00	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	9.50	9.50	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	26.5	26.5	ppb	U
120-82-1	1,2,4-Trichlorobenzene	9.50	9.50	ppb	U
87-68-3	Hexachlorobutadiene	16.5	16.5	ppb	U
91-20-3	Naphthalene	9.50	9.50	ppb	U

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Sample: L2129-9...continue

Client Sample ID: SMP-4
Collected: 03/27/2001
Matrix: Liquid
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	11.5	11.5	ppb	U

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EPA 8260B

Sample: L2129-10
Client Sample ID: DMP-1
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	14.5	14.5	ppb	U
75-45-6	Chlorodifluoromethane	5.50	5.50	ppb	U
74-87-3	Chloromethane	16.0	16.0	ppb	U
75-01-4	Vinyl Chloride	12.5	**125**	ppb	
74-83-9	Bromomethane	6.00	6.00	ppb	U
75-00-3	Chloroethane	15.0	**159**	ppb	
75-69-4	Trichlorofluoromethane	8.00	8.00	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	10.0	10.0	ppb	U
75-35-4	1,1-Dichloroethene	9.00	9.00	ppb	U
67-64-1	Acetone	74.0	74.0	ppb	U
75-15-0	Carbon disulfide	15.5	15.5	ppb	U
75-09-2	Methylene Chloride	20.5	**191**	ppb	B
156-60-5	t-1,2-Dichloroethene	11.0	11.0	ppb	U
1634-04-4	Methyl t-butyl ether	14.0	14.0	ppb	U
75-34-3	1,1-Dichloroethane	7.00	**1130**	ppb	
590-20-7	2,2-Dichloropropane	9.00	9.00	ppb	U
156-59-2	c-1,2-Dichloroethene	15.0	**73.5**	ppb	
78-93-3	2-Butanone	125	125	ppb	U
74-97-5	Bromochloromethane	16.0	16.0	ppb	U
67-66-3	Chloroform	7.50	7.50	ppb	U
71-55-6	1,1,1-Trichloroethane	10.0	**193**	ppb	
56-23-5	Carbon Tetrachloride	9.00	9.00	ppb	U
563-58-6	1,1-Dichloropropene	33.5	33.5	ppb	U
71-43-2	Benzene	5.00	5.00	ppb	U
107-06-2	1,2-Dichloroethane	10.0	10.0	ppb	U
79-01-6	Trichloroethene	10.0	10.0	ppb	U
78-87-5	1,2-Dichloropropane	8.00	8.00	ppb	U
74-95-3	Dibromomethane	9.00	9.00	ppb	U
75-27-4	Bromodichloromethane	6.50	6.50	ppb	U
110-75-8	2-Chloroethylvinylether	18.0	18.0	ppb	U
10061-01-5	c-1,3-Dichloropropene	7.50	7.50	ppb	U
108-10-1	4-Methyl-2-pentanone	25.0	25.0	ppb	U
108-88-3	Toluene	7.50	**40.5**	ppb	
10061-02-6	t-1,3-Dichloropropene	7.50	7.50	ppb	U
79-00-5	1,1,2-Trichloroethane	10.0	10.0	ppb	U

