report missing

January 15, 1997

safety-kleen

Via Certified Mail No. P563448342

Mr. Robert M. Senga, Unit Chief
California Environmental Protection Agency
Department of Toxic Substances Control
Facility Permitting Branch
245 West Broadway, Suite 425
Long Beach, California 90802-4444

Re: **Safety-Kleen Corp. Service Center**
400 Market Street
Oakland, California

Dear Mr. Senga:

Enclosed is the [redacted] monitoring and sampling report fo[redacted]hich summarizes the groundwater monitoring and vapor extraction activities conducted at the above-referenced facility. This report covers the period from September through November 1996. Safety-Kleen is following the modified groundwater sampling schedule as described in the letter submitted on July 13, 1994, and as modified and approved by Alameda County in a response letter dated July 27, 1994. A comparison of laboratory analytical results of groundwater samples collected prior to purging the wells versus the standard post-purge results is also included in the report.

If you have any questions, please call me at (503) 655-2769.

Sincerely,

Chip Prokop
Senior Project Manager - Remediation
Safety-Kleen Corp.

Enclosure

cc: Keith Marcott, Safety-Kleen Corp.
Scott Davies, Safety-Kleen Corp.
Branch Environmental File (7-178-01)
Jennifer Eberle, Alameda County - Department of Environmental Health
Steven Ritchie, California Regional Water Quality Control Board
Greg Hoehn, *SECOR*

OAKLAND7.L19
January 15, 1997
SECOR Job No. 70005-009-07

1000 NORTH RANDALL ROAD ELGIN, ILLINOIS 60123-7857 PHONE 708/697-8460 FAX 708/468-8500

SECOR
International Incorporated

QUARTERLY GROUNDWATER MONITORING AND SOIL VAPOR EXTRACTION REPORT SAFETY-KLEEN SERVICE CENTER 400 MARKET STREET OAKLAND, CALIFORNIA

SECOR Job No. 70005-009-07

Prepared For:
Safety-Kleen Corp.
16540 S.E. 130th Avenue
Clackamas, Oregon 97015

Jan 15, 97

Submitted By:
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1390 Willow Pass Road
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January 15, 1997

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Exp 9/98
No. 5435
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Principal Hydrogeologist

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1.0 INTRODUCTION

This report presents the results of groundwater monitoring and sampling activities conducted for the quarter of September through November 1996 at the Safety-Kleen Service Center located at 400 Market Street in Oakland, California (Figures 1 and 2). Also included are the results of soil vapor extraction (SVE) system monitoring and sampling for the period. In addition to the normal quarterly groundwater sampling activities, a second set of groundwater samples were collected during this event to compare the analytical results of groundwater samples collected after completing standard hand bailing methods with those of groundwater samples collected prior to purging the wells. A detailed description of the sample methods used is detailed in Section 3.3 and a discussion of the results of the study are included in Section 4.4 of this report.

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 tanks (USTs) were removed and replaced with two new 12,000-gallons double-walled tanks in June and July of 1990. Product and waste mineral spirits are currently stored in the two double-walled USTs at the site. One UST is used to consolidate waste mineral spirits prior to shipment to a Safety-Kleen Recycle Center and one UST is used for storage of product mineral spirits prior to 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. The product pumping system installed in recovery well RW-1 to remove separate-phase product from the water table began operation on January 19, 1993. The product pumping system was removed on November 20, 1995, and replaced with a passive hydrocarbon skimming device which is capable of removing product thickness within the well to a sheen.

The SVE system consists of seven horizontal vapor extraction lines and a vapor extraction and treatment system. A system to extract and treat soil vapor utilizing regenerative polymer adsorption began full-scale operation on June 1, 1993. The SVE system was modified and restarted on November 28, 1995, utilizing the current granular activated carbon (GAC) treatment system. Figure 3 depicts the layout of the vapor extraction lines and the vapor treatment system.

3.0 SCOPE OF WORK

Groundwater monitoring work conducted during this quarter consisted of product recovery and the monitoring of nine groundwater monitoring wells and one recovery well and the sampling of five groundwater monitoring wells as specified by the quarterly sampling schedule. One well (MW-12) could not be accessed during this event and therefore, was not monitored or sampled. SVE activities conducted during this quarter consisted of the operation and maintenance of the SVE system. The following sections provide a description of the work steps conducted.

3.1 Soil Vapor Extraction System

The SVE system consists of two 1,500-pound granular active carbon vessels connected in series to a manifold attached to the seven horizontal vapor extraction lines. While the SVE system is operating, monitoring occurs bi-weekly and consists of measuring influent and effluent concentrations using a photo-ionization detector (PID) or a flame-ionization detector (FID). SVE system influent and effluent vapor samples are collected monthly. During this quarter, SVE system influent and effluent vapor samples were collected on September 26, October 10, October 22 and November 13, 1996. The vapor samples were submitted to a state-certified analytical laboratory under chain-of-custody manifest and analyzed for total petroleum hydrocarbons as mineral spirits (TPHms) by modified U.S. Environmental Protection Agency (EPA) Method 8015 and for volatile organic compounds (VOCs) by EPA Method 8010. The results of the SVE system operation and sampling are presented in Section 4.1.

3.2 Mineral Spirits Recovery

The mineral spirits recovery pump that was located in recovery well RW-1 failed and was replaced by a passive recovery skimmer in November 1995. A passive recovery skimmer was also placed in monitoring well MW-9 (Figure 2) at that time. Mineral spirits recovered from recovery well RW-1 and monitoring well MW-9 is emptied directly to the waste mineral spirits UST at the site and is incorporated into the Safety-Kleen recycling process. The amount of recovered product is recorded each time the skimmer is emptied. The results of mineral spirits recovery are presented in Section 4.2.

3.3 Groundwater Monitoring and Sampling

On November 1, 1996, on-site and off-site monitoring wells were monitored for depth-to-water and groundwater samples were collected from wells MW-1, MW-2, MW-3, MW-4, and MW-8. Monitoring well MW-9 was not sampled due to the presence of a product sheen, and well MW-12 was not accessible during the event because a truck was parked over the wellhead. Monitor well MW-11 was not monitored because tree roots have grown through the well casing and are obstructing the well. For this event, two

sets of groundwater samples were collected in order to compare the results of laboratory analytical results of samples collected using standard purging methods with those of samples collected prior to purging the wells. Pre-purge and post-purge groundwater samples were collected using the following procedures.

All accessible monitoring wells were monitored for depth-to-water using a water level indicator calibrated to 0.01-foot. During depth-to-water monitoring, care was taken to not splash or over immerse the probe. Depth-to-bottom measurements were not made prior to pre-purge groundwater sample collection. The depth-to-water measurements were used with well survey data to construct a potentiometric surface map (Figure 4).

Subsequent to collecting depth-to-water measurements and prior to purging, monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-8 were sampled. Groundwater samples were collected from each well using a new disposable bailer which was slowly submerged approximately 36 inches below the water surface taking care not to splash the bailer in the water column. Samples were decanted into laboratory supplied sample vessels from the bottom of the bailer using a VOC-type bottom emptying device. The samples were then labeled, placed on ice in an insulated cooler, and logged onto the chain-of-custody manifest.

Subsequent to collecting the pre-purge samples, the wells were purged by hand-bailing until a minimum of three well volumes of groundwater had been removed or until measurements of pH, temperature, and conductivity had stabilized. Within two hours of completing well purging, the groundwater levels had recovered to at least 80 percent of the original level in the wells and groundwater samples were collected using new single-use disposable samplers as described above. The samples were placed into laboratory supplied sample containers in the same manner as the pre-purge samples, labeled, placed on ice in an insulated cooler, and logged onto the chain-of-custody manifest. Field data sheets that include depth-to-water measurements and well purge data are included in Appendix A.

The groundwater samples were 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 and xylenes (BTEX) by EPA Method 8020, for TPHms by modified EPA Method 8015, and for halogenated VOCs by EPA Method 8010.

Prior to use and between each well, all non-single-use 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 and sampling was placed in labeled containers pending transport for treatment at a Safety-Kleen facility.

4.0 RESULTS

4.1 Soil Vapor Extraction System

The results of SVE system monitoring conducted through November 13, 1996, are summarized on Table 1. Table 1 presents data on the system flow rate and PID measurements from the SVE system influent, the effluent after each carbon adsorption vessel, and the system effluent. Based on the analytical data and subsequent monitoring data, the GAC system is sufficiently removing organic vapors to below the 10 ppmv permit requirement.

For this quarter, SVE system influent and effluent vapor samples were collected on September 26, October 10, October 22 and November 13, 1996. No TPHms, benzene, toluene, ethylbenzene or VOC analytes were detected in any of the system effluent samples collected during this quarter. Total xylenes were detected at 0.5 $\mu g/\ell$ in the September 26 effluent sample, 0.8 $\mu g/\ell$ in the October 22 effluent sample, and at 0.9 $\mu g/\ell$ in the November 13 effluent sample. The laboratory analyses of system influent samples detected TPHms concentrations of 1,300 $\mu g/\ell$ on September 26, 880 $\mu g/\ell$ on October 10, 670 $\mu g/\ell$ on October 22, and 460 $\mu g/\ell$ on November 13. Xylenes were detected in each of the influent samples collected during the quarter at 4.5 $\mu g/\ell$, 2.1 $\mu g/\ell$, 3.66 $\mu g/\ell$ and 2.6 $\mu g/\ell$ respectively. Tetrachloroethene (PCE) was detected at a concentration of 360 $\mu g/\ell$ in the October 10 influent sample. No other analytes were detected in the influent samples collected during the quarter. Copies of soil vapor extraction system analytical reports are included as Appendix B.

The system monitoring data were used to calculate system mineral spirits removal rates and a cumulative mass of mineral spirits removed via vapor extraction. As shown on Table 2, the removal rate for each of the sampling events was estimated to range from 9.05 pounds per day (lbs/day) to 3.94 lbs/day. Data collected through November 13, 1996, indicate 4601.9 pounds of mineral spirits have been removed from the subsurface by the SVE system.

4.2 Mineral Spirits Recovery

Mineral spirits product is collected in monitoring well MW-9 and recovery well RW-1 via passive recovery skimmers and by hand bailing at the time of SVE monitoring and groundwater sampling. No product accumulated in the skimmers during this reporting period. The total volume of mineral spirits product removed from the subsurface to date is approximately 144.25 gallons. The mineral spirits recovery data is shown in Table 3.

4.3 Groundwater Elevations

Groundwater elevations and depth-to-water measurements for the November 1, 1996, event are presented in Table 4. The average water table elevation on November 1, 1996, was 1.05 feet above mean sea level, a decrease of 1.09 feet since the July 1996 event. A potentiometric surface map prepared with the November 1, 1996, data is presented as Figure 4.

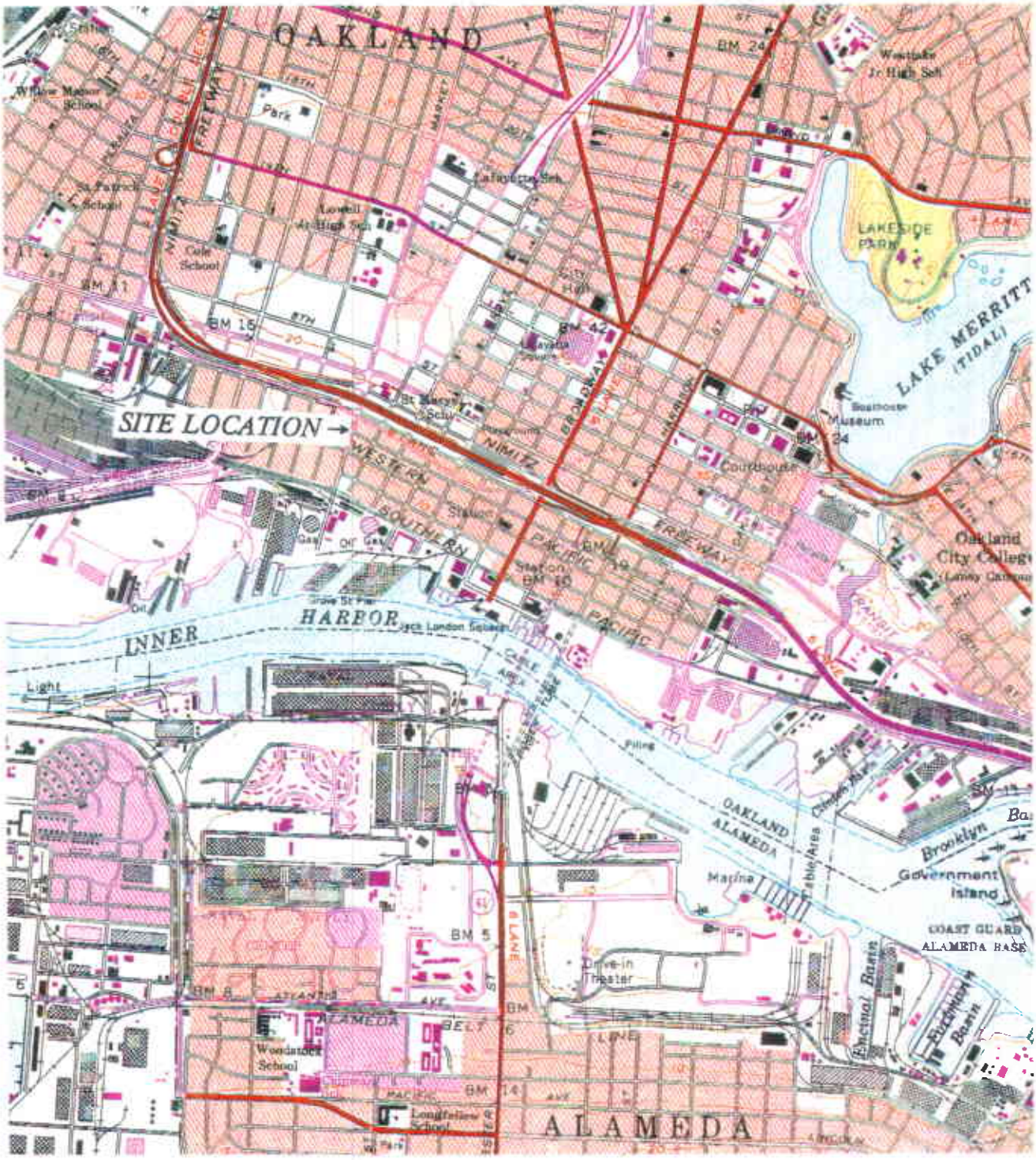
As shown in Figure 4, the groundwater flow direction remains to the south and southwest, consistent with historic site data. The hydraulic gradient was 0.003 feet/foot (ft/ft) across the site as measured between monitoring wells MW-4 and MW-2. The gradient is the same as that measured during the last event and is consistent with previous data for the site. A summary of groundwater elevations since January 1993 is provided as Table 5.

4.4 Groundwater Conditions

This discussion of groundwater conditions at the site is based on the results of analysis of post-purge samples. A comparison of post-purge versus pre-purge sample analytical data is provided later in this section. No concentrations of TPHms or BTEX were detected above the laboratory detection limits in any of the groundwater samples collected on November 1, 1996. In addition, no VOCs were detected in the groundwater samples from monitoring wells MW-1 and MW-2. Laboratory analyses of post-purge groundwater samples from monitoring wells MW-3, MW-4, and MW-8 detected several VOCs at concentrations exceeding the detection limits. The compounds detected were *cis*-1,2-dichloroethene (DCE), trans-1,2-DCE, 1,1-DCE, 1,1-dichloroethane (DCA), 1,2-DCA, trichloroethene (TCE), PCE, chloroform, vinyl chloride, chlorobenzene, 1,2-dichlorobenzene (DCB), and 1,4-DCB. The distribution of VOCs detected at the site is consistent with historical data. Figure 5 depicts the chemical distribution in the post-purge samples collected on November 1, 1996. A summary of analytical test results showing compounds detected since the April 1993 sampling event are presented in Table 6. Copies of the groundwater laboratory analytical reports are included in Appendix C.

