SEACOR
Science & Engineering Analysis Corporation

June 14, 1993

Ms. Jennifer Eberle
Alameda County
Health Care Services Agency
UST Local Oversight Program
80 Swan Way, Room 200
Oakland, CA 94621

Re: **Submittal of the Quarterly Report of Groundwater Monitoring and Related Activities Conducted at the Safety-Kleen Oakland Service Center in Oakland California.**

Dear Ms. Eberle:

Enclosed is the quarterly groundwater monitoring report which summarizes the activities conducted at the Safety-Kleen Oakland Service Center during the period from March through May 1993. Also included is information regarding the product recovery system installed in January 1993.

If you have any questions, please call me at 310/831-3903.

Sincerely,

Greg Hoehn for

Anne Lunt
Senior Project Manager - Remediation
Safety-Kleen Corporation

cc: Ms. Jane Spetalnick, Safety-Kleen Corporation
Mr. Gary Long, Safety-Kleen Corporation
Mr. Ray Orlando, Safety-Kleen Corporation
Mr. Alfred Wong, State of California Department of Health Services
Mr. Steven Ritchie, California Regional Water Quality Control Board
Mr. Greg Hoehn, SEACOR

OAKLAND2.L05
06/14/93
Job No. #70005-009-02

1390 Willow Pass Road, Suite 360, Concord, CA 94520 (510) 686-9780 Ph (510) 686-3099 Fax

SEACOR
Science & Engineering Analysis Corporation

QUARTERLY GROUNDWATER MONITORING REPORT

400 MARKET STREET (FORMERLY 404 MARKET STREET) OAKLAND, CALIFORNIA

Job No. #70005-009-02

6/14/93

Submitted by:
Science & Engineering Analysis Corporation

for
Ms. Anne Lunt
Safety-Kleen Corporation
P.O. Box 1429
San Pedro, California 90733

June 14, 1993

REGISTERED GEOLOGIST
PAUL D. HORTON
Exp. 6/94
No. 5435
STATE OF CALIFORNIA

Prepared by:

Greg D. Hoehn
Principal Geologist

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1.0 INTRODUCTION

This report presents the results of groundwater monitoring and sampling activities conducted for the quarter of March 1993 through May 1993 at the Safety-Kleen Service Center located at 400 Market Street in Oakland, California (Figure 1).

2.0 PROJECT BACKGROUND INFORMATION

The Safety-Kleen Oakland Service Center is a local distribution center for Safety-Kleen products. Three single-walled underground storage units (USTs) were removed and replaced with two new 12,000 gallon double-walled tanks in June and July of 1990. Clean and spent mineral spirits are currently stored in the two double-walled USTs at the site. One UST is used to temporarily store spent mineral spirits prior to shipment to Safety-Kleen's recycling center in Reedley, California and one UST is used to store clean mineral spirits for distribution to Safety-Kleen customers.

During the single-walled tank removal, mineral spirits impacted soil was excavated from the tank pit as allowable by site conditions. Additionally, a product recovery well and a vapor extraction system withdrawal network were installed in the tank pit area. Tank removal and excavation activities are documented in the "Report of Underground Storage Tank Replacement Activities", dated September 1990. Currently, product recovery is being conducted from the recovery well (RW-1) installed in the tank pit backfill, and a system to extract and treat soil vapor is being installed.

3.0 SCOPE OF WORK

Work conducted during this quarter consisted of the installation of a soil vapor treatment system, and the monitoring and sampling of groundwater monitor wells. The following sections detail the work steps conducted:

- A soil vapor treatment system consisting of a Padre® regenerative adsorption system manufactured by Purus, Inc. and a 10 horsepower regenerative blower was installed. An Authority to Construct Permit was received from the Bay Area Air Quality Management District (BAAQMD).

- On April 20, 1993 all on-site and off-site monitoring wells (eleven total) were monitored for depth-to-water using a water level indicator calibrated to 0.01-foot (Figure 2). The monitoring wells were then purged by hand bailing (except well MW-13 which was pumped) until the measurements of pH, temperature, and conductivity had stabilized, three well volumes of groundwater had been removed, or until the wells were purged dry. Following recovery of the groundwater levels in the wells, groundwater samples were collected using disposable bailers. The groundwater samples were then decanted to laboratory supplied sample containers. Field data sheets and depth-to-water monitoring results are included in Appendix A. The groundwater samples were labeled, placed on ice, and delivered to a state-certified laboratory for analysis under Chain-of-Custody documentation. The groundwater samples were analyzed for the presence of benzene, toluene, ethylbenzene, xylenes (BTEX) and total petroleum hydrocarbons (TPH)-as-mineral spirits by Environmental Protection Agency (EPA) Methods 5030/8020/8015. Additionally, all samples were analyzed for volatile organic compounds by EPA Method 8010.

  Prior to using any equipment in a groundwater monitoring well, the equipment was decontaminated by double washing with a laboratory grade detergent in clean water, and triple rinsed using deionized water. Purge water and decontamination water generated during well purging was placed in the on-site waste solvent tank for transport to the Safety-Kleen Recycle Center in Reedley, California.

4.0 RESULTS

4.1 PRODUCT RECOVERY

Operation of the product recovery skimming pump from February 26, 1993 through May 20, 1993 has resulted in the recovery of an additional 4.3 gallons of free-phase mineral spirits. Recovered product is hard piped directly to the waste solvent tank operated at the site and is incorporated into the Safety-Kleen recycling process. A total of 10.8 gallons of product have been removed since the pump was installed on January 19, 1993. Product recovery data are presented on Table 1.