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Sample: L2129-10...continue

Client Sample ID: DMP-1
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	5.50	5.50	ppb	U
142-28-9	1,3-Dichloropropane	8.00	8.00	ppb	U
591-78-6	2-Hexanone	20.0	20.0	ppb	U
124-48-1	Dibromochloromethane	7.00	7.00	ppb	U
106-93-4	1,2-Dibromoethane	11.5	11.5	ppb	U
108-90-7	Chlorobenzene	5.50	5.50	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	17.5	17.5	ppb	U
100-41-4	Ethylbenzene	9.50	9.50	ppb	U
108-38-3	m,p-xylene	14.0	14.0	ppb	U
95-47-6	o-xylene	8.00	8.00	ppb	U
100-42-5	Styrene	11.5	11.5	ppb	U
75-25-2	Bromoform	4.50	4.50	ppb	U
98-82-8	Isopropylbenzene	13.0	13.0	ppb	U
108-86-1	Bromobenzene	13.5	13.5	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	11.0	11.0	ppb	U
103-65-1	n-Propylbenzene	10.5	10.5	ppb	U
96-18-4	1,2,3-Trichloropropane	31.0	31.0	ppb	U
622-96-8	p-Ethyltoluene	8.00	8.00	ppb	U
108-67-8	1,3,5-Trimethylbenzene	17.0	17.0	ppb	U
95-49-8	2-Chlorotoluene	10.5	10.5	ppb	U
106-43-4	4-Chlorotoluene	18.0	18.0	ppb	U
98-06-6	tert-Butylbenzene	18.5	18.5	ppb	U
95-63-6	1,2,4-Trimethylbenzene	11.0	11.0	ppb	U
135-98-8	sec-Butylbenzene	14.0	14.0	ppb	U
99-87-6	4-Isopropyltoluene	12.0	12.0	ppb	U
541-73-1	1,3-Dichlorobenzene	6.50	6.50	ppb	U
106-46-7	1,4-Dichlorobenzene	4.00	4.00	ppb	U
95-50-1	1,2-Dichlorobenzene	7.00	7.00	ppb	U
105-05-5	p-Diethylbenzene	9.00	9.00	ppb	U
104-51-8	n-Butylbenzene	6.00	6.00	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	9.50	9.50	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	26.5	26.5	ppb	U
120-82-1	1,2,4-Trichlorobenzene	9.50	9.50	ppb	U
87-68-3	Hexachlorobutadiene	16.5	16.5	ppb	U
91-20-3	Naphthalene	9.50	9.50	ppb	U

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Sample: L2129-10...continue

Client Sample ID: DMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	11.5	11.5	ppb	U

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Sample: L2129-11
Client Sample ID: DMP-3
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	2.90	2.90	ppb	U
75-45-6	Chlorodifluoromethane	1.10	1.10	ppb	U
74-87-3	Chloromethane	3.20	3.20	ppb	U
75-01-4	Vinyl Chloride	2.50	**145**	ppb	
74-83-9	Bromomethane	1.20	1.20	ppb	U
75-00-3	Chloroethane	3.00	**729**	ppb	
75-69-4	Trichlorofluoromethane	1.60	1.60	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	2.00	2.00	ppb	U
75-35-4	1,1-Dichloroethene	1.80	1.80	ppb	U
67-64-1	Acetone	14.8	14.8	ppb	U
75-15-0	Carbon disulfide	3.10	3.10	ppb	U
75-09-2	Methylene Chloride	4.10	**31.8**	ppb	
156-60-5	t-1,2-Dichloroethene	2.20	2.20	ppb	U
1634-04-4	Methyl t-butyl ether	2.80	2.80	ppb	U
75-34-3	1,1-Dichloroethane	1.40	**764**	ppb	
590-20-7	2,2-Dichloropropane	1.80	1.80	ppb	U
156-59-2	c-1,2-Dichloroethene	3.00	3.00	ppb	U
78-93-3	2-Butanone	25.0	25.0	ppb	U
74-97-5	Bromochloromethane	3.20	3.20	ppb	U
67-66-3	Chloroform	1.50	1.50	ppb	U
71-55-6	1,1,1-Trichloroethane	2.00	**793**	ppb	
56-23-5	Carbon Tetrachloride	1.80	1.80	ppb	U
563-58-6	1,1-Dichloropropene	6.70	6.70	ppb	U
71-43-2	Benzene	1.00	1.00	ppb	U
107-06-2	1,2-Dichloroethane	2.00	2.00	ppb	U
79-01-6	Trichloroethene	2.00	2.00	ppb	U
78-87-5	1,2-Dichloropropane	1.60	1.60	ppb	U
74-95-3	Dibromomethane	1.80	1.80	ppb	U
75-27-4	Bromodichloromethane	1.30	1.30	ppb	U
110-75-8	2-Chloroethylvinylether	3.60	3.60	ppb	U
10061-01-5	c-1,3-Dichloropropene	1.50	1.50	ppb	U
108-10-1	4-Methyl-2-pentanone	5.00	5.00	ppb	U
108-88-3	Toluene	1.50	**15.7**	ppb	
10061-02-6	t-1,3-Dichloropropene	1.50	1.50	ppb	U
79-00-5	1,1,2-Trichloroethane	2.00	2.00	ppb	U