Two sets of groundwater samples were collected during this event in order to compare the results of laboratory analytes of pre-purge and post-purge groundwater samples. The results of analysis of pre-purge and post-purge samples are summarized in Table 7. The table lists the analytes detected in each sample and shows a relative percent difference (RPD) calculation for each sample pair. As shown in the table, the types and concentrations of analytes are consistent in most cases. Of the 22 detection pairs, 54 percent of the pre-purge detections contained higher concentrations as compared to post-purge detections. Of the 14 compounds detected, four compounds were only detected in the pre-purge samples and not in the post-purge samples. The relative percent difference between sample pairs was high in several data pairs from monitoring well MW-8, but may be the result of laboratory dilution of the post-purge sample and not the pre-purge sample. A more thorough analysis of the statistical significance of pre- and post-purge sample pair analyses will be presented after several sample events have been performed.

OAKLAND WEST QUADRANGLE
California
7.5 Minute Series (Topographic)



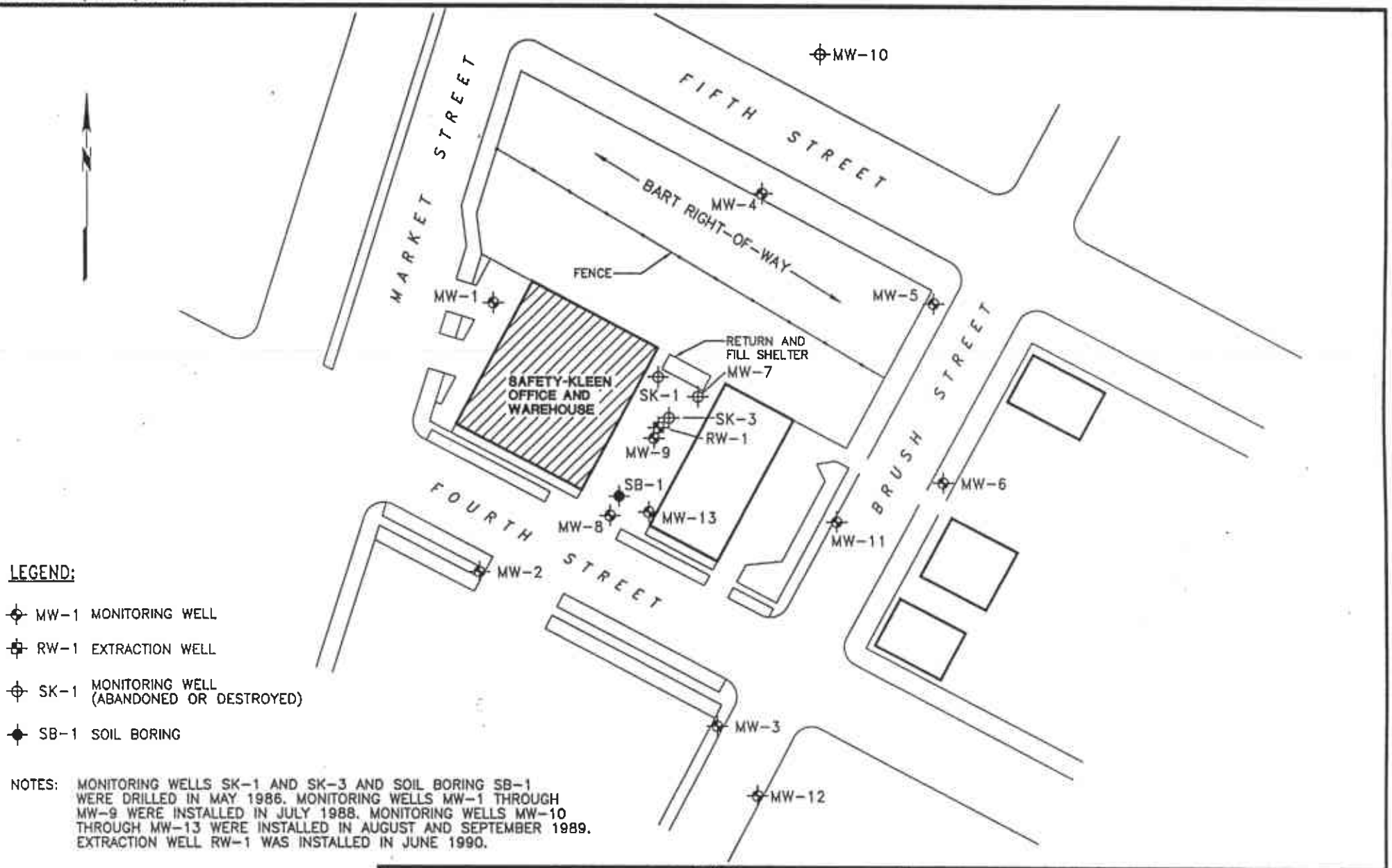
SCALE 1:24 000

0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

DRAFTED BY: TS	CHECKED BY: GDH	PROJECT NO. 70005-009	FIGURE 1	*SECOR* 1390 Willow Pass Road Suite 360 Concord, CA 94520
DWG. DATE: 04-05-94	REV. DATE: 06-15-95	Safety-Kleen Corp. 400 Market Street Oakland, California	Site Location Map	
FILE NAME: Oakland7.F01				

196509.061018 X:\S-KLEEN\OAKLAND\SITE



NOTES: MONITORING WELLS SK-1 AND SK-3 AND SOIL BORING SB-1 WERE DRILLED IN MAY 1986. MONITORING WELLS MW-1 THROUGH MW-9 WERE INSTALLED IN JULY 1988. MONITORING WELLS MW-10 THROUGH MW-13 WERE INSTALLED IN AUGUST AND SEPTEMBER 1989. EXTRACTION WELL RW-1 WAS INSTALLED IN JUNE 1990.

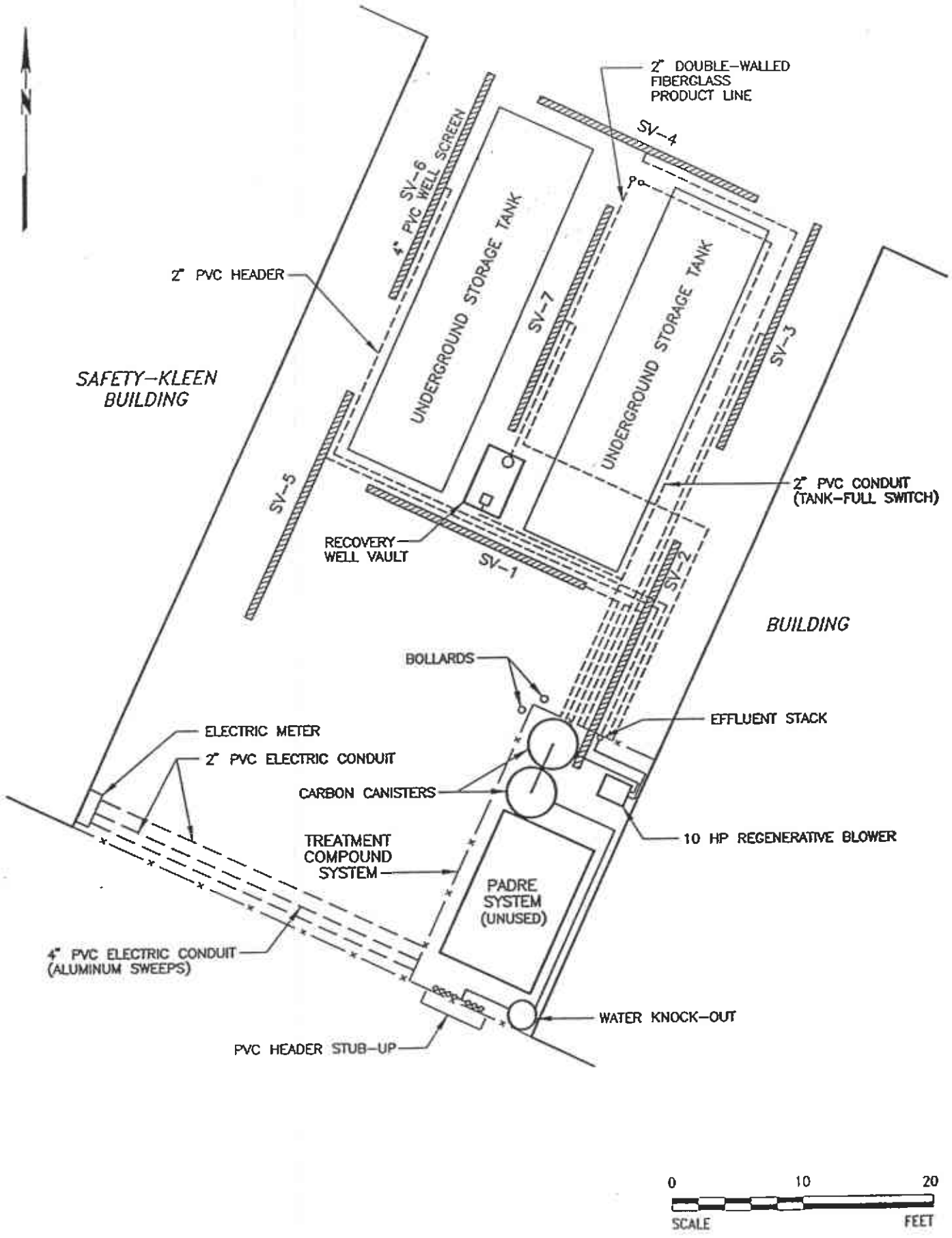
0 80 160
SCALE FEET

SECOR
INTERNATIONAL INCORPORATED

DRAWN	CCR
APPR	GH
DATE	03JUN96
JOB NO.	70005-009

FIGURE 2
SAFETY-KLEEN SERVICE CENTER
400 MARKET STREET
OAKLAND, CALIFORNIA

SITE PLAN



SECOR INTERNATIONAL INCORPORATED

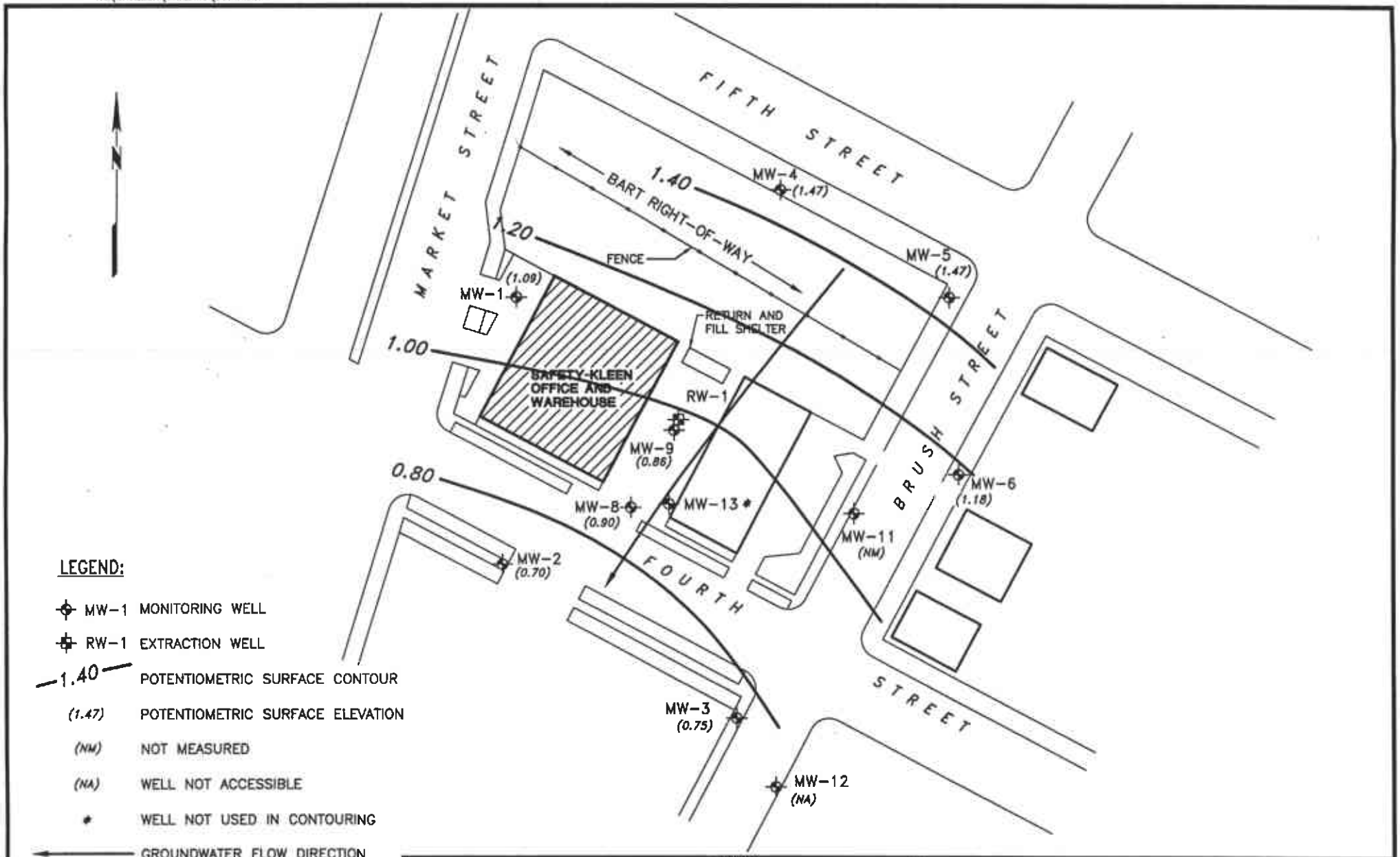
DRAWN	CCR
APPR	GH
DATE	08DEC95
JOB NO.	70005-009

FIGURE 3
SAFETY-KLEEN SERVICE CENTER
400 MARKET STREET
OAKLAND, CALIFORNIA

SOIL VAPOR EXTRACTION SYSTEM LAYOUT

199512.071928 X:\SK-KLEEN\OAKLAND\SITE2

199612.160920 X:\S-KLEEN\OAKLAND\SURFACE7



LEGEND:

- MW-1 MONITORING WELL
- RW-1 EXTRACTION WELL
- 1.40 POTENTIOMETRIC SURFACE CONTOUR
- (1.47) POTENTIOMETRIC SURFACE ELEVATION
- (NM) NOT MEASURED
- (NA) WELL NOT ACCESSIBLE
- * WELL NOT USED IN CONTOURING
- GROUNDWATER FLOW DIRECTION