4.2 GROUNDWATER ELEVATIONS

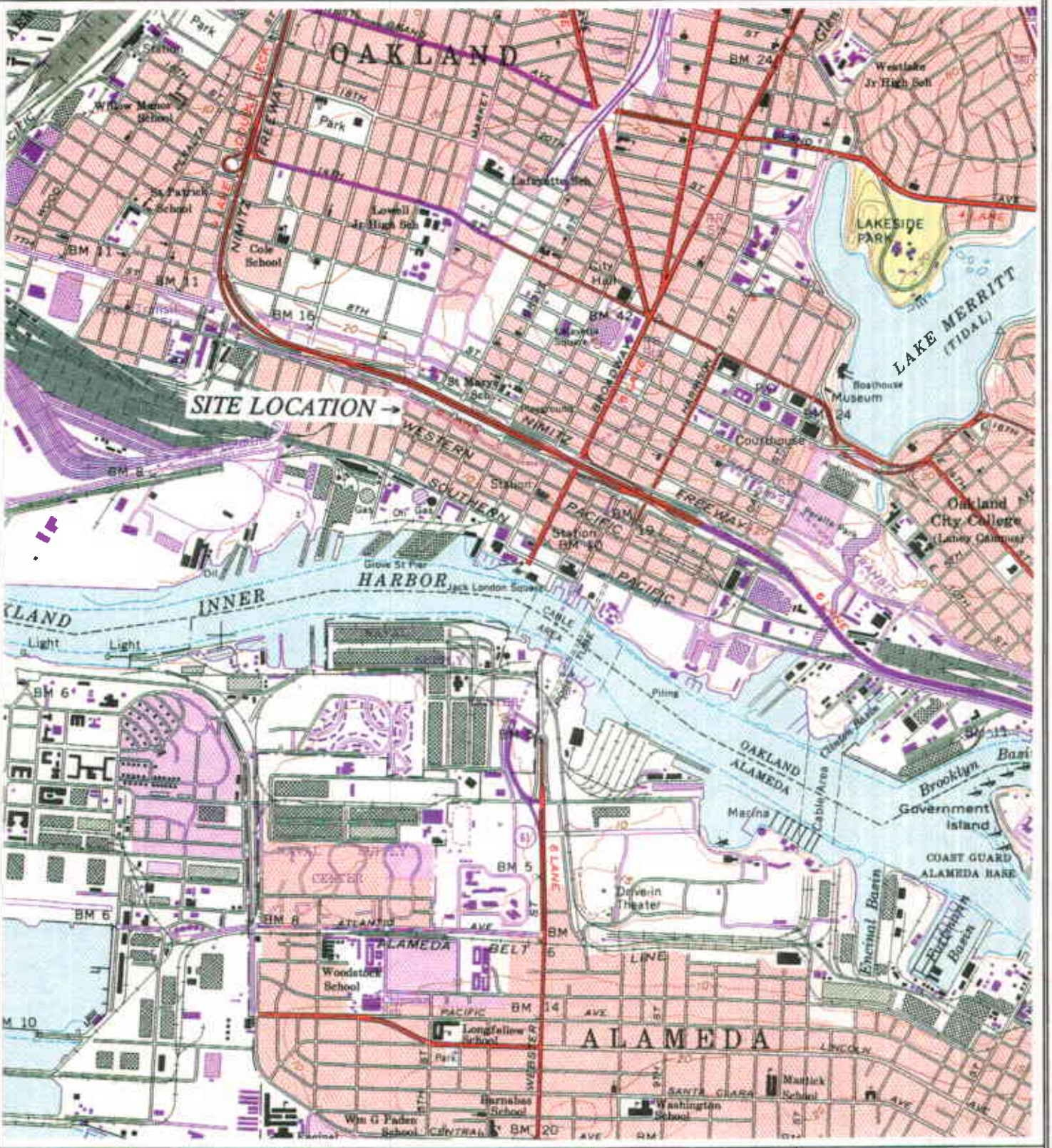
Groundwater elevations and depth-to-water readings as measured on April 20, 1993 are presented in Table 2. The average water table elevation at the site decreased by 0.22-feet since the January 20, 1993 monitoring and sampling event. A potentiometric surface map is presented as Figure 2. The groundwater flow direction remains to the south, consistent with historic site data. The hydraulic gradient is an average of 0.003 feet/foot across the site. This gradient is slightly greater than was found during the previous quarter, but is typical for the site.

4.3 GROUNDWATER QUALITY

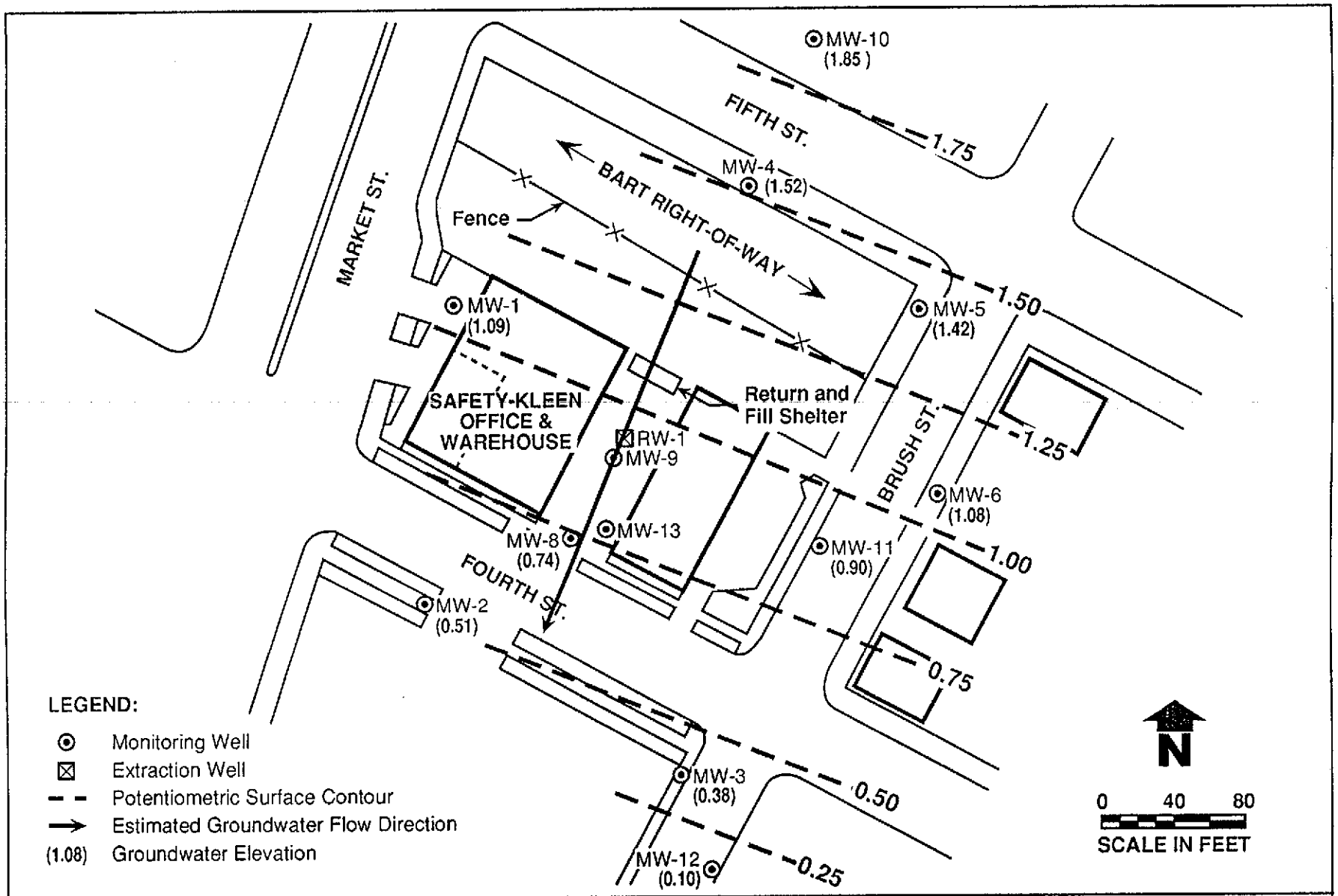
No concentrations of BTEX or TPH-as-mineral spirits were detected above the laboratory detection limits in any of the eleven groundwater samples analyzed. Volatile organic compounds (VOCs) were detected in groundwater samples from seven wells; MW-3, MW-4, MW-5, MW-8, MW-10, MW-11, and MW-12. VOCs detected during this sampling event consisted of 1,1-dichloroethene (DCE), 1,1-dichloroethane (DCA), 1,2-dichloroethane (DCA), 1,2-dichloropropane, trichloroethene (TCE), tetrachloroethene (PCE), chlorobenzene, chloroform, 1,2-dichlorobenzene (DCB), and trichlorofluoromethane. Analytical test results of the compounds detected this sampling event are summarized in Table 3. Laboratory analytical reports are attached in Appendix B.