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Sample: L2129-11...continue

Client Sample ID: DMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	1.10	1.10	ppb	U
142-28-9	1,3-Dichloropropane	1.60	1.60	ppb	U
591-78-6	2-Hexanone	4.00	4.00	ppb	U
124-48-1	Dibromochloromethane	1.40	1.40	ppb	U
106-93-4	1,2-Dibromoethane	2.30	2.30	ppb	U
108-90-7	Chlorobenzene	1.10	1.10	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	3.50	3.50	ppb	U
100-41-4	Ethylbenzene	1.90	1.90	ppb	U
108-38-3	m,p-xylene	2.80	2.80	ppb	U
95-47-6	o-xylene	1.60	1.60	ppb	U
100-42-5	Styrene	2.30	2.30	ppb	U
75-25-2	Bromoform	0.90	0.90	ppb	U
98-82-8	Isopropylbenzene	2.60	2.60	ppb	U
108-86-1	Bromobenzene	2.70	2.70	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	2.20	2.20	ppb	U
103-65-1	n-Propylbenzene	2.10	2.10	ppb	U
96-18-4	1,2,3-Trichloropropane	6.20	6.20	ppb	U
622-96-8	p-Ethyltoluene	1.60	1.60	ppb	U
108-67-8	1,3,5-Trimethylbenzene	3.40	3.40	ppb	U
95-49-8	2-Chlorotoluene	2.10	2.10	ppb	U
106-43-4	4-Chlorotoluene	3.60	3.60	ppb	U
98-06-6	tert-Butylbenzene	3.70	3.70	ppb	U
95-63-6	1,2,4-Trimethylbenzene	2.20	2.20	ppb	U
135-98-8	sec-Butylbenzene	2.80	2.80	ppb	U
99-87-6	4-Isopropyltoluene	2.40	2.40	ppb	U
541-73-1	1,3-Dichlorobenzene	1.30	1.30	ppb	U
106-46-7	1,4-Dichlorobenzene	0.80	0.80	ppb	U
95-50-1	1,2-Dichlorobenzene	1.40	1.40	ppb	U
105-05-5	p-Diethylbenzene	1.80	1.80	ppb	U
104-51-8	n-Butylbenzene	1.20	1.20	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	1.90	1.90	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	5.30	5.30	ppb	U
120-82-1	1,2,4-Trichlorobenzene	1.90	1.90	ppb	U
87-68-3	Hexachlorobutadiene	3.30	3.30	ppb	U
91-20-3	Naphthalene	1.90	1.90	ppb	U

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Sample: L2129-11...continue

Client Sample ID: DMP-3
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	2.30	2.30	ppb	U

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Sample: L2129-12
Client Sample ID: DMP-4
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Grab

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	0.25	**2.90**	ppb	
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	15.0	**3680**	ppb	
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.18	0.18	ppb	U
67-64-1	Acetone	1.48	**58.4**	ppb	B
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	**19.8**	ppb	
156-60-5	t-1,2-Dichloroethene	0.22	**3.40**	ppb	
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	0.14	**50.1**	ppb	
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	0.30	0.30	ppb	U
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.20	**15.3**	ppb	
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	0.10	ppb	U
107-06-2	1,2-Dichloroethane	0.20	**8.70**	ppb	
79-01-6	Trichloroethene	0.20	0.20	ppb	U
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	**6.10**	ppb	
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-12...continue