0 80 160
SCALE FEET

SECOR
INTERNATIONAL
INCORPORATED

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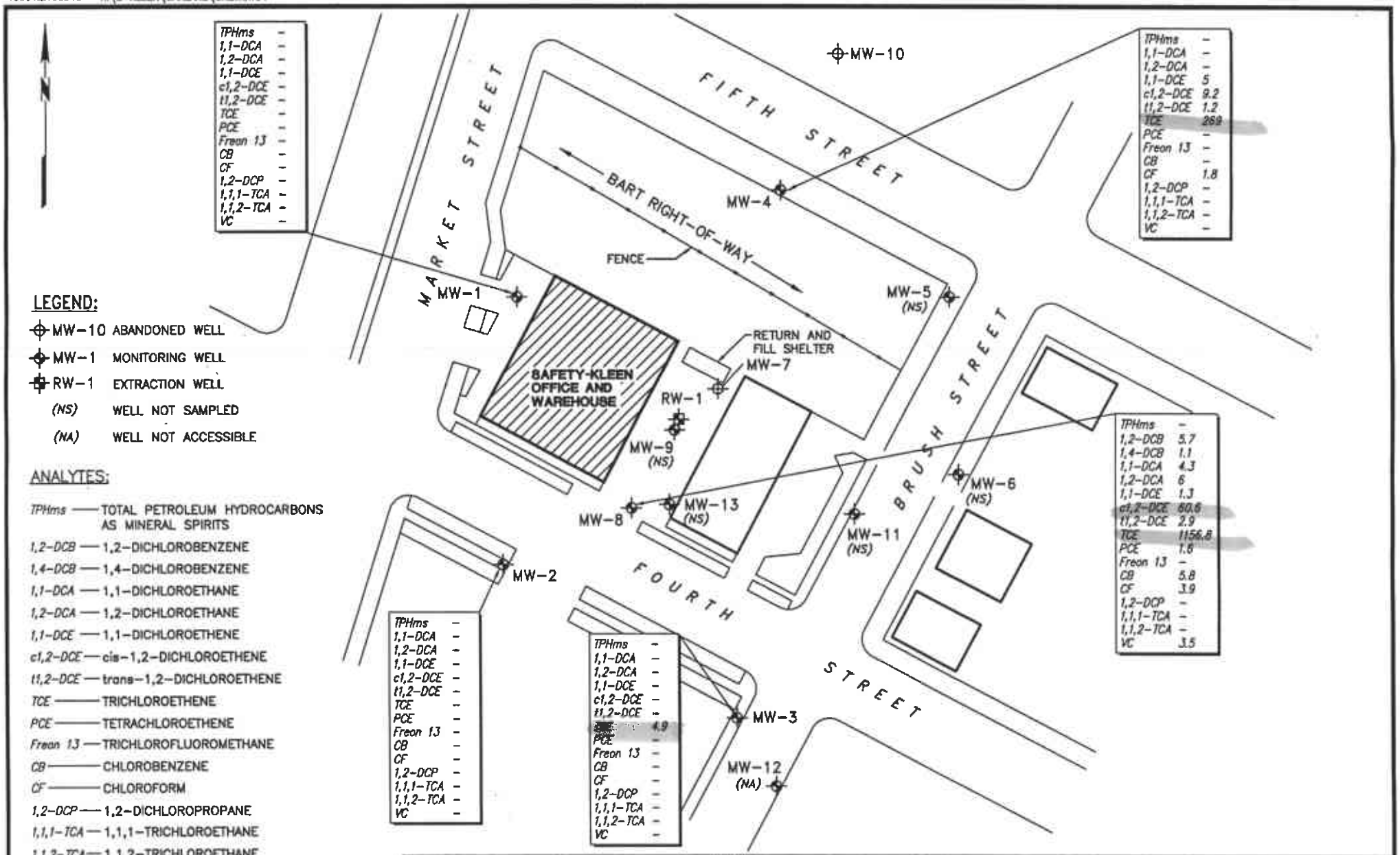
DATE	16DEC96
JOB NO.	70005-009

FIGURE 4
SAFETY-KLEEN SERVICE CENTER
400 MARKET STREET
OAKLAND, CALIFORNIA

POTENTIOMETRIC SURFACE MAP
NOVEMBER 1, 1996

199612.160946 X:\S-KLEEN\OAKLAND\CHEMGW04



LEGEND:

- MW-10 ABANDONED WELL
- MW-1 MONITORING WELL
- RW-1 EXTRACTION WELL
- (NS) WELL NOT SAMPLED
- (NA) WELL NOT ACCESSIBLE

ANALYTES:

- TPHms — TOTAL PETROLEUM HYDROCARBONS AS MINERAL SPIRITS
- 1,2-DCB — 1,2-DICHLOROBENZENE
- 1,4-DCB — 1,4-DICHLOROBENZENE
- 1,1-DCA — 1,1-DICHLOROETHANE
- 1,2-DCA — 1,2-DICHLOROETHANE
- 1,1-DCE — 1,1-DICHLOROETHENE
- c1,2-DCE — cis-1,2-DICHLOROETHENE
- t1,2-DCE — trans-1,2-DICHLOROETHENE
- TCE — TRICHLOROETHENE
- PCE — TETRACHLOROETHENE
- Freon 13 — TRICHLOROFLUOROMETHANE
- CB — CHLOROBENZENE
- CF — CHLOROFORM
- 1,2-DCP — 1,2-DICHLOROPROPANE
- 1,1,1-TCA — 1,1,1-TRICHLOROETHANE
- 1,1,2-TCA — 1,1,2-TRICHLOROETHANE
- VC — VINYL CHLORIDE

NOTE: CONCENTRATIONS IN MICROGRAMS PER LITER (ug/l).

0 80 160
SCALE FEET

SECOR
INTERNATIONAL INCORPORATED

DRAWN	CCR
APPR	RR/GH
DATE	16DEC96
JOB NO.	70005-009

FIGURE 5
SAFETY-KLEEN SERVICE CENTER
400 MARKET STREET
OAKLAND, CALIFORNIA

CHEMICAL DISTRIBUTION IN GROUNDWATER
POST PURGE NOVEMBER 1, 1996

Table 1

Soil Vapor Extraction System Monitoring Data

Safety-Kleen Service Center
400 Market Street
Oakland, California

Date	Elapsed Time*	SV-1 Extraction Vacuum	KO Vacuum	Extraction Flow Rate		System Influent	#1 Carbon Effluent	#2 Carbon Effluent	System Effluent	Notes
	(hours)	(inches H20)	(inches H20)	(ft/min)	(scfm)	(PID units)	(PID units)	(PID units)	(PID units)	
12/8/95	362.6	6.5	22	5000	107	413	3.1	4.6	6.4	* System restarted using carbon adsorption on 11/28/95.
12/21/95	677.2	6	20	5000	107	79.5	36.2	1.2	1.2	Influent and Effluent samples collected
1/9/96	1134.2	9	22	5000	106	169	42.4	2.8	1.7	Influent and Effluent samples collected
1/24/95	1488.75	5.5	17	2200	47	43	43.2	24.2	6.1	
2/6/96	1803.3	5	16	6000	129	63.4	61.1	33.4	16.1	Influent and Effluent samples collected
2/21/96	2157.55	8	20	5500	117	60.1	48	38.2	8.4	
3/8/96	2540.1	10	23	5000	106	183.7	52.3	44.8	15.5	Influent and Effluent samples collected
3/20/96	2635.2	12	23	5000	106	430	362.1	311.4	22.4	
4/3/96	2905.9	12	25	5000	106	290	45	32	2	FID used, Influent and Effluent samples collected, Carbon changed.
4/18/96	3267.7	11	24	5000	106	500	30	9	3	FID used.
5/2/96	3594	NA	24	5000	109	109.3	44.5	0.2	0.2	Influent and Effluent samples collected
5/16/96	3934.3	NA	23	5000	109	117.3	150.9	3.2	1	
5/31/96	4289.2	0.15	25	5000	109	53.7	61	0.7	0	Influent and Effluent samples collected
7/1/96	5038.8	11	23	5000	106	325	150	75	37	Influent and Effluent samples collected
7/17/96	5421.7	10	24	5000	106	159	160	163	33	System shut down for carbon replacement
8/20/96	5423.6	7	17	3200	68	300	0	0	0	System restarted with new carbon
8/22/96	5469.5	7	17	3000	64	300	1.4	1.4	0	Influent and Effluent samples collected
9/3/96	5760.1	0.15	16	3500	76	131.2	0	0	0	
9/26/96	6315.5	8	15	3550	76	165	30	1.2	2.2	Influent and Effluent samples collected
10/3/96	6478.1	8	15	3000	64	231	70	42	13	
10/10/96	6644.7	8	15	3500	75	269.4	189	20.5	12.5	Influent and Effluent samples collected
10/22/96	6938.9	7	15	3000	64	480	442	1.8	1.2	Influent and Effluent samples collected
10/29/96	71040	8	16	4000	85	148.8	142.7	7.5	1.2	
11/13/96	7466.6	8	16	3500	75	120	90	40	8	Influent and Effluent samples collected

Notes: ft/min = feet per minute
scfm = standard cubic feet per minute assuming ambient temperature and ideal gas
NA = not available

Table 2
Soil Vapor Extraction System
Mineral Spirits Removal
Safety-Kleen Service Center
400 Market Street
Oakland, California

Sample Date	Elapsed Time (hours)	Run Time This Period (hours)	Exctraction Flow Rate (cfm)	TPHms Influent (ug/L)	Removal Rate (lbs./day)	TPHms Removed (lbs.)	Notes
11/28/95	Carbon adsorbtion system start-up					1798.4	TPHms removed by prior system.
12/21/95	677.2	677.2	109.1	823	8.07	2026.0	
1/9/96	1134.2	457	109.1	1116	10.95	2234.4	
2/6/96	1803.3	669.1	130.9	999	11.75	2562.1	
3/8/96	2540.1	736.8	109.1	1821	17.86	3110.4	
4/3/96	2905.9	365.8	109.1	1116	10.95	3277.2	
5/2/96	3594	688.1	109.1	1586	15.56	3723.2	
5/31/96	4289.2	695.2	109.1	1234	12.10	4073.6	
7/1/96	5038.8	749.6	109.1	82	0.81	4098.8	
8/22/96	5469.5	430.7	65.4	500	2.94	4151.6	
9/26/96	6315.5	846	77.4	1300	9.05	4470.7	
10/10/96	6644.7	1175.2	76.4	880	6.04	4447.4	
10/22/96	6938.9	623.4	65.4	670	3.94	4573.1	
11/13/96	7466.6	821.9	109.1	460	4.51	4601.9	

Notes:
cfm = cubic feet per minute
ug/L = micrograms per liter
lbs = pounds

Table 3
Free Product Recovery System
Mineral Spirits Removal Summary

Safety-Kleen Service Center
400 Market Street
Oakland, California

Date	Product Recovery		
	This Period	Total	
	(gallons)	(gallons)	(pounds)
1/1/89	15	30.0	196.5
1/31/89	15	45.0	294.8
3/2/89	15	60.0	393.0
4/1/89	15	75.0	491.3
5/1/89	15	90.0	589.5
5/31/89	15	105.0	687.8
6/30/89	15	120.0	786.0
7/30/89	15	135.0	884.3
8/29/89	15	150.0	982.5
9/28/89	15	165.0	1080.8
10/28/89	15	180.0	1179.0
11/27/89	15	195.0	1277.3
12/27/89	15	210.0	1375.5
1/26/90	15	225.0	1473.8
2/25/90	15	240.0	1572.0
3/27/90	15	255.0	1670.3
4/26/90	15	270.0	1768.5
5/26/90	15	285.0	1866.8
6/25/90	15	300.0	1965.0
1/19/93	0	300	1965.0
2/25/93	6.5	306.5	2007.6
5/20/93	4.3	310.8	2035.7
8/27/93	0	310.8	2035.7
10/24/93	10.3	321.1	2103.2
2/28/94	22.6	343.7	2251.2
5/31/94	16.6	360.3	2360.0
8/31/94	16.4	376.7	2467.4
11/30/94	16.2	392.9	2573.5
2/28/95	16	408.9	2678.3
5/31/95	16.6	425.5	2787.0
8/31/95	16.6	442.1	2895.8
11/30/95	0	442.1	2895.8
1/9/96	0.75	442.85	2900.7
3/20/96	0.75	443.6	2905.6
5/2/96	0.03	443.63	2905.8
5/16/96	0.55	444.18	2909.4
5/31/96	0.05	444.23	2909.7
7/1/96	0.02	444.25	2909.8
9/3/96	0	444.25	2909.8
10/10/96	0	444.25	2909.8
10/29/96	0	444.25	2909.8
11/1/96	0	444.25	2909.8

Note: Data shown in smaller text is estimated based on previous reports.

TABLE 4
Groundwater Monitoring Data
April 2, 1996

Well I.D.	TOC Elevation (ft msl)	DTW (ft)	DTP (ft)	PT (ft)	Adjusted Elevation (ft msl)
MW-1	7.99	6.90	-	-	1.09
MW-2	8.20	7.50	-	-	0.70
MW-3	6.66	5.91	-	-	0.75
MW-4	10.32	8.85	-	-	1.47
MW-5	10.28	7.79	-	-	1.47
MW-6	8.97	6.90	-	-	1.18
MW-8	7.80	7.35	-	-	0.90
MW-9	8.21	7.35			0.86
MW-10*	-	-	-	-	-
MW-11	7.91	NM	-	-	-
MW-12	6.74	NM	-	-	-
MW-13	8.08	7.30	-	-	0.78
RW-1	-	6.12	6.09	0.03	-

TOC	=	Top of casing
DTW	=	Depth-to-water
DTP	=	Depth-to-product (separate-phase hydrocarbons)
PT	=	product thickness
Elevation	=	Adjusted groundwater elevation
ft msl	=	Measurement in feet (ft) relative to mean sea level (msl)
*	=	Well destroyed July 1995
NM	=	Well not accessible

Table 5
Historical Summary of Groundwater Elevations
Safety-Kleen Service Center
400 Market Street
Oakland, California

Date	Well Identification											
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13
Jan-93	1.29	1.00	0.86	1.57	1.48	1.27	1.08	1.15	1.73	1.16	0.44	0.58
Apr-93	1.09	0.51	0.38	1.52	1.42	1.08	0.74	0.95	1.85	0.90	0.10	0.40
Jul-93	0.27	-0.23	-0.27	0.68	0.62	0.37	-0.01	-0.68	0.99	0.20	-0.72	-0.15
Oct-93	-0.02	-0.51	-0.66	0.32	0.17	-0.12	-0.35	0.14	0.62	-0.22	-0.91	-0.57
Jan-94	-0.01	-0.52	-0.77	0.33	0.48	-0.10	-0.37	-0.49	0.60	-0.14	-1.05	-0.65
Apr-94	0.55	0.05	-0.09	0.85	0.74	0.46	0.22	0.33	-	0.34	-0.76	-0.09
Jul-94	0.25	-0.20	-0.31	0.62	0.55	0.23	-0.03	0.08	0.90	0.09	-0.70	-0.22
Oct-94	0.08	-0.33	-0.44	0.41	0.38	0.12	-0.15	0.01	-	0.01	-0.59	-0.33
Jan-95	1.95	1.53	1.64	2.41	2.49	2.24	1.79	1.85	-	2.06	1.44	1.33
Apr-95	3.09	2.46	2.49	3.71	3.73	3.42	2.79	2.95	-	3.18	2.22	1.98
Jul-95	2.04	1.53	1.53	2.54	2.50	2.26	1.76	1.93	-	2.01	1.33	1.53
Oct-95	1.38	0.94	1.01	1.81	1.27	1.56	1.15	1.32	-	1.42	0.94	1.06
Jan-96	1.82	1.40	0.64	2.21	2.21	2.04	1.61	1.54	-	1.85	-	1.51
Apr-96	2.81	2.40	2.46	3.33	3.36	3.17	2.58	2.51	-	2.91	2.24	2.38
Jul-96	2.16	1.70	1.75	2.67	2.63	2.35	1.90	1.93	-	2.18	NM	1.84
Nov-96	1.09	0.70	0.75	1.47	1.47	1.18	0.90	0.86	-	-	NM	0.78

Notes:
Groundwater elevations are realative to mean sea-level datum
- = Not measured

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS

Safety-Kleen Service Center
400 Market Street
Oakland, California

Well No.		MW-1															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Benzene	1	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Toluene	150	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Ethyl-benzene	700	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Xylenes	1750	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,1-Dichloroethene	6	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,1-Dichloroethane	5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,2-Dichloroethane	0.5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
cis-1,2-Dichloroethene	6	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
trans-1,2-Dichloroethene	10	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Chloroform	NE	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,1,1-Trichloroethane	200	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Trichloroethene	5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Tetrachloroethene	5	-	-	-	-	-	NS	-	NS	0.7	NS	-	NS	-	NS	-	-
Chlorobenzene	70	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,2-Dichloropropane	5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,2-Dichlorobenzene	600	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
1,4-Dichlorobenzene	5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Trichlorofluoromethane	150	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Dichlorodifluoromethane	NE	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-
Vinyl chloride	0.5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	-	-

Well No.		MW-2															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl-benzene	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes	1750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS

