APPENDIX H

COMPARISONS BETWEEN SEASONS
COMPARISONS WITH 1984 STUDY

COMPARISON BETWEEN SEASONS

The study was conducted in two phases - the first monitored fifty-one people during February, 1987, then the second monitored forty-three in July, 1987. Thirty-eight of the individuals in the second phase participated in both studies while five were different members of the same family. The following analyses were conducted on only those individuals who had data for both seasons. Breath and personal air analyses were done on the thirty-eight people who participated in both phases. The indoor and outdoor analyses were done on all forty-three households since the house remained the same even if a different family member participated in the study. The sample size ranges given in Table H-1 reflect these criteria.

The quantifiable limits for the two seasons are compared in Tables H-2 through H-11. Overall, there appears to be little difference between the two seasons. This can be seen by the relatively small values for the ratios of Winter Season median QL to Summer Season median QL (see Table 7-12). The largest differences appeared to be in the breath samples with the winter samples having the higher values. Trichloroethylene, 1,1,1-trichloroethane, ethylbenzene, n-decane, 1,4-dioxane, and 1,2-dibromoethane had particularly high ratios, ranging from 2.3 to 5.0, for each of the three breath samples.

The percents measurable for the two seasons were then compared. Generally, the percentages were higher during the winter (Table H-13). In breath samples, n-dodecane, n-octane, n-undecane, α-pinene, and n-nonane showed dramatic decreases in the percentage measurable in the summer. For personal air, 1,2-dichloroethane, trichloroethylene, and 1,4-dioxane also showed large decreases in summer while indoors 1,2-dichloroethane, trichloroethylene, and p-dichlorobenzene showed large decreases. Outdoors 1,2-dichloroethane, styrene, p-dichlorobenzene, n-decane, n-undecane, and limonene showed large decreases in the summer.

Summary statistics were then computed for those compounds with at least 20 percent measurable in both seasons. These statistics include the arithmetic mean and standard error, the geometric mean and standard error, percentiles, and the range and are given by season and media in Tables H-14 through H-33. The arithmetic means for the two seasons were tested to determine if they were significantly different at the 0.05 level. If a significant difference was found, an asterisk was placed by the higher of

the two means. The geometric means were also tested in this way. The asterisks indicate that many of the means, particularly the geometric means, were significantly different with higher means during the winter. Only chloroform in initial breath and carbon tetrachloride in daytime living area samples had significantly different means with higher levels during the summer. The ratios of the winter medians to summer medians (see Table H-34) also demonstrate the tendency toward higher concentrations in winter.

The relationships between seasons for benzene, 1,1,1-trichloroethane, and m,p-xylene are presented in Figures H-1 through H-6. The box plots show the arithmetic means, medians, 25th and 75th percentiles by media and season. The figures also show the tendency for overnight outdoor levels in winter to be higher than the daytime winter outdoor levels or the summer outdoor levels.

To further examine the relationship between the seasons, Spearman correlations were computed for the media using measurable amounts only (see Table H-35). If the sample size was less than five, the correlation was not reported. While occasionally compounds such as benzene in breath or p-dichlorobenzene indoors showed strong correlations between the seasons, these were the exceptions. Most compounds did not show any strong relationships.

COMPARISON WITH 1984 STUDY

A concerted effort was made to include in the 1987 study those individuals who had participated in the 1984 study. Thirty-two people participated in both Winter Season studies, while seventeen participated in both Summer Season studies. The winter studies were conducted in February and March of 1984 and February of 1987 while the summer studies were conducted in May and June of 1984 and July of 1987.

The percents measurable for the 1984 and 1987 studies are compared in Tables H-36 and H-37 for the Winter and Summer Season, respectively. While overall patterns were similar between the two studies, the 1984 percentages tended to be higher. This trend was more evident in the winter studies.

The arithmetic mean, arithmetic standard error, median, and range by media for selected compounds in the Winter Season for the two studies are given in Tables H-38 through H-42. The medians and maxima are compared in Table H-43. The 1984 study results were generally higher in outdoor air

for both medians and maxima while in overnight personal air the 1987 results tended to be higher. For daytime personal air and breath, the 1984 medians and the 1987 maxima tended to be higher.

The arithmetic mean, arithmetic standard error, median, and range by media for selected compounds in the Summer Season for the two studies are given in Tables H-44 through H-48. As with the winter season, the medians and maxima for the Summer Season for two studies are compared in Table H-49. However, some cautions should be used in interpreting these results since the two studies were not done during the same months. For daytime personal air, breath and daytime outdoor air, the 1984 median and maximum concentrations were generally higher. For overnight personal air, there was a tendency for the 1987 medians to be higher. For overnight outdoor air, the 1984 medians and 1987 maxima tended to be higher.

TABLE H-1. DATA AVAILABLE FOR STATISTICAL ANALYSIS BY MEDIA FOR THOSE PERSONS HAVING BOTH WINTER AND SUMMER SEASON DATA

Media	Sample Size Range
Initial Breath	15 - 35
Overnight Breath	18 - 34
Daytime Breath	20 - 35
Overnight Personal Air	23 - 32
Daytime Personal Air	17 - 31
Daytime Living Area	27 - 35
Overnight Kitchen	22 - 33
Daytime Kitchen	27 - 34
Overnight Outdoor	27 - 36
Daytime Outdoor	17 - 31

TABLE H-2. SUMMARY OF QUANTIFIABLE LIMITS FOR OVERNIGHT PERSONAL AIR SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.60	0.50 - 0.70	0.80	0.50 - 1.90
1,2-Dichloroethane	0.12	0.10 - 0.20	0.16	0.10 - 0.36
1,1,1-Trichloroethane	0.30	0.30 - 0.30	-	- -
Benzene	-[a]	- -	-	- -
Carbon tetrachloride	0.50	0.40 - 0.70	0.60	0.50 - 1.40
Trichloroethylene	0.50	0.40 - 1.36	0.98	0.40 - 2.56
Tetrachloroethylene	0.20	0.20 - 0.20	0.65	0.60 - 0.80
Styrene	0.36	0.32 - 0.40	0.45	0.30 - 0.60
m-Dichlorobenzene	0.80	0.52 - 0.92	0.76	0.60 - 1.40
p-Dichlorobenzene	0.52	0.52 - 0.52	0.44	0.40 - 0.50
Ethylbenzene	0.08	0.08 - 0.08	-	- -
o-Xylene	0.36	0.36 - 0.36	-	- -
m,p-Xylene	0.20	0.20 - 0.20	-	- -
n-Decane	0.12	0.12 - 0.12	0.50	0.12 - 0.60
n-Dodecane	0.54	0.52 - 0.56	0.50	0.40 - 0.52
1,4-Dioxane	0.60	0.50 - 2.70	0.76	0.44 - 5.08
1,2-Dibromoethane	0.24	0.20 - 0.64	0.28	0.16 - 1.20
n-Octane	0.60	0.60 - 0.60	-	- -
n-Undecane	0.36	0.36 - 0.36	0.50	0.36 - 0.50
α-Pinene	0.52	0.52 - 0.52	0.50	0.40 - 0.52
Limonene	0.45	0.40 - 0.50	0.50	0.50 - 0.50
n-Nonane	0.30	0.30 - 0.30	-	- -

[a]100 percent measurable.

TABLE H-3. SUMMARY OF QUANTIFIABLE LIMITS FOR DAYTIME PERSONAL AIR SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.60	0.48 - 0.92	0.80	0.50 - 1.30
1,2-Dichloroethane	0.10	0.10 - 0.20	0.10	0.10 - 0.20
1,1,1-Trichloroethane	-[a]	- -	-	- -
Benzene	-	- -	-	- -
Carbon tetrachloride	0.49	0.40 - 0.68	0.60	0.50 - 1.00
Trichloroethylene	0.50	0.36 - 1.30	0.50	0.36 - 1.36
Tetrachloroethylene	-	- -	0.60	0.60 - 0.60
Styrene	0.41	0.30 - 0.52	0.45	0.30 - 0.60
m-Dichlorobenzene	0.80	0.64 - 1.04	0.78	0.56 - 1.00
p-Dichlorobenzene	0.48	0.48 - 0.48	0.50	0.40 - 0.70
Ethylbenzene	-	- -	-	- -
o-Xylene	0.48	0.48 - 0.48	-	- -
m,p-Xylene	0.44	0.44 - 0.44	-	- -
n-Decane	0.14	0.08 - 0.60	0.65	0.60 - 0.70
n-Dodecane	0.48	0.48 - 0.48	0.52	0.40 - 0.60
1,4-Dioxane	0.60	0.48 - 2.40	0.64	0.40 - 3.60
1,2-Dibromoethane	0.24	0.16 - 0.60	0.24	0.16 - 0.84
n-Octane	-	- -	0.48	0.48 - 0.48
n-Undecane	0.56	0.56 - 0.56	0.45	0.32 - 0.50
α-Pinene	0.50	0.48 - 0.70	0.50	0.40 - 0.60
Limonene	0.50	0.48 - 0.52	0.48	0.48 - 0.48
n-Nonane	0.50	0.48 - 0.52	-	- -

[a]100 percent measurable.

TABLE H-4. SUMMARY OF QUANTIFIABLE LIMITS FOR INITIAL BREATH SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.92	0.49 - 1.64	0.60	0.50 - 0.76
1,2-Dichloroethane	0.16	0.10 - 0.24	0.12	0.06 - 0.24
1,1,1-Trichloroethane	0.79	0.68 - 0.90	0.30	0.30 - 0.30
Benzene	0.36	0.36 - 0.36	0.24	0.20 - 0.24
Carbon tetrachloride	0.68	0.48 - 1.20	0.50	0.29 - 0.88
Trichloroethylene	1.24	0.48 - 1.60	0.48	0.40 - 0.84
Tetrachloroethylene	-[a]	- -	-	- -
Styrene	0.52	0.36 - 0.64	0.36	0.30 - 0.64
m-Dichlorobenzene	0.68	0.64 - 0.88	0.84	0.75 - 1.56
p-Dichlorobenzene	0.50	0.30 - 0.60	0.50	0.45 - 0.70
Ethylbenzene	0.30	0.30 - 0.40	0.08	0.08 - 0.16
o-Xylene	0.50	0.40 - 0.60	0.36	0.24 - 0.68
m,p-Xylene	-	- -	0.24	0.20 - 0.40
n-Decane	0.60	0.60 - 0.76	0.12	0.10 - 0.20
n-Dodecane	0.48	0.42 - 0.60	0.56	0.50 - 1.04
1,4-Dioxane	2.48	0.56 - 3.20	0.60	0.48 - 1.08
1,2-Dibromoethane	0.56	0.24 - 0.76	0.24	0.20 - 0.40
n-Octane	0.50	0.50 - 0.60	0.64	0.50 - 1.20
n-Undecane	0.56	0.56 - 0.72	0.40	0.35 - 0.72
α-Pinene	0.50	0.44 - 0.60	0.60	0.48 - 1.04
Limonene	-	- -	-	- -
n-Nonane	0.50	0.50 - 0.70	0.40	0.36 - 0.68

[a]100 percent measurable.

TABLE H-5. SUMMARY OF QUANTIFIABLE LIMITS FOR OVERNIGHT BREATH SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.92	0.56 - 1.00	0.56	0.50 - 0.60
1,2-Dichloroethane	0.16	0.10 - 0.20	0.12	0.06 - 0.16
1,1,1-Trichloroethane	0.70	0.70 - 0.70	0.20	0.20 - 0.20
Benzene	0.40	0.40 - 0.40	0.24	0.20 - 0.28
Carbon tetrachloride	0.68	0.42 - 0.72	0.48	0.25 - 0.52
Trichloroethylene	1.20	0.48 - 1.36	0.44	0.25 - 0.52
Tetrachloroethylene	-[a]	- -	-	- -
Styrene	0.50	0.30 - 0.52	0.36	0.30 - 0.40
m-Dichlorobenzene	0.68	0.68 - 0.84	0.84	0.49 - 0.92
p-Dichlorobenzene	0.48	0.44 - 0.50	0.50	0.48 - 0.52
Ethylbenzene	0.30	0.30 - 0.30	0.08	0.08 - 0.08
o-Xylene	0.50	0.40 - 0.50	0.36	0.35 - 0.40
m,p-Xylene	-	- -	0.24	0.20 - 0.24
n-Decane	0.60	0.60 - 0.60	0.12	0.08 - 0.12
n-Dodecane	0.48	0.44 - 0.50	0.53	0.31 - 0.60
1,4-Dioxane	2.48	0.56 - 2.68	0.56	0.35 - 0.64
1,2-Dibromoethane	0.56	0.24 - 0.64	0.20	0.20 - 0.24
n-Octane	0.50	0.50 - 0.64	0.64	0.56 - 0.72
n-Undecane	0.56	0.36 - 0.60	0.40	0.36 - 0.44
α-Pinene	0.50	0.29 - 0.50	0.56	0.31 - 0.60
Limonene	-	- -	0.48	0.48 - 0.48
n-Nonane	0.50	0.36 - 0.52	0.36	0.19 - 0.40

[a]100 percent measurable.

TABLE H-6. SUMMARY OF QUANTIFIABLE LIMITS FOR DAYTIME BREATH SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.92	0.56 - 1.24	0.60	0.56 - 0.80
1,2-Dichloroethane	0.16	0.10 - 0.20	0.12	0.06 - 0.16
1,1,1-Trichloroethane	1.00	0.90 - 1.20	0.30	0.30 - 0.30
Benzene	0.36	0.36 - 0.36	0.24	0.20 - 0.24
Carbon tetrachloride	0.68	0.50 - 0.92	0.52	0.30 - 0.70
Trichloroethylene	1.20	0.50 - 1.40	0.48	0.29 - 0.64
Tetrachloroethylene	-[a]	- -	0.20	0.20 - 0.20
Styrene	0.50	0.30 - 0.52	0.36	0.28 - 0.50
m-Dichlorobenzene	0.68	0.68 - 0.84	0.84	0.68 - 1.12
p-Dichlorobenzene	0.50	0.48 - 0.55	0.50	0.40 - 0.70
Ethylbenzene	0.30	0.30 - 0.32	0.08	0.08 - 0.10
o-Xylene	0.50	0.30 - 0.50	0.36	0.24 - 0.52
m,p-Xylene	0.40	0.40 - 0.40	0.24	0.20 - 0.24
n-Decane	0.60	0.60 - 0.70	0.12	0.08 - 0.16
n-Dodecane	0.48	0.44 - 0.50	0.56	0.44 - 0.70
1,4-Dioxane	2.48	0.56 - 2.80	0.56	0.48 - 0.76
1,2-Dibromoethane	0.56	0.20 - 0.56	0.24	0.20 - 0.28
n-Octane	0.50	0.50 - 0.60	0.64	0.37 - 0.90
n-Undecane	0.56	0.41 - 0.60	0.40	0.32 - 0.50
α-Pinene	0.50	0.46 - 0.60	0.56	0.50 - 0.76
Limonene	-	- -	0.50	0.50 - 0.50
n-Nonane	0.50	0.40 - 0.52	0.36	0.24 - 0.52

[a]100 percent measurable.

TABLE H-7. SUMMARY OF QUANTIFIABLE LIMITS FOR DAYTIME LIVING AREA SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.60	0.52 - 1.10	0.64	0.44 - 1.20
1,2-Dichloroethane	0.11	0.10 - 0.20	0.10	0.10 - 0.20
1,1,1-Trichloroethane	-[a]	- -	-	- -
Benzene	-	- -	-	- -
Carbon tetrachloride	0.50	0.50 - 0.80	0.60	0.60 - 0.80
Trichloroethylene	0.50	0.40 - 1.50	0.50	0.30 - 1.64
Tetrachloroethylene	-	- -	0.75	0.70 - 0.80
Styrene	0.36	0.36 - 0.36	0.40	0.30 - 0.60
m-Dichlorobenzene	0.84	0.48 - 1.04	0.80	0.40 - 1.04
p-Dichlorobenzene	0.50	0.50 - 0.50	0.50	0.30 - 0.52
Ethylbenzene	-	- -	-	- -
o-Xylene	-	- -	0.40	0.40 - 0.40
m,p-Xylene	-	- -	-	- -
n-Decane	0.12	0.12 - 0.12	0.60	0.30 - 0.70
n-Dodecane	0.58	0.56 - 0.60	0.56	0.40 - 0.70
1,4-Dioxane	0.64	0.30 - 3.00	0.68	0.40 - 3.32
1,2-Dibromoethane	0.24	0.16 - 0.68	0.24	0.16 - 0.76
n-Octane	0.64	0.64 - 0.64	-	- -
n-Undecane	-	- -	-	- -
α-Pinene	0.55	0.50 - 0.60	0.56	0.50 - 0.70
Limonene	-	- -	0.50	0.50 - 0.50
n-Nonane	-	- -	-	- -

[a]100 percent measurable.

TABLE H-8. SUMMARY OF QUANTIFIABLE LIMITS FOR OVERNIGHT KITCHEN SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.60	0.36 - 0.84	0.76	0.52 - 1.08
1,2-Dichloroethane	0.10	0.10 - 0.10	0.16	0.10 - 0.24
1,1,1-Trichloroethane	-[a]	- -	-	- -
Benzene	-	- -	-	- -
Carbon tetrachloride	0.50	0.50 - 0.70	0.70	0.60 - 0.92
Trichloroethylene	0.50	0.40 - 1.40	0.50	0.30 - 1.40
Tetrachloroethylene	-	- -	0.60	0.20 - 0.70
Styrene	-	- -	0.55	0.50 - 0.68
m-Dichlorobenzene	0.80	0.43 - 0.92	0.76	0.39 - 1.60
p-Dichlorobenzene	-	- -	0.50	0.30 - 0.90
Ethylbenzene	-	- -	-	- -
o-Xylene	-	- -	0.70	0.70 - 0.70
m,p-Xylene	-	- -	-	- -
n-Decane	-	- -	-	- -
n-Dodecane	0	0 - 0	0.60	0.50 - 1.04
1,4-Dioxane	0.60	0.30 - 2.80	0.60	0.40 - 2.80
1,2-Dibromoethane	0.24	0.20 - 0.64	0.24	0.16 - 0.64
n-Octane	-	- -	0.95	0.70 - 1.20
n-Undecane	-	- -	0.80	0.80 - 0.80
α-Pinene	-	- -	1.04	1.04 - 1.04
Limonene	-	- -	0.90	0.90 - 0.90
n-Nonane	-	- -	0.65	0.60 - 0.70

[a]100 percent measurable.

TABLE H-9. SUMMARY OF QUANTIFIABLE LIMITS FOR DAYTIME KITCHEN SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.60	0.50 - 1.10	0.60	0.50 - 1.00
1,2-Dichloroethane	0.11	0.10 - 0.20	0.10	0.10 - 0.20
1,1,1-Trichloroethane	-[a]	- -	-	- -
Benzene	0.28	0.28 - 0.28	-	- -
Carbon tetrachloride	0.60	0.50 - 0.80	0.70	0.50 - 0.80
Trichloroethylene	0.50	0.19 - 1.52	0.52	0.30 - 1.40
Tetrachloroethylene	-	- -	0.70	0.70 - 0.70
Styrene	0.40	0.36 - 0.50	0.50	0.30 - 0.60
m-Dichlorobenzene	0.84	0.50 - 0.96	0.79	0.55 - 1.00
p-Dichlorobenzene	0.50	0.44 - 0.60	0.50	0.40 - 0.60
Ethylbenzene	-	- -	-	- -
o-Xylene	-	- -	-	- -
m,p-Xylene	-	- -	-	- -
n-Decane	0.41	0.12 - 0.70	-	- -
n-Dodecane	0.55	0.40 - 0.60	0.51	0.50 - 0.60
1,4-Dioxane	0.60	0.50 - 3.08	0.61	0.43 - 2.80
1,2-Dibromoethane	0.24	0.12 - 0.72	0.24	0.16 - 0.64
n-Octane	-	- -	-	- -
n-Undecane	0.40	0.40 - 0.40	0.40	0.36 - 0.60
α-Pinene	0.56	0.50 - 0.60	0.50	0.40 - 0.60
Limonene	-	- -	-	- -
n-Nonane	0.36	0.36 - 0.36	-	- -

[a]100 percent measurable.

TABLE H-10. SUMMARY OF QUANTIFIABLE LIMITS FOR OVERNIGHT OUTDOOR SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.56	0.31 - 1.56	0.60	0.30 - 0.90
1,2-Dichloroethane	0.12	0.10 - 0.30	0.10	0.10 - 0.20
1,1,1-Trichloroethane	-[a]	- -	-	- -
Benzene	-	- -	-	- -
Carbon tetrachloride	0.79	0.48 - 1.10	0.60	0.60 - 0.70
Trichloroethylene	0.44	0.30 - 2.12	0.48	0.32 - 1.36
Tetrachloroethylene	-	- -	0.65	0.60 - 0.70
Styrene	0.36	0.30 - 0.60	0.40	0.30 - 0.56
m-Dichlorobenzene	0.80	0.48 - 1.16	0.73	0.52 - 0.96
p-Dichlorobenzene	0.50	0.40 - 0.80	0.50	0.40 - 0.50
Ethylbenzene	-	- -	-	- -
o-Xylene	-	- -	-	- -
m,p-Xylene	-	- -	-	- -
n-Decane	-	- -	0.55	0.12 - 0.70
n-Dodecane	0.50	0.48 - 0.80	0.50	0.25 - 0.64
1,4-Dioxane	0.56	0.44 - 4.24	0.60	0.40 - 2.68
1,2-Dibromoethane	0.20	0.16 - 1.00	0.24	0.16 - 0.64
n-Octane	0.52	0.44 - 0.60	0.55	0.40 - 0.70
n-Undecane	0.65	0.40 - 0.90	0.50	0.24 - 0.60
α-Pinene	0.50	0.40 - 0.60	0.50	0.25 - 0.64
Limonene	0.50	0.40 - 0.60	0.50	0.25 - 0.60
n-Nonane	0.40	0.40 - 0.40	0.50	0.50 - 0.50

[a]100 percent measurable.

TABLE H-11. SUMMARY OF QUANTIFIABLE LIMITS FOR DAYTIME OUTDOOR AIR SAMPLES FOR THOSE PERSONS WITH WINTER AND SUMMER DATA

Compound	Winter		Summer	
	Median	Range	Median	Range
Chloroform	0.60	0.36 - 1.12	0.60	0.44 - 1.04
1,2-Dichloroethane	0.10	0.10 - 0.20	0.10	0.10 - 0.20
1,1,1-Trichloroethane	-[a]	- -	-	- -
Benzene	-	- -	-	- -
Carbon tetrachloride	0.50	0.50 - 0.80	0.70	0.50 - 0.80
Trichloroethylene	0.48	0.32 - 1.56	0.48	0.32 - 1.44
Tetrachloroethylene	-	- -	0.70	0.60 - 0.80
Styrene	0.40	0.30 - 0.60	0.40	0.20 - 0.60
m-Dichlorobenzene	0.83	0.52 - 1.40	0.80	0.56 - 0.96
p-Dichlorobenzene	0.50	0.36 - 0.80	0.50	0.40 - 0.60
Ethylbenzene	-	- -	0.40	0.40 - 0.40
o-Xylene	-	- -	0.50	0.50 - 0.50
m,p-Xylene	-	- -	-	- -
n-Decane	-	- -	0.60	0.12 - 0.70
n-Dodecane	0.50	0.30 - 0.90	0.55	0.31 - 0.64
1,4-Dioxane	0.60	0.40 - 3.08	0.60	0.40 - 2.88
1,2-Dibromoethane	0.24	0.16 - 0.72	0.24	0.16 - 0.68
n-Octane	-	- -	0.68	0.40 - 0.70
n-Undecane	0.55	0.32 - 0.70	0.47	0.34 - 0.64
α-Pinene	0.56	0.40 - 0.90	0.52	0.31 - 0.64
Limonene	0.50	0.40 - 0.80	0.52	0.30 - 0.60
n-Nonane	-	- -	0.58	0.40 - 0.60

[a]100 percent measurable.