Client Sample ID: DMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	0.11	ppb	U
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	**1.50**	ppb	
108-38-3	m,p-xylene	0.28	**1.20**	ppb	
95-47-6	o-xylene	0.16	**5.00**	ppb	
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	**1.20**	ppb	
108-67-8	1,3,5-Trimethylbenzene	0.34	**3.40**	ppb	
95-49-8	2-Chlorotoluene	0.21	**31.6**	ppb	
106-43-4	4-Chlorotoluene	0.36	**2.30**	ppb	
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	**0.81**	ppb	
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	**1.60**	ppb	

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Sample: L2129-12...continue

Client Sample ID: DMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Sample: L2129-13
Client Sample ID: Trip Blank
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Collected: 03/27/2001
Type: Trip Blank

Cas No	Analyte	MDL	Concentration	Units	Q
75-71-8	Dichlorodifluoromethane	0.29	0.29	ppb	U
75-45-6	Chlorodifluoromethane	0.11	0.11	ppb	U
74-87-3	Chloromethane	0.32	0.32	ppb	U
75-01-4	Vinyl Chloride	0.25	0.25	ppb	U
74-83-9	Bromomethane	0.12	0.12	ppb	U
75-00-3	Chloroethane	0.30	0.30	ppb	U
75-69-4	Trichlorofluoromethane	0.16	0.16	ppb	U
76-13-1	1,1,2-Trichlorotrifluoroethane	0.20	0.20	ppb	U
75-35-4	1,1-Dichloroethene	0.18	0.18	ppb	U
67-64-1	Acetone	1.48	1.48	ppb	U
75-15-0	Carbon disulfide	0.31	0.31	ppb	U
75-09-2	Methylene Chloride	0.41	0.41	ppb	U
156-60-5	t-1,2-Dichloroethene	0.22	0.22	ppb	U
1634-04-4	Methyl t-butyl ether	0.28	0.28	ppb	U
75-34-3	1,1-Dichloroethane	0.14	0.14	ppb	U
590-20-7	2,2-Dichloropropane	0.18	0.18	ppb	U
156-59-2	c-1,2-Dichloroethene	0.30	0.30	ppb	U
78-93-3	2-Butanone	2.50	2.50	ppb	U
74-97-5	Bromochloromethane	0.32	0.32	ppb	U
67-66-3	Chloroform	0.15	0.15	ppb	U
71-55-6	1,1,1-Trichloroethane	0.20	0.20	ppb	U
56-23-5	Carbon Tetrachloride	0.18	0.18	ppb	U
563-58-6	1,1-Dichloropropene	0.67	0.67	ppb	U
71-43-2	Benzene	0.10	0.10	ppb	U
107-06-2	1,2-Dichloroethane	0.20	0.20	ppb	U
79-01-6	Trichloroethene	0.20	0.20	ppb	U
78-87-5	1,2-Dichloropropane	0.16	0.16	ppb	U
74-95-3	Dibromomethane	0.18	0.18	ppb	U
75-27-4	Bromodichloromethane	0.13	0.13	ppb	U
110-75-8	2-Chloroethylvinylether	0.36	0.36	ppb	U
10061-01-5	c-1,3-Dichloropropene	0.15	0.15	ppb	U
108-10-1	4-Methyl-2-pentanone	0.50	0.50	ppb	U
108-88-3	Toluene	0.15	0.15	ppb	U
10061-02-6	t-1,3-Dichloropropene	0.15	0.15	ppb	U
79-00-5	1,1,2-Trichloroethane	0.20	0.20	ppb	U

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Sample: L2129-13...continue

Client Sample ID: Trip Blank
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Trip Blank