Safety-Kleen Service Center
400 Market Street
Oakland, California

Well No.		MW-3															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl-benzene	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes	1750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	6	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
trans-1,2-Dichloroethene	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	5	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	4.9
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	150	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Well No.		MW-4															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	* 400	* 270	* 760	* 200	* 330	-	-	-	-	-	-	-	-	-
Benzene	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	150	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-
Ethyl-benzene	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes	1750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	6	-	-	-	-	-	-	-	0.7	0.8	5.2	4	3	6	4.8	5.1	5
1,1-Dichloroethane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	6	-	-	-	-	-	-	-	-	-	11.8	-	17	10	11.3	5.1	9.2
trans-1,2-Dichloroethene	10	-	53	0.6	1.1	1.7	-	-	1.4	1	3.2	3	4	1.7	1.2	-	1.2
Chloroform	NE	7.6	-	1.9	-	5.0	-	-	-	-	-	3	6	1.3	1.8	1.6	1.8
1,1,1-Trichloroethane	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
Trichloroethene	5	2400	1100	-	790	1600	410	650	700	440	247	207	157	140	224	242.4	269
Tetrachloroethene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
1,2-Dichloropropane	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	0.5	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS

Safety-Kleen Service Center
400 Market Street
Oakland, California

Well No.		MW-5															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Benzene	1	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Toluene	150	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Ethyl-benzene	700	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Xylenes	1750	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1-Dichloroethene	6	1.5	0.6	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1-Dichloroethane	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichloroethane	0.5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
cis-1,2-Dichloroethene	6	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
trans-1,2-Dichloroethene	10	-	-	-	4.3	3.5	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Chloroform	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	1.4	NS	NS	NS
1,1,1-Trichloroethane	200	4	6	12	-	7.2	NS	NS	NS	9.1	NS	NS	NS	-	NS	NS	NS
Trichloroethene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	8.7	NS	NS	NS
Tetrachloroethene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Chlorobenzene	70	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichloropropane	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichlorobenzene	600	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,4-Dichlorobenzene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Trichlorofluoromethane	150	18	19	-	-	7.9	NS	NS	NS	-	NS	NS	NS	4.5	NS	NS	NS
Dichlorodifluoromethane	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Vinyl chloride	0.5	-	-	-	-	-	NS	NS	NS	16	NS	NS	NS	-	NS	NS	NS

Well No.		MW-6															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Benzene	1	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Toluene	150	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Ethyl-benzene	700	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Xylenes	1750	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1-Dichloroethene	6	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1-Dichloroethane	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichloroethane	0.5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
cis-1,2-Dichloroethene	6	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
trans-1,2-Dichloroethene	10	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Chloroform	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1,1-Trichloroethane	200	-	5	1.3	-	1	NS	NS	NS	0.4	NS	NS	NS	-	NS	NS	NS
Trichloroethene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Tetrachloroethene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Chlorobenzene	70	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichloropropane	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichlorobenzene	600	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,4-Dichlorobenzene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Trichlorofluoromethane	150	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Dichlorodifluoromethane	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Vinyl chloride	0.5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS

Safety-Kleen Service Center
400 Market Street
Oakland, California

Well No.		MW-8															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	* 60	-	NS	-	-	-	-	-	-	-	-	-	-
Benzene	1	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
Toluene	150	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
Ethyl-benzene	700	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
Xylenes	1750	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	6	-	-	-	-	-	NS	-	-	-	3.5	7	19	7.2	-	3.2	1.3
1,1-Dichloroethane	5	3.4	-	-	8.6	3.7	NS	5.5	-	-	6.2	5	7	2.9	-	16.7	4.3
1,2-Dichloroethane	0.5	7.4	5	5.2	11	7.1	NS	-	-	-	9.8	10	11	5.1	-	9.5	6
cis-1,2-Dichloroethene	6	-	-	-	-	-	NS	-	-	-	25.57	63	56	63	-	44.5	60.6
trans-1,2-Dichloroethene	10	-	1	-	-	-	NS	-	-	-	2.3	6	4	2.9	-	1.1	2.9
Chloroform	NE	-	-	-	-	-	NS	-	-	-	-	-	13	-	-	1.7	3.9
1,1,1-Trichloroethane	200	-	-	-	2.5	1.5	NS	-	-	-	-	-	-	-	1.3	2.5	-
Trichloroethene	5	14	31	15	22	18	NS	23	2.6	15	163	557	486	569	1352	339.2	1156.8
Tetrachloroethene	5	1.8	-	-	2	0.8	NS	-	-	0.4	3.2	2	2	1.1	2	3.4	1.6
Chlorobenzene	70	11	-	5.4	16	-	NS	2.4	1.2	-	6.9	4	6	3.3	-	23.3	5.8
1,2-Dichloropropane	5	0.6	-	-	-	0.8	NS	-	-	-	-	-	-	-	-	3	-
1,2-Dichlorobenzene	600	2.6	-	-	4.8	-	NS	-	-	-	3.8	3	5	2	-	24.4	5.7
1,4-Dichlorobenzene	5	-	-	-	-	-	NS	-	-	-	-	-	-	-	1.1	3.9	1.1
Trichlorofluoromethane	150	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	NE	-	-	-	-	-	NS	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	0.5	-	-	-	-	-	NS	-	-	-	2.6	4	5	1.6	6.3	9.8	3.5

Well No.		MW-10 (Abandoned)															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	NS	NS	NS	NS	NS	NS						
Benzene	1	-	-	-	-	NS	NS	NS	NS	NS	NS						
Toluene	150	-	-	-	-	NS	NS	NS	NS	NS	NS						
Ethyl-benzene	700	-	-	-	-	NS	NS	NS	NS	NS	NS						
Xylenes	1750	-	-	-	-	NS	NS	NS	NS	NS	NS						
1,1-Dichloroethene	6	-	2	-	-	NS	NS	NS	NS	NS	NS						
1,1-Dichloroethane	5	-	-	-	-	NS	NS	NS	NS	NS	NS						
1,2-Dichloroethane	0.5	-	-	-	-	NS	NS	NS	NS	NS	NS						
cis-1,2-Dichloroethene	6	-	-	-	-	NS	NS	NS	NS	NS	NS						
trans-1,2-Dichloroethene	10	-	17	3	0.4	NS	NS	NS	NS	NS	NS						
Chloroform	NE	1.2	0.5	-	-	NS	NS	NS	NS	NS	NS						
1,1,1-Trichloroethane	200	-	0.8	-	-	NS	NS	NS	NS	NS	NS						
Trichloroethene	5	45	54	42	67	NS	NS	NS	NS	NS	NS						
Tetrachloroethene	5	-	-	-	-	NS	NS	NS	NS	NS	NS						
Chlorobenzene	70	-	-	-	-	NS	NS	NS	NS	NS	NS						
1,2-Dichloropropane	5	-	-	-	-	NS	NS	NS	NS	NS	NS						
1,2-Dichlorobenzene	600	-	-	-	-	NS	NS	NS	NS	NS	NS						
1,4-Dichlorobenzene	5	-	-	-	-	NS	NS	NS	NS	NS	NS						
Trichlorofluoromethane	150	-	-	-	-	NS	NS	NS	NS	NS	NS						
Dichlorodifluoromethane	NE	-	-	-	-	NS	NS	NS	NS	NS	NS						
Vinyl chloride	0.5	-	-	-	-	NS	NS	NS	NS	NS	NS						

Well Destroyed July 1995

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS

Safety-Kleen Service Center
400 Market Street
Oakland, California

Well No.		MW-11															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Benzene	1	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Toluene	150	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Ethyl-benzene	700	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Xylenes	1750	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,1-Dichloroethene	6	-	2	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,1-Dichloroethane	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloroethane	0.5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
cis-1,2-Dichloroethene	6	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
trans-1,2-Dichloroethene	10	-	3	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Chloroform	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,1,1-Trichloroethane	200	-	2	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Trichloroethene	5	9.1	36	11	2.6	3.1	NS	NS	NS	3.4	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Chlorobenzene	70	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,2-Dichloropropane	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,2-Dichlorobenzene	600	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
1,4-Dichlorobenzene	5	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Trichlorofluoromethane	150	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Dichlorodifluoromethane	NE	-	-	-	-	-	NS	NS	NS	-	NS	NS	NS	NS	NS	NS	NS
Vinyl chloride	0.5	-	-	-	-	-	NS	NS	NS	1.4	NS	NS	NS	NS	NS	NS	NS

Well No.		MW-12															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Benzene	1	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Toluene	150	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Ethyl-benzene	700	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Xylenes	1750	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
1,1-Dichloroethene	6	-	-	-	-	-	NS	-	NS	-	NS	2	NS	-	NS	NS	NS
1,1-Dichloroethane	5	2.6	2	-	2.3	1.7	NS	1.6	NS	3.8	NS	4	NS	2.9	NS	NS	NS
1,2-Dichloroethane	0.5	-	2	-	1.2	1.9	NS	-	NS	-	NS	3	NS	1.6	NS	NS	NS
cis-1,2-Dichloroethene	6	-	-	-	-	-	NS	-	NS	-	NS	5	NS	-	NS	NS	NS
trans-1,2-Dichloroethene	10	-	3	-	-	-	NS	-	NS	-	NS	2	NS	-	NS	NS	NS
Chloroform	NE	-	-	-	-	-	NS	-	NS	-	NS	-	NS	1.1	NS	NS	NS
1,1,1-Trichloroethane	200	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Trichloroethene	5	17	30	34	11	44	NS	24	NS	59	NS	95	NS	7.5	NS	NS	NS
Tetrachloroethene	5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Chlorobenzene	70	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
1,2-Dichloropropane	5	-	-	-	-	-	NS	-	NS	-	NS	2	NS	-	NS	NS	NS
1,2-Dichlorobenzene	600	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
1,4-Dichlorobenzene	5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Trichlorofluoromethane	150	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Dichlorodifluoromethane	NE	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS
Vinyl chloride	0.5	-	-	-	-	-	NS	-	NS	-	NS	-	NS	-	NS	NS	NS

TABLE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS

Safety-Kleen Service Center
400 Market Street
Oakland, California

Well No.		MW-13															
Date		04-93	07-93	10-93	01-94	04-94	07-94	10-94	01-95	04-95	07-95	10-95	01-96	04-96	07-96	11-96	
Compound	MCL	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)**	(ug/l)
TPH-mineral spirits	NE	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Benzene	1	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Toluene	150	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Ethyl-benzene	700	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Xylenes	1750	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1-Dichloroethene	6	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1-Dichloroethane	5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichloroethane	0.5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
cis-1,2-Dichloroethene	6	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
trans-1,2-Dichloroethene	10	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Chloroform	NE	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,1,1-Trichloroethane	200	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Trichloroethene	5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Tetrachloroethene	5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Chlorobenzene	70	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichloropropane	5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,2-Dichlorobenzene	600	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
1,4-Dichlorobenzene	5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Trichlorofluoromethane	150	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Dichlorodifluoromethane	NE	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS
Vinyl chloride	0.5	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS	-	NS	NS	NS

LEGEND

MCL = Maximum contaminant level for primary drinking water constituents
NE = Not Established
NS = Not Sampled
- = Not Detected
* The TPH as mineral spirits result is the result of an unknown hydrocarbon consisting of a single peak.
** This sample was collected prior to purging the monitor well.

NOTE

Only compounds detected in one or more samples are included. See the laboratory reports for a complete list of analytes.

Table 7

Comparison of Pre-Purge and Post-Purge Groundwater Analytical Data
November 1, 1996
Safety-Kleen Service Center
400 Market Street
Oakland, California

Sample Name	Analyte														
	TPHms	1,2-DCB	1,4-DCB	1,1-DCA	1,2-DCA	1,1-DCE	c1,2-DCE	t1,2-DCE	1,1,1-TCA	TCE	PCE	CB	1,2-DCP	VC	CF
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-1 No Purge	<50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-1 Post Purge	<50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MW-2 No Purge	<50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-2 Post Purge	<50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MW-3 No Purge	<50	<1	<1	<1	<1	<1	<1	<1	<1	**1.6**	<1	<1	<1	<1	<1
MW-3 Post Purge	<50	<1	<1	<1	<1	<1	<1	<1	<1	**4.9**	<1	<1	<1	<1	<1
RPD	0%	0%	0%	0%	0%	0%	0%	0%	0%	**-102%**	0%	0%	0%	0%	0%
MW-4 No Purge	<50	<1	<1	<1	<1	**5.1**	**5.1**	<1	**1.1**	**242.4**	<1	**1.2**	<1	<1	**1.6**
MW-4 Post Purge	<50	<1	<1	<1	<1	**5**	**9.2**	**1.2**	<1	**269**	<1	<1	<1	<1	**1.8**
RPD	0%	0%	0%	0%	0%	**2%**	**-57%**	**-18%**	**10%**	**-10%**	0%	**18%**	0%	0%	**-12%**
MW-8 No Purge	<50	**24.4**	**3.9**	**16.7**	**9.5**	**3.2**	**44.5**	**1.1**	**2.5**	**339.2**	**3.4**	**23.3**	**3**	**9.8**	**1.7**
MW-8 Post Purge	<50	**5.7**	**1.1**	**4.3**	**6**	**1.3**	**60.6**	**2.9**	<1	**1156.8**	**1.6**	**5.8**	<1	**3.5**	**3.9**
RPD	0%	**124%**	**112%**	**118%**	**45%**	**84%**	**-31%**	**-90%**	**86%**	**-109%**	**72%**	**120%**	**100%**	**95%**	**-79%**

Notes:
TPHms = Total Petroleum Hydrocarbons as Mineral Spirits
DCB = Dichlorobenzene
DCA = Dichloroethane
DCE = Dichloroethene
TCA = Trichloroethane
TCE = Trichloroethene
PCE = Tetrachloroethene
CB = Chlorobenzene
DCP = Dichloropropane
VC = Vinyl Chloride
CF = Chloroform
RPD = Relative Percent Difference = [(A-B) / { (A+B) / 2 }] * 100

APPENDIX A

Field Data Sheets

SECOR

HYDROLOGIC DATA SHEET

PROJECT: SAFETY-KLEEN 400 MARKET STREET OAKLAND, CALIFORNIA		**PROJECT NO.:** 70005-009-07 **TASK:** 001
DATE: 11-1-96	**TIME START:** 7:50	**TIME END:** 11:00
EVENT: QUARTERLY/SEMI-ANNUAL/ANNUAL MONITORING AND SAMPLING		**PERSONNEL:** GARY CLIFT

WELL ID	TOC	DTW	DTP	PT	TD	ELEV.	COMMENTS
MW-1	7.99	6.90	-	-		1.09	2"
MW-2	8.20	7.50	-	-		0.70	2"
MW-3	6.66	5.91	-	-		0.75	2"
MW-4	10.32	8.85	-	-		1.47	2"
MW-5	10.28	8.81	-	-		1.47	2"
MW-6	8.97	7.79	-	-		1.18	2"
MW-8	7.80	6.90	-	-		0.90	2"
MW-9	8.21	7.35	-	-		0.86	4"
MW-11	7.91	DRY	-	-		—	2"
MW-12	6.74	Covered	-	-		—	2"
MW-13	8.08	7.30	-	-		0.78	4"(deep well)
RW-1	-	6.12	6.09	.03			10"

NOTES: S-K Laboratory P.O. Number - E11819

NOTE: MW-9, RW-1 No Available product

TOC = TOP OF CASING (FEET RELATIVE TO MEAN SEA LEVEL)
DTW = DEPTH TO WATER (FEET)
DTP = DEPTH TO PRODUCT (FEET)
PT = PRODUCT THICKNESS (FEET)
TD = TOTAL DEPTH (FEET)
ELEV. = GROUNDWATER ELEVATION (FEET RELATIVE TO MEAN SEA LEVEL)

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 7000 5-009-07 | PURGED BY: GRC | WELL I.D.: MW-12

CLIENT NAME: Safety Kleen | SAMPLED BY: GRC | SAMPLE I.D.: MW-12

LOCATION: 400 Market St. Oakland CA | QA SAMPLES: None

DATE PURGED 11-1-96 | START (2400hr) _____ | END (2400hr) _____

DATE SAMPLED 11-1-96 | SAMPLE TIME (2400hr) Post Purge _____ No Purge _____

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	X (0.17)	___ (0.38)	___ (0.67)	___ (1.02)	___ (1.50)	___ (2.60)	___ ( )

DEPTH TO BOTTOM (feet) = 28.56 | CASING VOLUME (gal) = _____

DEPTH TO WATER (feet) = _____ | CALCULATED PURGE (gal) = _____

WATER COLUMN HEIGHT (feet) = _____ | ACTUAL PURGE (gal) = _____

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY Visual
11-1							
11-1							
11-1							