VOCs not detected in the previous sampling event which were detected in groundwater samples this quarter are, 1,1-dichloroethene, chloroform, 1,2-dichloroethane, 1,2-dichloropropane, chlorobenzene, 1,2-dichlorobenzene, and trichlorofluoromethane. During the previous quarter, an increase in TCE concentration in upgradient well MW-4 was noted (from 270 $\mu g/\ell$ in October, 1992 to 5,500 $\mu g/\ell$ in

January, 1993). Laboratory analytical results for the sample collected from MW-4 in April, 1993 has shown a decrease in TCE concentration, to 2,400 $\mu g/\ell$. The presence of TCE in upgradient wells has been interpreted as the result of an off-site plume with a source area un-related to activities at the Safety-Kleen facility. The groundwater sample from well MW-13 did not contain BTEX compounds as found during the January, 1993 sampling event, and it appears that the detection of these compounds in January was an isolated incident and not representative for this well. Analytical test results of the compounds detected for the previous year of sampling events are summarized in Table 4.



DRAFTED BY:	CHECKED BY:	PROJECT NO. 70005-009-02	FIGURE 1	*SEACOR* 1390 Willow Pass Road Suite 360 Concord, CA 94520
TS	GDH			
DWG. DATE:	REV. DATE:	Safety-Kleen Corporation 400 Market Street Oakland, California	Site Location Map	
12/14/92	12/14/92			
FILE NAME:				
OAKLAND2.F01				



DRAFTED BY: LC	CHECKED BY: GH	PROJECT NO. 70005-009	FIGURE 2	SEACOR 1390 Willow Pass Rd. Suite 360 Concord, CA 94520
DWG. DATE: 1/14/93	REV. DATE: 5/18/93	SAFETY-KLEEN CORPORATION	POTENTIOMETRIC SURFACE MAP 04/20/93	
FILE NAME: S/SK-OKLND/04		OAKLAND, CALIFORNIA		

TABLE 1
PRODUCT RECOVERY DATA
From Well RW-1

Date	*Product Recovered This Period (gallons)*	*Cummulative Product Recovered (gallons)*
01/19/93	-	-
02/25/93	6.5	6.5
05/20/93	4.3	10.8

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06/14/93
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TABLE 2
GROUNDWATER MONITORING DATA
APRIL 1993

Well I.D.	*TOC Elevation (ft msl)*	*DTW (ft)*	*DTP (ft)*	*PT (ft)*	*ADJ Elevation (ft msl)*
MW-1	7.99	6.90	-	-	1.09
MW-2	8.20	7.69	-	-	0.51
MW-3	6.66	6.28	-	-	0.38
MW-4	10.32	8.80	-	-	1.52
MW-5	10.28	8.86	-	-	1.42
MW-6	8.97	7.89	-	-	1.08
MW-8	7.80	7.06	-	-	0.74
MW-9	8.21	8.04	7.06	0.98	0.95
MW-10	10.43	8.58	-	-	1.85
MW-11	7.91	7.01	-	-	0.90
MW-12	6.74	6.64	-	-	0.10
MW-13	8.08	7.68	-	-	0.40

TOC = Top of casing
DTW = Depth-to-water
DTP = Depth-to-product (separate-phase hydrocarbons)
PT = product thickness
ADJ
ELEVATION = Adjusted groundwater elevation.
ft msl = Measurement in feet (ft) relative to mean sea level (msl)

TABLE 3
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
EPA METHOD 8010
APRIL 1993
(Results in parts per billion)

Well I.D.	*1,1-DCE*	*1,1-DCA*	*1,2-DCA*	*Chloro-form*	*TCE*	*1,2-DCP*	*Chloro-benzene*	*PCE*	*1,2-DCB*	*TCFM*
MW-1	-	-	-	-	-	-	-	-	-	-
MW-2	-	-	-	-	-	-	-	-	-	-
MW-3	-	-	-	-	0.7	-	-	-	-	-
MW-4	-	-	-	7.6	2,400	-	-	-	-	-
MW-5	1.5	-	-	-	4.0	-	-	-	-	18
MW-6	-	-	-	-	-	-	-	-	-	-
MW-8	-	3.4	7.4	-	14	0.6	11	1.8	2.6	-
MW-10	-	-	-	1.2	45	-	-	-	-	-
MW-11	-	-	-	-	9.1	-	-	-	-	-
MW-12	-	2.6	-	-	17	-	-	-	-	-
MW-13	-	-	-	-	-	-	-	-	-	-

Only detected compounds are listed. For a complete list of analytes see Appendix B.

-	=	Not Detected
1,1-DCE	=	1,1-dichlorothene
1,1-DCA	=	1,1-dichloroethane
1,2-DCA	=	1,2-dichloroethane
TCE	=	trichloroethene
1,2-DCP	=	dichloropropane
PCE	=	tetrachloroethene
1,2-DCB	=	1,2-dichlorobenzene
TCFM	=	trichlorofluoromethane

TABLE 4
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
(Results in Parts Per Billion)

Compound	*MW-1*						*MW-2*					
	2/14/92	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*	*2/14/92*	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	-	-	1.5	-	-	-	-	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	0.9	-	-	0.6	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Toluene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Ethylbenzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Xylenes	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-

TPH - m5

- = Not Detected NA = Not Analyzed NS = Not Sampled

TABLE 4 - Continued
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
(Results in Parts Per Billion)

Compound	*MW-3*						*MW-4*					
	2/14/92	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*	*2/14/92*	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*
1,1-Dichloroethene	2.1	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	8.8	4.8	-	2.7	2.0	-	-	-	-	-	-	-
1,2-Dichloroethane	2.7	2.3	1.5	1.8	-	-	-	-	-	-	-	-
1,2-Dichloroethene	2.1	1.4	-	-	-	-	63	82	40	-	-	-
Chloroform	-	-	-	-	-	-	-	2.4	-	1.8	-	7.6
1,1,1-Trichloroethane	-	-	-	-	-	-	2.4	-	-	-	-	-
Trichloroethene	7.9	7.2	4.3	44	1.3	0.7	660	1300	520	270	5500	2400
Chlorobenzene	1.2	1.8	2.0	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	0.6	-	-	-	-	-	-	-	-	-	-	-
Trichloroeluoromethane	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	0.5	-	-	-	-	-	-	-	-	0.5	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	0.7	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Toluene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Ethylbenzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Xylenes	-	NA	NA	NA	0.5	-	-	NA	NA	NA	-	-

TPH-MS

- = Not Detected NA = Not Analyzed NS = Not Sampled

TABLE 4 - Continued
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
(Results in Parts Per Billion)

Compound	*MW-5*						*MW-6*					
	2/14/92	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*	*2/14/92*	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*
1,1-Dichloroethene	0.4	-	-	-	-	1.5	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	-	-	-	-	-	0.6	0.7	-	-	-	-
1,1,1-Trichloroethane	3.0	1.7	0.9	-	-	-	-	-	-	-	-	-
Trichloroethene	7.5	10	4.6	3.7	11	4.0	3.6	1.2	-	1.5	1.8	-
Chlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	4.5	6.5	-	-	-	18	3.5	-	-	-	-	-
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Toluene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Ethylbenzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Xylenes	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-