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
127-18-4	Tetrachloroethene	0.11	0.11	ppb	U
142-28-9	1,3-Dichloropropane	0.16	0.16	ppb	U
591-78-6	2-Hexanone	0.40	0.40	ppb	U
124-48-1	Dibromochloromethane	0.14	0.14	ppb	U
106-93-4	1,2-Dibromoethane	0.23	0.23	ppb	U
108-90-7	Chlorobenzene	0.11	0.11	ppb	U
630-20-6	1,1,1,2-Tetrachloroethane	0.35	0.35	ppb	U
100-41-4	Ethylbenzene	0.19	0.19	ppb	U
108-38-3	m,p-xylene	0.28	0.28	ppb	U
95-47-6	o-xylene	0.16	0.16	ppb	U
100-42-5	Styrene	0.23	0.23	ppb	U
75-25-2	Bromoform	0.090	0.090	ppb	U
98-82-8	Isopropylbenzene	0.26	0.26	ppb	U
108-86-1	Bromobenzene	0.27	0.27	ppb	U
79-34-5	1,1,2,2-Tetrachloroethane	0.22	0.22	ppb	U
103-65-1	n-Propylbenzene	0.21	0.21	ppb	U
96-18-4	1,2,3-Trichloropropane	0.62	0.62	ppb	U
622-96-8	p-Ethyltoluene	0.16	0.16	ppb	U
108-67-8	1,3,5-Trimethylbenzene	0.34	0.34	ppb	U
95-49-8	2-Chlorotoluene	0.21	0.21	ppb	U
106-43-4	4-Chlorotoluene	0.36	0.36	ppb	U
98-06-6	tert-Butylbenzene	0.37	0.37	ppb	U
95-63-6	1,2,4-Trimethylbenzene	0.22	0.22	ppb	U
135-98-8	sec-Butylbenzene	0.28	0.28	ppb	U
99-87-6	4-Isopropyltoluene	0.24	0.24	ppb	U
541-73-1	1,3-Dichlorobenzene	0.13	0.13	ppb	U
106-46-7	1,4-Dichlorobenzene	0.080	0.080	ppb	U
95-50-1	1,2-Dichlorobenzene	0.14	0.14	ppb	U
105-05-5	p-Diethylbenzene	0.18	0.18	ppb	U
104-51-8	n-Butylbenzene	0.12	0.12	ppb	U
95-93-2	1,2,4,5-Tetramethylbenzene	0.19	0.19	ppb	U
96-12-8	1,2-Dibromo-3-chloropropane	0.53	0.53	ppb	U
120-82-1	1,2,4-Trichlorobenzene	0.19	0.19	ppb	U
87-68-3	Hexachlorobutadiene	0.33	0.33	ppb	U
91-20-3	Naphthalene	0.19	0.19	ppb	U

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Sample: L2129-13...continue

Client Sample ID: Trip Blank
Matrix: Liquid
Remarks: See Case Narrative
Analyzed Date: 04/04/2001

Type: Trip Blank

Collected: 03/27/2001

Cas No	Analyte	MDL	Concentration	Units	Q
87-61-6	1,2,3-Trichlorobenzene	0.23	0.23	ppb	U

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Iron, Total

Sample: L2129-1
Client Sample ID: MW-8 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**0.023**	ppm	J

Sample: L2129-2
Client Sample ID: MW-9 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**10.4**	ppm	

Sample: L2129-3
Client Sample ID: MW-12 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**7.29**	ppm	

Sample: L2129-4
Client Sample ID: MW-13 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**0.54**	ppm	

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Iron, Total

Sample: L2129-5
Client Sample ID: MW-14 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**197**	ppm	

Sample: L2129-6
Client Sample ID: MW-7 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**6.72**	ppm	

Sample: L2129-7
Client Sample ID: SMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**11.1**	ppm	

Sample: L2129-8
Client Sample ID: SMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**3.92**	ppm	

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Iron, Total

Sample: L2129-9
Client Sample ID: SMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**54.5**	ppm	

Sample: L2129-10
Client Sample ID: DMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/17/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**21.7**	ppm	

Sample: L2129-11
Client Sample ID: DMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/25/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**20.8**	ppm	

Sample: L2129-12
Client Sample ID: DMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/25/2001

Cas No	Analyte	MDL	Concentration	Units	Q
7439-89-6	Iron	0.26	**85.4**	ppm	

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Nitrogen/Nitrate by EPA Method 353.2

Sample: L2129-1
Client Sample ID: MW-8 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**6.10**	ppm	