TABLE H-12. RATIOS OF MEDIAN QUANTIFIABLE LIMIT FOR THE WINTER SEASON TO THE MEDIAN QUANTIFIABLE LIMIT FOR THE SUMMER SEASON BY MEDIA AND COMPOUND

Compound	Overnight Personal Air	Daytime Personal Air	Initial Breath	Overnight Breath	Daytime Breath
Chloroform	0.75	0.75	1.53	1.64	1.53
1,2-Dichloroethane	0.75	1.00	1.33	1.33	1.33
1,1,1-Trichloroethane	-[a]	-	2.63	3.50	3.33
Benzene	-	-	1.50	1.67	1.50
Carbon tetrachloride	0.83	0.82	1.36	1.42	1.31
Trichloroethylene	0.51	1.00	2.58	2.73	2.50
Tetrachloroethylene	0.31	-	-	-	-
Styrene	0.80	0.91	1.44	1.39	1.39
m-Dichlorobenzene	1.05	1.03	0.81	0.81	0.81
p-Dichlorobenzene	1.18	0.96	1.00	0.96	1.00
Ethylbenzene	-	-	3.75	3.75	3.75
o-Xylene	-	-	1.39	1.39	1.39
m,p-Xylene	-	-	-	-	1.67
n-Decane	0.24	0.22	5.00	5.00	5.00
n-Dodecane	1.08	0.92	0.86	0.90	0.86
1,4-Dioxane	0.79	0.94	4.13	4.43	4.43
1,2-Dibromoethane	0.86	1.00	2.33	2.80	2.33
n-Octane	-	-	0.78	0.78	0.78
n-Undecane	0.72	1.24	1.40	1.40	1.40
α-Pinene	1.04	1.00	0.83	0.89	0.89
Limonene	0.90	1.04	-	-	-
n-Nonane	-	-	1.25	1.39	1.39

(continued)

TABLE H-12. (continued)

Compound	Daytime Living Area	Overnight Kitchen	Daytime Kitchen	Overnight Outdoor Air	Daytime Outdoor Air
Chloroform	0.94	0.79	1.00	0.93	1.00
1,2-Dichloroethane	1.10	0.62	1.10	1.20	1.00
1,1,1-Trichloroethane	-[a]	-	-	-	-
Benzene	-	-	-	-	-
Carbon tetrachloride	0.83	0.71	0.86	1.32	0.71
Trichloroethylene	1.00	1.00	0.96	0.92	1.00
Tetrachloroethylene	-	-	-	-	-
Styrene	0.90	-	0.80	0.90	1.00
m-Dichlorobenzene	1.05	1.05	1.06	1.10	1.04
p-Dichlorobenzene	1.00	-	1.00	1.00	1.00
Ethylbenzene	-	-	-	-	-
o-Xylene	-	-	-	-	-
m,p-Xylene	-	-	-	-	-
n-Decane	0.20	-	-	-	-
n-Dodecane	1.04	-	1.08	1.00	0.91
1,4-Dioxane	0.94	1.00	0.98	0.93	1.00
1,2-Dibromoethane	1.00	1.00	1.00	0.83	1.00
n-Octane	-	-	-	-	-
n-Undecane	-	-	1.00	1.30	1.17
α-Pinene	0.98	-	1.12	1.00	1.08
Limonene	-	-	-	1.00	0.96
n-Nonane	-	-	-	0.80	-

[a]100 percent measurable in one or both seasons.

TABLE H-13. PERCENT MEASURABLE FOR THOSE WITH WINTER AND SUMMER SEASON DATA BY MEDIA AND SEASON

	Initial Breath		Overnight Breath		Daytime Breath		Overnight Personal Air		Daytime Personal Air	
Compound	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer
Chloroform	20.0	40.0	38.2	35.3	23.5	35.3	62.5	21.9	36.7	43.3
1,2-Dichloroethane	0.00	0.00	3.13	0.00	2.94	0.00	73.9	26.1	58.8	23.5
1,1,1-Trichloroethane	94.1	97.1	97.1	97.1	90.9	97.0	96.9	100.	100.	100.
Benzene	97.1	85.7	97.1	82.4	94.3	77.1	100.	100.	100.	100.
Carbon tetrachloride	0.00	0.00	2.94	0.00	0.00	0.00	81.5	55.6	86.2	69.0
Trichloroethylene	8.57	14.3	8.82	8.82	5.71	14.3	51.6	35.5	51.7	31.0
Tetrachloroethylene	100.	100.	100.	100.	100.	90.0	96.2	84.6	100.	95.6
Styrene	34.4	46.9	32.4	23.5	26.5	32.4	93.6	87.1	93.1	86.2
m-Dichlorobenzene	0.00	3.23	3.03	0.00	5.88	8.82	8.00	0.00	0.00	0.00
p-Dichlorobenzene	62.5	62.5	52.9	38.2	62.9	42.9	96.8	77.4	93.1	72.4
Ethylbenzene	75.0	75.0	85.2	70.4	74.2	71.0	96.8	100.	100.	100.
o-Xylene	63.6	45.4	78.8	42.4	70.6	38.2	96.9	100.	96.8	100.
m,p-Xylene	100.	76.5	100.	70.6	94.3	68.6	96.9	100.	96.8	100.
n-Decane	66.7	33.3	57.1	33.3	42.9	28.6	96.3	88.9	86.2	93.1
n-Dodecane	50.0	2.94	56.7	6.67	48.4	3.23	92.9	89.3	95.8	70.8
1,4-Dioxane	0.00	8.57	0.00	3.23	0.00	3.03	25.0	3.13	24.1	3.45
1,2-Dibromoethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	0.00
n-Octane	80.0	20.0	80.6	19.4	70.6	14.7	93.6	100.	100.	96.7
n-Undecane	57.1	10.7	61.8	14.7	41.4	17.2	96.6	89.7	96.2	84.6
α-Pinene	75.8	42.4	81.2	25.0	78.8	36.4	96.9	90.6	82.8	67.0
Limonene	100.	100.	100.	96.7	100.	96.3	93.8	96.9	93.6	96.8
n-Nonane	63.3	13.3	71.0	9.68	50.0	12.5	96.7	100.	92.9	100.

(continued)

TABLE H-13. (continued)

Compound	Overnight Kitchen		Daytime Kitchen		Daytime Living Area		Overnight Outdoor		Daytime Outdoor	
	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer
Chloroform	60.6	42.4	52.9	47.1	64.7	38.2	22.2	25.0	23.3	23.3
1,2-Dichloroethane	77.3	59.1	58.6	27.6	72.4	37.9	50.0	20.0	40.0	0.00
1,1,1-Trichloroethane	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Benzene	100.	100.	96.6	100.	100.	100.	100.	100.	100.	100.
Carbon tetrachloride	90.9	72.7	85.3	70.6	74.3	80.0	94.4	86.1	80.6	67.7
Trichloroethylene	51.5	36.4	47.1	26.5	45.7	22.9	18.8	3.13	7.41	0.00
Tetrachloroethylene	100.	82.1	100.	96.8	100.	93.8	100.	83.3	100.	83.9
Styrene	100.	87.5	87.5	75.0	97.1	80.0	86.1	41.7	56.7	26.7
m-Dichlorobenzene	0.00	0.00	0.00	3.70	3.45	3.45	2.94	0.00	3.23	0.00
p-Dichlorobenzene	100.	65.6	84.4	62.5	94.1	73.5	82.4	47.1	51.6	32.3
Ethylbenzene	100.	100.	100.	100.	100.	100.	100.	100.	100.	96.8
o-Xylene	100.	97.0	100.	100.	100.	97.1	100.	100.	100.	96.8
m,p-Xylene	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
n-Decane	100.	100.	93.1	100.	96.8	90.3	100.	70.4	100.	58.8
n-Dodecane	100.	88.5	85.2	70.4	92.6	74.1	59.3	3.70	14.8	3.70
1,4-Dioxane	18.8	9.38	12.1	3.03	17.1	5.71	16.7	0.00	3.23	0.00
1,2-Dibromoethane	0.00	0.00	0.00	0.00	0.00	0.00	2.94	0.00	0.00	0.00
n-Octane	100.	93.6	100.	100.	97.1	100.	94.1	88.2	100.	59.3
n-Undecane	100.	96.6	96.7	90.0	100.	100.	93.9	48.5	84.6	38.5
α-Pinene	100.	96.8	87.5	81.2	94.3	74.3	61.3	19.4	14.8	3.70
Limonene	100.	96.9	100.	100.	100.	94.3	82.4	11.8	43.3	3.33
n-Nonane	100.	93.8	96.9	100.	100.	100.	97.0	90.9	100.	78.6

TABLE H-14. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT PERSONAL AIR SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	32	0.60	2.41	1.28	0.75[e]	1.29	0.37	0.85	2.01	3.11	17.0	0.06 - 41.7
1,2-Dichloroethane	23	0.12	0.21[e]	0.02	0.15[e]	1.24	0.12	0.24	0.27	0.33	0.39	0.01 - 0.41
1,1,1-Trichloroethane	32	0.30	25.4[e]	4.02	15.3[e]	1.25	9.08	18.2	39.2	62.9	79.7	0.19 - 97.7
Benzene	24	-	14.0[e]	1.94	10.1[e]	1.24	5.92	11.8	20.4	25.0	38.4	0.42 - 42.2
Carbon tetrachloride	27	0.50	0.64	0.04	0.57	1.12	0.54	0.64	0.76	0.92	1.07	0.05 - 1.15
Trichloroethylene	31	0.50	1.98	0.66	0.56	1.35	0.15	0.67	2.15	5.36	13.8	0.05 - 17.3
Tetrachloroethylene	26	0.20	8.19	1.20	5.04[e]	1.32	3.69	6.84	12.6	17.0	22.0	0.02 - 24.4
Styrene	31	0.36	9.86	6.62	2.53[e]	1.28	1.49	2.99	4.74	8.29	88.8	0.04 - 208.
p-Dichlorobenzene	31	0.52	18.8	7.69	3.06	1.39	0.89	1.80	6.54	86.8	138.	0.06 - 199.
Ethylbenzene	31	0.08	6.12[e]	0.79	4.07	1.27	2.72	5.51	8.65	12.8	16.1	0.01 - 19.7
o-Xylene	32	0.36	12.2[e]	1.51	8.24[e]	1.24	4.82	12.2	17.7	24.5	31.5	0.04 - 37.1
m,p-Xylene	32	0.20	32.8[e]	3.85	22.6[e]	1.24	13.6	35.0	45.0	65.4	81.3	0.12 - 91.0
n-Decane	27	0.12	7.58	3.34	3.28	1.31	2.21	3.13	6.28	10.5	61.9	0.01 - 92.8
n-Dodecane	28	0.54	4.47	1.53	2.12	1.28	1.22	2.38	3.65	7.85	31.1	0.06 - 42.5
n-Octane	31	0.60	6.22[e]	1.16	3.63	1.26	2.23	4.54	7.21	14.7	23.2	0.07 - 32.6
n-Undecane	29	0.36	7.27	2.86	3.81	1.24	2.59	3.98	5.82	9.60	49.4	0.04 - 86.2
α-Pinene	32	0.52	7.15[e]	1.59	4.14[e]	1.23	2.13	4.39	10.2	16.0	28.8	0.06 - 49.0
Limonene	32	0.45	42.9[e]	11.2	19.3[e]	1:31	9.05	20.8	51.5	114.	204.	0.25 - 337.
n-Nonane	30	0.30	6.85	2.16	3.80[e]	1.21	2.18	3.60	7.86	10.6	40.8	0.19 - 65.8

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-15. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT PERSONAL AIR SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	32	0.80	0.79	0.24	0.31	1.27	0.07	0.44	0.71	2.44	4.78	0.06 - 6.67
1,2-Dichloroethane	23	0.16	0.10	0.02	0.07	1.21	0.04	0.12	0.12	0.22	0.29	0.01 - 0.31
1,1,1-Trichloroethane	32	-	10.2	1.22	8.40	1.12	5.98	8.52	12.0	19.4	31.1	1.83 - 33.4
Benzene	24	-	5.85	0.68	5.00	1.13	3.56	4.97	7.95	10.7	14.0	1.22 - 15.0
Carbon tetrachloride	27	0.60	0.62	0.05	0.58	1.08	0.37	0.69	0.82	0.93	1.01	0.31 - 1.02
Trichloroethylene	31	0.98	1.66	0.74	0.47	1.29	0.15	0.31	1.12	2.57	15.7	0.05 - 20.2
Tetrachloroethylene	26	0.65	5.96	3.65	1.99	1.25	1.05	1.93	3.19	6.45	66.0	0.37 - 96.8
Styrene	31	0.45	1.31	0.19	0.98	1.15	0.56	0.98	1.62	2.90	4.28	0.19 - 4.54
p-Dichlorobenzene	31	0.44	19.5	10.7	2.09	1.42	0.41	1.44	7.20	22.6	234.	0.05 - 272.
Ethylbenzene	31	-	2.97	0.46	2.41	1.12	1.79	2.42	3.58	4.90	9.05	0.64 - 15.1
o-Xylene	32	-	4.42	0.58	3.58	1.12	2.41	3.28	5.98	8.05	12.5	0.96 - 18.1
m,p-Xylene	32	-	12.5	1.83	10.1	1.12	7.25	9.89	15.4	21.4	36.2	2.67 - 60.6
n-Decane	27	0.50	3.70	0.86	1.90	1.32	0.79	2.11	4.58	7.73	17.2	0.01 - 21.9
n-Dodecane	28	0.50	2.54	0.82	1.24	1.24	0.66	1.18	2.27	5.67	17.5	0.06 - 20.2
n-Octane	31	-	3.27	0.71	2.48	1.13	1.60	2.39	3.39	4.89	13.5	0.67 - 23.3
n-Undecane	29	0.50	5.89	2.07	2.31	1.30	1.13	1.98	5.01	18.8	38.4	0.04 - 57.6
α-Pinene	32	0.50	2.83	0.65	1.59	1.22	0.96	1.52	3.38	9.09	12.5	0.06 - 17.7
Limonene	32	0.50	9.21	2.42	4.86	1.22	1.95	5.97	8.94	25.9	48.6	0.31 - 70.6
n-Nonane	30	-	2.97	0.61	2.09	1.16	1.34	2.11	3.05	4.83	14.4	0.50 - 15.2

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-16. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME PERSONAL AIR SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	30	0.60	0.77	0.18	0.37	1.26	0.09	0.41	1.02	1.91	3.86	0.06 - 4.19
1,2-Dichloroethane	17	0.10	0.23	0.07	0.15	1.26	0.06	0.17	0.27	0.61	1.22	0.02 - 1.22
1,1,1-Trichloroethane	31	-	49.0	16.1	19.4[e]	1.27	8.97	16.9	50.5	128.	315.	1.04 - 456.
Benzene	23	-	27.4	8.13	16.2[e]	1.22	9.76	15.6	24.1	96.8	156.	3.31 - 163.
Carbon tetrachloride	29	0.49	0.75	0.07	0.63	1.14	0.61	0.70	0.90	1.49	1.67	0.06 - 1.75
Trichloroethylene	29	0.50	1.21	0.28	0.53	1.31	0.20	0.72	1.56	3.93	5.15	0.04 - 5.97
Tetrachloroethylene	23	-	16.4	6.13	7.03[e]	1.31	3.70	5.29	18.0	47.3	121.	0.35 - 138.
Styrene	29	0.41	4.03[e]	0.80	2.28[e]	1.26	1.30	2.07	5.45	10.2	15.0	0.06 - 19.2
p-Dichlorobenzene	29	0.48	26.4	11.3	4.00[e]	1.46	1.50	2.39	12.1	97.7	232.	0.06 - 232.
Ethylbenzene	31	-	16.6	6.46	7.38[e]	1.23	3.71	7.12	15.3	28.4	119.	0.63 - 198.
o-Xylene	31	0.48	22.8	6.02	10.8[e]	1.29	5.63	11.9	20.2	61.7	128.	0.06 - 160.
m,p-Xylene	31	0.44	60.1	16.1	28.8	1.32	15.7	33.2	57.4	135.	339.	0.05 - 462.
n-Decane	29	0.14	12.8	4.89	2.66	1.53	1.95	3.04	7.75	40.8	102.	0.01 - 105.
n-Dodecane	24	0.48	4.66	1.22	2.40	1.30	1.20	2.33	4.42	15.8	22.3	0.06 - 23.4
n-Octane	30	-	13.4	6.38	5.45[e]	1.22	2.69	4.39	8.79	23.0	109.	0.90 - 194.
n-Undecane	26	0.56	13.2	4.72	4.98	1.33	2.24	3.75	9.74	47.3	92.2	0.07 - 94.7
α-Pinene	29	0.50	2.51[e]	0.37	1.65[e]	1.23	0.73	2.06	3.62	5.24	7.12	0.06 - 8.46
Limonene	31	0.50	59.8	12.3	24.7[e]	1.42	15.6	39.3	78.1	188.	246.	0.06 - 292.
n-Nonane	28	0.50	12.8	4.33	4.00	1.37	2.65	3.41	8.85	65.8	78.0	0.06 - 83.6

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-17. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME PERSONAL AIR SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	30	0.80	4.46	2.76	0.57	1.36	0.12	0.59	1.03	2.57	55.3	0.06 - 75.6
1,2-Dichloroethane	17	0.10	0.11	0.02	0.09	1.17	0.06	0.09	0.14	0.23	0.30	0.02 - 0.30
1,1,1-Trichloroethane	31	-	33.6	19.3	9.69	1.24	4.28	7.72	11.8	63.4	303.	2.29 - 600.
Benzene	23	-	12.8	3.66	8.37	1.19	4.60	6.73	13.3	28.2	75.3	2.11 - 86.7
Carbon tetrachloride	29	0.60	0.71	0.07	0.64	1.09	0.46	0.66	0.83	1.20	1.72	0.31 - 2.22
Trichloroethylene	29	0.50	8.94	7.73	0.40	1.44	0.13	0.25	1.48	5.93	119.	0.04 - 225.
Tetrachloroethylene	23	0.60	23.9	20.5	2.95	1.34	1.31	2.29	4.85	11.5	383.	0.37 - 475.
Styrene	29	0.45	1.75	0.30	1.19	1.19	0.67	1.02	2.91	4.05	5.85	0.19 - 7.37
p-Dichlorobenzene	29	0.50	4.17	1.47	1.32	1.32	0.37	1.01	4.48	10.0	30.6	0.06 - 35.0
Ethylbenzene	31	-	8.78	3.58	4.10	1.19	2.32	3.92	5.21	10.4	72.2	0.90 - 106.
o-Xylene	31	-	12.1	4.80	5.82	1.19	3.64	5.04	8.01	15.1	97.9	1.10 - 141.
m,p-Xylene	31	-	33.1	12.1	17.0	1.19	10.5	16.2	24.2	44.9	245.	3.37 - 359.
n-Decane	29	0.65	21.8	15.4	2.77	1.33	1.12	2.04	3.98	17.6	274.	0.37 - 440.
n-Dodecane	24	0.52	5.60	2.30	1.23	1.48	0.33	1.41	3.74	23.4	43.0	0.05 - 49.0
n-Octane	30	0.48	6.40	2.32	2.94	1.24	1.78	2.71	3.88	15.5	46.1	0.06 - 66.6
n-Undecane	26	0.45	12.5	7.07	2.33	1.44	0.90	2.29	6.41	26.0	131.	0.04 - 185.
α-Pinene	29	0.50	1.50	0.36	0.81	1.26	0.34	1.13	2.04	2.57	7.05	0.05 - 10.5
Limonene	31	0.48	39.0	29.1	5.63	1.34	2.21	5.03	12.0	37.3	401.	0.06 - 908.
n-Nonane	28	-	21.7	15.0	3.47	1.30	1.58	2.23	4.04	39.8	267.	0.75 - 416.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-18. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR INITIAL BREATH SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	35	0.92	0.53	0.11	0.29	1.20	0.11	0.20	0.63	1.59	2.26	0.07 - 2.50
1,1,1-Trichloroethane	34	0.79	24.8	10.6	6.35	1.31	2.76	4.98	15.4	64.8	177.	0.08 - 341.
Benzene	35	0.36	9.33	2.31	3.70	1.29	1.37	3.25	12.2	30.1	43.7	0.04 - 62.8
Tetrachloroethylene	15	-	40.4	29.3	7.79[e]	1.47	3.04	4.03	19.0	223.	445.	2.06 - 445.
Styrene	32	0.52	0.81	0.26	0.26	1.31	0.06	0.28	1.11	1.97	4.78	0.04 - 7.49
p-Dichlorobenzene	32	0.50	5.22[e]	2.39	1.14[e]	1.37	0.31	1.26	3.49	12.0	36.3	0.05 - 75.6
Ethylbenzene	32	0.30	1.26	0.20	0.76[e]	1.21	0.25	0.79	2.39	2.96	3.69	0.19 - 3.96
o-Xylene	33	0.50	1.17	0.16	0.76[e]	1.20	0.31	1.12	1.99	2.44	2.97	0.06 - 3.86
m,p-Xylene	34	-	4.21	0.55	2.97[e]	1.17	1.17	3.38	6.91	8.89	10.8	0.61 - 11.1
n-Decane	24	0.60	1.71[e]	0.60	0.80[e]	1.27	0.37	0.74	1.48	5.70	11.8	0.07 - 13.6
a-Pinene	33	0.50	2.98	1.07	1.07[e]	1.29	0.44	1.06	2.51	6.31	22.6	0.05 - 31.6
Limonene	26	-	42.5	16.1	20.6	1.25	9.53	22.5	49.7	71.2	310.	1.81 - 431.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-19. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR INITIAL BREATH SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	35	0.60	1.18[e]	0.29	0.36	1.32	0.07	0.37	1.84	3.50	6.37	0.07 - 6.67
1,1,1-Trichloroethane	34	0.30	31.2	22.3	4.06	1.32	1.31	2.73	7.05	46.1	243.	0.19 - 762.
Benzene	35	0.24	10.6	3.02	2.28	1.43	0.74	1.83	19.4	30.1	52.2	0.03 - 88.8
Tetrachloroethylene	15	-	18.7	13.8	3.01	1.53	1.13	1.47	7.55	98.3	210.	0.69 - 210.
Styrene	32	0.36	0.78	0.20	0.27	1.33	0.04	0.25	1.13	2.41	3.85	0.04 - 5.27
p-Dichlorobenzene	32	0.50	2.31	1.19	0.64	1.31	0.31	0.69	1.47	3.61	17.6	0.06 - 38.3
Ethylbenzene	32	0.08	1.51	0.39	0.36	1.48	0.09	0.44	2.13	4.55	6.90	0.01 - 10.8
o-Xylene	33	0.36	0.90	0.24	0.30	1.33	0.04	0.31	1.28	2.78	5.13	0.04 - 5.75
m,p-Xylene	34	0.24	4.04	1.09	0.94	1.45	0.30	1.54	5.35	14.4	22.9	0.02 - 26.7
n-Decane	24	0.12	0.29	0.19	0.05	1.38	0.01	0.02	0.15	0.58	3.60	0.01 - 4.60
α-Pinene	33	0.60	1.80	0.83	0.43	1.32	0.07	0.37	1.12	4.81	14.1	0.06 - 26.3
Limonene	26	-	36.7	10.8	19.2	1.27	8.12	17.5	46.9	87.2	213.	0.70 - 279.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-20. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT BREATH SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.92	0.86	0.20	0.37	1.26	0.11	0.34	1.11	2.69	3.77	0.07 - 5.47
1,1,1-Trichloroethane	34	0.70	13.6	4.97	6.45[e]	1.21	3.28	6.57	11.4	25.0	79.9	0.44 - 168.
Benzene	34	0.40	7.37	2.37	3.02[e]	1.25	1.22	2.64	8.59	20.5	39.5	0.25 - 75.6
Tetrachloroethylene	18	-	26.7	17.8	8.83[e]	1.30	4.83	6.13	18.0	54.9	328.	3.15 - 328.
Styrene	34	0.50	1.15	0.48	0.24[e]	1.33	0.06	0.06	1.10	1.92	11.3	0.04 - 12.6
p-Dichlorobenzene	34	0.48	5.07[e]	2.39	0.72[e]	1.42	0.06	0.63	2.84	13.6	34.9	0.05 - 78.9
Ethylbenzene	27	0.30	1.62	0.42	0.92[e]	1.23	0.47	0.91	2.00	3.60	8.26	0.19 - 10.8
o-Xylene	33	0.50	1.45[e]	0.26	0.97[e]	1.17	0.51	0.89	1.76	3.78	5.92	0.25 - 6.56
m,p-Xylene	34	-	4.84	0.97	3.11[e]	1.17	1.47	2.41	5.91	11.7	21.3	0.86 - 27.2
n-Decane	21	0.60	1.20[e]	0.35	0.63[e]	1.30	0.37	0.70	1.28	4.15	6.50	0.07 - 6.70
α-Pinene	32	0.50	2.50	0.75	1.27[e]	1.23	0.82	1.35	2.23	6.09	13.6	0.06 - 23.6
Limonene	30	-	55.7	16.5	27.0[e]	1.25	9.50	25.2	72.4	102.	326.	2.95 - 480.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-21. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT BREATH SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.56	2.10	0.77	0.38	1.37	0.07	0.34	1.50	7.26	17.3	0.07 - 19.7
1,1,1-Trichloroethane	34	0.20	28.4	23.5	3.55	1.28	1.60	3.16	6.51	14.7	218.	0.12 - 802.
Benzene	34	0.24	8.19	3.92	1.54	1.41	0.69	2.00	5.03	24.5	53.9	0.03 - 131.
Tetrachloroethylene	18	-	28.8	22.2	4.09	1.49	1.46	2.77	12.6	66.7	405.	0.24 - 405.
Styrene	34	0.36	0.68	0.37	0.13	1.30	0.04	0.04	0.28	1.56	5.27	0.04 - 12.5
p-Dichlorobenzene	34	0.50	2.67	1.76	0.37	1.34	0.06	0.31	1.06	4.30	21.8	0.06 - 59.9
Ethylbenzene	27	0.08	1.43	0.69	0.21	1.55	0.01	0.34	1.41	2.90	12.9	0.01 - 18.6
o-Xylene	33	0.36	0.64	0.15	0.24	1.30	0.04	0.25	1.04	1.99	2.98	0.04 - 3.61
m,p-Xylene	34	0.24	3.38	1.41	0.58	1.46	0.03	0.87	2.99	9.18	19.7	0.02 - 47.0
n-Decane	21	0.12	0.48	0.22	0.07	1.52	0.01	0.06	0.17	2.77	2.98	0.01 - 3.00
α-Pinene	32	0.56	2.20	1.52	0.24	1.33	0.07	0.13	0.48	1.50	25.0	0.06 - 47.9
Limonene	30	0.48	46.2	18.1	13.5	1.35	6.34	12.3	28.8	111.	398.	0.06 - 401.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-22. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME BREATH SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.92	0.66	0.17	0.28	1.23	0.11	0.11	0.65	2.10	3.80	0.07 - 3.91
1,1,1-Trichloroethane	33	1.00	10.8	4.40	4.19	1.24	1.84	3.76	7.77	26.2	68.1	0.56 - 144.
Benzene	35	0.36	10.3	3.18	2.79[e]	1.34	1.09	1.88	8.40	36.8	71.4	0.04 - 79.1
Tetrachloroethylene	20	-	22.1	13.8	5.95[e]	1.32	2.83	4.13	5.90	69.6	266.	2.16 - 276.
Styrene	34	0.50	0.97	0.33	0.23	1.32	0.06	0.06	1.59	3.03	6.56	0.06 - 9.07
p-Dichlorobenzene	35	0.50	4.97[e]	2.15	0.98[e]	1.37	0.31	1.20	3.53	12.8	29.5	0.06 - 73.1
Ethylbenzene	31	0.30	1.64	0.41	0.77[e]	1.26	0.19	0.71	2.48	3.98	7.95	0.04 - 11.0
o-Xylene	34	0.50	1.52	0.39	0.79[e]	1.22	0.31	0.71	1.81	4.15	6.84	0.06 - 12.6
m,p-Xylene	35	0.40	5.53	1.61	2.68[e]	1.22	1.26	2.66	6.44	15.0	23.6	0.25 - 54.6
n-Decane	28	0.60	1.34	0.59	0.51[e]	1.27	0.37	0.37	1.06	2.43	11.4	0.07 - 16.2
α-Pinene	33	0.50	2.18	0.61	1.08[e]	1.24	0.55	1.05	2.48	5.19	11.2	0.06 - 19.1
Limonene	27	-	32.8	7.39	20.2[e]	1.21	10.7	23.8	36.5	88.6	154.	3.08 - 179.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-23. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME BREATH SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.60	1.41	0.47	0.38	1.32	0.07	0.37	1.27	4.41	10.7	0.07 - 12.0
1,1,1-Trichloroethane	33	0.30	58.2	54.0	3.13	1.31	1.26	2.95	7.01	12.2	551.	0.19 -1790
Benzene	35	0.24	11.7	4.39	1.17	1.53	0.29	1.11	15.7	28.8	104.	0.03 - 116.
Tetrachloroethylene	20	0.20	31.6	28.3	1.87	1.60	1.18	1.84	3.50	20.4	541.	0.02 - 568.
Styrene	34	0.36	0.99	0.38	0.20	1.34	0.04	0.19	0.56	2.93	8.96	0.03 - 9.75
p-Dichlorobenzene	35	0.50	2.41	1.34	0.50	1.31	0.31	0.31	1.37	3.53	16.9	0.05 - 47.0
Ethylbenzene	31	0.08	2.33	0.89	0.27	1.55	0.01	0.28	2.51	11.4	18.1	0.01 - 20.0
o-Xylene	34	0.36	1.21	0.56	0.25	1.35	0.04	0.25	1.45	2.52	7.17	0.04 - 19.1
m,p-Xylene	35	0.24	6.48	3.10	0.59	1.52	0.03	0.60	5.04	16.6	49.3	0.02 - 102.
n-Decane	28	0.12	4.37	3.39	0.06	1.58	0.01	0.01	0.14	5.13	61.9	0.01 - 92.8
α-Pinene	33	0.56	1.05	0.34	0.27	1.33	0.07	0.09	0.90	4.12	6.19	0.06 - 8.69
Limonene	27	0.50	25.2	6.93	11.3	1.33	3.30	16.0	27.4	72.9	139.	0.31 - 176.