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

80% RECHARGE: YES ___ NO | ANALYSES: TPH AS MS BTEX 8010, 8020

ODOR: None | SAMPLE VESSEL / PRESERVATIVE: 4 HCL

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ Bladder Pump	___ Bailer (Teflon)	___ Bladder Pump	___ Bailer (Teflon)
___ Centrifugal Pump	___ Bailer (PVC)	___ Centrifugal Pump	X Bailer (___ PVC or X disposable)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Submersible Pump	___ Bailer (Stainless Steel)
___ Peristaltic Pump	X Dedicated DISPOS	___ Peristaltic Pump	___ Dedicated _____
Other: _____		Other: _____	
Pump Depth: _____			

WELL INTEGRITY: [redacted] | LOCK#: 0909

REMARKS: Not Sampled CAR over well

SIGNATURE: GRC

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009-07 | PURGED BY: GRC | WELL I.D.: MW-B

CLIENT NAME: Safety Kleen | SAMPLED BY: GRC | SAMPLE I.D.: MW-B

LOCATION: 400 Market St. Oakland CA | QA SAMPLES: None

DATE PURGED 11-1-96 | START (2400hr) 10:05 | END (2400hr) 10:25

DATE SAMPLED 11-1-96 | SAMPLE TIME (2400hr) Post Purge 10:30 / No. Purge 10:00

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	X (0.17)	___ (0.38)	___ (0.67)	___ (1.02)	___ (1.50)	___ (2.60)	___ ( )

DEPTH TO BOTTOM (feet) = 29.20 | CASING VOLUME (gal) = 3.79

DEPTH TO WATER (feet) = 6.90 | CALCULATED PURGE (gal) = 11.37

WATER COLUMN HEIGHT (feet) = 22.30 | ACTUAL PURGE (gal) = 11.50

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY ~~(NTU)~~ visual
11-1	10:10	3.5	61.6	618	7.19	Cloudy	Med
11-1	10:20	8.0	63.8	652	7.06	Cloudy	Med
11-1	10:25	11.50	64.0	655	6.93	Cloudy	Med

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO | ANALYSES: TPH AS MS BTEX 8010, 8020

ODOR: None | SAMPLE VESSEL / PRESERVATIVE: 4 HCL VOAs

PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
X Dedicated Disp.
Other: ___
Pump Depth: ___

SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (Teflon)
X Bailer (___ PVC or X disposable)
___ Bailer (Stainless Steel)
___ Dedicated ___
Other: ___

WELL INTEGRITY: Good | LOCK#: 0909

REMARKS: ___

SIGNATURE: GRC

BECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009-07 PURGED BY: GRC WELL I.D.: MW-3

CLIENT NAME: Safety Kleen SAMPLED BY: GRC SAMPLE I.D.: MW-3

LOCATION: 400 Market St. Oakland CA QA SAMPLES: None

DATE PURGED 11-1-96 START (2400hr) 10:40 END (2400hr) 11:25

DATE SAMPLED 11-1-96 SAMPLE TIME (2400hr) Post Purge 10:30

No. Purge 10:45

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

CASING DIAMETER: 2" X 3" ____ 4" ____ 5" ____ 6" ____ 8" ____ Other ____

Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 29.00 CASING VOLUME (gal) = 3.92

DEPTH TO WATER (feet) = 5.91 CALCULATED PURGE (gal) = 11.77

WATER COLUMN HEIGHT (feet) = 23.09 ACTUAL PURGE (gal) = 12.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY ~~(NTU)~~ Visual
11-1	10:58	4	62.8	276	7.65	TAN	High
11-1	11:15	8	64.0	256	7.62	TAN	High
11-1	11:22	12	65.4	290	7.49	TAN	High

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO ANALYSES: Tph As MS Btex 8010 8020

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 4 HCL VOAs

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump X Dedicated Dispos.

ier: ____

p Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump X Bailer (___ PVC or X disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump ___ Dedicated ____

Other: ____

INTEGRITY: Good LOCK#: 0909

MKS: ____

: GRC Page 1 of 1

BLAINE International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009-07 PURGED BY: GRC WELL I.D.: MW-1

CLIENT NAME: Safety Kleen SAMPLED BY: GRC SAMPLE I.D.: MW-1

LOCATION: 400 Market Street Oakland CA QA SAMPLES: None

DATE PURGED 11-1-96 START (2400hr) 8:40 END (2400hr) 9:10

DATE SAMPLED 11-1-96 SAMPLE TIME (2400hr) Post Purge 9:20 No. Purge 8:45

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

CASING DIAMETER:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	X (0.17)	___ (0.38)	___ (0.67)	___ (1.02)	___ (1.50)	___ (2.60)	___ ( )

DEPTH TO BOTTOM (feet) = 22.02 CASING VOLUME (gal) = 2.50

DEPTH TO WATER (feet) = 6.90 CALCULATED PURGE (gal) = 7.71

WATER COLUMN HEIGHT (feet) = 15.12 ACTUAL PURGE (gal) = 8.00

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (visual)
11-1	8:50	2.5	60.6	373	7.35	TAN	High
11-1	8:59	5.0	62.4	391	7.40	TAN	High
11-1	9:10	8.0	62.2	404	7.43	TAN	High

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO ANALYSES: TPh AS MS BTEX 8010, 8020

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 4 HCL VOAs

PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump X Dedicated Disp.
Other: ____
Pump Depth: ____

SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump X Bailer (___ PVC or X disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump ___ Dedicated ____
Other: ____

WELL INTEGRITY: Good LOCK#: 0909

REMARKS: ____

SIGNATURE: GRC

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009-07 | PURGED BY: GRC | WELL I.D.: MW-2

CLIENT NAME: Safety-Kleen | SAMPLED BY: GRC | SAMPLE I.D.: MW-2

LOCATION: 400 Market St. Oakland CA | QA SAMPLES: None

DATE PURGED 11-1-96 | START (2400hr) 8:00 | END (2400hr) 8:35

DATE SAMPLED 11-1-96 | SAMPLE TIME (2400hr) Post Purge 8:40 | No. Purge 8:15

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	X (0.17)	___ (0.38)	___ (0.67)	___ (1.02)	___ (1.50)	___ (2.60)	___ ( )

DEPTH TO BOTTOM (feet) = 29.40 | CASING VOLUME (gal) = 3.72

DEPTH TO WATER (feet) = 7.50 | CALCULATED PURGE (gal) = 11.16

WATER COLUMN HEIGHT (feet) = 21.90 | ACTUAL PURGE (gal) = 11.25

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (visual)
11-1-96	8:20	3.5	64.4	425	7.66	TAN	High
11-1-96	8:25	7.0	66.2	461	7.31	TAN	High
11-1-96	8:30	11.25	67.1	462	7.20	TAN	High

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: - | SAMPLE TURBIDITY: -

80% RECHARGE: X YES ___ NO | ANALYSES: TPH AS MS Btex 8010, 8020

ODOR: None | SAMPLE VESSEL / PRESERVATIVE: 8 HCL VOAs

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ Bladder Pump	___ Bailer (Teflon)	___ Bladder Pump	___ Bailer (Teflon)
___ Centrifugal Pump	___ Bailer (PVC)	___ Centrifugal Pump	X Bailer (___ PVC or X disposable)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Submersible Pump	___ Bailer (Stainless Steel)
___ Peristaltic Pump	X Dedicated Dispo	___ Peristaltic Pump	___ Dedicated ___
Other: ___		Other: ___	
Pump Depth: ___			

WELL INTEGRITY: Good | LOCK#: None

REMARKS: ___

SIGNATURE: GRC

SECOR International Inc.

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009-07 | PURGED BY: GRC | WELL I.D.: MW-4

CLIENT NAME: Safety Kleen | SAMPLED BY: GRC | SAMPLE I.D.: MW-4

LOCATION: 400 Market St. Oakland CA | QA SAMPLES: None

DATE PURGED 11-1-96 | START (2400hr) 9:20 | END (2400hr) 9:45

DATE SAMPLED 11-1-96 | SAMPLE TIME (2400hr) post purge 9:50 / No purge 9:25

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

CASING DIAMETER:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	X (0.17)	___ (0.38)	___ (0.67)	___ (1.02)	___ (1.50)	___ (2.60)	___ ( )

DEPTH TO BOTTOM (feet) = 25.40 | CASING VOLUME (gal) = 2.81

DEPTH TO WATER (feet) = 8.85 | CALCULATED PURGE (gal) = 8.44

WATER COLUMN HEIGHT (feet) = 16.55 | ACTUAL PURGE (gal) = 8.50

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (visual)
11-1	9:30	2.5	63.6	667	6.93	TAN	High
11-1	9:40	5.5	65.4	691	6.85	TAN	High
11-1	9:47	8.5	65.3	683	6.80	TAN	High

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO | ANALYSES: TPH AS MS, BTEX, 8010, 8020

ODOR: None | SAMPLE VESSEL / PRESERVATIVE: 4 HCL VOAs

PURGING EQUIPMENT

___ Bladder Pump | ___ Bailer (Teflon)
___ Centrifugal Pump | ___ Bailer (PVC)
___ Submersible Pump | ___ Bailer (Stainless Steel)
___ Peristaltic Pump | Y Dedicated Disposable

Other: ___

Pump Depth: ___

SAMPLING EQUIPMENT

___ Bladder Pump | ___ Bailer (Teflon)
___ Centrifugal Pump | X Bailer (___ PVC or X disposable)
___ Submersible Pump | ___ Bailer (Stainless Steel)
___ Peristaltic Pump | ___ Dedicated ___

Other: ___

WELL INTEGRITY: Good | LOCK#: 0909

REMARKS: ___

SIGNATURE: GRC

APPENDIX B

Laboratory Reports - Vapor

Superior Analytical Laboratory

SECOR
1390 WILLOW PASS RD, STE. 360
CONCORD, CA 94520

Attn: GREG HOEHN

RECEIVED
OCT 11 1996

Date: October 7, 1996

Laboratory Number : 21928

Project Number/Name : 70005-009
Facility/Site : 400 MARKET ST
OAKLAND

Dear GREG HOEHN:

Attached is Superior Analytical Laboratory report for the samples received on September 27, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after October 27, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,

Afsaneh Salimpour
Project Manager

Superior
Analytical Laboratory

CASE NARRATIVE

SECOR
Project Number/Name: 70005-009
Laboratory Number: 21928

Sample Receipt

Two air samples were received by
Superior Analytical Laboratory on September 27, 1996.

No abnormalities were noted with sample recieving.

Sample Analysis

The samples were analysed for methods 8010, 8015M and 8020.

Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553
1555 Burke Street • Suite A • San Francisco, California 94124

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on October 1, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Chronology

Laboratory Number 21928

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	09/26/96	09/27/96	09/27/96	09/27/96	CI271.05	01
EFF	09/26/96	09/27/96	09/27/96	09/27/96	CI271.05	02

QC Samples

QC Batch #	QC Sample ID	Type	Ref.	Matrix	Extract.	Analyzed
CI271.05-05	Laboratory Spike	LS		Water	09/27/96	09/27/96
CI271.05-16	B-19	MS	21918-02	Water	09/27/96	09/27/96
CI271.05-17	B-19	MSD	21918-02	Water	09/27/96	09/27/96
CI271.05-20	Method Blank	MB		Air	09/27/96	09/27/96
CI271.05-06	Laboratory Spike	LS		Water	09/27/96	09/27/96
CI271.05-18	B-19	MS	21918-02	Water	09/27/96	09/27/96
CI271.05-19	B-19	MSD	21918-02	Water	09/27/96	09/27/96

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on October 1, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
21928-01	INF	Air	1.0	-
21928-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	21928-01 Conc. ug/L	RL	21928-02 Conc. ug/L	RL
Mineral Spirits	1300	50	ND	50
Benzene	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5
Ethyl Benzene	0.9	0.5	ND	0.5
Total Xylenes	4.5	0.5	0.5	0.5
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	81		78	

Superior
Analytical Laboratory

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21928
Method Blank(s)

	CI271.05-20 Conc. ppm-v	 RL
Mineral Spirits	ND	50
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Total Xylenes	ND	0.5
>> Surrogate Recoveries (%) <<		
Trifluorotoluene (SS)	83	

Superior
Analytical Laboratory

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21928

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
		For Water Matrix (ug/L)				
	CI271.05 05 /	- Laboratory Control Spikes				
Benzene		20	17	85	65-125	
Toluene		20	19	95	65-125	
Ethyl Benzene		20	18	90	65-125	
Total Xylenes		60	60	100	65-125	
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				80	50-150	
		For Water Matrix (ug/L)				
	CI271.05 06 /	- Laboratory Control Spikes				
Gasoline		2000	2000	100	65-135	
		For Water Matrix (ug/L)				
	CI271.05 16 / 17	- Sample Spiked: 21918 - 02				
Benzene	ND	20	17/17	85/85	65-125	0
Toluene	0.7	20	16/17	77/82	65-125	6
Ethyl Benzene	ND	20	15/17	75/85	65-125	13
Total Xylenes	0.7	60	51/58	84/96	65-125	13
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				71/72	50-150	
		For Water Matrix (ug/L)				
	CI271.05 18 / 19	- Sample Spiked: 21918 - 02				
Gasoline	ND	2000	1700/1900	85/95	65-135	11

Superior
Analytical Laboratory

Narrative:

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on September 30, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Chronology

Laboratory Number 21928

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	09/26/96	09/27/96	09/27/96	09/27/96	CI271.08	01
EFF	09/26/96	09/27/96	09/27/96	09/27/96	CI271.08	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CI271.08-01	Method Blank	MB	Air	09/27/96	09/27/96
CI271.08-02	Laboratory Spike	LS	Water	09/27/96	09/27/96
CI271.08-03	Laboratory Spike Duplicate	LSD	Water	09/27/96	09/27/96
CI271.08-04	MW-8	MS 21906-04	Water	09/27/96	09/27/96
CI271.08-05	MW-8	MSD 21906-04	Water	09/27/96	09/27/96

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on September 30, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
21928-01	INF	Air	1.0	-
21928-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	21928-01 Conc. PPB (V/V)	RL	21928-02 Conc. PPB (V/V)	RL
Chloromethane	ND	480	ND	480
Vinyl Chloride	ND	390	ND	390
Bromomethane	ND	250	ND	250
Chloroethane	ND	270	ND	270
Trichlorofluoromethane	ND	88	ND	88
1,1-Dichloroethene	ND	120	ND	120
Dichloromethane	ND	140	ND	140
t-1,2-Dichloroethene	ND	120	ND	120
1,1-Dichloroethane	ND	120	ND	120
c-1,2-Dichloroethene	ND	120	ND	120
Chloroform	ND	100	ND	100
1,1,1-Trichloroethane	ND	90	ND	90
Carbon tetrachloride	ND	78	ND	78
1,2-Dichloroethane	ND	120	ND	120
Trichloroethene	ND	92	ND	92
c-1,3-Dichloropropene	ND	110	ND	110
1,2-Dichloropropane	ND	110	ND	110
t-1,3-Dichloropropene	ND	110	ND	110
Bromodichloromethane	ND	68	ND	68
1,1,2-Trichloroethane	ND	90	ND	90
Tetrachloroethene	ND	73	ND	73
Dibromochloromethane	ND	58	ND	58
Chlorobenzene	ND	110	ND	110
Bromoform	ND	48	ND	48
1,1,2,2-Tetrachloroethane	ND	72	ND	72
1,3-Dichlorobenzene	ND	82	ND	82
1,2-Dichlorobenzene	ND	82	ND	82
1,4-Dichlorobenzene	ND	82	ND	82
>> Surrogate Recoveries (%) <<				
Bromochloromethane	91		90	

Superior

Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 21928
Method Blank(s)

	CI271.08-01 Conc. PPB (V/V)	RL
Chloromethane	ND	480
Vinyl Chloride	ND	390
Bromomethane	ND	250
Chloroethane	ND	270
Trichlorofluoromethane	ND	88
1,1-Dichloroethene	ND	120
Dichloromethane	ND	140
t-1,2-Dichloroethene	ND	120
1,1-Dichloroethane	ND	120
c-1,2-Dichloroethene	ND	120
Chloroform	ND	100
1,1,1-Trichloroethane	ND	90
Carbon tetrachloride	ND	78
1,2-Dichloroethane	ND	120
Trichloroethene	ND	92
c-1,3-Dichloropropene	ND	110
1,2-Dichloropropane	ND	110
t-1,3-Dichloropropene	ND	110
Bromodichloromethane	ND	68
1,1,2-Trichloroethane	ND	90
Tetrachloroethene	ND	73
Dibromochloromethane	ND	58
Chlorobenzene	ND	110
Bromoform	ND	48
1,1,2,2-Tetrachloroethane	ND	72
1,3-Dichlorobenzene	ND	82
1,2-Dichlorobenzene	ND	82
1,4-Dichlorobenzene	ND	82
>> Surrogate Recoveries (%) <<		
Bromochloromethane	71	

Superior Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 21928

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L) CI271.08 02 / 03 - Laboratory Control Spikes						
1,1-Dichloroethene		20	21/21	105/105	50-189	0
Trichloroethene		20	19/19	95/95	53-161	0
Chlorobenzene		20	21/21	105/105	57-171	0
>> Surrogate Recoveries (%) <<						
Bromochloromethane				95/94	50-125	
For Water Matrix (ug/L) CI271.08 04 / 05 - Sample Spiked: 21906 - 04						
1,1-Dichloroethene	ND	20	22/21	110/105	50-189	5
Trichloroethene	ND	20	20/20	100/100	53-161	0
Chlorobenzene	ND	20	21/21	105/105	57-171	0
>> Surrogate Recoveries (%) <<						
Bromochloromethane				92/83	50-125	

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb
mg/kg = parts per million (ppm

21928

Chain-of Custody Number:

SECOR Chain-of Custody Record

Field Office: SECOR

Address: 1390 willow PASS Road Suite 360
Concord, CA 94519

☐ Additional documents are attached, and are a part of this Record.