TPH-ms

- = Not Detected NA = Not Analyzed NS = Not Sampled

TABLE 4 - Continued
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
(Results in Parts Per Billion)

Compound	*MW-8*						*MW-10*					
	2/14/92	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*	*2/14/92*	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*
1,1-Dichloroethene	-	-	-	-	-	-	-	0.6	-	1.4	-	-
1,1-Dichloroethane	-	2.4	2.4	0.7	-	3.4	-	-	-	-	-	-
1,2-Dichloroethane	2.4	5.3	4.8	3.3	-	7.4	-	-	-	-	-	-
1,2-Dichloroethene	0.6	0.9	1.8	-	-	-	34	34	25	-	-	-
Chloroform	-	-	-	-	-	-	-	2.3	1.0	1.1	-	1.2
1,1,1-Trichloroethane	-	-	-	-	-	-	2.4	-	-	-	-	-
Trichloroethene	20	23	19	14	1.4	14	230	190	70	86	53	45
Chlorobenzene	-	7.2	5.7	4.5	-	11	-	-	-	-	-	-
1,2-Dichloropropane	-	0.7	-	-	-	0.6	-	-	-	-	-	-
Trichlorofluoromethane	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	1.1	1.1	-	-	1.8	-	-	-	-	-	-
1,4-Dichlorobenzene	-	2.0	2.0	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	-	1.1	1.9	-	2.6	-	-	-	-	-	-
Vinyl Chloride	-	-	-	-	-	-	-	-	0.83	-	-	-
Benzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Toluene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Ethylbenzene	-	NA	NA	NA	-	-	-	NA	NA	NA	-	-
Xylenes	0.8	NA	NA	NA	-	-	-	NA	NA	NA	-	-

TPH-mo's

- = Not Detected NA = Not Analyzed NS = Not Sampled

TABLE 4 - Continued
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
(Results in Parts Per Billion)

Compound	*MW-11*						*MW-12*					
	2/14/92	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*	*2/14/92*	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/*
1,1-Dichloroethene	NS	NS	-	1.9	-	-	4.3	-	-	-	-	-
1,1-Dichloroethane	NS	NS	-	-	-	-	-	3.3	2.4	2.9	-	2.6
1,2-Dichloroethane	NS	NS	-	-	-	-	1.4	2.2	1.3	1.5	-	-
1,2-Dichloroethene	NS	NS	7.3	14	-	-	-	2.8	2.9	-	-	-
Chloroform	NS	NS	-	-	-	-	2.9	-	-	-	-	-
1,1,1-Trichloroethane	NS	NS	-	1.2	-	-	-	-	-	-	-	-
Trichloroethene	NS	NS	50	77	47	9.1	41	41	18	4	22	17
Chlorobenzene	NS	NS	-	-	-	-	-	-	-	2.0	-	-
1,2-Dichloropropane	NS	NS	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	NS	NS	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	NS	NS	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	NS	NS	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	NS	NS	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	NS	NS	-	-	-	-	-	-	-	-	-	-
Benzene	NS	NS	NA	NA	-	-	0.7	NA	NA	NA	-	-
Toluene	NS	NS	NA	NA	-	-	-	NA	NA	NA	-	-
Ethylbenzene	NS	NS	NA	NA	-	-	-	NA	NA	NA	-	-
Xylenes	NS	NS	NA	NA	-	-	-	NA	NA	NA	-	-

TPHms

- = Not Detected NA = Not Analyzed NS = Not Sampled

TABLE 4 - Continued
SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
(Results in Parts Per Billion)

Compound	*MW-13*											
	2/14/92	*4/27/92*	*7/9/92*	*10/19/92*	*1/20/93*	*4/20/93*						
1,1-Dichloroethene	-	-	-	-	-	-						
1,1-Dichloroethane	-	-	-	-	-	-						
1,2-Dichloroethane	-	-	-	-	-	-						
1,2-Dichloroethene	-	-	-	-	-	-						
Chloroform	-	-	-	-	-	-						
1,1,1-Trichloroethane	-	-	-	-	-	-						
Trichloroethene	-	-	-	-	-	-						
Chlorobenzene	-	-	-	-	-	-						
1,2-Dichloropropane	-	-	-	-	-	-						
Trichlorofluoromethane	-	-	-	-	-	-						
Tetrachloroethene	-	-	-	-	-	-						
1,4-Dichlorobenzene	-	-	-	-	-	-						
1,2-Dichlorobenzene	-	-	-	-	-	-						
Vinyl Chloride	-	-	-	-	-	-						
Benzene	-	NA	NA	NA	0.5	-						
Toluene	-	NA	NA	NA	0.4	-						
Ethylbenzene	-	NA	NA	NA	0.3	-						
Xylenes	-	NA	NA	NA	1	-						

TPH-ms

- = Not Detected NA = Not Analyzed NS = Not Sampled

APPENDIX A

FIELD DATA SHEETS

HYDROLOGIC DATA SHEET

DATE: 4-20-93 PROJECT: Safety-Kleen Oakland PROJECT # 70005-009-02 SK08

EVENT: Quarterly Sampling SAMPLER: BR / RR

WELL OR LOCATION	TIME	MEASUREMENT					COMMENTS
		TOC	DTW	DTP	PT	ELEV	
MW-1	9:13	7.99	6.90			1.09	
MW-2	8:45	8.20	7.69			0.51	NO LOCKING CAP.
MW-3	8:47	6.66	6.28			0.38	
MW-4	9:04	10.32	8.80			1.52	
MW-5	9:00	10.28	8.86			1.42	
MW-6	8:54	8.97	7.89			1.08	
MW-8	8:42	7.80	7.06			0.74	
MW-9	9:22	8.21	8.04*	7.06	0.98	(0.17)	
MW-10	9:07	10.43	8.58			1.85	
MW-11	8:57	7.91	7.01			0.90	
MW-12	8:49	6.74	6.64			0.10	WILL NOT LOCK.. BROKEN CAP.!
MW-13	8:39	8.08	7.68			0.40	
RW-1		—	6.30*	6.18	0.12		2.89 } Totalizer 4.27 }
						$\Sigma = 9.99$	$n = 11$
						$\bar{Z} = 0.91$	
							* Not Measured

CODES: TOC - TOP OF CASING (FEET, RELATIVE TO MEAN SEA LEVEL)
DTW - DEPTH TO WATER (FEET)
DTP - DEPTH TO PRODUCT (FEET)
PT - PRODUCT THICKNESS (FEET)
ELEV - GROUNDWATER ELEVATION (FEET, RELATIVE TO MEAN SEA LEVEL)

SEACOR
WATER SAMPLE FIELD DATA SHEET

WELL ID: MW-13
SAMPLE ID: MW-13
CLIENT NAME: SK - OAKLAND
LOCATION: OAKLAND

PROJECT NO: 7000 5-004-02
PURGED BY: BA/RA
SAMPLED BY: BA/RA

TYPE: Groundwater ✓ Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 ____ 3 ____ 4 ✓ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):	____	VOLUME IN CASING (gal.)	40.08
DEPTH TO WATER (feet):	7.68	CALCULATED PURGE (gal.)	120.24
DEPTH OF WELL (feet):	69.15	ACTUAL PURGE VOL. (gal.)	96