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-24. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME LIVING AREA SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.60	1.46	0.34	0.77[e]	1.23	0.40	0.74	1.68	4.07	7.73	0.06 - 9.41
1,2-Dichloroethane	29	0.11	0.18[e]	0.02	0.15[e]	1.16	0.12	0.19	0.23	0.31	0.38	0.01 - 0.40
1,1,1-Trichloroethane	35	-	16.1	2.20	12.3	1.13	5.78	13.7	17.3	38.9	50.4	3.63 - 59.9
Benzene	29	-	10.5[e]	1.71	7.54[e]	1.17	4.02	7.60	13.6	19.6	37.2	1.26 - 44.1
Carbon tetrachloride	35	0.50	0.63	0.04	0.60	1.06	0.50	0.65	0.75	0.94	1.01	0.31 - 1.19
Trichloroethylene	35	0.50	1.06	0.25	0.48[e]	1.26	0.16	0.50	1.61	2.64	4.60	0.05 - 7.54
Tetrachloroethylene	32	-	5.15[e]	0.62	4.31[e]	1.11	2.74	4.27	6.55	9.74	14.5	1.31 - 18.1
Styrene	35	0.36	3.85[e]	1.17	2.06[e]	1.21	0.99	2.30	4.04	6.64	16.4	0.04 - 41.6
p-Dichlorobenzene	34	0.50	33.1[e]	12.1	4.07[e]	1.42	0.97	1.63	15.5	147.	258.	0.31 - 273.
Ethylbenzene	35	-	5.01[e]	0.93	3.58[e]	1.15	1.76	4.38	5.75	9.04	16.4	0.61 - 32.4
o-Xylene	35	-	9.68[e]	1.65	7.18[e]	1.13	3.32	8.28	11.1	17.8	33.0	2.17 - 55.8
m,p-Xylene	35	-	25.2[e]	4.03	18.8[e]	1.14	8.68	21.6	30.8	46.9	81.0	3.95 - 136.
n-Decane	31	0.12	4.56	0.96	2.64	1.26	1.72	2.75	5.03	11.6	21.5	0.01 - 23.6
n-Dodecane	27	0.58	2.55	0.39	1.78[e]	1.21	0.98	1.99	3.29	6.65	7.39	0.07 - 7.49
n-Octane	34	0.64	5.08[e]	0.92	3.25	1.20	1.82	3.09	5.05	13.4	21.1	0.08 - 22.3
n-Undecane	31	-	4.50	0.76	3.28[e]	1.15	1.87	2.76	5.79	9.65	17.7	0.91 - 17.7
α-Pinene	35	0.55	4.06	0.87	2.57[e]	1.18	1.53	2.80	5.17	8.99	14.6	0.31 - 29.1
Limonene	35	-	37.4[e]	6.63	22.3[e]	1.20	10.5	23.7	50.0	89.3	143.	3.23 - 171.
n-Nonane	34	-	4.82	0.84	3.57[e]	1.13	1.87	3.31	5.92	11.2	16.0	1.30 - 26.8

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-25. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME LIVING AREA SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.64	0.94	0.19	0.40	1.28	0.08	0.59	1.43	2.91	3.78	0.05 - 4.12
1,2-Dichloroethane	29	0.10	0.12	0.02	0.09	1.15	0.06	0.12	0.16	0.26	0.33	0.02 - 0.36
1,1,1-Trichloroethane	35	-	15.7	3.76	9.67	1.17	5.31	9.06	16.6	32.9	81.0	1.83 - 119.
Benzene	29	-	6.57	1.07	4.88	1.15	2.79	4.28	7.49	18.6	21.7	1.54 - 23.9
Carbon tetrachloride	35	0.60	0.78[e]	0.05	0.73[e]	1.07	0.58	0.78	0.87	1.09	1.58	0.37 - 1.90
Trichloroethylene	35	0.50	0.63	0.18	0.28	1.22	0.13	0.25	0.56	1.75	4.34	0.06 - 4.93
Tetrachloroethylene	32	0.75	2.71	0.28	2.24	1.13	1.58	2.55	3.73	5.25	6.50	0.44 - 6.78
Styrene	35	0.40	2.23	0.84	1.02	1.20	0.49	0.78	1.76	4.52	11.1	0.19 - 29.6
p-Dichlorobenzene	34	0.50	8.10	4.62	1.21	1.35	0.31	0.84	4.53	12.0	74.1	0.05 - 153.
Ethylbenzene	35	-	3.02	0.48	2.32	1.12	1.52	2.25	3.50	5.86	11.8	0.79 - 14.9
o-Xylene	35	0.40	4.35	0.74	3.04	1.18	2.26	3.35	4.46	8.88	17.8	0.05 - 22.7
m,p-Xylene	35	-	12.5	2.02	9.50	1.13	6.07	9.23	14.1	23.0	48.4	3.21 - 63.3
n-Decane	31	0.60	4.85	2.68	1.70	1.22	0.97	1.34	2.92	7.26	40.4	0.19 - 84.4
n-Dodecane	27	0.56	2.26	0.96	0.82	1.27	0.42	0.85	1.15	7.41	19.5	0.07 - 21.0
n-Octane	34	-	3.20	0.30	2.82	1.09	2.05	2.86	3.95	5.46	6.70	1.00 - 9.84
n-Undecane	31	-	5.73	2.83	1.78	1.24	0.94	1.28	2.25	15.1	52.6	0.42 - 83.8
α-Pinene	35	0.56	2.00	0.62	1.05	1.20	0.44	1.11	2.00	4.11	8.53	0.07 - 21.9
Limonene	35	0.50	6.05	1.44	3.12	1.22	1.38	3.22	6.93	14.3	32.7	0.31 - 41.5
n-Nonane	34	-	3.35	1.13	2.20	1.13	1.46	2.01	2.99	4.49	13.6	0.73 - 40.1

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-26. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT KITCHEN SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	33	0.60	1.29	0.24	0.67	1.25	0.31	0.94	1.75	3.89	4.87	0.07 - 5.24
1,2-Dichloroethane	22	0.10	0.21	0.02	0.18[e]	1.14	0.14	0.24	0.29	0.33	0.37	0.06 - 0.37
1,1,1-Trichloroethane	33	-	23.6[e]	3.57	16.0[e]	1.19	7.93	16.5	32.7	55.0	75.3	1.32 - 90.0
Benzene	29	-	14.7[e]	2.65	9.26[e]	1.21	4.95	8.87	18.5	40.0	49.0	0.70 - 53.7
Carbon tetrachloride	33	0.50	0.72	0.05	0.68	1.06	0.57	0.66	0.84	1.04	1.34	0.31 - 1.68
Trichloroethylene	33	0.50	1.49	0.50	0.57	1.27	0.25	0.70	1.24	5.16	8.43	0.06 - 15.2
Tetrachloroethylene	28	-	8.35[e]	1.61	5.39[e]	1.20	2.64	4.81	12.9	18.9	33.2	0.59 - 35.0
Styrene	32	-	2.83[e]	0.44	2.16[e]	1.14	1.27	2.39	3.56	4.95	9.43	0.44 - 14.0
p-Dichlorobenzene	32	-	29.4[e]	12.0	4.60[e]	1.37	1.20	2.40	16.1	127.	223.	0.59 - 320.
Ethylbenzene	33	-	7.03[e]	1.15	5.04[e]	1.16	3.09	5.51	7.98	17.3	26.4	0.90 - 31.0
o-Xylene	33	-	13.7[e]	2.09	10.2[e]	1.15	6.19	10.7	16.5	31.2	49.2	1.96 - 56.2
m,p-Xylene	33	-	35.2[e]	4.83	27.0[e]	1.14	17.5	32.2	44.1	81.2	113.	5.29 - 123.
n-Decane	26	-	11.1	3.42	4.73[e]	1.28	2.11	3.68	8.53	43.5	62.9	0.71 - 66.4
n-Dodecane	26	-	4.38	1.10	2.73	1.19	1.55	2.43	3.53	13.9	22.0	0.77 - 23.7
n-Octane	31	-	6.18[e]	0.94	4.83[e]	1.13	3.13	4.66	5.98	15.1	21.0	1.71 - 23.5
n-Undecane	29	-	10.8	3.67	4.63	1.24	2.12	4.08	7.04	62.6	69.8	0.67 - 72.8
α-Pinene	31	-	6.79[e]	1.25	4.59[e]	1.18	2.28	4.34	7.86	14.3	28.4	0.61 - 30.9
Limonene	32	-	41.7[e]	7.60	27.2[e]	1.19	12.2	33.3	58.6	80.6	146.	3.49 - 233.
n-Nonane	32	-	7.96[e]	1.87	5.10[e]	1.17	2.47	4.79	6.83	15.5	40.7	1.32 - 55.1

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-27. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT KITCHEN SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	33	0.76	1.37	0.48	0.45	1.29	0.10	0.59	1.27	2.92	11.0	0.06 - 13.0
1,2-Dichloroethane	22	0.16	0.15	0.02	0.12	1.19	0.06	0.15	0.20	0.34	0.39	0.02 - 0.39
1,1,1-Trichloroethane	33	-	12.2	1.95	8.89	1.16	6.05	9.93	14.5	20.4	42.7	0.73 - 62.4
Benzene	29	-	6.72	1.49	4.62	1.17	2.33	4.54	8.06	12.8	29.5	1.16 - 43.7
Carbon tetrachloride	33	0.70	0.74	0.05	0.67	1.09	0.47	0.78	0.93	1.06	1.28	0.11 - 1.29
Trichloroethylene	33	0.50	1.08	0.37	0.39	1.26	0.17	0.31	0.97	2.85	8.66	0.05 - 9.12
Tetrachloroethylene	28	0.60	1.80	0.25	1.25	1.23	0.82	1.53	2.40	4.14	5.23	0.02 - 5.51
Styrene	32	0.55	1.17	0.19	0.85	1.16	0.51	0.91	1.44	2.84	4.25	0.08 - 5.08
p-Dichlorobenzene	32	0.50	4.18	1.30	1.22	1.33	0.31	0.73	3.41	14.6	23.9	0.06 - 34.2
Ethylbenzene	33	-	3.17	0.51	2.40	1.14	1.54	2.37	3.77	6.95	11.1	0.45 - 15.3
o-Xylene	33	0.70	5.06	0.79	3.70	1.15	2.22	3.57	6.04	12.4	16.6	0.44 - 22.0
m,p-Xylene	33	-	13.7	2.19	10.1	1.15	6.27	9.95	15.5	32.6	46.8	1.77 - 63.3
n-Decane	26	-	3.87	1.08	2.22	1.22	0.91	2.19	4.51	9.21	22.3	0.48 - 26.8
n-Dodecane	26	0.60	3.98	1.61	1.48	1.28	0.88	1.25	1.94	16.2	31.5	0.13 - 37.2
n-Octane	31	0.95	2.98	0.35	2.51	1.12	1.86	2.51	3.70	5.25	8.06	0.44 - 10.8
n-Uncedane	29	0.80	6.90	2.48	2.59	1.25	1.16	1.78	4.85	35.2	48.7	0.50 - 52.4
α-Pinene	31	1.04	3.13	0.79	1.88	1.19	1.06	1.43	3.06	6.86	14.5	0.13 - 23.8
Limonene	32	0.90	7.02	1.50	4.64	1.17	2.60	5.23	6.71	13.3	36.7	0.56 - 39.0
n-Nonane	32	0.65	3.13	0.61	2.19	1.16	1.64	2.15	2.86	7.62	12.2	0.37 - 18.4

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-28. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME KITCHEN SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.60	1.27	0.27	0.63	1.26	0.36	0.74	1.59	2.67	6.42	0.07 - 6.95
1,2-Dichloroethane	29	0.11	0.16[e]	0.02	0.13	1.15	0.06	0.17	0.20	0.29	0.36	0.01 - 0.36
1,1,1-Trichloroethane	34	-	15.1	2.19	11.2	1.14	6.17	10.1	20.1	34.8	48.9	2.25 - 56.9
Benzene	29	0.28	8.34[e]	1.22	5.53	1.26	3.16	6.93	10.7	20.3	25.0	0.03 - 26.2
Carbon tetrachloride	34	0.60	0.67	0.04	0.62	1.09	0.57	0.67	0.78	0.88	1.17	0.06 - 1.30
Trichloroethylene	34	0.50	1.11	0.26	0.45	1.28	0.15	0.31	1.47	3.53	5.38	0.05 - 5.86
Tetrachloroethylene	31	-	6.32[e]	1.68	4.25[e]	1.15	2.81	4.07	6.54	10.1	32.3	0.73 - 53.4
Styrene	32	0.40	2.19[e]	0.34	1.43[e]	1.21	0.89	1.38	3.02	5.10	7.35	0.04 - 7.41
p-Dichlorobenzene	32	0.50	30.7[e]	13.9	2.23[e]	1.48	0.63	1.15	5.49	155.	284.	0.05 - 331.
Ethylbenzene	32	-	3.62[e]	0.43	2.88[e]	1.13	1.52	3.09	4.98	6.86	9.39	0.78 - 10.4
o-Xylene	32	-	7.53[e]	0.94	5.88[e]	1.14	3.05	6.11	11.0	15.6	19.7	1.28 - 22.9
m,p-Xylene	32	-	20.1[e]	2.35	16.1[e]	1.13	8.98	16.2	29.6	42.4	47.8	3.84 - 53.5
n-Decane	29	0.41	5.55	1.62	2.11	1.34	1.04	1.60	7.84	18.2	31.9	0.01 - 41.1
n-Dodecane	27	0.55	3.17	0.89	1.69	1.26	1.06	1.91	3.05	9.88	17.8	0.07 - 23.0
n-Octane	31	-	3.68	0.47	3.02	1.12	1.95	2.85	4.24	8.11	11.0	0.88 - 11.7
n-Undecane	30	0.40	7.77	2.86	3.37[e]	1.24	1.72	2.67	6.31	14.5	60.2	0.25 - 78.2
α-Pinene	32	0.56	4.01	0.99	2.19[e]	1.24	1.19	2.41	4.56	9.83	18.7	0.06 - 30.6
Limonene	32	-	32.1[e]	5.10	19.0[e]	1.24	7.77	24.9	50.9	71.0	103.	1.06 - 128.
n-Nonane	32	0.36	3.92	0.61	2.63	1.21	1.59	2.58	5.97	7.28	14.2	0.04 - 14.6

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-29. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME KITCHEN SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	34	0.60	1.00	0.21	0.44	1.28	0.08	0.62	1.24	2.76	4.22	0.06 - 4.84
1,2-Dichloroethane	29	0.10	0.12	0.02	0.10	1.13	0.06	0.12	0.14	0.24	0.34	0.02 - 0.41
1,1,1-Trichloroethane	34	-	19.4	8.67	9.25	1.18	4.61	9.93	12.7	24.8	109.	1.54 - 301.
Benzene	29	-	5.15	0.94	4.01	1.13	2.29	3.51	6.13	8.96	19.8	1.57 - 28.4
Carbon tetrachloride	34	0.70	0.73	0.04	0.69	1.07	0.44	0.70	0.90	1.11	1.20	0.31 - 1.22
Trichloroethylene	34	0.52	0.72	0.23	0.33	1.22	0.16	0.28	0.77	1.88	4.39	0.05 - 7.08
Tetrachloroethylene	31	0.70	2.87	0.31	2.39	1.12	1.64	2.74	3.62	4.64	7.73	0.44 - 7.85
Styrene	32	0.50	1.19	0.22	0.80	1.17	0.38	0.68	1.28	3.33	4.52	0.19 - 4.94
p-Dichlorobenzene	32	0.50	6.66	4.87	0.86	1.35	0.31	0.55	3.62	7.33	60.4	0.05 - 157.
Ethylbenzene	32	-	2.50	0.36	2.02	1.12	1.32	1.87	2.89	4.59	8.53	0.65 - 10.7
o-Xylene	32	-	3.73	0.48	3.08	1.11	2.06	3.10	4.84	6.04	11.0	1.02 - 15.1
m,p-Xylene	32	-	10.4	1.42	8.39	1.12	5.35	7.99	12.6	21.9	32.5	2.67 - 40.9
n-Decane	29	-	3.95	1.36	1.96	1.20	1.09	1.41	2.60	7.49	29.6	0.56 - 30.8
n-Dodecane	27	0.51	3.73	1.94	0.95	1.34	0.31	0.99	1.86	7.56	37.8	0.06 - 51.1
n-Octane	31	-	3.11	0.38	2.67	1.10	1.94	2.46	3.69	5.25	8.69	1.03 - 12.4
n-Undecane	30	0.40	2.48	0.68	1.35	1.23	0.90	1.10	2.54	4.63	15.5	0.04 - 16.4
α-Pinene	32	0.50	1.97	0.64	1.09	1.18	0.63	0.98	1.62	4.03	10.6	0.25 - 20.6
Limonene	32	-	8.23	2.53	3.84	1.22	1.52	3.51	7.34	27.7	52.2	0.71 - 68.7
n-Nonane	32	-	2.95	0.54	2.18	1.14	1.26	1.96	2.99	6.53	10.7	0.61 - 16.4

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-30. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT OUTDOOR AIR SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	36	0.56	0.53	0.21	0.25	1.20	0.07	0.31	0.48	0.81	2.18	0.06 - 7.53
1,1,1-Trichloroethane	36	-	17.2[e]	2.07	11.4[e]	1.20	4.90	14.9	28.6	34.1	38.4	0.77 - 40.2
Benzene	36	-	10.2[e]	1.19	7.45[e]	1.16	3.83	8.74	16.2	20.4	24.3	0.60 - 25.1
Carbon tetrachloride	36	0.79	0.79	0.05	0.72	1.09	0.63	0.69	0.88	1.28	1.67	0.06 - 1.76
Tetrachloroethylene	36	-	6.31[e]	0.88	3.95[e]	1.20	1.38	5.03	10.8	15.3	16.4	0.47 - 17.6
Styrene	36	0.36	2.88[e]	0.50	1.49[e]	1.26	0.61	2.13	4.80	6.96	9.83	0.04 - 13.2
p-Dichlorobenzene	34	0.50	2.93[e]	0.55	1.58[e]	1.24	0.63	1.75	4.41	6.49	12.0	0.06 - 14.2
Ethylbenzene	36	-	5.00[e]	0.68	3.38[e]	1.18	1.96	3.54	8.19	11.2	13.1	0.21 - 16.4
o-Xylene	35	-	9.21[e]	1.22	6.47[e]	1.17	3.99	5.85	14.3	21.6	23.6	0.44 - 27.0
m,p-Xylene	36	-	27.8[e]	3.68	19.1[e]	1.18	10.1	22.6	43.1	60.3	72.2	1.10 - 89.9
n-Decane	27	-	2.74[e]	0.41	1.98[e]	1.19	1.07	1.97	4.52	5.88	7.60	0.12 - 8.28
n-Octane	34	0.52	3.10[e]	0.39	2.25[e]	1.18	1.57	2.18	4.63	7.07	8.17	0.05 - 8.83
n-Undecane	33	0.65	1.80[e]	0.22	1.40[e]	1.14	0.75	1.44	2.88	3.77	4.48	0.25 - 5.61
n-Nonane	33	0.40	2.68[e]	0.31	2.17[e]	1.13	1.40	1.68	3.80	5.29	6.76	0.25 - 7.77

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-31. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR OVERNIGHT OUTDOOR AIR SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	36	0.60	1.13	0.42	0.27	1.30	0.07	0.15	0.86	4.56	7.31	0.05 - 13.1
1,1,1-Trichloroethane	36	-	6.02	0.80	4.67	1.13	2.75	4.48	7.83	12.5	20.6	0.99 - 21.5
Benzene	36	-	4.10	0.52	3.23	1.12	2.01	3.50	5.14	9.51	11.8	0.83 - 14.6
Carbon tetrachloride	36	0.60	0.75	0.04	0.72	1.05	0.59	0.76	0.87	0.98	1.21	0.37 - 1.24
Tetrachloroethylene	36	0.65	1.29	0.15	1.04	1.12	0.61	1.02	1.84	2.85	3.33	0.37 - 3.58
Styrene	36	0.40	0.44	0.07	0.26	1.20	0.10	0.28	0.58	1.14	1.66	0.04 - 1.74
p-Dichlorobenzene	34	0.50	0.85	0.20	0.50	1.19	0.30	0.31	1.24	1.82	3.74	0.05 - 6.22
Ethylbenzene	36	-	1.82	0.23	1.44	1.12	0.77	1.49	2.42	3.52	5.25	0.35 - 6.87
o-Xylene	35	-	3.20	0.44	2.42	1.14	1.23	2.40	4.67	6.66	9.62	0.42 - 12.9
m,p-Xylene	36	-	8.34	1.08	6.43	1.13	3.46	6.58	11.5	16.8	24.4	1.26 - 32.9
n-Decane	27	0.55	0.64	0.09	0.41	1.28	0.37	0.56	0.73	1.30	2.00	0.01 - 2.34
n-Octane	34	0.55	1.21	0.11	1.05	1.10	0.79	1.07	1.58	2.04	2.61	0.25 - 3.66
n-Undecane	33	0.50	0.50	0.08	0.32	1.20	0.28	0.37	0.60	1.12	1.88	0.04 - 2.20
n-Nonane	33	0.50	0.96	0.09	0.85	1.09	0.66	0.88	1.16	1.72	2.27	0.31 - 2.70