Job Name: SAFETY Kleen

Location: 400 MARKET St.
oakland, CA

Project # 70005-009 Task #

Project Manager Greg Hoenn

Laboratory Superior

Turnaround Time STANDARD

Sampler's Name GARY R CLIFT

Sampler's Signature Gary R Clift

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	TPH As DIESEL Sp. MTBE BTEX	Comments/ Instructions	Number of Containers
INF	9-26-96	6:15	AIR							X						X		1
EFF	9-26-96	6:00	AIR							X						X		1

Samples Stored in Ice: N/A
Appropriate containers ✓
Samples preserved
VOA's without headspace
Comments:

Special Instructions/Comments:

Relinquished by: SECOR
Sign Gary R Clift
Print GARY CLIFT
Company SECOR
Time 8:00 Date 9-27-96

Received by: [illegible]
Sign [illegible]
Print [illegible]
Company [illegible]
Time [illegible] Date [illegible]

Relinquished by: [illegible]
Sign [illegible]
Print [illegible]
Company [illegible]
Time [illegible] Date [illegible]

Received by: [illegible]
Sign [illegible]
Print [illegible]
Company [illegible]
Time [illegible] Date [illegible]

Sample Receipt
Total no. of containers: 2
Chain of custody seals:
Rec'd. in good condition/cold:
Conforms to record:

Client: SECOR
Client Contact: Greg Hoenn
Client Phone: (510)686-9780

SECOR CUSTREC Rev. 1/95

Date: 9/27/96 Page 1 of 1

Superior Analytical Laboratory

SECOR
1390 WILLOW PASS RD, STE. 360
CONCORD, CA 94520

Date: October 23, 1996

Attn: GREG HOEHN

Laboratory Number : 21963

Project Number/Name : 70005-009 TAS
Facility/Site : SAFETY KLEEN
400 MARKET ST
OAKLAND, CA

Dear GREG HOEHN:

Attached is Superior Analytical Laboratory report for the samples received on October 11, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after November 10, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,

Afsaneh Salimpour
Project Manager

Superior
Analytical Laboratory

CASE NARRATIVE

SECOR
Project Number/Name: 70005-009 TASK # 001
Laboratory Number: 21963

Sample Receipt

Two air samples were received by
Superior Analytical Laboratory on October 11, 1996.

No abnormalities were noted with sample recieving.

Sample Analysis

The samples were analysed for methods 8010, 8015M and 8020.

Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553
1555 Burke Street • Suite A • San Francisco, California 94124

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009 TASK # 001
Reported on October 23, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Chronology

Laboratory Number 21963

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	10/10/96	10/11/96	10/11/96	10/11/96	CJ111.05	01
EFF	10/10/96	10/11/96	10/11/96	10/11/96	CJ111.05	02

QC Samples

QC Batch #	QC Sample ID	Type	Ref.	Matrix	Extract.	Analyzed
CJ111.05-02	Laboratory Spike	LS		Water	10/11/96	10/11/96
CJ111.05-03	RW-36	MS	21955-02	Water	10/11/96	10/11/96
CJ111.05-04	RW-36	MSD	21955-02	Water	10/11/96	10/11/96
CJ111.05-08	Method Blank	MB		Air	10/11/96	10/11/96
CJ111.05-05	Laboratory Spike	LS		Water	10/11/96	10/11/96
CJ111.05-06	RW-36	MS	21955-02	Water	10/11/96	10/11/96
CJ111.05-07	RW-36	MSD	21955-02	Water	10/11/96	10/11/96

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009 TASK # 001
Reported on October 23, 1996

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
21963-01	INF	Air	1.0	-
21963-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	21963-01 Conc. ug/L	RL	21963-02 Conc. ug/L	RL
Mineral Spirits	880	50	ND	50
Benzene	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5
Ethyl Benzene	ND	0.5	ND	0.5
Total Xylenes	2.1	0.5	ND	0.5
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	73		69	

Superior
Analytical Laboratory

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21963
Method Blank(s)

	CJ111.05-08 Conc. ug/L	RL
Mineral Spirits	ND	50
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Total Xylenes	ND	0.5
>> Surrogate Recoveries (%) <<		
Trifluorotoluene (SS)	76	

Superior
Analytical Laboratory

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 21963

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
		For Water Matrix (ug/L)				
	CJ111.05 02 /	- Laboratory Control Spikes				
Benzene		20	18	90	65-125	
Toluene		20	19	95	65-125	
Ethyl Benzene		20	20	100	65-125	
Total Xylenes		60	64	107	65-125	
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				91	50-150	
		For Water Matrix (ug/L)				
	CJ111.05 05 /	- Laboratory Control Spikes				
Gasoline		2000	2000	100	65-135	
		For Water Matrix (ug/L)				
	CJ111.05 03 / 04 - Sample Spiked: 21955 - 02					
Benzene	ND	20	16/19	80/95	65-125	17
Toluene	ND	20	16/20	80/100	65-125	22
Ethyl Benzene	ND	20	17/20	85/100	65-125	16
Total Xylenes	ND	60	51/60	85/100	65-125	16
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				75/19	50-150	
		For Water Matrix (ug/L)				
	CJ111.05 06 / 07 - Sample Spiked: 21955 - 02					
Gasoline	ND	2000	2100/2100	105/105	65-135	0

Superior
Analytical Laboratory

Narrative:

Definitions:

ND	=	Not Detected
RL	=	Reporting Limit
NA	=	Not Analysed
RPD	=	Relative Percent Difference
ug/L	=	parts per billion (ppb)
mg/L	=	parts per million (ppm)
ug/kg	=	parts per billion (ppb)
mg/kg	=	parts per million (ppm)

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009 TASK # 001
Reported on October 15, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Chronology

Laboratory Number 21963

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	10/10/96	10/11/96	10/12/96	10/12/96	CJ121.08	01
EFF	10/10/96	10/11/96	10/12/96	10/12/96	CJ121.08	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ121.08-01	Method Blank	MB	Air	10/12/96	10/12/96
CJ121.08-02	Laboratory Spike	LS	Water	10/12/96	10/12/96
CJ121.08-03	GP-31A	MS 21961-41	Water	10/12/96	10/12/96
CJ121.08-04	GP-31A	MSD 21961-41	Water	10/12/96	10/12/96

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009 TASK # 001
Reported on October 15, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
21963-01	INF	Air	1.0	-
21963-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	21963-01 Conc. PPB (V/V)	21963-01 RL	21963-02 Conc. PPB (V/V)	21963-02 RL
Chloromethane	ND	480	ND	480
Vinyl Chloride	ND	390	ND	390
Bromomethane	ND	250	ND	250
Chloroethane	ND	270	ND	270
Trichlorofluoromethane	ND	88	ND	88
1,1-Dichloroethene	ND	120	ND	120
Dichloromethane	ND	140	ND	140
t-1,2-Dichloroethene	ND	120	ND	120
1,1-Dichloroethane	ND	120	ND	120
c-1,2-Dichloroethene	ND	120	ND	120
Chloroform	ND	100	ND	100
1,1,1-Trichloroethane	ND	90	ND	90
Carbon tetrachloride	ND	78	ND	78
1,2-Dichloroethane	ND	120	ND	120
Trichloroethene	ND	92	ND	92
c-1,3-Dichloropropene	ND	110	ND	110
1,2-Dichloropropane	ND	110	ND	110
t-1,3-Dichloropropene	ND	110	ND	110
Bromodichloromethane	ND	68	ND	68
1,1,2-Trichloroethane	ND	90	ND	90
Tetrachloroethene	360	73	ND	73
Dibromochloromethane	ND	58	ND	58
Chlorobenzene	ND	110	ND	110
Bromoform	ND	48	ND	48
1,1,2,2-Tetrachloroethane	ND	72	ND	72
1,3-Dichlorobenzene	ND	82	ND	82
1,2-Dichlorobenzene	ND	82	ND	82
1,4-Dichlorobenzene	ND	82	ND	82
>> Surrogate Recoveries (%) <<				
Bromochloromethane	81		78	

Superior
Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 21963
Method Blank(s)

CJ121.08-01

	Conc. PPB	RL (V/V)
Chloromethane	ND	480
Vinyl Chloride	ND	390
Bromomethane	ND	250
Chloroethane	ND	270
Trichlorofluoromethane	ND	88
1,1-Dichloroethene	ND	120
Dichloromethane	ND	140
t-1,2-Dichloroethene	ND	120
1,1-Dichloroethane	ND	120
c-1,2-Dichloroethene	ND	120
Chloroform	ND	100
1,1,1-Trichloroethane	ND	90
Carbon tetrachloride	ND	78
1,2-Dichloroethane	ND	120
Trichloroethene	ND	92
c-1,3-Dichloropropene	ND	110
1,2-Dichloropropane	ND	110
t-1,3-Dichloropropene	ND	110
Bromodichloromethane	ND	68
1,1,2-Trichloroethane	ND	90
Tetrachloroethene	ND	73
Dibromochloromethane	ND	58
Chlorobenzene	ND	110
Bromoform	ND	48
1,1,2,2-Tetrachloroethane	ND	72
1,3-Dichlorobenzene	ND	82
1,2-Dichlorobenzene	ND	82
1,4-Dichlorobenzene	ND	82

>> Surrogate Recoveries (%) <<

Bromochloromethane	94

Superior Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 21963

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
		For Water Matrix (ug/L)				
	CJ121.08	02 / - Laboratory Control Spikes				
1,1-Dichloroethene		20	25	125	50-189	
Trichloroethene		20	22	110	53-161	
Chlorobenzene		20	23	115	57-171	
>> Surrogate Recoveries (%) <<						
Bromochloromethane				96	50-125	
		For Water Matrix (ug/L)				
	CJ121.08	03 / 04 - Sample Spiked: 21961 - 41				
1,1-Dichloroethene	ND	20	27/29	135/145	50-189	7
Trichloroethene	ND	20	21/23	105/115	53-161	9
Chlorobenzene	ND	20	23/24	115/120	57-171	4
>> Surrogate Recoveries (%) <<						
Bromochloromethane				82/99	50-125	

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Chain-of Custody Number:

21963

SECOR Chain-of Custody Record

☐ Additional documents are attached, and are a part of this Record.

Field Office: SECOR

Address: 1390 Willow Pass Road Suite 360
Concord, CA

Job Name: SAFety - Kleen

Location: 400 MARKet Street
Oakland, CA

Project # 70005-009- Task # 001

Project Manager Greg Hoehn

Laboratory Superior

Turnaround Time STANdard

Sampler's Name GARY CLIFT

Sampler's Signature [illegible]

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	TPH As Mineral Spirits BTEX		Comments/ Instructions	Number of Containers
INF	10/10/96	10:00	Air							X						X			1
EFF	10/10/96	9:50	Air							X						X			1
Fields [illegible]																			
Samples Stored in Ice																			

Special Instructions/Comments:

Samples preserved

VOAs without headspace

[illegible]

Relinquished by: SECOR	Received by:
Sign [illegible]	Sign [illegible]
Print GARY R. CLIFT	Print DENNIS [illegible]
Company SECOR	Company SAL
Time 9:30 a.m. Date 10/11/96	Time 9:30 AM Date 10/11/96

Relinquished by:	Received by:
Sign [illegible]	Sign [illegible]
Print DENNIS [illegible]	Print
Company SAL	Company SAC
Time 9:56 AM Date 10/11/96	Time 9:56 Date 10/11/96

Sample Receipt	
Total no. of containers:	2
Chain of custody seals:	
Rec'd. in good condition/cold:	
Conforms to record:	

Client: SECOR

Client Contact: Greg Hoehn

Client Phone:

SECOR CUSTREC Rev. 1/95

Date: 10/10/96 Page 1 of 1

Superior Analytical Laboratory

SECOR
1390 WILLOW PASS RD, STE. 360
CONCORD, CA 94520

Date: October 31, 1996

Attn: GREG HOEHN

Laboratory Number : 22009

Project Number/Name : 70005-009-08
Facility/Site : SAFETY KLEEN

Dear GREG HOEHN:

Attached is Superior Analytical Laboratory report for the samples received on October 23, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after November 22, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,

Afsaneh Salimpour
Project Manager

Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553
1555 Burke Street • Suite A • San Francisco, California 94124

Superior
SAL
Analytical Laboratory

CASE NARRATIVE

SECOR
Project Number/Name: 70005-009-08
Laboratory Number: 22009

Sample Receipt

Two air samples were received by
Superior Analytical Laboratory on October 23, 1996.

Cooler temperature was 22°C

No abnormalities were noted with sample recieving.

Sample Analysis

The samples were analysed for methods 8010, 8015M and 8020.

Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553
1555 Burke Street • Suite A • San Francisco, California 94124

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009-08
Reported on October 24, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Chronology

Laboratory Number 22009

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	10/22/96	10/23/96	10/23/96	10/23/96	CJ232.06	01
EFF	10/22/96	10/23/96	10/23/96	10/23/96	CJ232.06	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ232.06-01	Method Blank	MB	Water	10/23/96	10/23/96
CJ232.06-02	Laboratory Spike	LS	Water	10/23/96	10/23/96
CJ232.06-03	Laboratory Spike Duplicate	LSD	Water	10/23/96	10/23/96
CJ232.06-04	DW-2	MS 22006-03	Water	10/23/96	10/23/96
CJ232.06-05	DW-2	MSD 22006-03	Water	10/23/96	10/23/96

SECOR
Attn: GREG HOEHN

Project 70005-009-08
Reported on October 24, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22009-01	INF	Air	1.0	-
22009-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22009-01 Conc. PPB (V/V)	22009-01 RL (V/V)	22009-02 Conc. PPB (V/V)	22009-02 RL (V/V)
Chloromethane	ND	480	ND	480
Vinyl Chloride	ND	390	ND	390
Bromomethane	ND	250	ND	250
Chloroethane	ND	270	ND	270
Trichlorofluoromethane	ND	88	ND	88
1,1-Dichloroethene	ND	120	ND	120
Dichloromethane	ND	140	ND	140
t-1,2-Dichloroethene	ND	120	ND	120
1,1-Dichloroethane	ND	120	ND	120
c-1,2-Dichloroethene	ND	120	ND	120
Chloroform	ND	100	ND	100
1,1,1-Trichloroethane	ND	90	ND	90
Carbon tetrachloride	ND	78	ND	78
1,2-Dichloroethane	ND	120	ND	120
Trichloroethene	ND	92	ND	92
c-1,3-Dichloropropene	ND	110	ND	110
1,2-Dichloropropane	ND	110	ND	110
t-1,3-Dichloropropene	ND	110	ND	110
Bromodichloromethane	ND	68	ND	68
1,1,2-Trichloroethane	ND	90	ND	90
Tetrachloroethene	ND	73	ND	73
Dibromochloromethane	ND	58	ND	58
Chlorobenzene	ND	110	ND	110
Bromoform	ND	48	ND	48
1,1,2,2-Tetrachloroethane	ND	72	ND	72
1,3-Dichlorobenzene	ND	82	ND	82
1,2-Dichlorobenzene	ND	82	ND	82
1,4-Dichlorobenzene	ND	82	ND	82
>> Surrogate Recoveries (%) <<				
Bromochloromethane	77		78	

Superior
Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 22009
Method Blank(s)

CJ232.06-01

	Conc. ug/L	RL
Chloromethane	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	0.5
Chloroethane	ND	0.5
Trichlorofluoromethane	ND	0.5
1,1-Dichloroethene	ND	0.5
Dichloromethane	ND	0.5
t-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
c-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
c-1,3-Dichloropropene	ND	0.5
1,2-Dichloropropane	ND	0.5
t-1,3-Dichloropropene	ND	0.5
Bromodichloromethane	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5

>> Surrogate Recoveries (%) <<

Bromochloromethane	69

Superior Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 22009

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L) CJ232.06 02 / 03 - Laboratory Control Spikes						
1,1-Dichloroethene		20	23/24	115/120	50-189	4
Trichloroethene		20	21/20	105/100	53-161	5
Chlorobenzene		20	22/20	110/100	57-171	10
>> Surrogate Recoveries (%) <<						
Bromochloromethane				78/84	50-125	
For Water Matrix (ug/L) CJ232.06 04 / 05 - Sample Spiked: 22006 - 03						
1,1-Dichloroethene	ND	20	19/28R	95/140	50-189	38
Trichloroethene	ND	20	21/30R	105/150	53-161	35
Chlorobenzene	ND	20	23/27	115/135	57-171	16
>> Surrogate Recoveries (%) <<						
Bromochloromethane				73/81	50-125	

R - MS and/or MSD recoveries were out of control limits. LCS / LCSD recoveries were within acceptable limits.

Definitions:

ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009-08
Reported on October 31, 1996

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Chronology

Laboratory Number 22009

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	10/22/96	10/23/96	10/23/96	10/23/96	CJ232.37	01
EFF	10/22/96	10/23/96	10/23/96	10/23/96	CJ232.37	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ232.37-01	Method Blank	MB	Water	10/23/96	10/23/96
CJ232.37-02	Laboratory Spike	LS	Water	10/23/96	10/23/96
CJ232.37-03	Laboratory Spike Duplicate	LSD	Water	10/23/96	10/23/96
CJ232.37-04	MW1-1	MS 22003-01	Water	10/23/96	10/23/96
CJ232.37-05	MW1-1	MSD 22003-01	Water	10/23/96	10/23/96

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009-08
Reported on October 31, 1996

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22009-01	INF	Air	1.0	-
22009-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22009-01 Conc. ug/L	RL	22009-02 Conc. ug/L	RL
Benzene	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5
Ethyl Benzene	ND	0.5	ND	0.5
Xylenes	3.6	0.5	0.8	0.5
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	104		90	

Superior
Analytical Laboratory

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 22009
Method Blank(s)

	CJ232.37-01 Conc. ug/L	RL
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Xylenes	ND	0.5
>> Surrogate Recoveries (%) <<		
Trifluorotoluene (SS)	109	

Superior Analytical Laboratory

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 22009

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
CJ232.37 02 / 03 - Laboratory Control Spikes						
Benzene		20	20/19	100/95	65-135	5
Toluene		20	20/19	100/95	65-135	5
Ethyl Benzene		20	19/19	95/95	65-135	0
Xylenes		60	60/58	100/97	65-135	3
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				108/104	50-150	
For Water Matrix (ug/L)						
CJ232.37 04 / 05 - Sample Spiked: 22003 - 01						
Benzene	ND	20	18/14	90/70	65-135	25
Toluene	ND	20	18/14	90/70	65-135	25
Ethyl Benzene	ND	20	18/14	90/70	65-135	25
Xylenes	ND	60	54/43	90/72	65-135	22
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				101/86	50-150	

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009-08
Reported on October 31, 1996

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

Chronology

Laboratory Number 22009

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF	10/22/96	10/23/96	10/23/96	10/23/96	CJ232.37	01
EFF	10/22/96	10/23/96	10/23/96	10/23/96	CJ232.37	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CJ232.37-01	Method Blank	MB	Water	10/23/96	10/23/96
CJ232.37-02	Laboratory Spike	LS	Water	10/23/96	10/23/96
CJ232.37-03	Laboratory Spike Duplicate	LSD	Water	10/23/96	10/23/96
CJ232.37-04	MW1-1	MS 22003-01	Water	10/23/96	10/23/96
CJ232.37-05	MW1-1	MSD 22003-01	Water	10/23/96	10/23/96

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009-08
Reported on October 31, 1996

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22009-01	INF	Air	1.0	-
22009-02	EFF	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22009-01 Conc. ug/L	RL	22009-02 Conc. ug/L	RL
Mineral Spirits	670	50	ND	50

Superior
Analytical Laboratory

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

Quality Assurance and Control Data

Laboratory Number: 22009
Method Blank(s)

CJ232.37-01

	Conc.	RL
	ug/L	
Mineral Spirits	ND	50

Superior Analytical Laboratory

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

Quality Assurance and Control Data

Laboratory Number: 22009

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
		For Water Matrix (ug/L)				
		CJ232.37 02 / 03 - Laboratory Control Spikes				
Gasoline		2000	1800/1900	90/95	65-135	5
		For Water Matrix (ug/L)				
		CJ232.37 04 / 05 - Sample Spiked: 22003 - 01				
Gasoline	ND	2000	1800/2000	90/100	65-135	11

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

22009

Chain-of Custody Number:

SECOR Chain-of Custody Record

Field Office: SECOR
Address: 1390 Willow Pass Road Suite 360
Concord, CA

☐ Additional documents are attached, and are a part of this Record.

Job Name: SAFety Kleen
Location: 400 MARKet Street
Oakland CA

Project # 70005-009-08 Task # 001
Project Manager Greg Hoehn
Laboratory Superior
Turnaround Time Standard

Sampler's Name GARY CLIFT
Sampler's Signature

Sample ID	Date	Time	Matrix
INF	10/22	5:15	Air
EFF	10/22	5:00	Air

Analysis Request

HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	TPh As MS BTEX	Comments/ Instructions	Number of Containers
						X						X		1
						X						X		1

Please Initial:
Samples Stored in ice: NO
Appropriate containers: YES
Samples preserved:
VOA's without headspace:
Comments: Fed Ex bags.

Special Instructions/Comments:

Relinquished by: SECOR
Sign
Print GARY CLIFT
Company SECOR
Time 8:00 Date 10/23/96

Relinquished by: SUPERIOR
Sign
Print MARIO STERNAD
Company SUPERIOR
Time 1452 Date 10-23-96

Received by: SUPERIOR
Sign
Print MARIO STERNAD
Company SUPERIOR
Time 1434 Date 10-23-96

Received by: SAL
Sign
Print Paul S Tobin
Company SAL
Time 14.52 Date 10/23/96

Sample Receipt

Total no. of containers:	2
Chain of custody seals:	
Rec'd. in good condition/cold:	
Conforms to record:	

Client: SECOR
Client Contact: Greg Hoehn
Client Phone: (510) 686-9780

SECOR CUSTREC Rev. 1/95

Date: 10 / 22 / 96 Page 1 of 1

Superior Analytical Laboratory

SECOR
1390 WILLOW PASS RD, STE. 360
CONCORD, CA 94520

Date: November 22, 1996

Attn: GREG HOEHN

Laboratory Number : 22063

Project Number/Name : 70005-009
Facility/Site : SAFETYKLEEN 400 MARKET ST. OAKLAND

Dear GREG HOEHN:

Attached is Superior Analytical Laboratory report for the samples received on November 13, 1996. This report has been reviewed and approved for release. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after December 13, 1996, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,

Afsaneh Salimpour
Project Manager

Superior
Analytical Laboratory

CASE NARRATIVE

SECOR
Project Number/Name: 70005-009
Laboratory Number: 22063

Sample Receipt

Two air samples were received by
Superior Analytical Laboratory on November 13, 1996.

Cooler temperature was °C

No abnormalities were noted with sample recieving.

Sample Analysis

The samples were analysed for methods 8010, 8015M and 8020.

Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553
1555 Burke Street • Suite A • San Francisco, California 94124

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on November 22, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Chronology

Laboratory Number 22063

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF 11/13/96 3:10PM	11/13/96	11/13/96	11/14/96	11/14/96	CK141.08	01
EFF 11/13/96 3:00PM	11/13/96	11/13/96	11/14/96	11/14/96	CK141.08	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CK141.08-01	Method Blank	MB	Water	11/14/96	11/14/96
CK141.08-02	Laboratory Spike	LS	Water	11/14/96	11/14/96
CK141.08-03	Laboratory Spike Duplicate	LSD	Water	11/14/96	11/14/96
CK141.08-04	INF 11/13/96 3:10PM	MS 22063-01	Air	11/14/96	11/14/96
CK141.08-05	INF 11/13/96 3:10PM	MSD 22063-01	Air	11/15/96	11/15/96

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on November 22, 1996

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22063-01	INF 11/13/96 3:10PM	Air	1.0	-
22063-02	EFF 11/13/96 3:00PM	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22063-01 Conc. PPB (V/V)	22063-01 RL (V/V)	22063-02 Conc. PPB (V/V)	22063-02 RL (V/V)
Chloromethane	ND	480	ND	480
Vinyl Chloride	ND	390	ND	390
Bromomethane	ND	250	ND	250
Chloroethane	ND	270	ND	270
Trichlorofluoromethane	ND	88	ND	88
1,1-Dichloroethene	ND	120	ND	120
Dichloromethane	ND	140	ND	140
t-1,2-Dichloroethene	ND	120	ND	120
1,1-Dichloroethane	ND	120	ND	120
c-1,2-Dichloroethene	ND	120	ND	120
Chloroform	ND	100	ND	100
1,1,1-Trichloroethane	ND	90	ND	90
Carbon tetrachloride	ND	78	ND	78
1,2-Dichloroethane	ND	120	ND	120
Trichloroethene	ND	92	ND	92
c-1,3-Dichloropropene	ND	110	ND	110
1,2-Dichloropropane	ND	110	ND	110
t-1,3-Dichloropropene	ND	110	ND	110
Bromodichloromethane	ND	68	ND	68
1,1,2-Trichloroethane	ND	90	ND	90
Tetrachloroethene	ND	73	ND	73
Dibromochloromethane	ND	58	ND	58
Chlorobenzene	ND	110	ND	110
Bromoform	ND	48	ND	48
1,1,2,2-Tetrachloroethane	ND	72	ND	72
1,3-Dichlorobenzene	ND	82	ND	82
1,2-Dichlorobenzene	ND	82	ND	82
1,4-Dichlorobenzene	ND	82	ND	82
>> Surrogate Recoveries (%) <<				
Bromochloromethane	91		93	

Superior Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 22063
Method Blank(s)

	CK141.08-01 Conc. ug/L	RL
Chloromethane	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	0.5
Chloroethane	ND	0.5
Trichlorofluoromethane	ND	0.5
1,1-Dichloroethene	ND	0.5
Dichloromethane	ND	0.5
t-1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
c-1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
c-1,3-Dichloropropene	ND	0.5
1,2-Dichloropropane	ND	0.5
t-1,3-Dichloropropene	ND	0.5
Bromodichloromethane	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
>> Surrogate Recoveries (%) <<		
Bromochloromethane	91	

Superior Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Quality Assurance and Control Data

Laboratory Number: 22063

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
CK141.08 02 / 03 - Laboratory Control Spikes						
1,1-Dichloroethene		20	20/22	100/110	50-189	5
Trichloroethene		20	21/21	105/105	53-161	0
Chlorobenzene		20	20/20	100/100	57-171	0
>> Surrogate Recoveries (%) <<						
Bromochloromethane				93/91	50-125	
For Air Matrix (PPB (V)						
CK141.08 04 / 05 - Sample Spiked: 22063 - 01						
1,1-Dichloroethene	ND	4960	5208/4712	105/95	50-189	10
Trichloroethene	ND	3660	3843/3660	105/100	53-161	5
Chlorobenzene	ND	4280	4280/4280	100/100	57-171	0
>> Surrogate Recoveries (%) <<						
Bromochloromethane				92/85	50-125	

Definitions:

ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on November 22, 1996

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

Chronology

Laboratory Number 22063

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF 11/13/96 3:10PM	11/13/96	11/13/96	11/15/96	11/15/96	CK151.37	01
EFF 11/13/96 3:00PM	11/13/96	11/13/96	11/15/96	11/15/96	CK151.37	02

QC Samples

QC Batch #	QC Sample ID	Type	Ref.	Matrix	Extract.	Analyzed
CK151.37-06	Method Blank	MB		Water	11/15/96	11/15/96
CK151.37-07	Laboratory Spike	LS		Water	11/15/96	11/15/96
CK151.37-08	MW-8B	MS	22061-01	Water	11/15/96	11/15/96
CK151.37-09	MW-8B	MSD	22061-01	Water	11/15/96	11/15/96

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on November 22, 1996

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22063-01	INF 11/13/96 3:10PM	Air	1.0	-
22063-02	EFF 11/13/96 3:00PM	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22063-01 Conc. ug/L	RL	22063-02 Conc. ug/L	RL
Mineral Spirits	460	50	ND	50
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	99		98	

Superior Analytical Laboratory

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

Quality Assurance and Control Data

Laboratory Number: 22063
Method Blank(s)

	CK151.37-06 Conc. ug/L	RL
Mineral Spirits	ND	50
>> Surrogate Recoveries (%) <<		
Trifluorotoluene (SS)	89	

Superior Analytical Laboratory

Total Volatile Petroleum Hydrocarbons by EPA SW-846 5030/8015M

Quality Assurance and Control Data

Laboratory Number: 22063

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
		For Water Matrix (ug/L)				
	CK151.37 07 / - Laboratory Control Spikes					
Gasoline		2000	1800	90	65-135	
		For Water Matrix (ug/L)				
	CK151.37 08 / 09 - Sample Spiked: 22061 - 01					
Gasoline	ND	2000	2200/2200	110/110	65-135	0

Definitions:

ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on November 22, 1996

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Chronology

Laboratory Number 22063

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
INF 11/13/96 3:10PM	11/13/96	11/13/96	11/15/96	11/15/96	CK151.37	01
EFF 11/13/96 3:00PM	11/13/96	11/13/96	11/15/96	11/15/96	CK151.37	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CK151.37-01	Method Blank	MB	Water	11/15/96	11/15/96
CK151.37-02	Laboratory Spike	LS	Water	11/15/96	11/15/96
CK151.37-03	MW-8B	MS 22061-01	Water	11/15/96	11/15/96
CK151.37-04	MW-8B	MSD 22061-01	Water	11/15/96	11/15/96

Superior
Analytical Laboratory

SECOR
Attn: GREG HOEHN

Project 70005-009
Reported on November 22, 1996

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22063-01	INF 11/13/96 3:10PM	Air	1.0	-
22063-02	EFF 11/13/96 3:00PM	Air	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22063-01 Conc. ug/L	RL	22063-02 Conc. ug/L	RL
Benzene	ND	0.5	ND	0.5
Toluene	0.7	0.5	ND	0.5
Ethyl Benzene	ND	0.5	ND	0.5
Xylenes	2.6	0.5	0.9	0.5
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	96		98	

Superior
Analytical Laboratory

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 22063
Method Blank(s)

	CK151.37-01 Conc. ug/L	 RL
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Xylenes	ND	0.5
>> Surrogate Recoveries (%) <<		
Trifluorotoluene (SS)	89	

Superior Analytical Laboratory

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 22063

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
		For Water Matrix (ug/L)				
	CK151.37 02 /	- Laboratory Control Spikes				
Benzene		20	17	85	65-135	
Toluene		20	18	90	65-135	
Ethyl Benzene		20	19	95	65-135	
Xylenes		60	57	95	65-135	
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				94	50-150	
		For Water Matrix (ug/L)				
	CK151.37 03 / 04	- Sample Spiked: 22061 - 01				
Benzene	ND	20	19/20	95/100	65-135	5
Toluene	ND	20	21/21	105/105	65-135	0
Ethyl Benzene	ND	20	20/22	100/110	65-135	10
Xylenes	ND	60	58/58	97/97	65-135	0
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				102/108	50-150	

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

22063

Chain-of Custody Number:

SECOR Chain-of Custody Record

Field Office: SECOR

Address: 1390 willow pass Road suite 360
Concord CA 94520

☐ Additional documents are attached, and are a part of this Record.