Sample: L2129-2
Client Sample ID: MW-9 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	0.025	ppm	U

Sample: L2129-3
Client Sample ID: MW-12 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	0.025	ppm	U

Sample: L2129-4
Client Sample ID: MW-13 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**3.95**	ppm	

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Nitrogen/Nitrate by EPA Method 353.2

Sample: L2129-5
Client Sample ID: MW-14 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	0.025	ppm	U

Sample: L2129-6
Client Sample ID: MW-7 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**0.029**	ppm	

Sample: L2129-7
Client Sample ID: SMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**12.3**	ppm	

Sample: L2129-8
Client Sample ID: SMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**0.037**	ppm	

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04/26/2001

Nitrogen/Nitrate by EPA Method 353.2

Sample: L2129-9
Client Sample ID: SMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**0.19**	ppm	

Sample: L2129-10
Client Sample ID: DMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**0.050**	ppm	

Sample: L2129-11
Client Sample ID: DMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**0.073**	ppm	

Sample: L2129-12
Client Sample ID: DMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/04/2001

Cas No	Analyte	MDL	Result	Units	Q
14797-55-8	Nitrate	0.025	**0.17**	ppm	

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04/26/2001

Sulfate by EPA Method 375.4

Sample: L2129-1
Client Sample ID: MW-8 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	0.56	**22.6**	ppm	

Sample: L2129-2
Client Sample ID: MW-9 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**4.43**	ppm	

Sample: L2129-3
Client Sample ID: MW-12 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**417**	ppm	

Sample: L2129-4
Client Sample ID: MW-13 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	5.58	**597**	ppm	

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04/26/2001

Sulfate by EPA Method 375.4

Sample: L2129-5
Client Sample ID: MW-14 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**307**	ppm	

Sample: L2129-6
Client Sample ID: MW-7 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**203**	ppm	

Sample: L2129-7
Client Sample ID: SMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**813**	ppm	

Sample: L2129-8
Client Sample ID: SMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**53.7**	ppm	

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04/26/2001

Sulfate by EPA Method 375.4

Sample: L2129-9
Client Sample ID: SMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**1700**	ppm	

Sample: L2129-10
Client Sample ID: DMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**715**	ppm	

Sample: L2129-11
Client Sample ID: DMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**94.6**	ppm	

Sample: L2129-12
Client Sample ID: DMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/16/2001

Cas No	Analyte	MDL	Result	Units	Q
14808-79-8	Sulfate	2.23	**209**	ppm	

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04/26/2001

Total Organic Carbon (TOC) by Method 415.1

Sample: L2129-1
Client Sample ID: MW-8 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**4.97**	ppm	

Sample: L2129-2
Client Sample ID: MW-9 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**7.98**	ppm	

Sample: L2129-3
Client Sample ID: MW-12 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**33.3**	ppm	

Sample: L2129-4
Client Sample ID: MW-13 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**9.52**	ppm	

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04/26/2001

Total Organic Carbon (TOC) by Method 415.1

Sample: L2129-5
Client Sample ID: MW-14 Collected: 03/28/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**2590**	ppm	

Sample: L2129-6
Client Sample ID: MW-7 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**72.9**	ppm	

Sample: L2129-7
Client Sample ID: SMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**59.7**	ppm	

Sample: L2129-8
Client Sample ID: SMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**48.1**	ppm	

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04/26/2001

Total Organic Carbon (TOC) by Method 415.1

Sample: L2129-9
Client Sample ID: SMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**34.6**	ppm	

Sample: L2129-10
Client Sample ID: DMP-1 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**132**	ppm	

Sample: L2129-11
Client Sample ID: DMP-3 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**27.8**	ppm	

Sample: L2129-12
Client Sample ID: DMP-4 Collected: 03/27/2001
Matrix: Liquid Type: Grab
Remarks:
Analyzed Date: 04/19/2001

Cas No	Analyte	MDL	Result	Units	Q
	TOC	0.94	**34.6**	ppm	

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04/26/2001

Case Narrative

VOLATILES:

The following compounds were calibrated at 25, 50, 100, 150 and 200 ppb levels in the initial calibration curve:

Acetone
2-Butanone
4-Methyl-2-pentanone
2-Hexanone

M&P-Xylenes were calibrated at 10, 40, 100, 200 and 300 ppb levels.