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-32. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME OUTDOOR AIR SAMPLES - WINTER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	30	0.60	0.47	0.16	0.19	1.26	0.07	0.10	0.49	1.18	3.00	0.06 - 4.32
1,1,1-Trichloroethane	31	-	6.47	0.81	5.21	1.13	2.97	5.45	8.39	13.2	18.6	1.43 - 19.5
Benzene	31	-	4.49	0.56	3.61	1.13	2.58	3.73	4.67	8.73	13.0	0.53 - 13.6
Carbon tetrachloride	31	0.50	0.66	0.04	0.62	1.07	0.53	0.65	0.80	0.94	1.01	0.31 - 1.09
Tetrachloroethylene	31	-	2.89	0.34	2.18	1.17	1.44	2.54	4.05	6.34	6.72	0.35 - 6.77
Styrene	30	0.40	0.71	0.14	0.42[e]	1.22	0.23	0.38	0.76	2.07	2.80	0.04 - 3.17
p-Dichlorobenzene	31	0.50	1.63[e]	0.48	0.59[e]	1.32	0.25	0.72	2.00	5.18	9.51	0.04 - 13.0
Ethylbenzene	31	-	1.82	0.21	1.53	1.11	0.95	1.45	2.36	3.81	4.82	0.51 - 4.83
o-Xylene	31	-	3.68	0.43	3.09[e]	1.11	2.11	2.77	4.19	8.47	9.53	0.83 - 9.68
m,p-Xylene	31	-	9.94	1.14	8.35[e]	1.11	5.55	7.81	11.9	22.1	25.6	2.22 - 26.5
n-Decane	17	-	1.11[e]	0.15	0.97[e]	1.14	0.63	0.94	1.52	2.33	2.65	0.37 - 2.65
n-Octane	27	-	1.71[e]	0.28	1.39[e]	1.12	1.04	1.27	1.85	3.10	6.57	0.57 - 7.60
n-Undecane	26	0.55	0.82[e]	0.11	0.65[e]	1.17	0.43	0.68	0.94	1.84	2.43	0.04 - 2.53
n-Nonane	28	-	1.43[e]	0.18	1.22[e]	1.11	0.77	1.08	1.95	2.49	4.30	0.52 - 4.89

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-33. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WITH WINTER AND SUMMER SEASON DATA FOR DAYTIME OUTDOOR AIR SAMPLES - SUMMER SEASON

Compound	Sample Size	Med.[a] Q.L.	Arith. Mean	Arith.[b] S.E.	Geo.[c] Mean	Geo.[d] S.E.	Percentiles 25th	Median	75th	90th	95th	Range
Chloroform	30	0.60	0.85	0.43	0.18	1.29	0.07	0.08	0.53	1.11	9.47	0.05 - 10.0
1,1,1-Trichloroethane	31	-	6.22	0.81	4.87	1.14	2.60	5.64	8.10	12.4	18.6	1.45 - 18.7
Benzene	31	-	3.70	0.46	2.96	1.13	1.93	3.19	5.32	7.37	9.83	0.75 - 11.7
Carbon tetrachloride	31	0.70	0.72	0.05	0.66	1.08	0.50	0.74	0.83	1.14	1.36	0.31 - 1.44
Tetrachloroethylene	31	0.70	2.37	0.34	1.70	1.17	0.68	2.08	3.26	4.82	6.87	0.37 - 8.74
Styrene	30	0.40	0.45	0.12	0.24	1.22	0.07	0.25	0.48	0.96	2.24	0.04 - 3.66
p-Dichlorobenzene	31	0.50	0.39	0.06	0.28	1.18	0.25	0.31	0.53	0.75	1.22	0.06 - 1.72
Ethylbenzene	31	0.40	1.76	0.29	1.31	1.15	0.78	1.47	2.23	3.28	5.77	0.25 - 8.81
o-Xylene	31	0.50	2.85	0.47	2.09	1.16	1.20	2.45	3.69	5.26	9.57	0.31 - 14.5
m,p-Xylene	31	-	7.47	1.19	5.56	1.15	3.06	6.60	9.40	13.5	23.7	1.05 - 36.6
n-Decane	17	0.60	0.58	0.08	0.39	1.37	0.39	0.54	0.85	1.10	1.13	0.01 - 1.13
n-Octane	27	0.68	0.89	0.11	0.67	1.19	0.44	0.79	1.37	1.80	2.04	0.06 - 2.19
n-Undecane	26	0.47	0.45	0.11	0.25	1.25	0.07	0.36	0.66	0.92	2.14	0.04 - 2.75
n-Nonane	28	0.58	0.83	0.09	0.69	1.14	0.41	0.79	1.23	1.34	1.83	0.07 - 2.12

[a]Median quantifiable limit.
[b]Standard error of arith. mean.
[c]Geometric mean.
[d]Geometric standard error - exp(s) where s is the standard error of the mean of LN(x).
[e]Means significantly different between seasons at .05 level.

TABLE H-34. RATIOS OF WINTER MEDIAN ANALYTE CONCENTRATIONS TO SUMMER MEDIAN ANALYTE CONCENTRATIONS BY MEDIA

Compound	Overnight Personal Air	Daytime Personal Air	Initial Breath	Overnight Breath	Daytime Breath
Chloroform	1.94	0.69	0.55	0.99	0.31
1,2-Dichloroethane	2.00	1.81	-	-	-
1,1,1-Trichloroethane	2.13	2.19	1.82	2.08	1.27
Benzene	2.38	2.33	1.78	1.32	1.69
Carbon tetrachloride	0.93	1.06	-	-	-
Trichloroethylene	2.14	2.88	-	-	-
Tetrachloroethylene	3.55	2.31	2.75	2.22	2.25
Styrene	3.06	2.04	1.13	1.44	0.35
p-Dichlorobenzene	1.25	2.37	1.83	2.03	3.84
Ethylbenzene	2.27	1.81	1.81	2.68	2.51
o-Xylene	3.73	2.37	3.58	3.54	2.86
m,p-Xylene	3.54	2.05	2.19	2.79	4.42
n-Decane	1.48	1.49	42.4	11.2	25.0
n-Dodecane	2.03	1.65	-	-	-
n-Octane	1.90	1.62	-	-	-
n-Undecane	2.01	1.64	-	-	-
α-Pinene	2.90	1.83	2.83	10.4	11.0
Limonene	3.49	7.83	1.29	2.06	1.48
n-Nonane	1.71	1.53	-	-	-

Compound	Daytime Living Area	Overnight Kitchen	Daytime Kitchen	Overnight Outdoor Air	Daytime Outdoor Air
Chloroform	1.25	1.59	1.20	2.11	1.18
1,2-Dichloroethane	1.52	1.60	1.36	-	-
1,1,1-Trichloroethane	1.52	1.66	1.02	3.33	0.97
Benzene	1.78	1.95	1.97	2.50	1.17
Carbon tetrachloride	0.83	0.85	0.96	0.91	0.88
Trichloroethylene	1.99	2.24	1.11	-	-
Tetrachloroethylene	1.67	3.15	1.49	4.94	1.22
Styrene	2.93	2.62	2.03	7.59	1.53
p-Dichlorobenzene	1.94	3.27	2.08	5.62	2.30
Ethylbenzene	1.95	2.32	1.65	2.39	0.98
o-Xylene	2.37	3.00	1.97	2.44	1.13
m,p-Xylene	2.34	3.24	2.03	3.44	1.18
n-Decane	2.05	1.69	1.14	3.52	1.75
n-Dodecane	2.34	1.95	1.93	-	-
n-Octane	1.08	1.85	1.16	2.03	1.60
n-Undecane	2.15	2.29	2.43	3.84	1.93
α-Pinene	2.53	3.04	2.46	-	-
Limonene	7.35	6.37	7.10	-	-
n-Nonane	1.65	2.22	1.32	1.91	1.37

TABLE H-35. SPEARMAN CORRELATIONS BETWEEN SEASONS FOR THOSE SAMPLED IN THE WINTER AND SUMMER SEASONS FOR MEASURABLE AMOUNTS ONLY OF SELECTED COMPOUNDS

	Initial Breath		Overnight Breath		Daytime Breath		Overnight Personal Air		Daytime Personal Air	
	Correlation	Sample Size	Correlation	Sample Size	Correlation	Sample Size	Correlation	Sample Size	Correlation	Sample Size
Chloroform		4	.20	5	-.77	6		4	.10	5
1,2-Dichloroethane		0		0		0	.30	5		3
1,1,1-Trichloroethane	.27	31	.25	32	.21	29	.09	31	-.00	31
Benzene	.79[a]	29	.60[a]	27	.77[a]	26	.18	24	.32	23
Carbon tetrachloride		0		0		0	-.29	12	-.23	16
Trichloroethylene		0		1		0	.10	11	-.18	7
Tetrachloroethylene	.64[a]	15	.53[a]	18	.50[a]	18	.36	21	.30	22
Styrene	.70[a]	9	.46	7	.36	7	.28	26	.34	23
p-Dichlorobenzene	.34	16	.77[a]	13	.39	14	.35	23	.65[a]	19
Ethylbenzene	.41	18	.51[a]	17	.80[a]	16	.19	30	.37[a]	31
o-Xylene	.09	11	.30	11	.22	11	.35	31	.47[a]	30
m,p-Xylene	.42[a]	26	.57[a]	24	.77[a]	22	.31	31	.36	30
n-Decane	.43	7		4	.04	7	.05	23	.35	23
n-Dodecane		1		1		1	.25	23	.00	16
n-Octane	.60	6	.43	6	.60	5	.41[a]	29	.24	29
n-Undecane		3		3		4	-.01	25	.17	21
α-Pinene	.30	11	.59	7	-.05	10	.49[a]	28	-.40	17
Limonene	.58[a]	26	.40[a]	29	.48[a]	26	-.02	29	.03	28
n-Nonane		4		3		4	.28	29	.55[a]	26

(continued)

TABLE H-35. (continued)

	Overnight Kitchen		Daytime Kitchen		Daytime Living Area		Overnight Outdoor		Daytime Outdoor	
	Correlation	Sample Size	Correlation	Sample Size	Correlation	Sample Size	Correlation	Sample Size	Correlation	Sample Size
Chloroform	1.00[a]	5	.15	9	-.11	11		1		1
1,2-Dichloroethane	.18	10	.51	7	.38	9		3		0
1,1,1-Trichloroethane	.02	33	.17	34	.10	35	.15	36	.07	31
Benzene	.45[a]	29	.37[a]	28	.47[a]	29	.18	36	.32	31
Carbon tetrachloride	.10	22	.19	21	.41	20	.08	30	.03	18
Trichloroethylene	.48	10	-.21	7	.66	6		0		0
Tetrachloroethylene	-.04	23	.18	30	.14	30	.16	30	.07	26
Styrene	.11	28	-.03	21	.19	28	.42	14	.54	6
p-Dichlorobenzene	.77[a]	21	.85[a]	18	.79[a]	23	.12	16	-.53	8
Ethylbenzene	.12	33	.12	32	.13	35	.19	36	.34	30
o-Xylene	.18	32	.23	32	.24	34	.29	35	.35	30
m,p-Xylene	.19	33	.19	32	.16	35	.23	36	.31	31
n-Decane	.04	26	.10	27	.33	27	.15	19	-.89[a]	10
n-Dodecane	-.23	23	.06	16	.66[a]	18		0		1
n-Octane	.21	29	.35	31	.35[a]	33	.07	28	-.03	16
n-Undecane	.13	28	.18	26	.55[a]	31	.15	16	.32	7
α-Pinene	.32	30	.30	23	.38	25	.10	6		0
Limonene	.04	31	-.18	32	-.08	33		4		1
n-Nonane	-.03	30	.38[a]	31	.28	34	-.14	29	.48[a]	22

[a]Significantly different from zero at 0.05 level.

TABLE H-36. PERCENT MEASURABLE BY MEDIA AND YEAR FOR THOSE WHO PARTICIPATED IN BOTH THE 1984 AND 1987 WINTER SEASON STUDIES

Compound	Final Breath		Overnight Personal Air		Daytime Personal Air		Overnight Outdoor Air		Daytime Outdoor Air	
	1984	1987	1984	1987	1984	1987	1984	1987	1984	1987
Chloroform	36.7	26.7	100.	53.6	96.4	50.0	83.3	16.7	75.0	12.5
1,2-Dichloroethane	3.57	3.57	63.6	86.4	82.6	60.9	66.7	50.0	28.6	42.9
1,1,1-Trichloroethane	100.	89.7	100.	100.	100.	100.	100.	100.	100.	100.
Benzene	100.	93.3	100.	100.	100.	100.	100.	100.	100.	100.
Carbon Tetrachloride	10.0	0.00	100.	85.7	100.	89.3	83.3	83.3	100.	77.8
Trichloroethylene	56.7	6.67	96.4	50.0	92.6	51.9	80.0	40.0	87.5	0.00
Tetrachloroethylene	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.
Styrene	60.0	33.3	96.3	96.3	96.4	92.9	100.	100.	88.9	77.8
m,p-Dichlorobenzene	80.0	63.3	100.	100.	100.	92.9	100.	83.3	87.5	62.5
Ethylbenzene	83.3	66.7	100.	100.	100.	100.	100.	100.	100.	100.
o-Xylene	93.3	70.0	100.	100.	100.	96.4	100.	100.	100.	100.
m,p-Xylene	100.	93.3	100.	100.	100.	96.4	100.	100.	100.	100.
n-Decane	63.3	40.0	96.3	100.	100.	88.9	80.0	100.	87.5	100.
n-Dodecane	36.7	50.0	100.	88.9	96.4	96.4	80.0	80.0	62.5	50.0
1,4-Dioxane	3.33	0.00	57.7	11.5	39.3	21.4	66.7	16.7	25.0	0.00
1,2-Dibromoethane	0.00	0.00	4.00	0.00	3.57	3.57	0.00	0.00	0.00	0.00
n-Octane	76.7	73.3	100.	96.3	92.9	100.	100.	100.	100.	100.
n-Undecane	73.3	40.0	100.	100.	96.4	96.4	83.3	83.3	88.9	77.8
a-Pinene	86.7	80.0	100.	100.	85.7	85.7	80.0	80.0	62.5	37.5
Sample Size Range:	28-30		21-28		22-28		5-6		7-9	

TABLE H-37. PERCENT MEASURABLE BY MEDIA AND YEAR FOR THOSE WHO PARTICIPATED IN BOTH THE 1984 AND 1987 SUMMER SEASON STUDIES

Compound	Final Breath		Overnight Personal Air		Daytime Personal Air		Overnight Outdoor Air		Daytime Outdoor Air	
	1984	1987	1984	1987	1984	1987	1984	1987	1984	1987
Chloroform	46.7	40.0	87.5	18.8	71.4	28.6	20.0	20.0	33.3	0.00
1,2-Dichloroethane	0.00	0.00	6.25	25.0	23.1	23.1	0.00	0.00	0.00	0.00
1,1,1-Trichloroethane	78.6	92.9	100.	100.	100.	100.	100.	100.	100.	100.
Benzene	60.0	73.3	93.8	100.	100.	100.	100.	100.	100.	100.
Carbon Tetrachloride	13.3	0.00	100.	61.5	91.7	75.0	100.	40.0	100.	16.7
Trichloroethylene	46.7	13.3	40.0	33.3	57.1	14.3	20.0	0.00	0.00	0.00
Tetrachloroethylene	100.	75.0	90.9	72.7	90.9	90.9	100.	40.0	100.	33.3
Chlorobenzene	0.00	6.67	14.3	0.00	9.09	0.00	0.00	0.00	0.00	0.00
Styrene	35.7	21.4	66.7	80.0	78.6	78.6	80.0	20.0	100.	0.00
m,p-Dichlorobenzene	60.0	20.0	75.0	68.8	78.6	57.1	80.0	20.0	66.7	16.7
o-Dichlorobenzene	0.00	6.67	12.5	6.25	7.69	7.69	20.0	0.00	0.00	0.00
Ethylbenzene	69.2	76.9	87.5	100.	85.7	100.	100.	100.	100.	83.3
o-Xylene	66.7	46.7	87.5	100.	85.7	100.	100.	100.	100.	83.3
m,p-Xylene	100.	66.7	100.	100.	100.	100.	100.	100.	100.	100.
n-Decane	45.5	18.2	23.1	76.9	64.3	92.9	40.0	20.0	50.0	33.3
n-Dodecane	14.3	0.00	7.14	78.6	53.8	61.5	40.0	0.00	16.7	0.00
1,4-Dioxane	6.67	6.67	12.5	0.00	15.4	0.00	20.0	0.00	33.3	0.00
1,2-Dibromoethane	0.00	0.00	0.00	0.00	0.00	0.00	20.0	0.00	0.00	0.00
n-Octane	64.3	7.14	86.7	100.	84.6	92.3	60.0	60.0	50.0	50.0
n-Undecane	63.6	18.2	46.7	73.3	58.3	75.0	40.0	20.0	60.0	0.00
1,1,2,2-Tetrachloroethane	0.00	6.67	12.5	0.00	14.3	0.00	20.0	0.00	16.7	0.00
a-Pinene	66.7	26.7	81.2	75.0	78.6	50.0	80.0	0.00	66.7	0.00
Sample Size Range:	8-15		11-16		11-14		5		5-6	

TABLE H-38. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH WINTER SEASON STUDIES - OVERNIGHT PERSONAL AIR

Compound	1984 Mean	1984 S.E.	1984 Median	1984 Range	1987 Mean	1987 S.E.	1987 Median	1987 Range
Chloroform	2.31	0.34	1.65	0.29-6.50	2.51	1.46	0.67	0.06-41.7
1,2-Dichloroethane	0.26	0.04	0.23	0.02-0.72	0.26	0.02	0.27	0.06-0.59
1,1,1-Trichloroethane	30.0	3.38	24.0	5.10-84.0	25.3	4.21	17.9	2.45-97.7
Benzene	15.9	1.89	15.0	3.70-43.0	14.3	1.99	12.4	1.38-42.2
Carbon Tetrachloride	0.71	0.05	0.63	0.45-1.60	0.68	0.04	0.67	0.25-1.25
Trichloroethylene	5.02	2.40	1.03	0.14-66.0	2.59	0.76	0.72	0.05-17.3
Tetrachloroethylene	13.6	3.41	8.10	2.90-77.0	7.61	1.06	6.60	0.45-24.9
Styrene	3.59	0.40	3.20	0.12-8.30	11.0	7.59	3.54	0.25-208.
m,p-Dichlorobenzene	13.4	8.94	1.50	0.28-240.	20.4	8.87	2.59	0.56-199.
Ethylbenzene	8.17	0.90	7.25	1.80-20.0	7.56	1.34	5.95	0.88-34.4
o-Xylene	10.6	1.02	9.70	2.80-25.0	14.9	2.63	12.8	1.49-70.5
m,p-Xylene	23.6	2.06	22.0	8.10-47.0	38.6	5.95	33.3	4.27-158.
n-Decane	2.95	0.57	2.20	0.02-11.0	4.39	0.74	3.12	1.08-16.0
n-Dodecane	1.99	0.37	1.30	0.19-7.50	4.20	1.53	2.30	0.06-42.5
n-Octane	4.02	0.47	3.20	0.78-11.0	6.77	1.34	4.83	0.70-35.6
n-Undecane	3.59	0.57	2.20	0.31-10.0	4.88	0.72	3.71	1.09-18.4
a-Pinene	5.43	1.67	2.70	0.37-44.0	6.25	1.06	4.70	1.11-23.1
Sample Size Range	21-28							

TABLE H-39. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH WINTER SEASON STUDIES - DAYTIME PERSONAL AIR

Compound	1984 Mean	1984 S.E.	1984 Median	1984 Range	1987 Mean	1987 S.E.	1987 Median	1987 Range
Chloroform	1.45	0.25	1.00	0.02-5.90	0.91	0.20	0.54	0.06-4.19
1,2-Dichloroethane	0.33	0.05	0.29	0.02-1.10	0.22	0.05	0.19	0.02-1.17
1,1,1-Trichloroethane	62.3	14.4	35.5	3.50-360.	35.3	16.1	14.0	1.04-456.
Benzene	18.3	1.86	18.5	4.30-35.0	18.4	5.41	13.0	2.49-128.
Carbon Tetrachloride	0.89	0.09	0.74	0.35-2.80	0.70	0.06	0.65	0.08-1.60
Trichloroethylene	11.3	3.50	3.20	0.13-78.0	1.15	0.27	0.71	0.04-5.97
Tetrachloroethylene	24.1	7.40	11.0	2.30-190.	11.6	5.16	4.20	0.35-146.
Styrene	4.93	0.93	2.90	0.13-19.0	3.60	0.78	2.13	0.06-19.2
m,p-Dichlorobenzene	11.8	4.92	2.15	0.34-120.	16.6	8.55	2.48	0.14-232.
Ethylbenzene	13.1	2.21	9.60	1.40-47.0	14.6	6.90	6.98	0.63-198.
o-Xylene	16.0	2.44	12.0	2.40-48.0	18.6	5.66	11.8	0.06-160.
m,p-Xylene	32.5	4.24	24.5	6.10-100.	50.4	16.0	32.3	0.05-462.
n-Decane	9.91	4.75	3.20	0.36-125.	8.04	4.86	2.71	0.01-134.
n-Dodecane	3.06	0.71	1.93	0.13-20.0	4.45	1.59	2.24	0.06-45.2
1,4-Dioxane	1.22	0.78	0.12	0.02-22.1	1.21	0.71	0.31	0.06-19.8
n-Octane	6.25	1.20	4.30	0.02-25.0	12.2	6.76	4.39	0.90-194.
n-Undecane	8.53	3.65	3.25	0.13-103.	8.46	4.76	2.88	0.07-136.
a-Pinene	3.78	0.79	2.40	0.09-21.0	2.74	0.47	2.67	0.06-12.6
Sample Size Range	23-28							

TABLE H-40. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH WINTER SEASON STUDIES - FINAL BREATH

Compound	1984 Mean	1984 S.E.	1984 Median	1984 Range	1987 Mean	1987 S.E.	1987 Median	1987 Range
Chloroform	0.91	0.47	0.03	0.03-14.0	0.83	0.25	0.11	0.07-5.48
1,1,1-Trichloroethane	11.9	3.35	4.80	1.80-75.0	15.3	6.00	4.20	0.56-144.
Benzene	10.7	2.70	3.60	0.68-56.0	8.41	2.96	2.44	0.04-79.1
Tetrachloroethylene	16.4	7.41	4.80	2.00-170.	17.7	9.27	4.01	1.61-276.
Styrene	1.34	0.31	0.70	0.03-6.20	0.94	0.33	0.06	0.06-9.07
m,p-Dichlorobenzene	2.65	1.30	0.46	0.17-39.0	3.29	1.09	0.72	0.14-25.2
Ethylbenzene	1.97	0.43	0.89	0.03-8.50	1.46	0.39	0.74	0.04-11.0
o-Xylene	1.25	0.17	0.98	0.17-4.10	1.63	0.44	1.05	0.05-12.6
m,p-Xylene	4.39	0.73	3.30	0.45-14.0	5.76	1.83	3.13	0.25-54.6
n-Decane	1.25	0.52	0.40	0.03-15.0	1.40	0.55	0.37	0.07-16.2
n-Dodecane	0.28	0.04	0.17	0.03-1.20	1.01	0.24	0.38	0.50-4.76
n-Octane	0.92	0.22	0.43	0.03-5.70	1.10	0.24	0.85	0.31-7.54
n-Undecane	0.80	0.24	0.48	0.03-7.30	1.49	0.51	0.37	0.07-13.7
a-Pinene	1.62	0.40	0.87	0.17-8.80	2.40	0.67	1.23	0.05-19.1
Sample Size Range	29-30							

TABLE H-41. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH WINTER SEASON STUDIES - OVERNIGHT OUTDOOR AIR

	1984				1987			
Compound	Mean	S.E.	Median	Range	Mean	S.E.	Median	Range
1,2-Dichloroethane	0.23	0.07	0.21	0.02-0.51	0.16	0.04	0.18	0.02-0.28
1,1,1-Trichloroethane	31.8	6.97	30.0	6.80-59.0	13.8	4.17	11.6	3.19-28.9
Benzene	18.9	4.11	20.5	3.20-33.0	10.8	3.10	12.1	1.55-18.5
Carbon Tetrachloride	0.69	0.15	0.64	0.12-1.30	0.69	0.05	0.66	0.54-0.88
Trichloroethylene	0.56	0.12	0.56	0.12-0.85	0.41	0.10	0.31	0.25-0.77
Tetrachloroethylene	10.8	3.28	8.05	1.90-23.0	6.18	2.12	5.27	0.67-15.1
Styrene	5.07	0.97	5.20	1.50-8.30	2.35	0.64	2.40	0.45-4.46
m,p-Dichlorobenzene	2.17	0.66	1.95	0.28-4.50	2.80	0.99	2.08	0.64-6.46
Ethylbenzene	12.1	3.06	11.2	1.50-21.0	6.10	1.82	6.96	0.59-10.7
o-Xylene	12.8	3.28	11.4	1.70-22.0	12.3	3.61	14.1	1.36-21.7
m,p-Xylene	27.8	5.56	28.0	5.10-43.0	33.0	9.60	37.6	3.61-57.2
n-Decane	2.78	0.89	3.80	0.12-4.40	3.36	0.86	3.41	1.24-5.49
n-Dodecane	0.63	0.17	0.68	0.12-0.99	0.94	0.17	1.04	0.50-1.40
n-Octane	4.35	1.47	3.25	0.39-10.0	3.73	0.96	3.53	1.15-6.61
n-Undecane	2.17	0.53	2.65	0.12-3.40	2.07	0.58	1.89	0.56-4.00
a-Pinene	2.07	0.82	1.70	0.12-4.80	1.22	0.36	1.16	0.06-2.27
Sample Size Range	5-6							