Job Name: SAFETY Klean

Location: 400 Market St.
Oakland CA

Project # 70005-004 Task # 001

Project Manager Greg Hoehn

Laboratory Superior

Turnaround Time STANDARD

Sampler's Name GARY CLIFT

Sampler's Signature [signature]

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles [redacted]/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	TPH AS M.S. BTEX		Comments/ Instructions	Number of Containers
INF	11/13	3:10	Air							X						X			1
EFF	11/13	3:00	Air							X						X			1

Special Instructions/Comments:

Please Initial: EB

Samples Stored in Ice. UA

Appropriate containers ✓

Samples preserved NA

VOA's without headspace ✓

Comments:

Relinquished by: SECOR
Sign [signature]
Print GARY R CLIFT
Company SECOR
Time 4:20 Date 11/13/96

Relinquished by: [signature]
Sign [signature]
Print R. Burgess
Company SAL
Time 1625 Date 11/13/96

Relinquished by:
Sign
Print
Company
Time Date

Relinquished by:
Sign
Print
Company
Time Date

Sample Receipt

Total no. of containers:	2
Chain of custody seals:	
Rec'd. in good condition/cold:	
Conforms to record:	

Client: SECOR

Client Contact: Greg Hoehn

Client Phone: (510) 686-9780

SECOR CUSTREC Rev. 9/94

Date: 11/13/96 Page 1 of 1

APPENDIX C

Laboratory Reports - Groundwater

safety-kleen ®

Allan A. Manteuffel Technical Center

November 14, 1996

Mr. Greg Hoehn
Secor International
1390 Willow Pass Road
Suite 360
Concord,CA 94520

Re: SK Lab Project #96-335
Project ID Name: Oakland, CA

Dear Greg:

Enclosed please find the analytical results for the sample received by SK Environmental Laboratory on 11/4/96.

A formal Quality Control/Quality Assurance program is maintained by Safety-Kleen, which is designed to meet or exceed the EPA requirements. This information is available upon request.

If you have any questions concerning this analysis, or if we can be of further assistance, please contact me at 312-825-7351.

Sincerely,

Richard H. Cook
Environmental Section Leader

MAH:

P.O. Box 92050
Elk Grove Village, IL
60009-2050

12555 W. Old Higgins Road
Elk Grove Village, IL 60007
Telephone: 773/694-2700
Fax: 773/825-7850

Project ID #: 70005-009-07

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Mineral Spirits in Water

Modified EPA Method 8015

Reporting Limit: 50.0

Work Order #	Collector's Sample #	Date Sampled	Date Analyzed	Concentration µg/L
01	No Purge MW-1	11/1/96	11/7/96	<50
02	Post Purge MW-1	11/1/96	11/7/96	<50
03	No Purge MW-2	11/1/96	11/7/96	<50
04	Post Purge MW-2	11/1/96	11/7/96	<50
05	No Purge MW-3	11/1/96	11/7/96	<50
06	Post Purge MW-3	11/1/96	11/7/96	<50
07	No Purge MW-4	11/1/96	11/7/96	<50
08	Post Purge MW-4	11/1/96	11/7/96	<50
09	No Purge MW-8	11/1/96	11/8/96	<50
10	Post Purge MW-8	11/1/96	11/8/96	<50

Analytical Review / Date: 11/14/96

Project ID #: 70005-009-07

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Method 8010

Work Order #		01	02	03	04	05	06
Collector's Sample #		No Purge MW-1	Post Purge MW-1	No Purge MW-2	Post Purge MW-2	No Purge MW-3	Post Purge MW-3
Date Sampled		11/1/96	11/1/96	11/1/96	11/1/96	11/1/96	11/1/96
Date Analyzed		11/11/96	11/11/96	11/12/96	11/12/96	11/12/96	11/12/96
Dilution Factor		1	1	1	1	1	1
Analyte	Report Limit µg/L	Concentration µg/L					
Benzyl Chloride	1	<1	<1	<1	<1	<1	<1
Bromobenzene	1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	1	<1	<1	<1	<1	<1	<1
Bromoform	2	<2	<2	<2	<2	<2	<2
Bromomethane	2	<2	<2	<2	<2	<2	<2
Carbon Tetrachloride	1	<1	<1	<1	<1	<1	<1
Chlorobenzene	1	<1	<1	<1	<1	<1	<1
Chloroethane	1	<1	<1	<1	<1	<1	<1
Chloroform	1	<1	<1	<1	<1	<1	<1
Chloromethane	1	<1	<1	<1	<1	<1	<1
Chlorotoluene	2	<2	<2	<2	<2	<2	<2
Dibromochloromethane	2	<2	<2	<2	<2	<2	<2
Dibromomethane	1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	1	<1	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethylene	1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethylene	1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethylene	1	<1	<1	<1	<1	<1	<1

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Method 8010

Work Order #		01	02	03	04	05	06
Collector's Sample #		No Purge MW-1	Post Purge MW-1	No Purge MW-2	Post Purge MW-2	No Purge MW-3	Post Purge MW-3
Date Sampled		11/1/96	11/1/96	11/1/96	11/1/96	11/1/96	11/1/96
Date Analyzed		11/11/96	11/11/96	11/12/96	11/12/96	11/12/96	11/12/96
Dilution Factor		1	1	1	1	1	1
Analyte	Report Limit µg/L	Concentration µg/L					
Dichloromethane	2	<2	<2	<2	<2	<2	<2
1,2-Dichloropropane	1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropylene	1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	2	<2	<2	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane	1	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	1	<1	<1	<1	<1	<1	<1
Trichloroethylene	1	<1	<1	<1	<1	**1.6**	**4.9**
Trichlorofluoromethane	1	<1	<1	<1	<1	<1	<1
Trichloropropane	2	<2	<2	<2	<2	<2	<2
Vinyl Chloride	2	<2	<2	<2	<2	<2	<2

Analytical Review / Date: 11/14/96

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Method 8020

Work Order #		01	02	03	04	05	06
Collector's Sample #		No Purge MW-1	Post Purge MW-1	No Purge MW-2	Post Purge MW-2	No Purge MW-3	Post Purge MW-3
Date Sampled		11/1/96	11/1/96	11/1/96	11/1/96	11/1/96	11/1/96
Date Analyzed		11/11/96	11/11/96	11/12/96	11/12/96	11/12/96	11/12/96
Dilution Factor		1	1	1	1	1	1
Analyte	Report Limit µg/L	Concentration µg/L					
Benzene	1	<1	<1	<1	<1	<1	<1
Ethylbenzene	1	<1	<1	<1	<1	<1	<1
Toluene	1	<1	<1	<1	<1	<1	<1
Xylenes	1	<1	<1	<1	<1	<1	<1

Analytical Review / Date: 11/14/96

Project ID #: 70005-009-07

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Method 8010

Work Order #		07	08	09	10	11
Collector's Sample #		No Purge MW-4	Post Purge MW-4	No Purge MW-8	Post Purge MW-8	Trip Blank
Date Sampled		11/1/96	11/1/96	11/1/96	11/1/96	11/1/96
Date Analyzed		11/12/96	11/12/96	11/12/96	11/12/96	11/11/96
Dilution Factor		1	1	1	1	1
Analyte	Report Limit ug/L	Concentration ug/L				
Benzyl Chloride	1	<1	<1	<1	<1	<1
Bromobenzene	1	<1	<1	<1	<1	<1
Bromodichloromethane	1	<1	<1	<1	<1	<1
Bromoform	2	<2	<2	<2	<2	<2
Bromomethane	2	<2	<2	<2	<2	<2
Carbon Tetrachloride	1	<1	<1	<1	<1	<1
Chlorobenzene	1	**1.2**	<1	**23.3 ***	**5.8**	<1
Chloroethane	1	<1	<1	<1	<1	<1
Chloroform	1	**1.6**	**1.8**	**1.7**	**3.9**	<1
Chloromethane	1	<1	<1	<1	<1	<1
Chlorotoluene	2	<2	<2	<2	<2	<2
Dibromochloromethane	2	<2	<2	<2	<2	<2
Dibromomethane	1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	1	<1	<1	**24.4 ***	**5.7**	<1
1,3-Dichlorobenzene	1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	1	<1	<1	**3.9**	**1.1**	<1
Dichlorodifluoromethane	1	<1	<1	<1	<1	<1
1,1-Dichloroethane	1	<1	<1	**16.7 ***	**4.3**	<1
1,2-Dichloroethane	1	<1	<1	**9.5**	**6.0**	<1
1,1-Dichloroethylene	1	**5.1**	**5.0**	**3.2**	**1.3**	<1
cis-1,2-Dichloroethylene	1	**5.1**	**9.2**	**44.5 ***	**60.6 ***	<1
trans-1,2-Dichloroethylene	1	<1	**1.2**	**1.1**	**2.9**	<1

Project ID #: 70005-009-07

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Method 8010

Work Order #		07	08	09	10	11
Collector's Sample #		No Purge MW-4	Post Purge MW-4	No Purge MW-8	Post Purge MW-8	Trip Blank
Date Sampled		11/1/96	11/1/96	11/1/96	11/1/96	11/1/96
Date Analyzed		11/12/96	11/12/96	11/12/96	11/12/96	11/11/96
Dilution Factor		1	1	1	1	1
Analyte	Report Limit µg/L	Concentration µg/L				
Dichloromethane	2	<2	<2	<2	<2	<2
1,2-Dichloropropane	1	<1	<1	**3.0**	<1	<1
trans-1,3-Dichloropropylene	1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	2	<2	<2	<2	<2	<2
1,1,1,2-Tetrachloroethane	1	<1	<1	<1	<1	<1
Tetrachloroethylene	1	<1	<1	**3.4**	**1.6**	<1
1,1,1-Trichloroethane	1	**1.1**	<1	**2.5**	<1	<1
1,1,2-Trichloroethane	1	<1	<1	<1	<1	<1
Trichloroethylene	1	**242.4 ****	**269.0 ****	**339.2 ****	**1156.8 ****	<1
Trichlorofluoromethane	1	<1	<1	<1	<1	<1
Trichloropropane	2	<2	<2	<2	<2	<2
Vinyl Chloride	2	<2	<2	**9.8 ***	**3.5**	<2

* 1:10 Dilution

** 1:100 Dilution

Analytical Review / Date: 11/14/96

Project ID #: 70005-009-07

Project ID Name: Oakland, CA

SK Lab Project #: 96-335

Date Reported: 11/14/96

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Method 8020

Work Order #		07	08	09	10	11
Collector's Sample #		No Purge MW-4	Post Purge MW-4	No Purge MW-8	Post Purge MW-8	Trip Blank
Date Sampled		11/1/96	11/1/96	11/1/96	11/1/96	11/1/96
Date Analyzed		11/12/96	11/12/96	11/12/96	11/12/96	11/11/96
Dilution Factor		1	1	1	1	1
Analyte	Report Limit µg/L	Concentration µg/L				
Benzene	1	<1	<1	<1	<1	<1
Ethylbenzene	1	<1	<1	<1	<1	<1
Toluene	1	<1	<1	<1	<1	<1
Xylenes	1	<1	<1	<1	<1	<1

Analytical Review / Date: 11/14/96

(96-335 (copy))

Chain-of Custody Number:

VOA

SECOR Chain-of Custody Record

Field Office: SECOR

Address: 1390 Willow Pass Road Suite 360
Concord, CA 94520

☐ Additional documents are attached, and are a part of this Record.

Job Name: SAFety Kleen

Location: 400 MArket Street
Oakland, CA

Project # 70005-009-07 Task # 001
Project Manager Greg Hoehn
Laboratory SAFety Kleen
Turnaround Time STandard

Sampler's Name GARY CLIFT
Sampler's Signature

	Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	TPH as M.S. EPA method 8015 by purge & trap	BTEX by EPA method 8020	Comments/ Instructions	Number of Containers
01	No Purge MW-1	11-1	8:45	H2O							X						X	X	9607234	4 x VOA
02	Post Purge MW-1	11-1	9:20	H2O							X						X	X	7240	4
03	No Purge MW-2	11-1	8:15	H2O							X						X	X	7241	4
04	Post Purge MW-2	11-1	8:40	H2O							X						X	X	7242	4
05	No Purge MW-3	11-1	10:45	H2O							X						X	X	7243	4
06	Post Purge MW-3	11-1	11:30	H2O							X						X	X	7244	4
07	No Purge MW-4	11-1	9:25	H2O							X						X	X	7245	4
08	Post Purge MW-4	11-1	9:50	H2O							X						X	X	7246	4
09	No Purge MW-8	11-1	10:00	H2O							X						X	X	7247	4
10	Post Purge MW-8	11-1	10:30	H2O							X						X	X	7245	4

Special Instructions/Comments:
Ice still present — OK to analyze @ temp of (9°C) per Greg Hoehn.

Relinquished by: SECOR
Sign
Print GARY S CLIFT
Company SECOR
Time 8:30 AM Date 11-1-96

Received by:
Sign
Print TCOOK
Company FEC
Time 11:20 Date 11-1-96

Relinquished by:
Sign
Print
Company
Time Date

Received by: C Smith
Sign
Print
Company 9°C
Time 1030 A Date 11-04-96

Sample Receipt
Total no. of containers: 40
Chain of custody seals:
Rec'd. in good condition/cold:
Conforms to record:

Client: SECOR
Client Contact: Greg Hoehn
Client Phone: (510)686-9780

SECOR CUSTREC Rev. 1/95

Date: 11/1/96 Page 1 of 2

Chain-of Custody Number:

SECOR Chain-of Custody Record

Field Office: SECOR

Address: 1390 Willow Pass Road Suite 360
Concord, CA 94520

☐ Additional documents are attached, and are a part of this Record.

Job Name: SAFETY KLEEN

Location: 400 MARKET ST
OAKLAND, CA

Project # 70005-009-07 Task # 001
Project Manager Greg Hoehn
Laboratory SAFETY KLEEN
Turnaround Time STANDARD

Sampler's Name GARY CLIFT
Sampler's Signature Gary Clift

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	TPH as M.S. EPA method 8015 by purge & trap	BTEX by EPA method 8020	Comments/ Instructions	Number of Containers
~~No Purge MW-12~~	~~11-1~~		~~H2O~~							X						X	X		4
~~Post Purge MW-12~~	~~11-1~~		~~H2O~~							X						X	X		4
TRIP BLANK	11-1		H2O							X							X	9607249	1

Special Instructions/Comments:

Relinquished by: SECOR
Sign Gary Clift
Print GARY R CLIFT
Company SECOR
Time 3:30 P.M. Date 11-1-96

Received by:
Sign T Cook
Print T COOK
Company FEC
Time 1540 Date 11-1-96

Sample Receipt
Total no. of containers: 9
Chain of custody seals:
Rec'd. in good condition/cold:
Conforms to record:

Relinquished by:
Sign
Print
Company
Time Date

Received by:
Sign
Print
Company
Time Date

Client: SECOR
Client Contact: Greg Hoehn
Client Phone: (510) 686-9780

SECOR CUSTREC Rev. 1/95

Date: 11/1/96 Page 2 of 2