DATE PURGED: 4/20/93 Start (2400 Hr) 10:43 End (2400 Hr.) 11:20
DATE SAMPLED: 4/20/93 Start (2400 Hr) ____ End (2400 Hr.) 11:42

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
10:52	36	7.6	644	65.5	CLR.	CLR.
10:56	52	7.4	600	64.2	"	"
* 11:17	64	7.0	655	64.1	"	"
* 11:20	76	7.1	656	64.3	"	"

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

____	2" Bladder Pump	____	Bailer(Teflon®)
____	Centrifugal Pump	____	Bailer (PVC)
✓	Submersible Pump	____	Bailer (Stainless Steel)
____	Well Wizard™	____	Dedicated

Other: ____

SAMPLING EQUIPMENT

____	2" Bladder Pump	____	Bailer(Teflon®)
____	DDL Sampler	✓	Bailer (PVC/disposable)
____	Submersible Pump	____	Bailer (Stainless Steel)
____	Well Wizard™	____	Dedicated

Other: ____

WELL INTEGRITY: OK. LOCK #: NO Lock

REMARKS:
Pump @ 4 GPM.
* 10:58 Turn Dry. Begin Purging at 11:14
* 11:21 Recd Dry.

SIGNATURE: ____ Page 1 of 11

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 20005-009
PURGED BY: BR / RR
SAMPLED BY: BR / RR

WELL ID: MW1
SAMPLE ID: MW1
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	2.4
DEPTH TO WATER (feet):	6.90	CALCULATED PURGE (gal.)	7.2
DEPTH OF WELL (feet):	21.05 (19.15)	ACTUAL PURGE VOL. (gal.)	7.5

DATE PURGED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1141
DATE SAMPLED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1630

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
1135	5	6.95	972	62.7	brn	very
1138	6	6.94	1095	62.3	"	"
1144	7.5	7.01	966	62.3	"	"

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	X	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	X	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____
REMARKS: ____

SIGNATURE: ____

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70005-009-
PURGED BY: BA/RR
SAMPLED BY: BA/RR

WELL ID: MW2
SAMPLE ID: MW2
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	3.3
DEPTH TO WATER (feet):	9.69	CALCULATED PURGE (gal.)	10
DEPTH OF WELL (feet):	27.3 (19.61)	ACTUAL PURGE VOL. (gal.)	10

DATE PURGED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1307
DATE SAMPLED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1638

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
1259	5	6.68	413	68.1	Born	high
1301	7	6.75	411	67.5		
1302	7.5	6.78	472	69.4		
1305	8.5	6.82	433	67.3		
1307	9.5	6.90	450	67.1	↓	↓

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

ODOR: none

Clear
Cloudy
Yellow
Brown

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	X	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	X	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____

REMARKS: ____

SIGNATURE: ____

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 20005-009
PURGED BY: BA/RR
SAMPLED BY: BA/RR

WELL ID: MW-3
SAMPLE ID: MW-3
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	3.80
DEPTH TO WATER (feet):	6.28	CALCULATED PURGE (gal.)	11.40
DEPTH OF WELL (feet):	29.60	ACTUAL PURGE VOL. (gal.)	13

DATE PURGED: 4/20/93 Start (2400 Hr) 13:15 End (2400 Hr.) 13:24
DATE SAMPLED: ____ Start (2400 Hr) ____ End (2400 Hr.) 1710

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
13:18	4.5	6.9	593	68.7	Yellow	V Sy
13:20	8	6.9	541	67.8	"	"
13:22	10	6.9	508	67.0	"	"
13:24	12	6.9	532	67.6	"	"

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	X	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	X	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____

REMARKS: ____

SIGNATURE: ____

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 20005-009
PURGED BY: RR/BOR
SAMPLED BY: RR/BOR

WELL ID: MW12
SAMPLE ID: MW12
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	3.7
DEPTH TO WATER (feet):	6.64	CALCULATED PURGE (gal.)	11
DEPTH OF WELL (feet):	28.25 (21.61)	ACTUAL PURGE VOL. (gal.)	10.5

DATE PURGED: 4-20-93 Start (2400 Hr) 1325 End (2400 Hr.) 1344
DATE SAMPLED: ____ Start (2400 Hr) ____ End (2400 Hr.) 1718

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
1335	5	6.66	714	66.4	Brn	high
1340	8	6.69	709	63.7	↓	↓
	9.5	6.73	703	61.0		
1344	10.5	6.74	714	60.8		

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: ____

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	X	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	X	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____

REMARKS: ____

SIGNATURE: ____

SEACOR
WATER SAMPLE FIELD DATA SHEET

WELL ID: MW 11
SAMPLE ID: MW11
CLIENT NAME: Safety Kleen
LOCATION: Oakland

PROJECT NO: 70005-009
PURGED BY: BR/RR
SAMPLED BY: BR/RR

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	2.9
DEPTH TO WATER (feet):	7.01	CALCULATED PURGE (gal.)	8.8
DEPTH OF WELL (feet):	24.35 (17.34)	ACTUAL PURGE VOL. (gal.)	8.5

DATE PURGED: 4/20/93 Start (2400 Hr) 13:53 End (2400 Hr.) 14:00
DATE SAMPLED: 4/20/93 Start (2400 Hr) ____ End (2400 Hr.) 1702

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
13:54	3	6.7	755	67.3	TAN	Cloudy
13:56	4.5	6.7	726	64.4	Brn.	Very
13:58	6	6.7	786	65.6	"	"
13:59	8	6.9	793	65.5	"	"

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	✓	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	✓	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: OK. LOCK #: 3210

REMARKS: ____

SIGNATURE: ____ Page 6 of 11

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70005-009-01
PURGED BY: BR / AR
SAMPLED BY: BR / AR

WELL ID: MW-6
SAMPLE ID: MW-6
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater ✓ Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 ✓ 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	3.52
DEPTH TO WATER (feet):	7.89	CALCULATED PURGE (gal.)	10.56
DEPTH OF WELL (feet):	29.50	ACTUAL PURGE VOL. (gal.)	10.5

DATE PURGED: 4/20/93 Start (2400 Hr) ____ End (2400 Hr.) 1426
DATE SAMPLED: 4/20/93 Start (2400 Hr) ____ End (2400 Hr.) 1654

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
0918	5	6.83	456	67.9	Brn	High
	85	6.87	406	66.7	↓	↓
1426	10.5	6.91	387	66.8		

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	✓	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	✓	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____
REMARKS: ____

SIGNATURE: [signature] Page 7 of 11

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70005-009
PURGED BY: RA/RR
SAMPLED BY: RA/RR

WELL ID: MW5
SAMPLE ID: MW5
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):	____	VOLUME IN CASING (gal)	3.5
DEPTH TO WATER (feet):	8.86	CALCULATED PURGE (gal)	10.4
DEPTH OF WELL (feet):	29.20	ACTUAL PURGE VOL. (gal)	10

DATE PURGED: 4/20/93 Start (2400 Hr) 14:38 End (2400 Hr.) 14:48
DATE SAMPLED: 4/20/93 Start (2400 Hr) ____ End (2400 Hr.) 16:46

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
14:41	3	6.6	840	68.2	GRN	CLOUDY
14:44	6	6.6	810	66.7	"	4
14:47	9	6.6	849	65.6	"	4