TABLE H-42. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH WINTER SEASON STUDIES - DAYTIME OUTDOOR AIR

	1984				1987			
Compound	Mean	S.E.	Median	Range	Mean	S.E.	Median	Range
1,2-Dichloroethane	0.11	0.03	0.13	0.02-0.22	0.12	0.02	0.12	0.06-0.16
1,1,1-Trichloroethane	21.0	5.30	22.0	2.60-46.0	7.45	1.90	5.61	2.47-19.5
Benzene	13.0	2.60	15.0	1.90-22.0	5.70	1.29	4.61	1.29-13.6
Carbon Tetrachloride	0.50	0.05	0.55	0.20-0.67	0.63	0.05	0.66	0.31-0.80
Tetrachloroethylene	8.43	1.95	9.30	1.30-17.0	3.24	0.51	3.87	0.97-5.72
Styrene	4.07	1.58	1.90	0.02-14.0	1.01	0.22	0.73	0.19-2.11
m,p-Dichlorobenzene	0.95	0.22	1.15	0.12-2.00	1.29	0.40	1.01	0.17-3.26
Ethylbenzene	6.85	1.40	8.20	0.82-12.0	2.63	0.49	2.11	0.85-4.82
o-Xylene	7.92	1.66	9.00	1.00-15.0	5.26	0.98	4.18	2.11-9.48
m,p-Xylene	19.7	3.73	23.0	2.80-32.0	14.4	2.68	11.4	5.51-26.5
n-Decane	1.44	0.33	1.52	0.12-2.50	1.65	0.27	1.52	0.58-2.69
n-Dodecane	0.38	0.09	0.31	0.12-0.76	0.64	0.14	0.49	0.25-1.28
n-Octane	2.34	0.71	2.40	0.23-6.30	2.28	0.48	1.28	1.04-5.03
n-Undecane	0.87	0.20	0.69	0.02-1.65	1.05	0.23	0.75	0.31-2.25
a-Pinene	0.33	0.07	0.31	0.12-0.60	0.46	0.17	0.31	0.06-1.45
Sample Size Range	7-9							

TABLE H-43. RATIOS OF 1987 TO 1984 MEDIAN AND MAXIMUM CONCENTRATIONS BY MEDIA FOR SELECTED COMPOUNDS - WINTER SEASON

Compound	Overnight Personal Air		Daytime Personal Air		Final Breath		Overnight Outdoor Air		Daytime Outdoor Air	
	Median	Maximum	Median	Maximum	Median	Maximum	Median	Maximum	Median	Maximum
Chloroform	0.41	6.42	0.54	0.71	3.38	0.39	-	-	-	-
1,2-Dichloroethane	1.17	0.82	0.66	1.06	-	-	0.85	0.55	0.95	0.73
1,1,1-Trichloroethane	0.75	1.16	0.39	1.27	0.88	1.92	0.39	0.49	0.25	0.42
Benzene	0.83	0.98	0.70	3.66	0.68	1.41	0.59	0.56	0.31	0.62
Carbon Tetrachloride	1.06	0.78	0.88	0.57	-	-	1.03	0.68	1.20	1.19
Trichloroethylene	0.69	0.26	0.22	0.08	-	-	0.56	0.91	-	-
Tetrachloroethylene	0.81	0.32	0.38	0.77	0.84	1.62	0.66	0.65	0.42	0.34
Styrene	1.11	25.1	0.73	1.01	0.09	1.46	0.46	0.54	0.38	0.15
m,p-Dichlorobenzene	1.73	0.83	1.16	1.94	1.58	0.65	1.07	1.44	0.88	1.63
Ethylbenzene	0.82	1.72	0.73	4.22	0.83	1.29	0.62	0.51	0.26	0.40
o-Xylene	1.32	2.82	0.98	3.34	1.08	3.08	1.24	0.99	0.46	0.63
m,p-Xylene	1.51	3.36	1.32	4.62	0.95	3.90	1.34	1.33	0.50	0.83
n-Decane	1.42	1.46	0.85	1.07	0.94	1.08	0.90	1.25	1.00	1.08
n-Dodecane	1.77	5.66	1.16	2.26	2.28	3.97	1.53	1.41	1.55	1.68
1,4-Dioxane	-	-	2.50	0.90	-	-	-	-	-	-
n-Octane	1.51	2.96	1.02	7.74	1.99	1.32	1.09	0.66	0.53	0.80
n-Undecane	1.69	1.84	0.89	1.32	0.78	1.88	0.72	1.18	1.09	1.36
a-Pinene	1.74	0.52	1.11	0.60	1.42	2.17	0.68	0.47	1.01	2.42

TABLE H-44. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH SUMMER SEASON STUDIES - OVERNIGHT PERSONAL AIR

	1984				1987			
Compound	Mean	S.E.	Median	Range	Mean	S.E.	Median	Range
1,1,1-Trichloroethane	7.07	0.82	6.65	2.90-14.0	8.15	0.98	7.95	1.83-15.3
Benzene	7.53	2.40	4.35	0.03-35.0	5.66	0.93	4.48	1.22-13.7
Carbon Tetrachloride	0.55	0.04	0.52	0.32-0.89	0.61	0.07	0.66	0.31-1.02
Trichloroethylene	0.34	0.14	0.12	0.02-1.80	0.84	0.24	0.31	0.05-2.63
Tetrachloroethylene	6.86	4.93	1.90	0.03-56.0	1.84	0.45	1.55	0.37-5.37
Styrene	0.96	0.27	0.63	0.02-2.90	1.18	0.30	0.79	0.19-4.54
m,p-Dichlorobenzene	1.63	0.76	0.62	0.05-12.6	1.49	0.43	0.99	0.10-6.30
Ethylbenzene	5.45	1.98	2.65	0.03-26.0	2.36	0.33	2.08	0.64-4.98
o-Xylene	6.06	2.44	2.27	0.02-34.0	3.73	0.62	3.19	0.96-9.44
m,p-Xylene	17.4	5.95	7.22	0.60-77.0	10.2	1.50	9.19	2.67-23.2
n-Decane	0.97	0.46	0.48	0.09-6.10	3.96	1.72	1.04	0.01-21.9
n-Octane	3.09	1.10	1.85	0.07-16.0	3.59	1.44	2.31	0.67-23.3
n-Undecane	1.09	0.27	0.51	0.09-3.65	3.95	1.49	1.47	0.04-19.2
a-Pinene	4.44	2.07	1.05	0.04-31.0	2.17	1.06	1.05	0.06-17.7

Sample Size Range: 11-16

TABLE H-45. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH SUMMER SEASON STUDIES - DAYTIME PERSONAL AIR

	1984				1987			
Compound	Mean	S.E.	Median	Range	Mean	S.E.	Median	Range
Chloroform	1.08	0.42	0.32	0.02-5.40	0.69	0.16	0.53	0.07-2.57
1,2-Dichloroethane	0.13	0.06	0.02	0.02-0.57	0.13	0.02	0.12	0.02-0.31
1,1,1-Trichloroethane	35.1	12.1	7.25	1.60-130.	10.9	4.49	6.50	3.84-68.9
Benzene	8.51	1.77	6.50	1.80-23.0	8.34	1.92	6.27	2.11-29.6
Carbon Tetrachloride	0.67	0.08	0.68	0.03-1.10	0.67	0.07	0.67	0.31-1.22
Tetrachloroethylene	51.0	46.9	2.80	0.03-520.	1.72	0.35	1.22	0.37-3.69
Styrene	2.60	0.99	0.79	0.02-13.0	1.16	0.29	0.85	0.19-4.05
m,p-Dichlorobenzene	1.22	0.36	0.77	0.05-4.48	1.09	0.34	0.67	0.10-4.95
Ethylbenzene	5.63	1.36	4.75	0.13-16.0	3.56	0.62	3.10	0.90-9.75
o-Xylene	5.06	1.31	3.92	0.03-15.0	5.33	0.81	4.69	1.10-12.0
m,p-Xylene	18.2	4.60	13.9	0.55-62.0	15.8	2.75	14.3	3.37-38.2
n-Decane	3.11	1.37	1.85	0.10-20.0	3.52	1.28	1.90	0.37-17.6
n-Dodecane	1.15	0.29	1.30	0.11-3.90	3.53	1.94	0.82	0.05-25.2
n-Octane	3.46	0.98	2.20	0.37-12.0	8.32	4.99	2.28	0.06-66.6
n-Undecane	4.71	2.58	1.85	0.10-32.0	5.20	2.32	1.71	0.04-23.2
a-Pinene	5.95	4.63	1.45	0.05-66.0	0.75	0.17	0.57	0.05-1.87

Sample Size Range: 11-14

TABLE H-46. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH SUMMER SEASON STUDIES - FINAL BREATH

Compound	1984 Mean	1984 S.E.	1984 Median	1984 Range	1987 Mean	1987 S.E.	1987 Median	1987 Range
Chloroform	1.62	0.60	0.17	0.03-7.80	0.78	0.26	0.37	0.07-3.44
1,1,1-Trichloroethane	5.99	2.26	2.80	0.05-27.0	2.48	0.64	1.46	0.19-7.05
Benzene	7.25	2.44	3.60	0.03-26.0	7.22	2.99	0.58	0.03-29.9
Tetrachloroethylene	13.5	9.69	4.30	0.59-81.0	0.94	0.27	1.07	0.02-2.28
Styrene	0.83	0.34	0.17	0.03-4.00	0.67	0.31	0.04	0.03-3.14
m,p-Dichlorobenzene	1.59	0.60	0.60	0.07-8.77	0.72	0.24	0.42	0.13-3.66
Ethylbenzene	1.56	0.43	0.61	0.17-4.60	1.18	0.41	0.31	0.01-4.12
o-Xylene	0.92	0.21	0.85	0.03-2.60	0.70	0.21	0.25	0.40-2.47
m,p-Xylene	3.30	0.75	2.60	0.40-8.90	2.66	0.88	0.56	0.02-9.25
a-Pinene	1.16	0.34	0.76	0.06-5.20	0.76	0.39	0.07	0.06-5.11
Sample Size Range:			8-15					

TABLE H-47. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH SUMMER SEASON STUDIES - OVERNIGHT OUTDOOR AIR

	1984				1987			
Compound	Mean	S.E.	Median	Range	Mean	S.E.	Median	Range
Chloroform	0.27	0.20	0.07	0.03-1.08	1.18	0.87	0.50	0.07-4.64
1,1,1-Trichloroethane	5.10	1.01	4.70	2.80-8.20	4.82	1.77	3.21	1.59-11.0
Benzene	2.71	0.62	2.10	1.35-4.40	3.75	1.95	1.65	0.98-11.3
Carbon Tetrachloride	0.58	0.07	0.57	0.33-0.75	0.54	0.09	0.44	0.37-0.78
Tetrachloroethylene	1.62	0.48	1.30	0.52-3.00	1.27	0.62	0.44	0.37-3.58
Styrene	0.81	0.23	0.81	0.07-1.30	0.28	0.16	0.06	0.05-0.91
m,p-Dichlorobenzene	0.87	0.29	0.72	0.15-1.65	0.59	0.23	0.40	0.32-1.51
Ethylbenzene	1.72	0.36	1.50	0.84-3.00	1.64	0.85	0.70	0.44-4.97
o-Xylene	2.19	0.67	1.50	0.83-4.30	2.84	1.52	1.17	0.74-8.81
m,p-Xylene	6.57	1.59	5.00	3.05-12.0	7.45	3.94	3.15	1.96-22.9
n-Decane	0.63	0.18	0.51	0.09-1.10	0.59	0.23	0.37	0.31-1.50
n-Octane	0.74	0.25	1.00	0.07-1.20	1.02	0.37	0.83	0.25-2.16
n-Undecane	0.71	0.19	0.51	0.29-1.30	0.45	0.10	0.37	0.31-0.85
Sample Size:			5					

TABLE H-48. SUMMARY STATISTICS ($\mu g/m^3$) FOR SELECTED COMPOUNDS FOR THOSE WHO PARTICIPATED IN BOTH SUMMER SEASON STUDIES - DAYTIME OUTDOOR AIR

Compound	1984 Mean	1984 S.E.	1984 Median	1984 Range	1987 Mean	1987 S.E.	1987 Median	1987 Range
1,1,1-Trichloroethane	3.81	0.77	4.05	1.70-5.85	3.20	0.89	2.39	1.46-7.11
Benzene	2.25	0.59	2.05	1.10-4.50	1.72	0.64	1.33	0.75-4.24
Tetrachloroethylene	1.17	0.28	1.09	0.31-2.10	0.60	0.13	0.49	0.44-1.23
Ethylbenzene	1.79	0.35	1.62	1.00-3.40	0.77	0.21	0.67	0.25-1.72
o-Xylene	2.01	0.37	1.85	1.12-3.30	1.28	0.45	1.01	0.31-3.40
m,p-Xylene	5.29	0.67	5.30	3.85-7.60	3.35	1.29	2.07	1.05-8.19
n-Decane	0.53	0.11	0.53	0.27-0.98	0.37	0.09	0.44	0.08-0.63
n-Octane	0.53	0.22	0.34	0.21-1.60	0.54	0.15	0.51	0.06-1.05

Sample Size Range: 5-6

TABLE H-49. RATIOS OF 1987 TO 1984 MEDIAN AND MAXIMUM CONCENTRATIONS BY MEDIA FOR SELECTED COMPOUNDS - SUMMER SEASON

Compound	Overnight Personal Air		Daytime Personal Air		Final Breath		Overnight Outdoor Air		Daytime Outdoor Air	
	Median	Maximum	Median	Maximum	Median	Maximum	Median	Maximum	Median	Maximum
Chloroform	-	-	1.63	0.48	2.22	0.44	6.98	4.30	-	-
1,2-Dichloroethane	-	-	5.00	0.54	-	-	-	-	-	-
1,1,1-Trichloroethane	1.20	1.09	0.90	0.53	0.52	0.26	0.68	1.35	0.59	1.22
Benzene	1.03	0.39	0.96	1.28	0.16	1.15	0.79	2.57	0.65	0.94
Carbon Tetrachloride	1.27	1.15	0.98	1.11	-	-	0.76	1.04	-	-
Trichloroethylene	2.63	1.46	-	-	-	-	-	-	-	-
Tetrachloroethylene	0.82	0.10	0.44	0.01	0.25	0.03	0.34	1.19	0.45	0.59
Styrene	1.26	1.57	1.07	0.31	0.27	0.78	0.08	0.70	-	-
m,p-Dichlorobenzene	1.59	0.50	0.88	1.11	0.70	0.42	0.55	0.91	-	-
Ethylbenzene	0.78	0.19	0.65	0.61	0.51	0.90	0.47	1.66	0.41	0.50
o-Xylene	1.40	0.28	1.20	0.80	0.29	0.95	0.78	2.05	0.55	1.03
m,p-Xylene	1.27	0.30	1.03	0.62	0.21	1.04	0.63	1.91	0.39	1.08
n-Decane	2.17	3.58	1.02	0.88	-	-	0.74	1.36	0.83	0.64
n-Dodecane	-	-	0.63	6.47	-	-	-	-	-	-
n-Octane	1.25	1.46	1.03	5.55	-	-	0.83	1.80	1.47	0.65
n-Undecane	2.87	5.27	0.92	0.73	-	-	0.74	0.65	-	-
a-Pinene	1.00	0.57	0.39	0.03	0.09	0.98	-	-	-	-

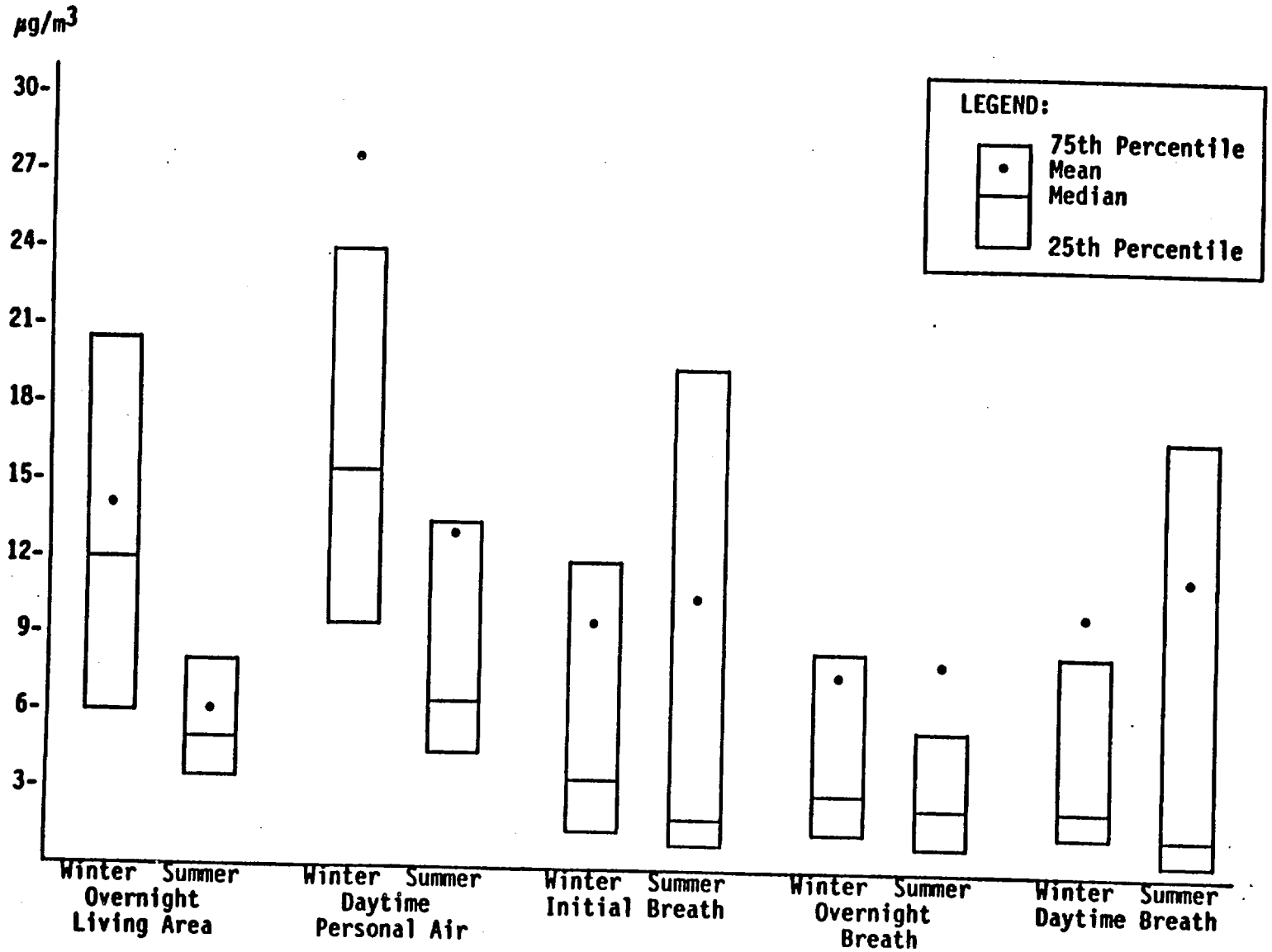


Figure H-1. Box Plots for Arithmetic Means, Medians, 25th and 75th Percentiles for Benzene in Overnight and Daytime Personal Air and Initial, Overnight, and Daytime Breath Samples by Season.

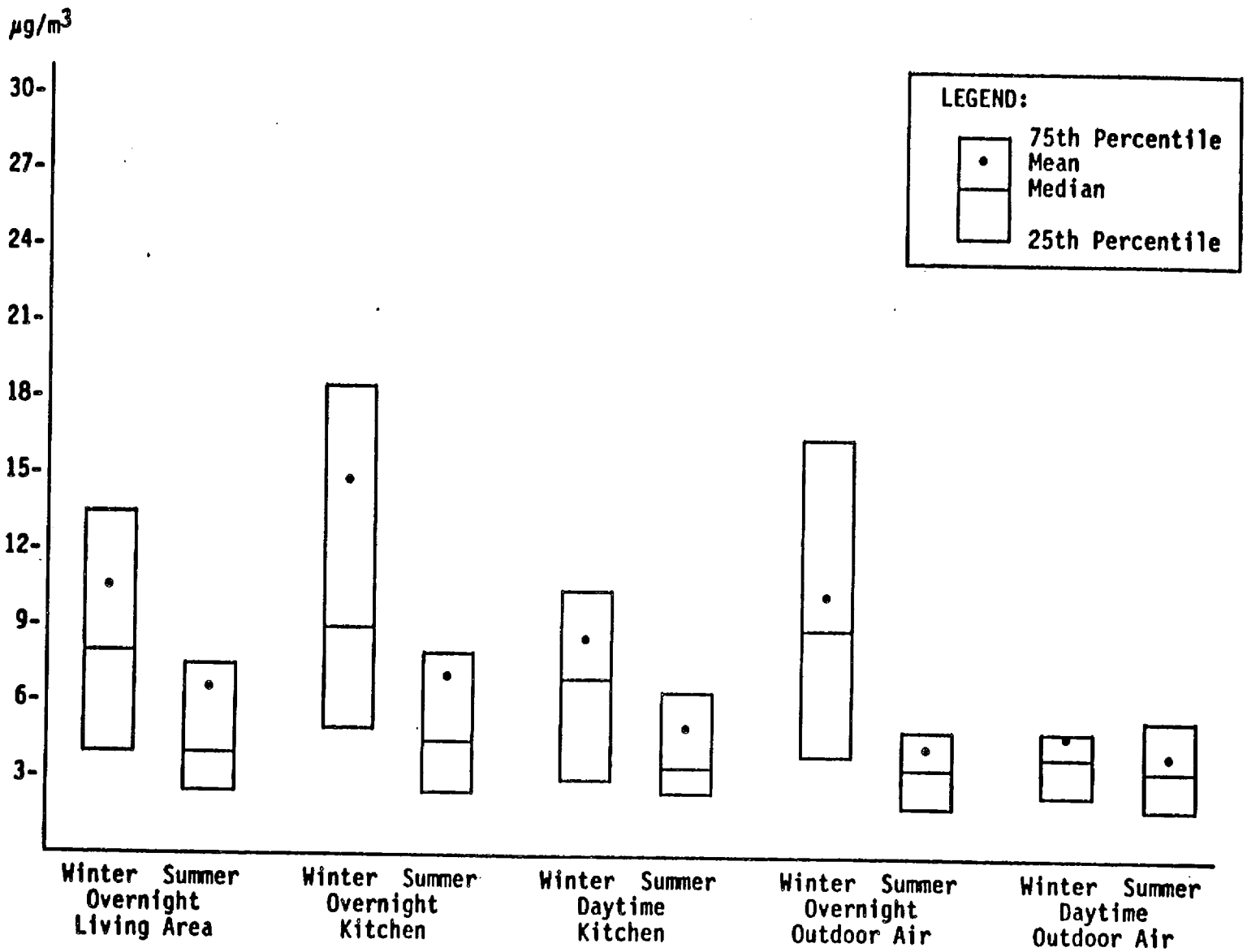


Figure H-2. Box Plots for Arithmetic Means, Medians, 25th and 75th Percentiles for Benzene in Daytime Living Area, Overnight and Daytime Kitchen, and Overnight and Daytime Outdoor Air Samples by Season.