All other compounds were calibrated at 5, 20, 50, 100 and 150 ppb levels.

Samples were quantitated using the continuing calibration standard response factor as opposed to the initial calibration average response factor.

Blanks associated with Custody L2129 contained 1.56 ppb of Methylene Chloride and 3.5 ppb of Acetone.

METALS: (4/25/01 analysis)

All calibration verifications associated with the analysis of these samples were within the 90-110% recovery with the following exceptions:

ICV	Fe	115%
CCV2	Fe	113.8%

Reviewed by: _____

04/26/2001

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

U - The analytical result is a non-detect.

J - Indicates an estimated value. The concentration reported was detected below the Method Detection Limit.

B - The analyte was found in the associated method blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - The concentration of the analyte exceeded the calibration range of the instrument.

D - This flag identifies all compounds identified in an analysis at a secondary dilution.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).

U - Entered when the analyte was analyzed for, but not detected.

J - Indicates an estimated value. The concentration reported was detected below the Method Detection Limit.

Q - Qualifier specific entries and their meanings are as follows:

E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

A - Flame AA

AS - Semi-automated Spectrophotometric

AV - Automated Cold Vapor AA

C - Manual Spectrophotometric

F - Furnace AA

NR - when the analyte is not required to be analyzed.

P - ICP

T - Titrimetric

ETL

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CHAIN OF CUSTODY DOCUMENT

L 2129

Project Name: Photo Circuits	Project Manager: Andy Barber	Sampler (Signature): DRH/BOD (8260B) (Print): Dave Hanny, Bryce Dingman
Project Address: 31 Sea Cliff Ave, Glen Cove NY		
Client Photo Circs J/N:	☐ Rush by / /	

SAMPLE INFO Type: SS = Split Spoon; G = Grab; C = Composite; B = Blank; Matrix: L = Liquid; S = Soil; SL = Sludge; A* = Air; W = Wipe; *Air - Vol. (Liters) include: Flow (CFM)

ID	Date	Time	Type	Matrix	Sample Location	Total # Cont.	601/602	BTX/BTEX	MTBE	624/8260/8021	625/8270/BN	PCB/Pesticides	Pet.Prods./8100M	RCRA Metals	pH/Flash/React	418.1 - TRPH	TOC	Nitrate, Sulfate	IRON
1	3/28/11			Water	MW-8	5			X								+	+	+
2					MW-9				X								+	+	+
3					MW-12				X								+	+	+
4					MW-13				X								+	+	+
5					MW-14				X								+	+	+
6	3/27/11				MW-7				X								+	+	+
7					SMP-1				X								+	+	+
8					SMP-3				X								+	+	+
9					SMP-4				X								+	+	+
10					DMP-1				X								+	+	+
11					DMP-3				X								+	+	+
12					DMP-4				X								+	+	+
13					TRIP BLANK	2			X										
14																			
15																			

Relinquished by (Signature):	Date 3/28/11 Time 1700	Printed Name & Agent: Dave Hanny BTL	Received by (Signature):	Date Time	Printed Name & Agent
Relinquished by (Signature):	Date Time	Printed Name & Agent:	Received for Lab by (Signature):	Date 3-29-11 Time 9:55	Printed Name Glenn Weiler
Comments & Special Instructions		QA/QC Type:	Number & Type of Containers: 12-500P, 24-250P, 26-VOA's	Preservatives: HNO_3 (12-250P) H_2SO_4 (12-250) HCl (VOA's)	Temp: 5°C PR 3/30 3/29/11

ADDITIONAL CO

ATTACHMENT D
PROJECT SCHEDULE

Photocircuits - Updated Schedule of Remedial Activities

31 & 45 Sea Cliff Avenue Sites

7/2/01