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	✓	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	✓	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: OK LOCK #: ____

REMARKS: ____

SIGNATURE: [signature] Page 8 of 11

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70005-009
PURGED BY: BR/RR
SAMPLED BY: BR/RR

WELL ID: MW-8
SAMPLE ID: MW8
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal)	3.60
DEPTH TO WATER (feet):	7.06	CALCULATED PURGE (gal)	10.82
DEPTH OF WELL (feet):	29.18	ACTUAL PURGE VOL. (gal)	11

DATE PURGED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1515
DATE SAMPLED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1520

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

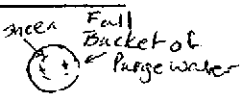
FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
1503	5	6.67	771	66.6	brn	high
	7	6.94	552	66.4		
	8	6.71	555	65.7		
10	10	7.06	698	65.4		
11	11	6.71	681	65.5		

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

ODOR: none

Trace Sheen



Clear
Cloudy
Yellow
Brown

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	X	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	X	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____

REMARKS: Trace sheen on purge water

SIGNATURE: ____

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70005-009
PURGED BY: BR/RR
SAMPLED BY: BR/RR

WELL ID: MW4
SAMPLE ID: MW4
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal)	2.9
DEPTH TO WATER (feet):	8.80	CALCULATED PURGE (gal)	8.7
DEPTH OF WELL (feet):	25.80 (10.0)	ACTUAL PURGE VOL. (gal)	7.5

DATE PURGED: 4-20-93 Start (2400 Hr) 15:21 End (2400 Hr.) 15:27
DATE SAMPLED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 17:34

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
15:23	3	6.6	856	65.4	TAN	Cloudy
15:25	5	6.6	830	64.2	"	"
15:26	6.5	6.5	845	64.6	"	"

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	✓	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	✓	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: OK LOCK #: ____

REMARKS: ____

SIGNATURE: ____

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 70005-009
PURGED BY: BA/RR
SAMPLED BY: BA/RR

WELL ID: MW10
SAMPLE ID: MW10
CLIENT NAME: Safety Kleen
LOCATION: Oakland

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal)	3.5
DEPTH TO WATER (feet):	8.58	CALCULATED PURGE (gal)	10.6
DEPTH OF WELL (feet):	29.45 (20.87)	ACTUAL PURGE VOL. (gal)	9

DATE PURGED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1602
DATE SAMPLED: 4-20-93 Start (2400 Hr) ____ End (2400 Hr.) 1742

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): none

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
1555	5	6.84	926	64.1		
	6	6.78	919	63.1		
	2.5	6.86	900	62.3		
1602	8.5	6.83	948	62.9		

D.O. (ppm): ____ COLOR, COBALT (0-100): ____

Clear
Cloudy
Yellow
Brown

ODOR: none

PURGING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	Centrifugal Pump	X	Bailer (PVC)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

SAMPLING EQUIPMENT

___	2" Bladder Pump	___	Bailer(Teflon®)
___	DDL Sampler	X	Bailer (PVC/disposable)
___	Submersible Pump	___	Bailer (Stainless Steel)
___	Well Wizard™	___	Dedicated

Other: ____

WELL INTEGRITY: ____ LOCK #: ____
REMARKS: ____

SIGNATURE: [signature] Page 11 of 11

APPENDIX B

CERTIFIED LABORATORY RESULTS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Southwest Region
20000 / 300 Mariner Drive
Torrance, CA 90503
(310) 371-1044
(800) 727-GTEL
Fax (310) 371-8720

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen
Oakland, CA
Work Order Number: T304216

April 28, 1993

Mr. Greg Hoehn
SEACOR CORP.
1390 Willow Pass Road, Suite 360
Concord, CA 94520

Dear Mr. Hoehn,

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 4-22-93 under chain-of-custody record 20194.

A formal Quality Assurance/Quality Control (QA/QC) program, which is designed to meet or exceed the EPA requirements, is maintained by GTEL. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the following; the State of California under Certification #1123, the State of Arizona under Certification #AZ0357, the State of Kansas under Certification E-182 and the State of Washington under Certification #C060.

If you have any questions concerning this analysis or if we can be of further assistance, please call one of our Customer Service Representatives.

Sincerely,

GTEL Environmental Laboratories, Inc.

for JG

Joan Greenwood
Laboratory Director

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen
Oakland, CA
Work Order Number: T304216

ANALYTICAL RESULTS

Volatile Organics in Water
EPA Method 8010[a]

GTEL Sample Number		Lab Blank	04216-1	40216-2	04216-3
Client Identification		-	MW13	MW1	MW2
Date Sampled		--	4-20-93	4-20-93	4-20-93
Date Analyzed		4-22-93	4-22-93	4-22-93	4-22-93
Analyte	Reporting Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl Ether	1.0	<1.0	<1.0	<1.0	<1.0

Table continued on next page

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen
Oakland, CA
Work Order Number: T304216

ANALYTICAL RESULTS

Volatile Organics in Water
EPA Method 8010[a]

GTEL Sample Number		Lab Blank	04216-1	04216-2	04216-3
Client Identification		--	MW13	MW1	MW2
Date Sampled		--	4-20-93	4-20-93	4-20-93
Date Analyzed		4-22-93	4-22-93	4-22-93	4-22-93
Analyte	Reporting Limit, ug/L	Concentration, ug/L			
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dilution Multiplier[b]		1	1	1	1
1,4-Dichlorobutane surrogate[c], % recovery		100	84.4	88.1	90.6

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Methanolic extraction by EPA Method 5030 (purge and trap).

b. Indicates the adjustments made for sample dilution.

c. 1,4-Dichlorobutane surrogate recovery acceptability limits of 83.9-108% are derived from the 99% confidence interval of all samples during the previous quarter. Expected surrogate value is 100 ug/L.

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen Oakland, CA
Work Order Number: T304216

ANALYTICAL RESULTS

Volatile Organics in Water
EPA Method 8010[a]

GTEL Sample Number		04216-4	04216-5	40216-6	04216-7
Client Identification		MW5	MW6	MW11	MW3
Date Sampled		4-20-93	4-20-93	4-20-93	4-20-93
Date Analyzed		4-22-93	4-23-93	4-23-93	4-23-93
Found on site 4/20/93 in wells Analyte	Reporting Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2	1.5	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	4.0	<0.5	9.1	0.7
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl Ether	1.0	<1.0	<1.0	<1.0	<1.0

Table continued on next page

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen Oakland, CA
Work Order Number: T304216

ANALYTICAL RESULTS

Volatile Organics in Water
EPA Method 8010[a]

GTEL Sample Number		04216-4	04216-5	04216-6	04216-7
Client Identification		MW5	MW6	MW11	MW3
Date Sampled		4-20-93	4-20-93	4-20-93	4-20-93
Date Analyzed		4-22-93	4-23-93	4-23-93	4-23-93
Analyte	Reporting Limit, ug/L	Concentration, ug/L			
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
PCE Tetrachloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	18	<0.5	<0.5	<0.5
Dilution Multiplier[b]		1	1	1	1
1,4-Dichlorobutane surrogate[c], % recovery		94.7	83.5	84.6	93.4

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Methanolic extraction by EPA Method 5030 (purge and trap).

b. Indicates the adjustments made for sample dilution.

c. 1,4-Dichlorobutane surrogate recovery acceptability limits of 83.9-108% are derived from the 99% confidence interval of all samples during the previous quarter. Expected surrogate value is 100 ug/L.