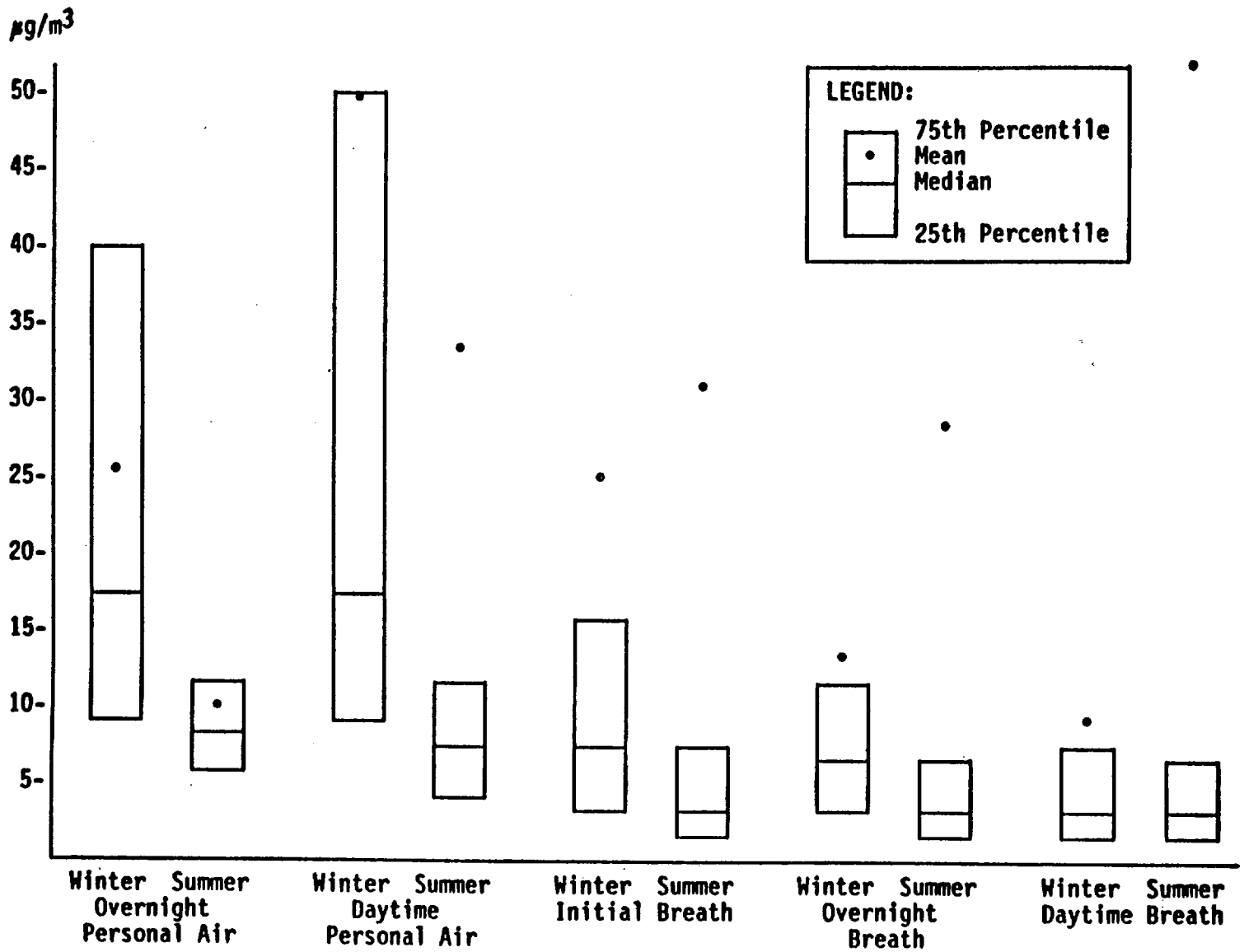


Figure H-3. Box Plots for Arithmetic Means, Medians, 25th and 75th Percentiles for 1,1,1-Trichloroethane in Overnight and Daytime Personal Air and Initial, Overnight, and Daytime Breath Samples by Season.

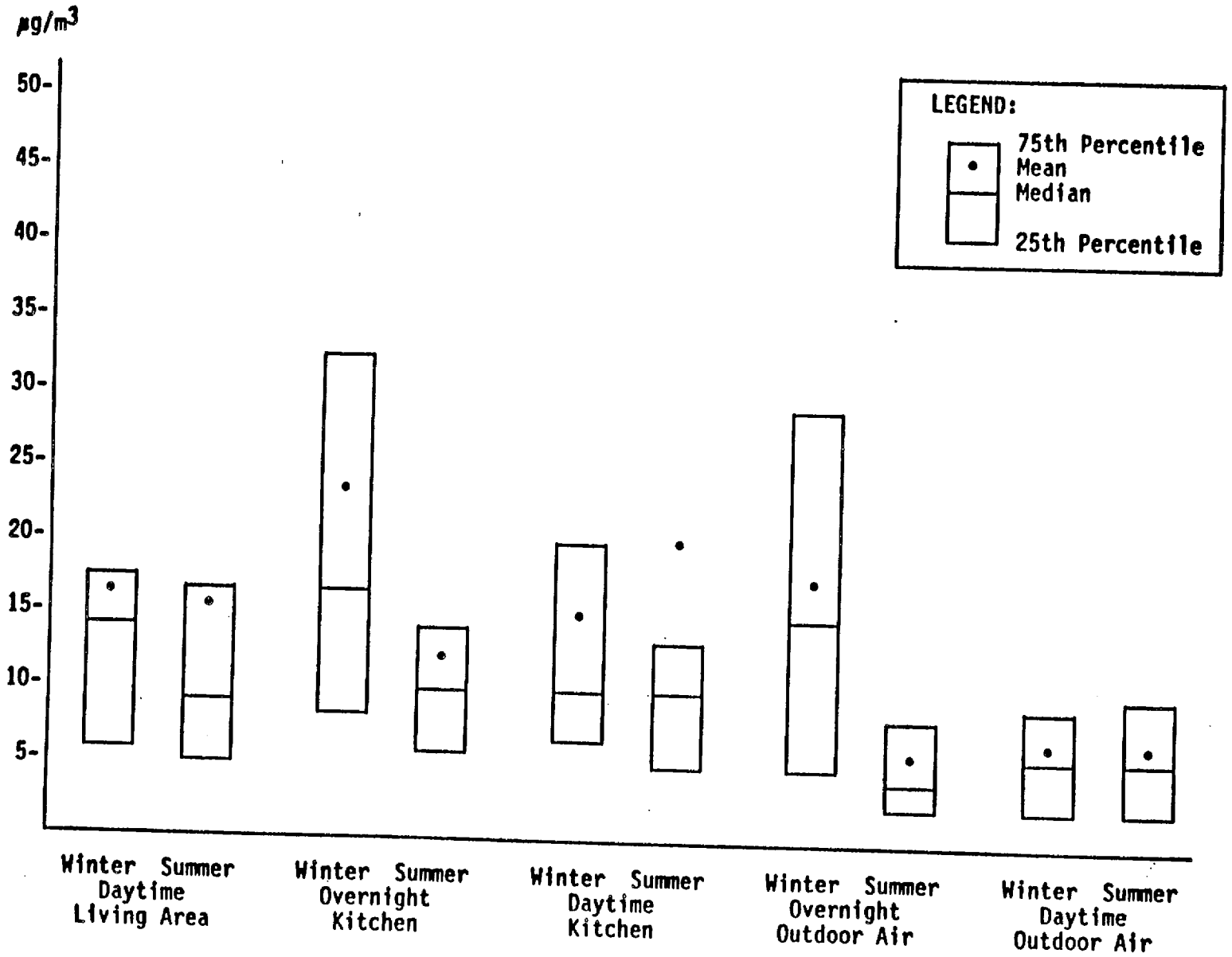


Figure H-4. Box Plots for Arithmetic Means, Medians, 25th and 75th Percentiles for 1,1,1-Trichloroethane in Daytime Living Area, Overnight and Daytime Kitchen, and Overnight and Daytime Outdoor Air Samples by Season.

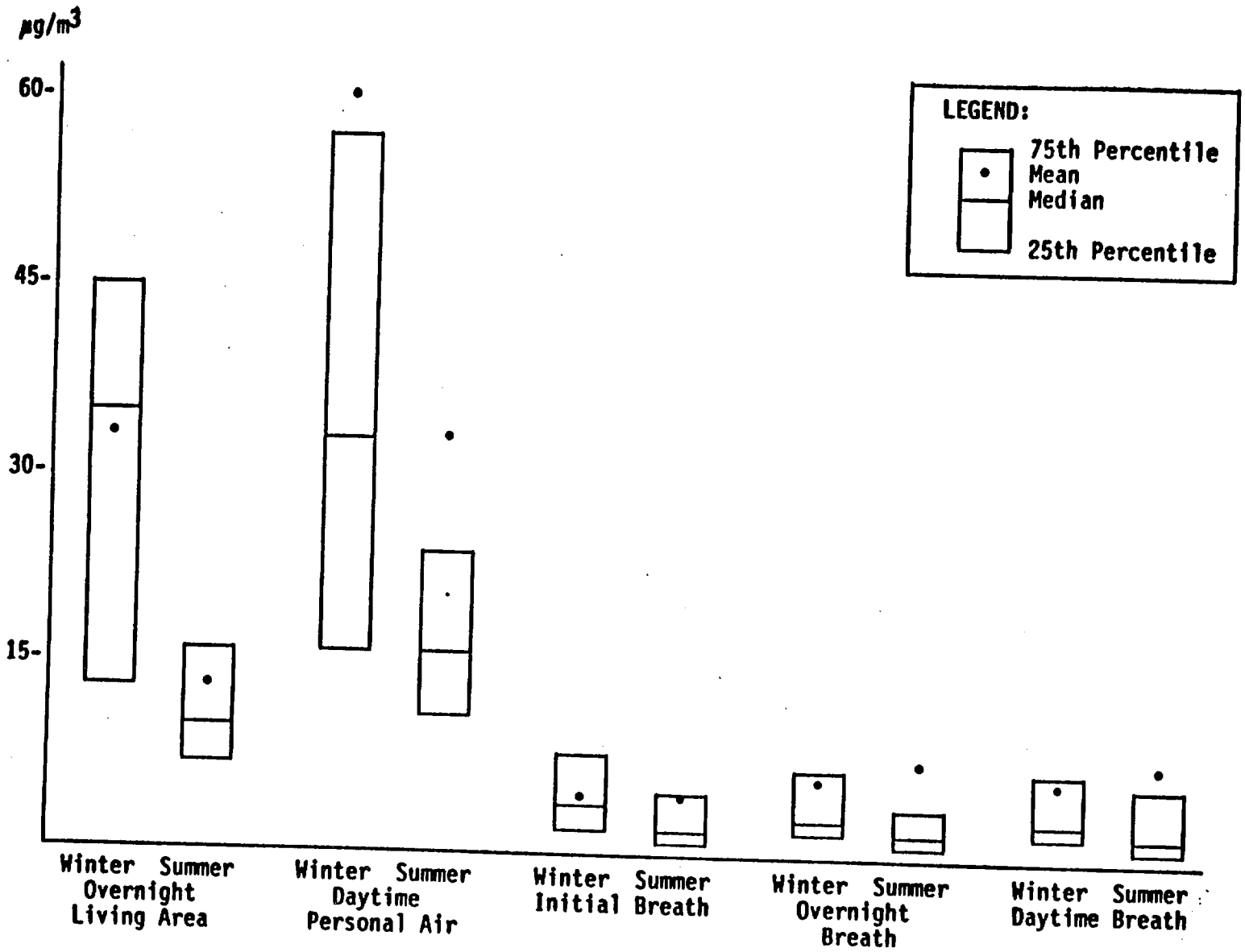


Figure H-5. Box Plots for Arithmetic Means, Medians, 25th and 75th Percentiles for m,p-Xylene in Overnight and Daytime Personal Air and Initial, Overnight, and Daytime Breath Samples by Season.

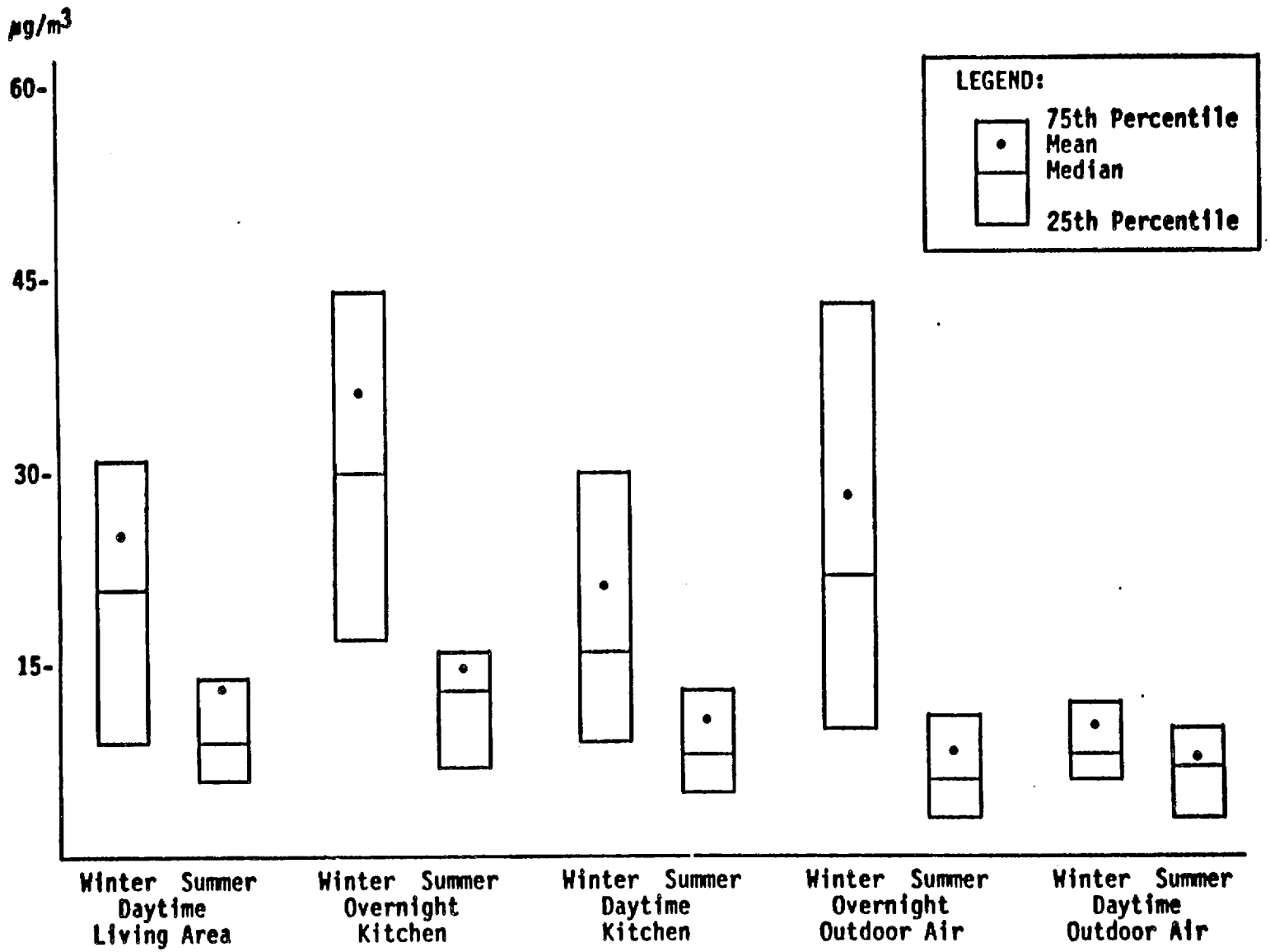
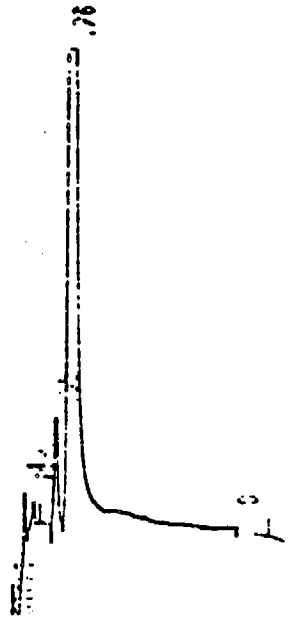


Figure H-6. Box Plots for Arithmetic Means, Medians, 25th and 75th Percentiles for m,p-Xylene in Daytime Living Area, Overnight and Daytime Kitchen, and Overnight and Daytime Outdoor Air Samples by Season.

APPENDIX I

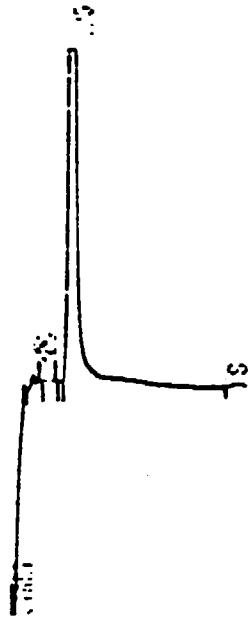
Portable GC data



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.13	2484900	PV	0.072	4.635
0.25	2007600	VB	0.132	3.745
0.55	1254100	PE	0.051	2.339
0.73	4.4764E-07	↑SHB	0.102	83.501
0.76	3098600	↑TBB	0.033	5.780

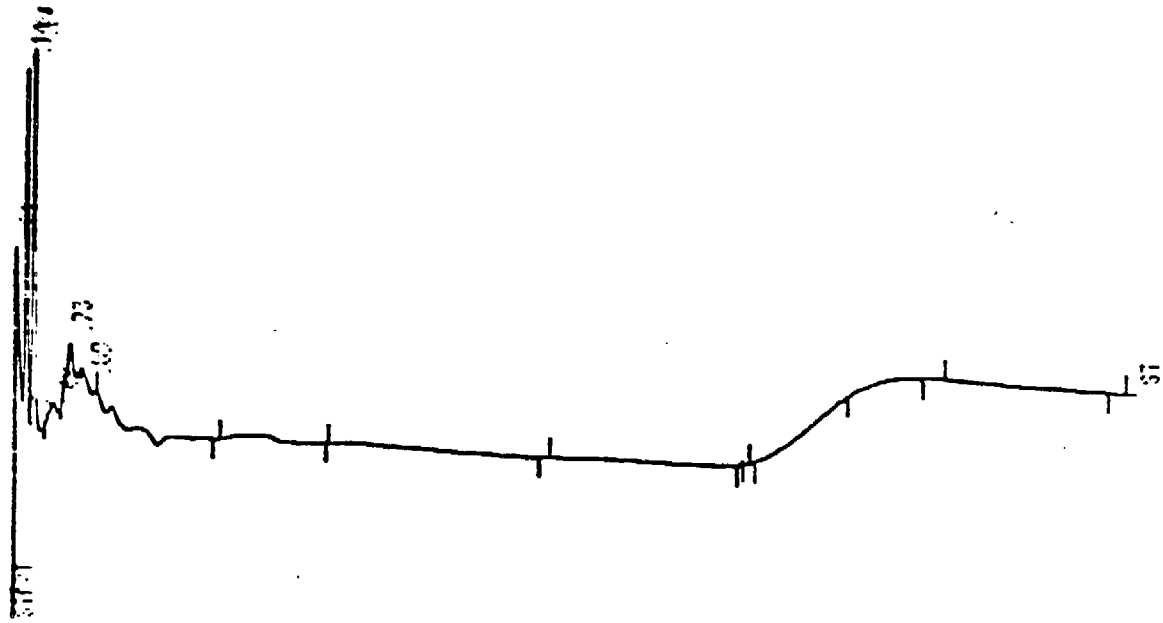
Figure I-1. **50 µL benzene + 50 µL trichloroethylene; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.14	2809300	PV	0.090	8.329
0.26	2304600	VB	0.176	6.833
0.75	2.8615E+07	SPB	0.073	84.838

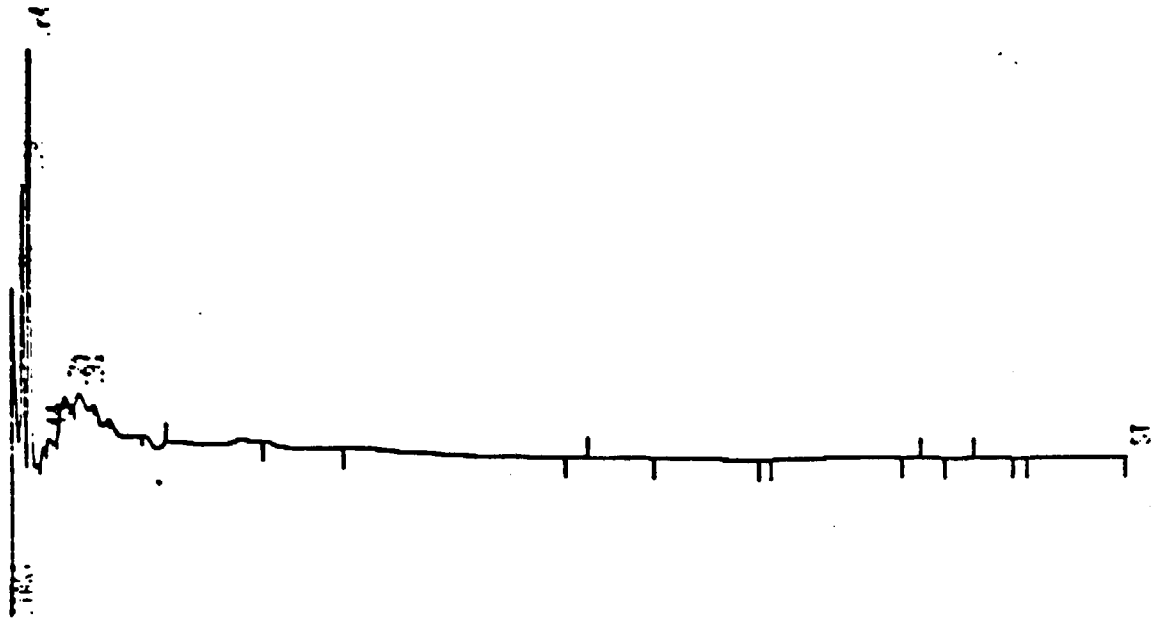
Figure I-2. **50 µL trichloroethylene; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/RT	AREA%
0.01	1793600	BV	0.047	15.403
0.14	2618700	SHB	0.033	22.489
0.24	3724000	SPB	0.036	31.981
0.49	523560	BV	0.119	4.496
0.73	1915300	VV	0.127	16.448
0.89	1069300	VB	0.137	9.183

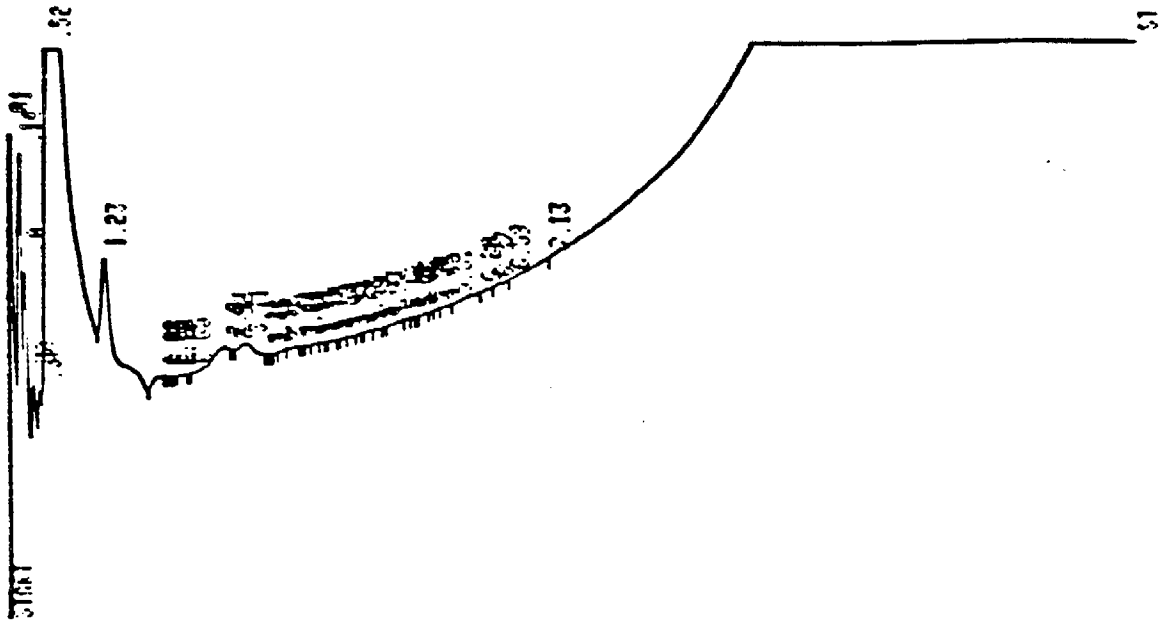
Figure I-3. **1000 µL zero air-can #1; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	3532100	BH	0.064	10.262
0.14	3585900	SHH	0.045	10.418
0.24	2.0651E+07	SHE	0.166	59.999
0.44	248810	TSV	0.058	0.723
0.51	641120	TVV	0.104	1.863
0.74	2575600	TVV	0.169	7.483
0.91	3184500	TVV	0.205	9.252

Figure I-4. 1000 µL zero air-can #2; gain = 50; integrator atten. = 8.