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen
Oakland, CA
Work Order Number: T304216

ANALYTICAL RESULTS

Volatile Organics in Water
EPA Method 8010[a]

GTEL Sample Number		04216-8	04216-9	40216-10	04216-11
Client Identification		MW12	MW8	MW4	MW10
Date Sampled		4-20-93	4-20-93	4-20-93	4-20-93
Date Analyzed		4-23-93	4-23-93	4-23-93	4-23-93
Analyte	Reporting Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5	2.6	3.4	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	7.6	1.2
1,2-Dichloroethane	0.5	<0.5	7.4	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	0.6	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	17	14	2400	45
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl Ether	1.0	<1.0	<1.0	<1.0	<1.0

Table continued on next page

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen
Oakland, CA
Work Order Number: T304216

ANALYTICAL RESULTS

Volatile Organics in Water
EPA Method 8010[a]

GTEL Sample Number		04216-8	04216-9	04216-10	04216-11
Client Identification		MW12	MW8	MW4	MW10
Date Sampled		4-20-93	4-20-93	4-20-93	4-20-93
Date Analyzed		4-23-93	4-23-93	4-23-93	4-23-93
Analyte	Reporting Limit, ug/L	Concentration, ug/L			
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	1.8	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	11	<0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5	2.6	<0.5	<0.5
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dilution Multiplier[b]		1	1	1	1
1,4-Dichlorobutane surrogate[c], % recovery		95.7	90.6	88.8	103

a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Methanolic extraction by EPA Method 5030 (purge and trap).

b. Indicates the adjustments made for sample dilution.

c. 1,4-Dichlorobutane surrogate recovery acceptability limits of 83.9-108% are derived from the 99% confidence interval of all samples during the previous quarter. Expected surrogate value is 100 ug/L.

GTEL Client Number: SEA02.SFK01
Project I.D.: Safety Kleen
Oakland, CA
Work Order Number: T304216

CONFORMANCE/NONCONFORMANCE SUMMARY

Abbreviations:

X = Requirements Met
VOA = Volatiles
* = See Comments
SV = Semi Volatiles
NA = Not Applicable
ND = Not Detected
- = Test Not Required

#	Conformance Item	VOA GC	VOA GC/MS	SV GC	SV GC/MS	Metals	Wet Chem
1	Holding Time	X					
2	Method Accuracy	X					
3	Method Precision	X					
4	Surrogate Recovery	X					
5	Blank	ND					

Comments:

QC Check Sample Results

Matrix: Water

Analyte	Source	Date of Analysis	Expected Value	Units	Recovery[a], %
GC:					
Chlorobenzene	Supelco	4-22-93	25.0	ug/L	86.4 (72-128)
Chloroform	Supelco	4-22-93	25.0	ug/L	113 (75-125)
1,2-Dichloroethane	Supelco	4-22-93	25.0	ug/L	108 (71.5-129)
Trichloroethene	Supelco	4-22-93	25.0	ug/L	110 (77-123)
Tetrachloroethene	Supelco	4-22-93	25.0	ug/L	108 (70-130)

a. Acceptability limits are in parentheses.

Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Date of Analysis	Sample Amount	Spike Amount	Units	Recovery. %	Duplicate Recovery[a] %	RPD[a], %
GC:								
Chlorobenzene	T304216	4-22-93	<0.5	25.0	ug/L	86.4	78.4 (38-150)	9.71 (30)
Chloroform	T304216	4-22-93	<0.5	25.0	ug/L	113	86.8 (49-113)	26.2 (30)
1,2-Dichloroethane	T304216	4-22-93	<0.5	25.0	ug/L	108	80.8 (51-147)	28.8 (30)
Trichloroethene	T304216	4-22-93	<0.5	25.0	ug/L	110	84.2 (35-146)	26.6 (30)
Tetrachloroethene	T304216	4-22-93	<0.5	25.0	ug/L	108	89.0 (26-162)	19.3 (30)

a. Acceptability limits are in parentheses.

GTEL ENVIRONMENTAL LABORATORIES, INC.

CONCORD, CA 94520
(415) 685-7852
(800) 423-7143 (OUTSIDE CA) (800) 544-3422 (INSIDE CA)

CHAIN OF CUSTODY AND ANALYSIS REQUEST

Company Name: SEACOR
Company Address: 1390 Willow Pass Rd. 360 Concocord CA
Project Manager: Greg Hoehn
Phone #:
FAX #:
Site location: 400 Market St. Oakland, CA
Client Project ID: (#) 70005-009
(NAME) Safety Kleen
Sampler Name (Print): Bob Robitaille

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
MW13		2	X									X			4/20	1147
MW1		2														1630
MW2		2														1638
MW2		2														1046
MW5		2														1639
MW6		2														1702
MW4		2														1710
MW3		2														1718
MW12		2														1726
MW8		2														1734
MW14		2	X									X				1742
MW10																

Analysis requested (X):
- BTEX/602 ☐ 8020 ☐ with MTBE ☐: MW13, MW1, MW2, MW2, MW5, MW6, MW4, MW3, MW12, MW8, MW14
- BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐: MW2
- Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐: MW2
- EPA 601 ☐ EPA 8010 ☐: MW13, MW14

Priority (24 hr) ☐
Expedited (48 hr) ☐
Business Days due
Other 4/28/93 Business Days ☐

Special Handling
GTEL Contact Debbie
Quote/Contract #
Confirmation #
PO #

SPECIAL DETECTION LIMITS
Send Invoice & Hard Copy to GTEL Concord AIRBORNE

SPECIAL REPORTING REQUIREMENTS
FAX ☒ to Client

REMARKS auth #
RM 5416383475 5
See attached

Lab Use Only Lot # T304216
Storage Location:
Work Order # 03040

QA / QC LEVEL
LUE ☐ CLP ☐ OTHER

CUSTODY RECORD

	Date	Time
Relinquished by Sampler:		
Relinquished by: Corinne Belsky	4/21/93	4:00
Relinquished by:	4/22/93	9:00a

Received by:
Received by:
Received by Laboratory:
Waybill #

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080-C Pike Lane
Concord, CA 94520
(510) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*
(510) 825-0720 (FAX)

Client Number: SEA02SFK01
Consultant Project Number: 70005-009
Project ID: Safety Kleen
400 Market St.
Oakland, CA
Work Order Number: C3-04-0320

April 28, 1993

Greg Hoehn
SEACOR
1390 Willow Pass Rd., Ste. 360
Concord, CA 94520

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 04/21/93, under chain of custody records 8690 and 8691.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certificate numbers 194 and 1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen
Laboratory Director

Client Number: SEA02SFK01
Consultant Project Number: 70005-009
Project ID: Safety Kleen
400 Market St.
Oakland, CA
Work Order Number: C3-04-0320

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Hydrocarbons and Total Petroleum Hydrocarbons as Mineral Spirits in Water

EPA Methods 5030, 8020, and 8015[a]

GTEL Sample Number		01	02	03	04
Client Identification		MW13	MW1	MW2	MW5
Date Sampled		04/20/93	04/20/93	04/20/93	04/20/93
Date Analyzed		04/23/93	04/23/93	04/23/93	04/23/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	<0.3	<0.3
Toluene	0.3	<0.3	<0.3	<0.3	<0.3
Ethylbenzene	0.3	<0.3	<0.3	<0.3	<0.3
Xylene, total	0.5	<0.5	<0.5	<0.5	<0.5
BTEX, total	–	–	–	–	–
TPH as mineral spirits	1000	<1000	<1000	<1000	<1000
Detection Limit Multiplier		1	1	1	1
TFT surrogate, % recovery		108	111	111	111

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: SEA02SFK01
Consultant Project Number: 70005-009
Project ID: Safety Kleen
400 Market St.
Oakland, CA
Work Order Number: C3-04-0320

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Hydrocarbons and Total Petroleum Hydrocarbons as Mineral Spirits in Water

EPA Methods 5030, 8020, and 8015[a]

GTEL Sample Number		05	06	07	08
Client Identification		MW6	MW11	MW3	MW12
Date Sampled		04/20/93	04/20/93	04/20/93	04/20/93
Date Analyzed		04/23/93	04/23/93	04/24/93	04/24/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	<0.3	<0.3
Toluene	0.3	<0.3	<0.3	<0.3	<0.3
Ethylbenzene	0.3	<0.3	<0.3	<0.3	<0.3
Xylene, total	0.5	<0.5	<0.5	<0.5	<0.5
BTEX, total	--	--	--	--	--
TPH as mineral spirits	1000	<1000	<1000	<1000	<1000
Detection Limit Multiplier		1	1	1	1
TFT surrogate, % recovery		109	111	110	115

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: SEA02SFK01
Consultant Project Number: 70005-009
Project ID: Safety Kleen
400 Market St.
Oakland, CA
Work Order Number: C3-04-0320

Table 1 (Continued)

ANALYTICAL RESULTS

Aromatic Volatile Hydrocarbons and Total Petroleum Hydrocarbons as Mineral Spirits in Water

EPA Methods 5030, 8020, and 8015[a]

GTEL Sample Number		09	10	11	042393 GCM
Client Identification		MW8	MW4	MW10	METHOD BLANK
Date Sampled		04/20/93	04/20/93	04/20/93	–
Date Analyzed		04/24/93	04/24/93	04/24/93	04/23/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	<0.3	<0.3
Toluene	0.3	<0.3	<0.3	<0.3	<0.3
Ethylbenzene	0.3	<0.3	<0.3	<0.3	<0.3
Xylene, total	0.5	<0.5	<0.5	<0.5	<0.5
BTEX, total	–	–	–	–	–
TPH as mineral spirits	1000	<1000	<1000	<1000	<1000
Detection Limit Multiplier		1	1	1	1
TFT surrogate, % recovery		111	228*	113	117

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.
* Surrogate recovery high due to non target compound interference.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Chain-of-Custody Number: 1 X

SEACOR Chain-of-Custody Record

C3090320

Address
1390 Willow Pass Rd. Ste 3600
Concord CA 94520
(510) 686-9780

Project # 70005-009 Task # ____
Project Manager Greg Hoehn
Laboratory GTEL / Concord
Turn-around time: ____

Sampler's Name: Bob Robitaille
Sampler's Signature:

Analysis Request

Sample ID		Date	Time	Matrix	TPHg/BTEX 8015 (modified)/8020	TPHd 8015 (modified)	TPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCB's 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	BTEX / TPH as Mineral Spirits			Comments/ Instructions	Number of Containers
																			CB	
01	MW13	4-20-93	1147	GW						X						X				4
02	MW1		1630							X						X				4
03	MW2		1638							X						X				4
04	MW5		1646							X						X				4
05	MW6		1654							X						X				4
06	MW11		1702							X						X				4
07	MW3		1710							X						X				4
08	MW12		1718							X						X				4
09	MW8		1726							X						X				4
10	MW4	↓	1734	↓						X						X				4

Special Instructions/Comments:
Safety Kleen
400 Market St.
Oakland, CA.
Auth. # RM541638347551

Relinquished by:
Sign
Print SEACOR
Company
Time 1002 Date 4-21-93

Received by:
Sign Corinne Belskey
Print Corinne Belskey
Company GTEL
Time 10:45 Date 4/21/93

Relinquished by:
Sign R. Mello
Print
Company
Time 10:00 Date

Received by:
Sign R. Mello
Print
Company
Time 10:00 Date 4/21/93

Sample Receipt
Total no. of containers
Chain of custody seals:
Rec'd good condition/cold:
Conforms to record:

Client:
Client Contact:
Client Phone Number:

Date 4/20/93 Page 1 of 2

SEACOR Chain-of-Custody Record

C3040320

Address: 1390 Willow Pass Rd. Ste 360
Concord CA 94520
(510) 686-9780

Project # 70005-009 Task # ____
Project Manager Greg Hoehn
Laboratory GTEL / Concord
Turn-around time: Normal

Sampler's Name: Bob Robitaille
Sampler's Signature: ____

Analysis Request

Sample ID	Date	Time	Matrix	TPHg/BTEX 8015 (modified)/8020	TPHd 8015 (modified)	TPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCB's 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	BTEX / TPH-as-Mineral Spirits			Comments/ Instructions	Number of Containers
11 MW10	4-20-93	1742	GW						X						X				4

Special Instructions/Comments:
Safety Kleen
400 Market St.
Oakland CA.

Auth # RM541638347551

Relinquished by:
Sign ____
Print Bob Robitaille
Company SEACOR
Time 1002 Date 4-21-93

Received by:
Sign Corinne Belsteg
Print Corinne Belsteg
Company GTEL
Time 10:45 Date 4/21/93

Relinquished by:
Sign ____
Print CC
Company ____
Time 4/21/93 Date ____

Received by:
Sign ____
Print ____
Company ____
Time 10:02 Date 4/21/93

Sample Receipt
Total no. of containers: 4
Chain of custody seals: yes
Rec'd good condition/cold: yes
Conforms to record: yes

Client: ____
Client Contact: ____
Client Phone Number: ____

Date 4 / 20 / 93 Page 2 of 2

Client Number: SEA02SFK01
Consultant Project Number: 70005-009
Project ID: Safety Kleen
400 Market St.
Oakland, CA
Work Order Number: C3-04-0320

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Hydrocarbons and Total Petroleum Hydrocarbons as Mineral Spirits in Water

EPA Methods 5030, 8020, and 8015[a]

GTEL Sample Number		01	02	03	04
Client Identification		MW13	MW1	MW2	MW5
Date Sampled		04/20/93	04/20/93	04/20/93	04/20/93
Date Analyzed		04/23/93	04/23/93	04/23/93	04/23/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	<0.3	<0.3
Toluene	0.3	<0.3	<0.3	<0.3	<0.3
Ethylbenzene	0.3	<0.3	<0.3	<0.3	<0.3
Xylene, total	0.5	<0.5	<0.5	<0.5	<0.5
BTEX, total	--	--	--	--	--
TPH as mineral spirits	1000	<1000	<1000	<1000	<1000
Detection Limit Multiplier		1	1	1	1
TFT surrogate, % recovery		108	111	111	111

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL ENVIRONMENTAL LABORATORIES, INC.