AREA%

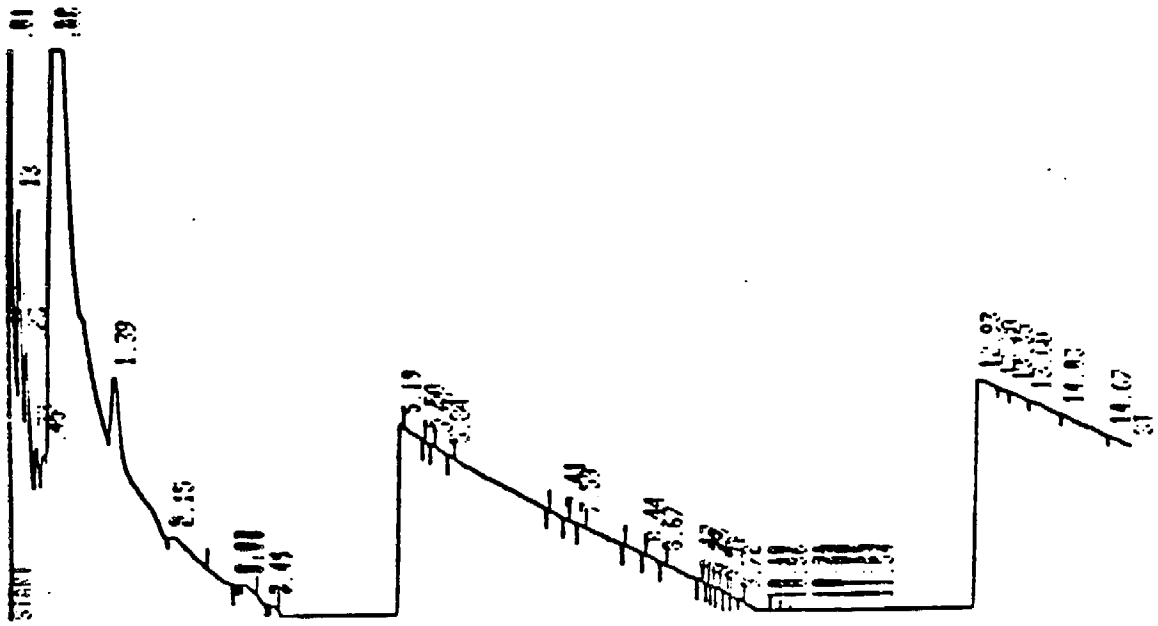
RT	AREA	TYPE	AR/HT	AREA%
0.01	5323300	SBH	0.061	0.300
0.14	4455100	SHH	0.054	0.251
0.20	6874030	SHH	0.125	0.387
0.30	360670	TBF	0.040	0.020
0.38	125210	TPB	0.038	0.007
0.52	6.2242E+07	SHH	0.337	3.506
1.23	2.4837E+07	SHH	0.430	1.399
1.99	6170100	SHH	0.201	0.348
2.03	901500	DSHH	0.029	0.051
2.06	1825400	SHH	0.059	0.103
2.12	803540	SHH	0.026	0.045
2.15	914980	SHH	0.030	0.052

Figure I-5. House no. 1; participant no. 71276-0; room adjacent to attached garage; gain = 100; integrator atten. = 8. PID: 210075041

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.61	9584600	SBH	0.066	1.415
0.13	5842200	SHH	0.064	0.863
0.23	4584200	SHH	0.081	0.677
0.33	3255100	SHH	0.086	0.481
0.44	3062300	SHH	0.077	0.452
0.59	7.3319E+07	SHH	0.422	10.826
1.37	1.7899E+07	SHH	0.323	2.643
1.68	1283800	DSHH	0.032	0.190
1.71	1699900	DSHH	0.043	0.251
1.75	1.0570E+07	DSHH	0.267	1.561
2.21	6764400	SHH	0.189	0.999
2.24	1206200	SHH	0.034	0.178
2.28	1565500	DSHH	0.044	0.231
2.30	981730	DSHH	0.028	0.145

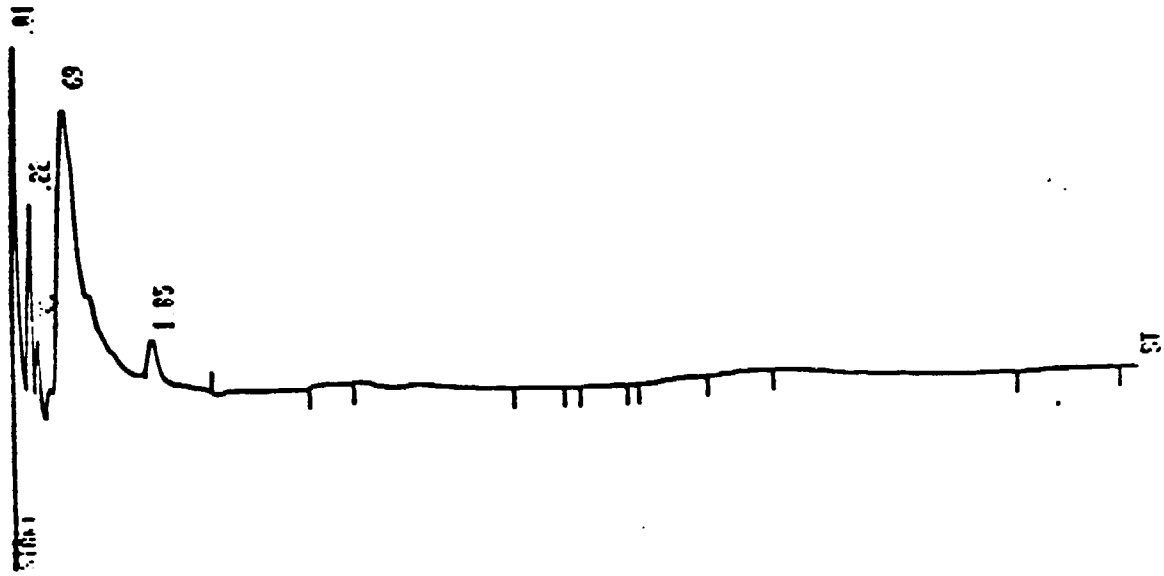
Figure I-6. **House no. 1; participant no. 71276-0; den; gain = 100; integrator atten = 8.**
PID: 210075041



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	7813000	SBH	0.002	2.544
0.13	4125200	SHH	0.056	1.343
0.23	2864500	SHH	0.071	0.933
0.33	1380500	SHH	0.076	0.449
0.45	1243600	SHH	0.074	0.405
0.59	1.5529E+07	SHH	0.118	5.055
0.66	3.7220E+07	DSHH	0.298	12.117
1.39	9808700	SHB	0.284	3.193
2.15	424500	BB	0.366	0.138
2.97	5673	D BV	0.033	0.002
3.01	12162	D VV	0.032	0.004
3.06	28352	VV	0.037	0.010
3.10	159950	VB	0.149	0.052
3.41	4393	D BV	0.023	0.001
3.45	29608	D VB	0.138	0.010
5.19	4079400	PB	0.123	1.328

Figure I-7. House no. 1; participant no. 71276-0; participant's bedroom; gain = 100; integrator atten. = 8.
PID: 210075041



AREA%

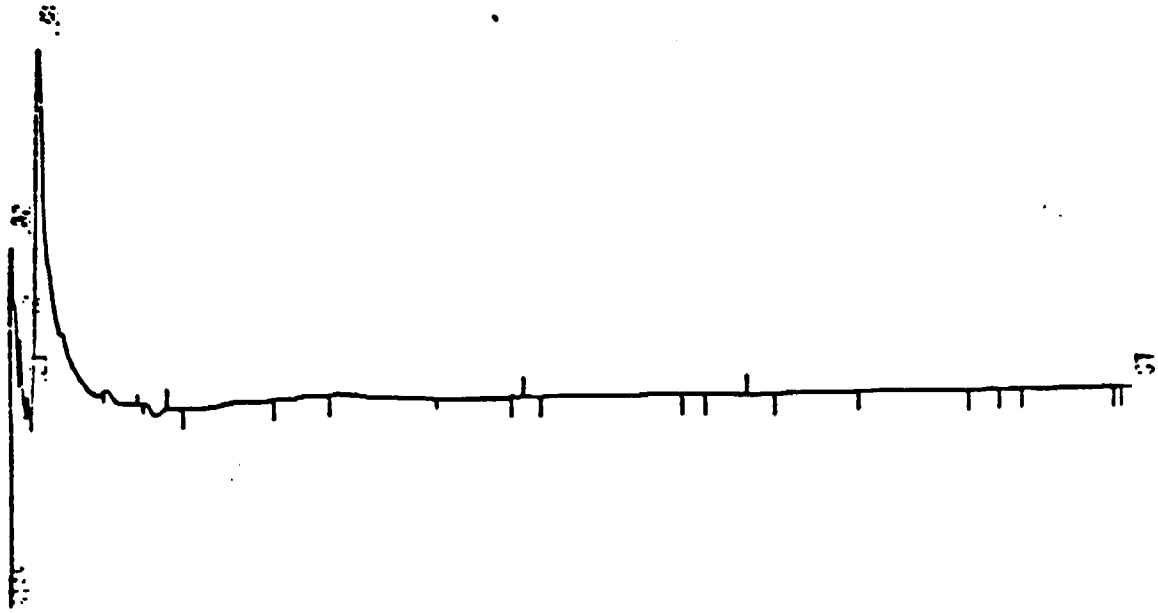
RT	AREA	TYPE	AR/HT	AREA%
0.01	3.4186E+07	SBB	0.324	49.686
0.22	2130400	TBV	0.049	3.096
0.33	786600	TVP	0.055	1.143
0.69	2.8694E+07	TPV	0.420	41.703
1.85	3007600	TVB	0.240	4.371

Figure I-8. **House no. 2; participant no. 71278-6; living room; gain = 50; integrator atten. = 8.**

AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	3180900	SBB	0.088	18.017
0.12	332260	DTBP	0.026	1.882
0.20	104170	DTPP	0.027	0.590
0.36	130210	BV	0.041	0.738
0.51	1.3564E+07	VB	0.279	76.826
2.38	343370	BB	0.223	1.948

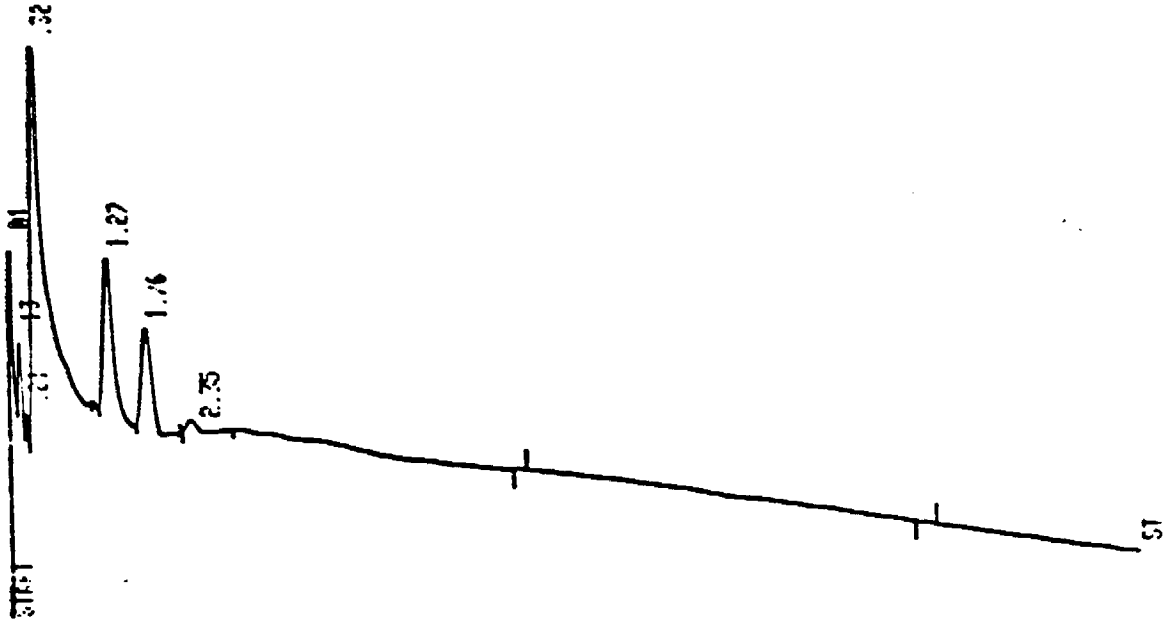
Figure I-9. **House no. 3; participant no. 71300-8; kitchen; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.02	3.3369E+07	SBB	0.493	58.496
0.12	343710	TBF	0.032	0.611
0.21	129850	TFP	0.031	0.228
0.38	2.3197E+07	TPV	0.269	40.665

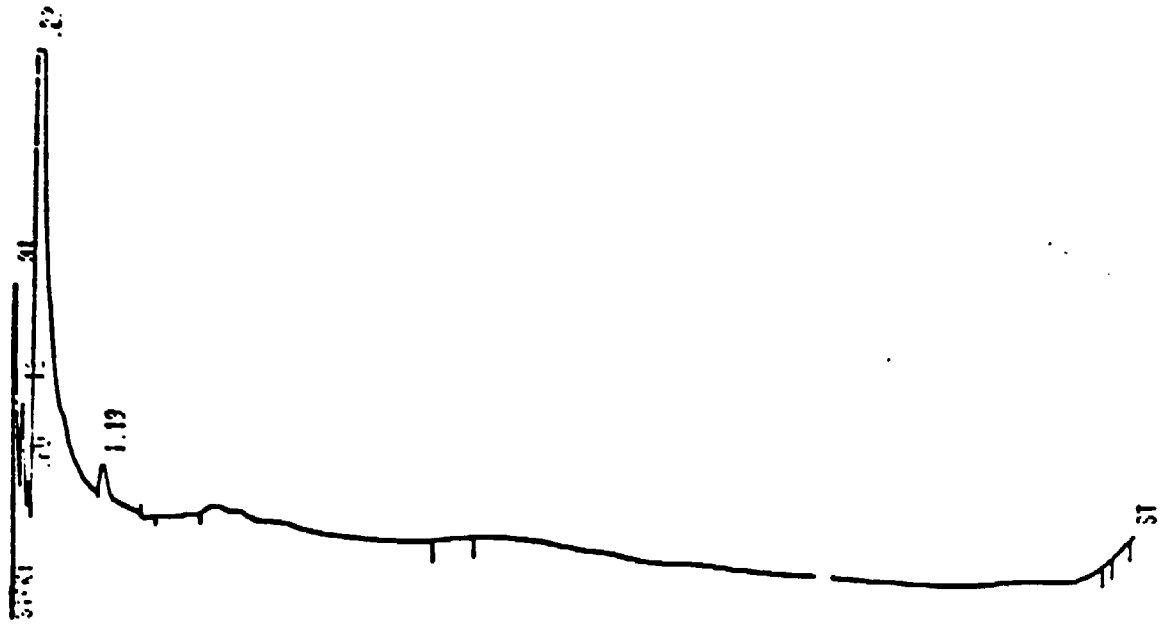
Figure I-10. **House no. 4; participant no. 71273-7; living room; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	7058900	SBH	0.114	9.081
0.13	793930	TBV	0.046	1.039
0.21	143370	TVB	0.028	0.197
0.32	5.6244E+07	ISHH	0.412	77.133
1.27	4772900	TVP	0.133	6.546
1.76	3362300	TPF	0.146	4.611
2.35	542900	TFB	0.179	0.745

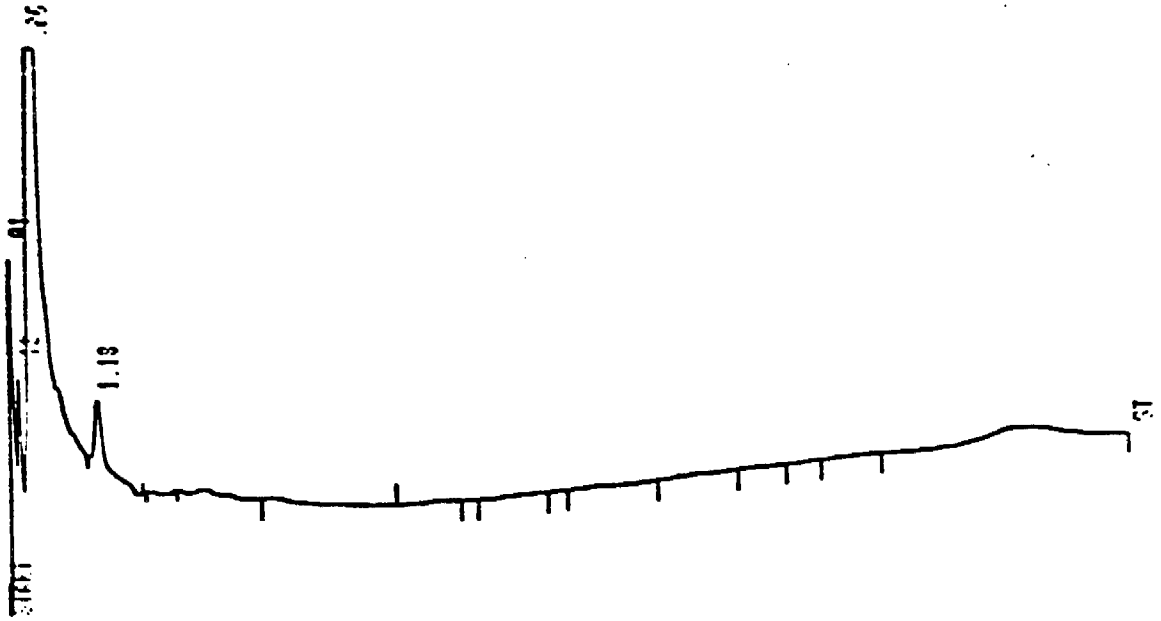
Figure I-11. **House no. 4; participant no. 71273-7; bathroom; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	5943600	SBH	0.091	8.347
0.12	619120	TBF	0.034	0.870
0.20	136220	TFB	0.029	0.191
0.29	6.3777E+07	ISHH	0.181	89.572
1.19	725850	TBP	0.105	1.019

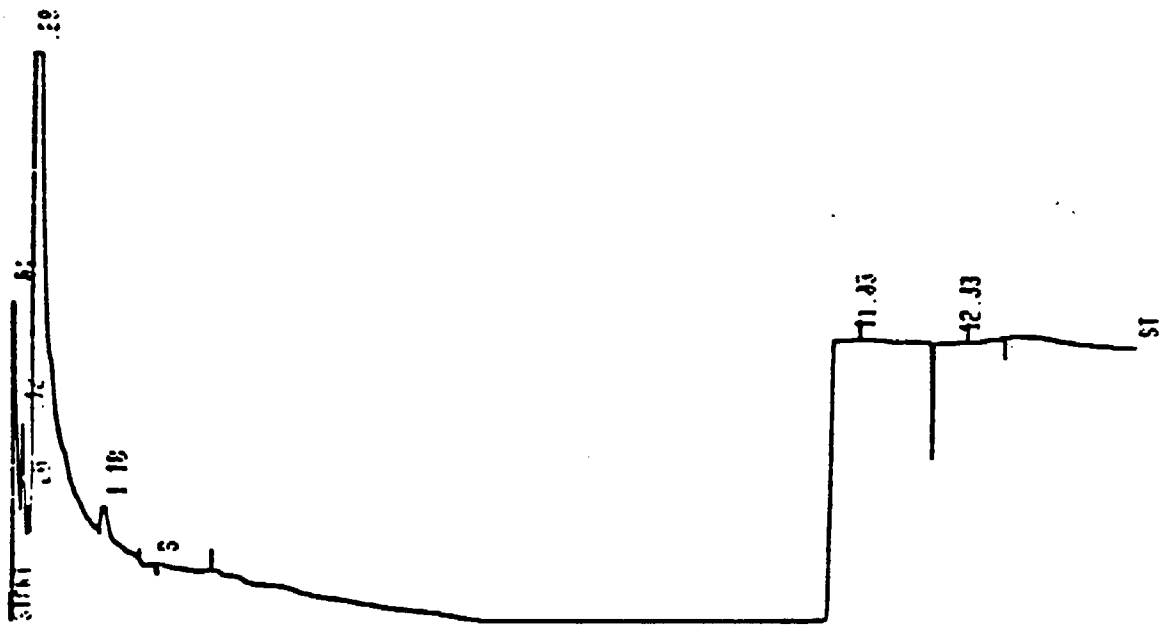
Figure I-12. **House no. 5; participant no. 71272-9; kitchen; gain = 50; integrator atten. = 8. PID: 223019069**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	5461500	SBH	0.080	6.794
0.12	660990	TBB	0.034	0.833
0.26	7.2123E+07	†SHH	0.197	89.714
1.18	2137408	TBF	0.130	2.659

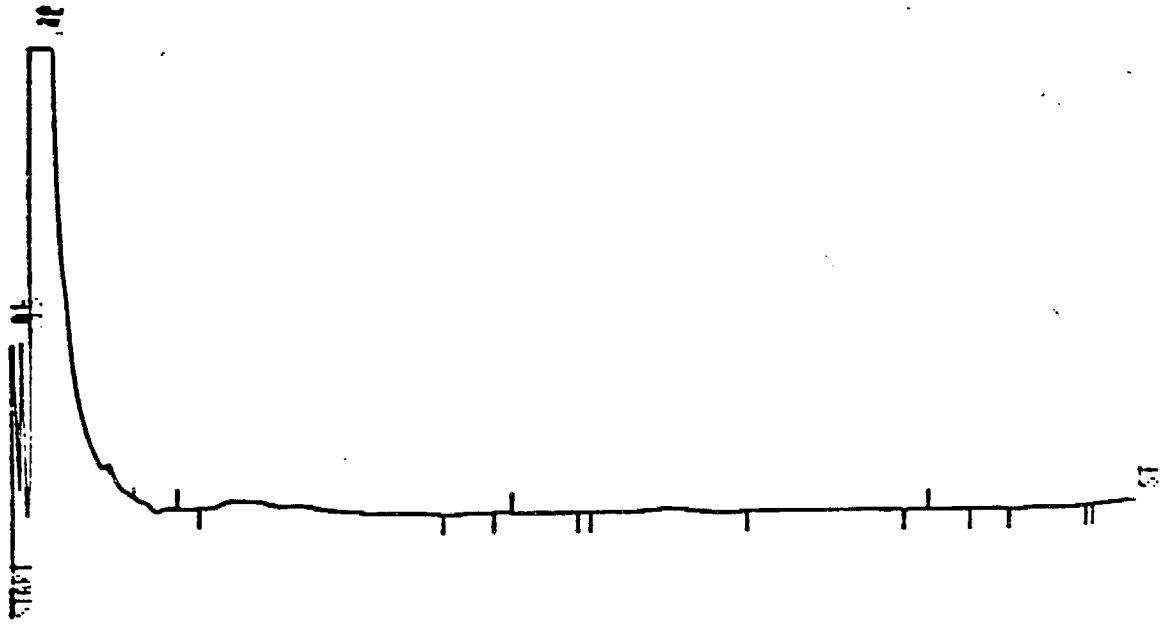
Figure I-13. **House no. 5; participant no. 71272-9; bedroom: gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT.	AREA%
0.01	5328500	SBH	0.084	7.217
0.12	659700	TBP	0.033	0.894
0.20	109310	TPB	0.027	0.148
0.28	5.1703E+07	SHB	0.155	70.025
1.18	638710	TBB	0.100	0.865
11.03	1.0353E+07	PB	0.261	14.022
12.33	5043200	BB	0.236	6.830

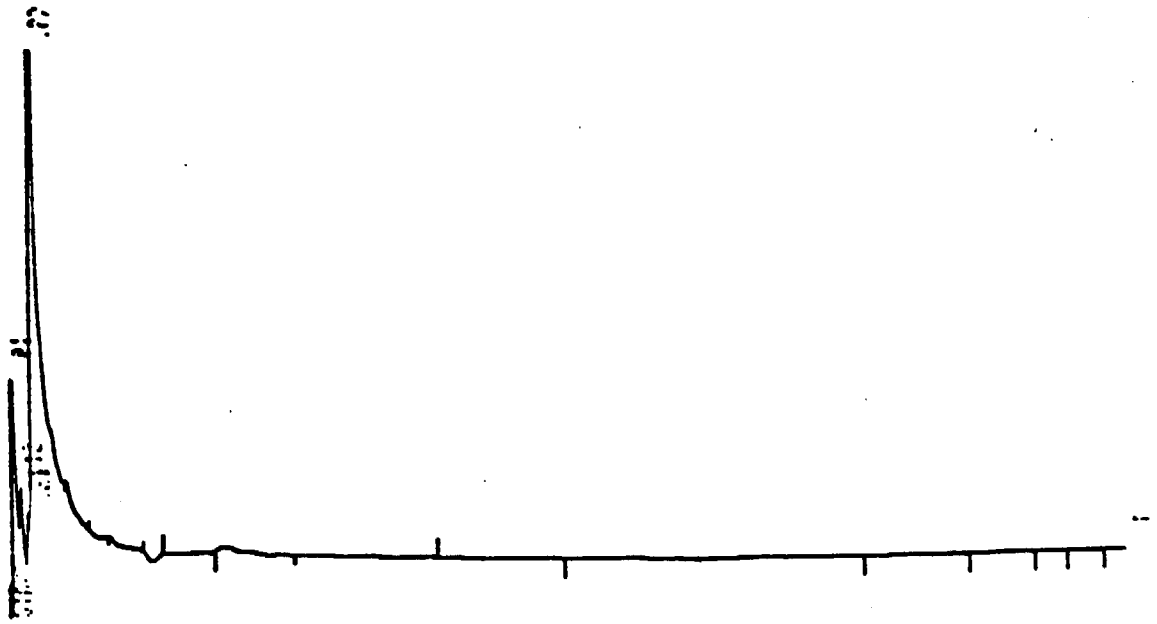
Figure I-14. House no. 5; participant no. 71272-9; bathroom; gain = 50; integrator atten. = 8.



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	4151330	SBH	0.085	2.997
0.13	1441800	TBB	0.042	1.041
0.28	1.3038E+08	†SHB	0.314	94.129
0.42	2539600	†TBB	0.059	1.834

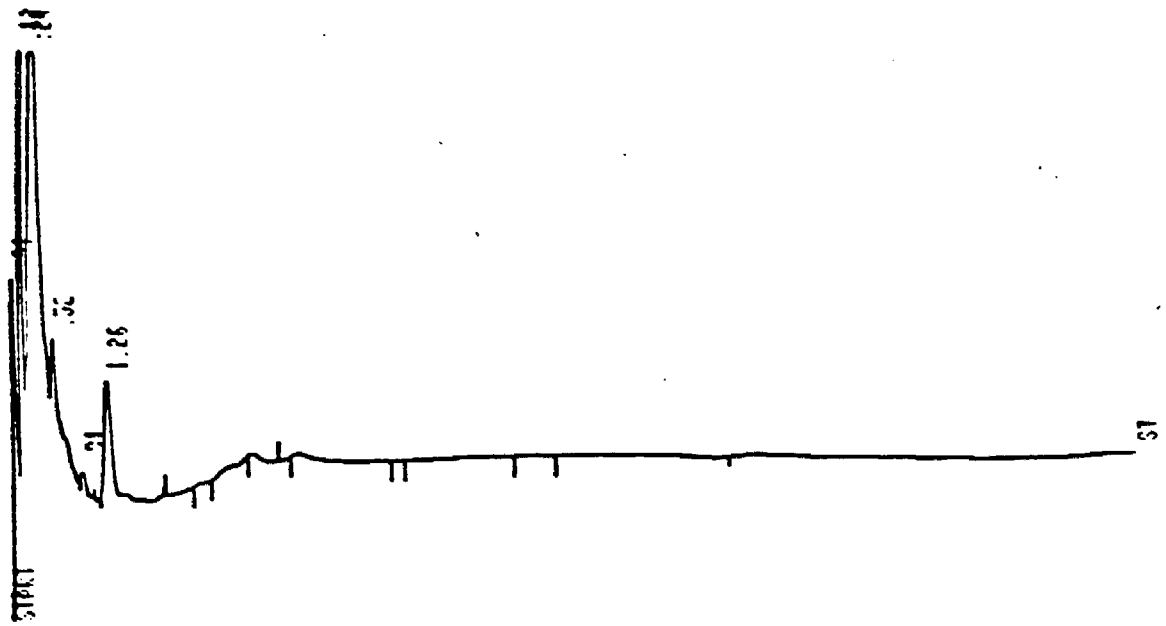
Figure I-15. **House no. 6; participant no. 71274-5; kitchen; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	5792900	SBV	0.105	13.011
0.12	328770	TBP	0.033	0.738
0.21	93374	TPB	0.020	0.210
0.27	3.8308E+0	SHB	0.251	86.041

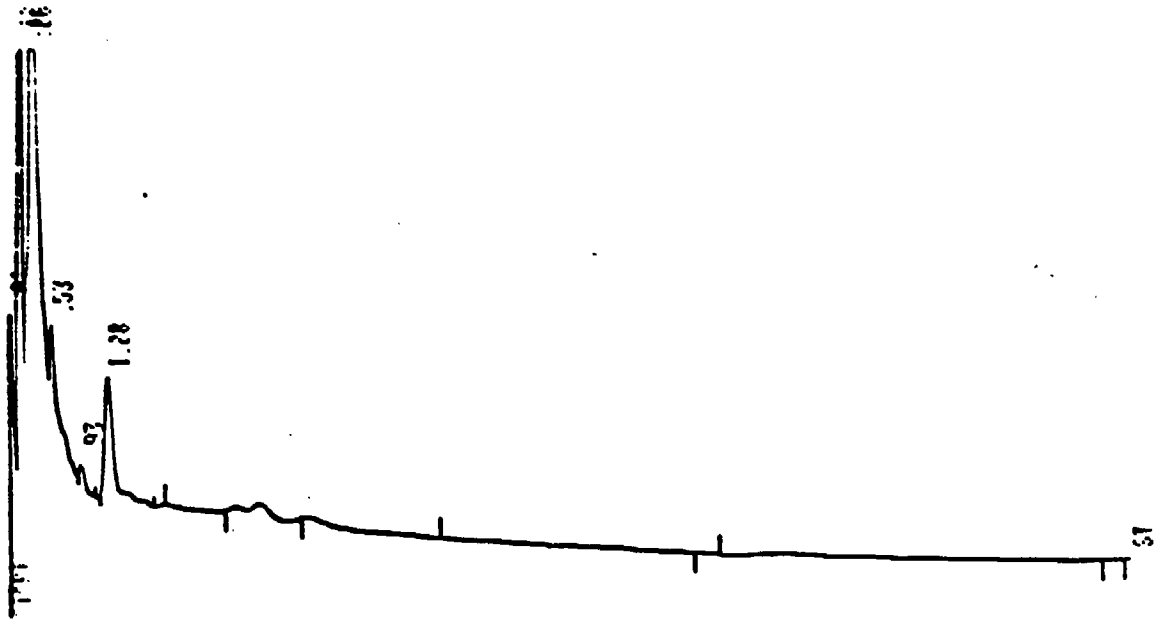
Figure I-16. House no. 6; participant no. 71274-5; bathroom; gain = 50; integrator atten. = 8.



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	3207700	SBH	0.051	5.432
0.12	8997000	SHH	0.045	15.237
0.24	2.8427E+07	SHH	0.128	48.141
0.52	1.4792E+07	SHB	0.306	25.051
0.91	255230	TBH	0.072	0.432
1.26	3369700	TPB	0.123	5.707

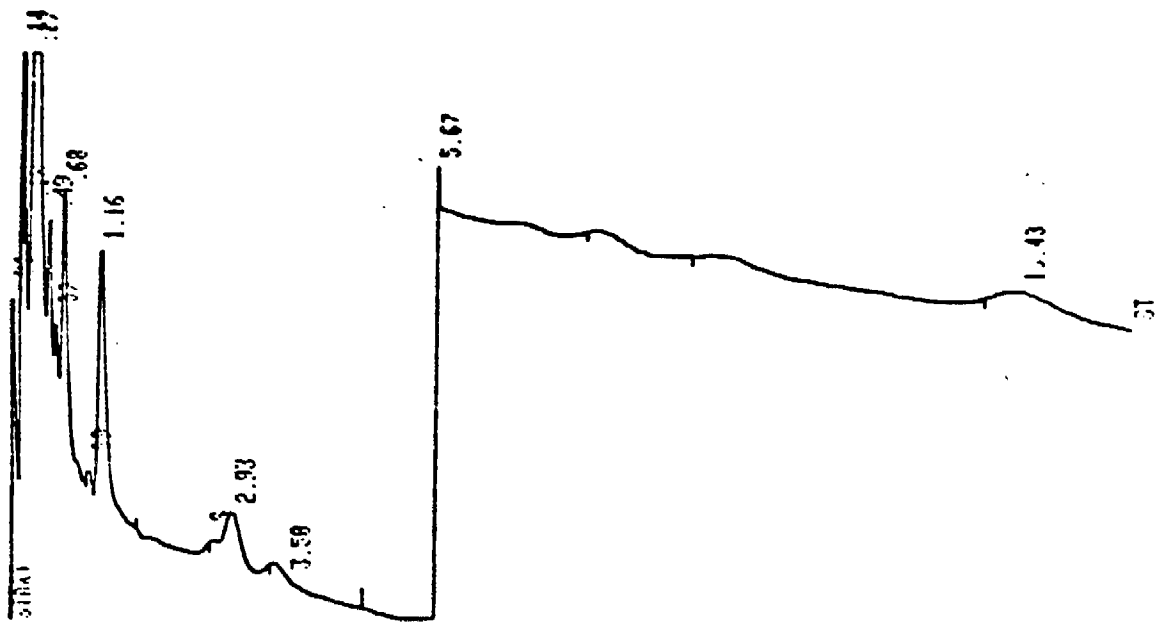
Figure I-17. **House no. 7; participant no. 71277-8; living room gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	2805400	SBH	0.053	4.562
0.12	1.0752E+07	SHH	0.045	17.485
0.26	2.8103E+07	SHH	0.153	45.797
0.53	1.6060E+07	SHB	0.321	26.116
0.93	283000	TBP	0.073	0.460
1.28	3431200	TPV	0.125	5.580

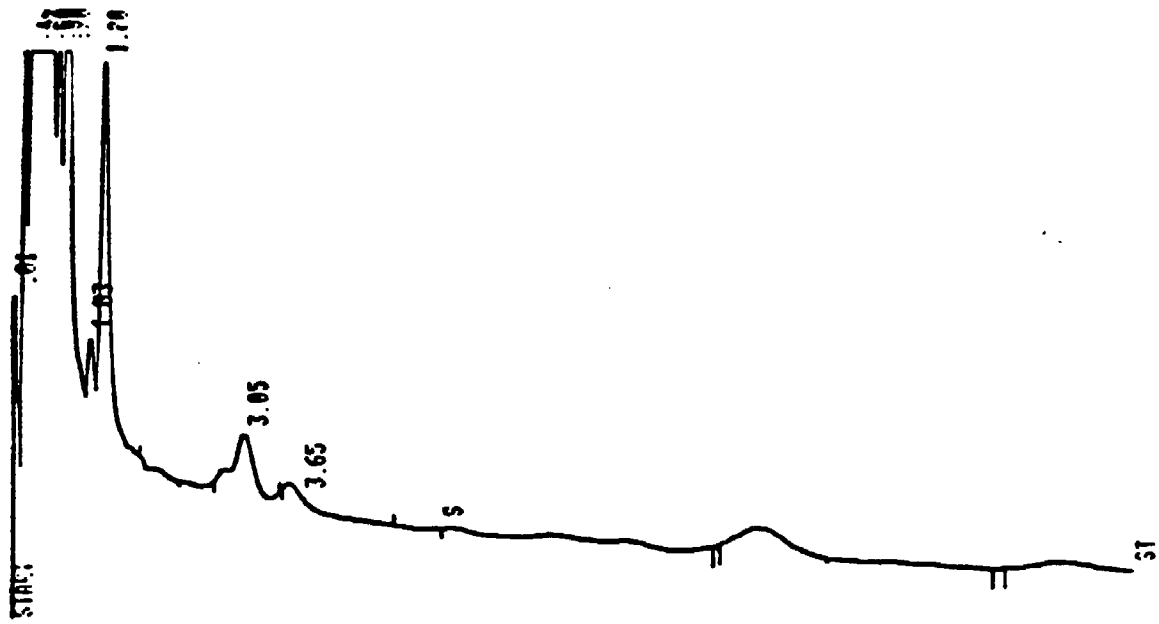
Figure I-18. **House no. 7; participant no. 71277-8; kitchen gain = 50; integrator atten. = 8.**
PID: 219036010



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	3250600	SBH	0.055	0.281
0.14	7563400	SHH	0.052	0.654
0.18	3260800	DSHH	0.041	0.282
0.27	3.2573E+07	SHH	0.104	2.816
0.49	5710900	SHH	0.074	0.494
0.57	3557568	SHH	0.068	0.308
0.68	2.0713E+07	SHB	0.258	1.791
0.93	261500	TBV	0.074	0.023
1.16	6303940	TVB	0.110	0.545
2	4166200	BV	0.329	0.360
3	986750	VB	0.247	0.085
9.41	8.1559E+08	SHH	6.356	70.508
17.43	2.5281E+08	ISHH	2.117	21.855

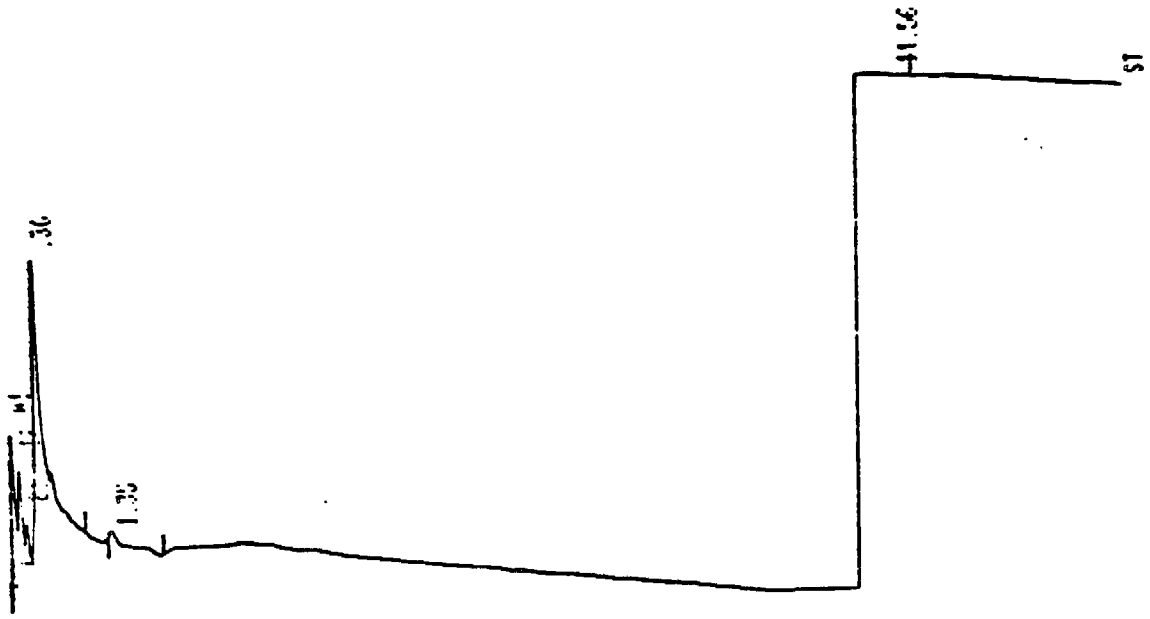
Figure I-19. **House no. 8; participant no. 71275-2; kitchen; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	2588000	SBH	0.051	1.502
0.13	8165300	SHH	0.051	4.737
0.23	8.1445E+07	†SHH	0.308	47.241
0.50	782370	TBP	0.038	0.454
0.59	1203000	TPB	0.043	0.698
0.70	6.1520E+07	†SHB	0.270	35.684
1.03	1078000	TBV	0.084	0.625
1.20	9617300	TVB	0.119	5.579
3.05	4629900	TBV	0.328	2.686
3.65	1372300	TVB	0.280	0.796

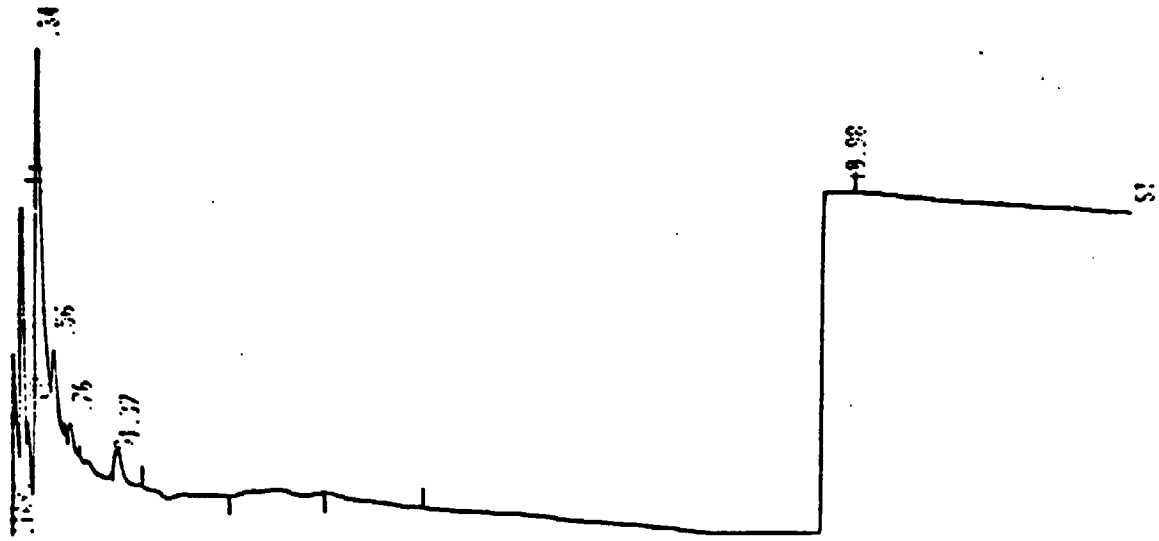
Figure I-20. House no. 8; participant no. 71275-2; bedroom; gain = 50; integrator atten. = 8.



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	1615300	BV	0.055	2.697
0.12	1148500	VV	0.057	1.918
0.21	377866	VP	0.050	0.629
0.36	7425400	PV	0.111	12.351
1.35	527000	BB	0.126	0.877
11.56	4.9027E+07	SPB	0.408	81.547

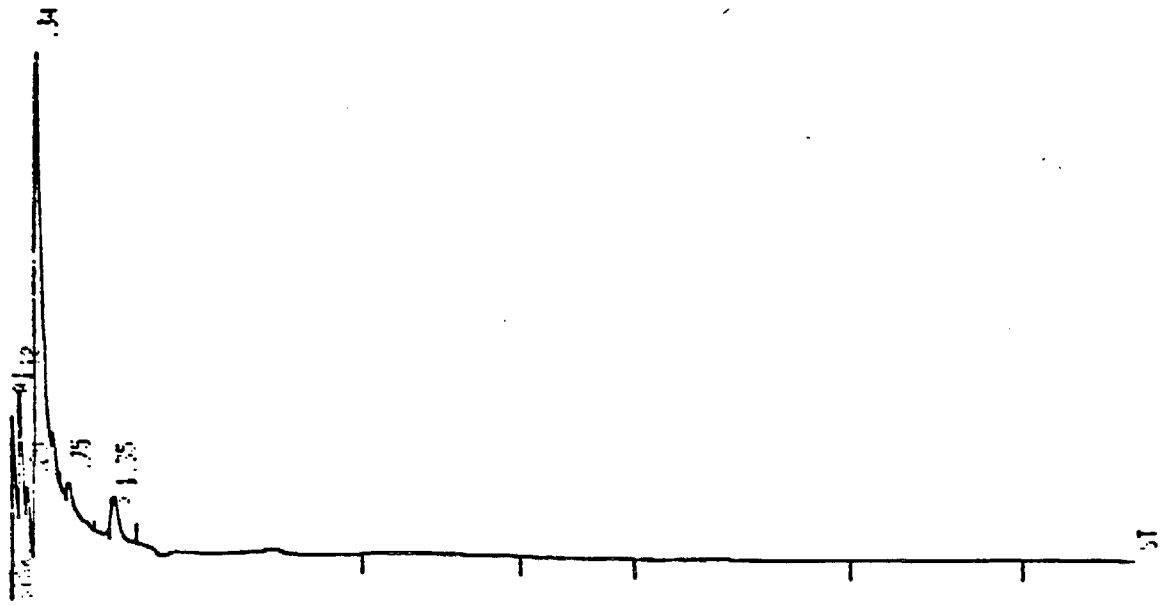
Figure I-21. House no. 9; participant no. 71279-4; kitchen gain = 50; integrator atten. = 8.



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	1462200	BV	0.051	2.946
0.13	3308400	VV	0.052	6.652
0.20	701570	D VP	0.048	1.411
0.34	1.7398E+07	SP8	0.173	34.981
0.56	594850	TBP	0.054	1.196
0.76	267480	TP8	0.064	0.538
1.37	874630	BB	0.116	1.759
10.98	2.5128E+07	SBB	0.307	50.524

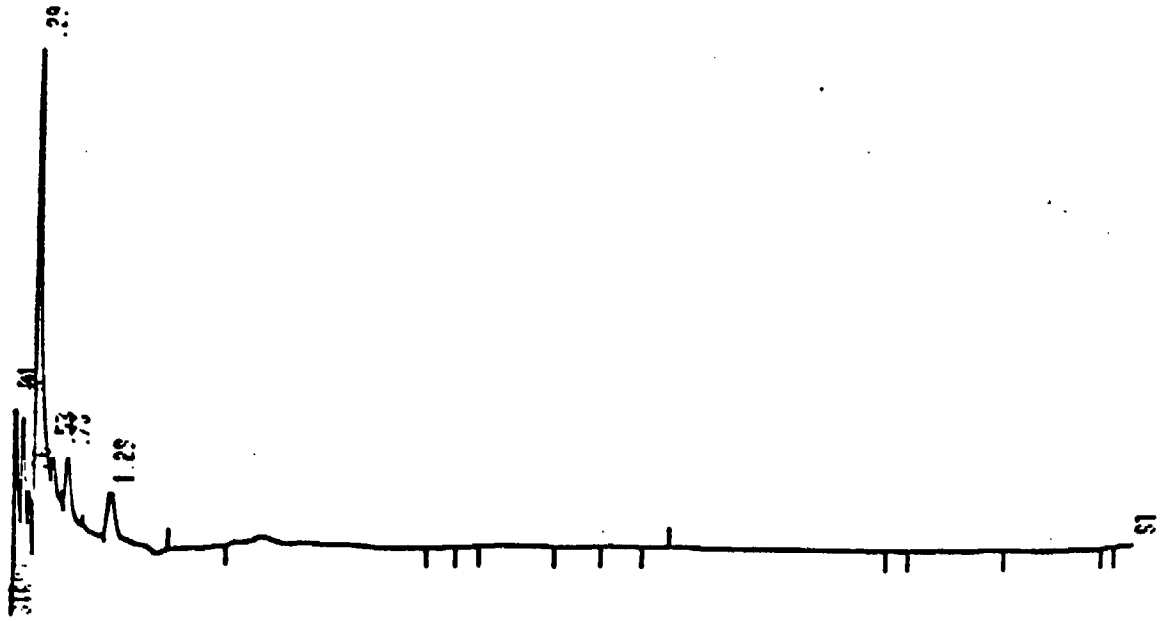
Figure I-22. **House no. 9; participant no. 71279-4; bedroom; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.61	1601400	BV	0.052	6.373
0.12	2045100	VV	0.056	8.395
0.20	758150	VP	0.052	3.112
0.34	1.8433e+07	SPB	0.160	75.604
0.75	371750	TBB	0.089	1.526
1.35	1152400	BS	0.120	4.730

Figure I-23. **House no. 10; participant no. 71280-2; bathroom; gain = 50; integrator atten. = 8.**



AREA%

RT	AREA	TYPE	AR/HT	AREA%
0.01	4186200	SBH	0.106	12.852
0.12	1102200	TBV	0.047	3.384
0.20	442860	TVB	0.042	1.360
0.29	2.4160E+07	SHB	0.183	74.174
0.53	262840	TBP	0.050	0.807
0.73	836810	TPB	0.074	2.569
1.29	1581200	TBB	0.150	4.854

Figure I-24. **House no. 10; participant no. 71280-2; bedroom; gain = 50; integrator atten. = 8.**

APPENDIX J

Quality Control Data

TABLE J-1. COMPLETENESS OF SMALL COLLECTION AND ANALYSIS - CALIFORNIA TEAM - WINTER SEASON

	Personal Air	Fixed-Site Air		Canister Air		Breath	Drinking Water	Air Exchange
		Outdoor	Indoor	Outdoor	Indoor			
Field Samples (scheduled/collected)[a]	110/102	110/102	165/153	20/16	20/26	165/153	16/20	240/226
Field Duplicates (scheduled/collected)[a]	12/12	12/10	15/15	0/0	0/0	15/15	2/2	22/18
Field QA Samples (scheduled/collected)[a]	12/12	12/12	15/15	0/0	0/0	15/15	3/3	0/0
Field Blanks (scheduled/utilized)	9/8	8/7	10/8	1/1	1/2	--	3/5	18/14
Spirometer Blanks (scheduled/utilized)[b]	--	--	--	--	--	12/12	--	--
Field Controls (scheduled/utilized)	9/8	8/7	10/8	1/1	1/2	12/12	3/5	18/12
Lab Blanks (scheduled/utilized)	4/4	4/4	6/6	0/0	0/0	6/6	5/5	--
Lab Controls (scheduled/utilized)	4/4	4/4	6/6	0/0	0/0	6/6	5/5	--
			Samples Analyzed					
Field Samples Analyzed	88	88	128	16	25	145	17	193
Field duplicates Analyzed	9	8	11	0	0	13	1	18
Field QA Samples Analyzed	8	7	5	0	0	4	3	0
Field Blanks Analyzed[c]	7	7	5	1	2	--	3	18
Spirometer Blanks Analyzed[c]	--	--	--	--	--	12	--	--
Field Controls Analyzed[c]	7	7	4	1	2	12	3	12
Lab Blanks Analyzed	1	1	1	0	0	3	0	0
Lab Controls Analyzed	1	1	1	0	0	5	0	0

[a]Number of samples scheduled based on 55 intended respondents; 51 respondents actually sampled.
[b]Spirometer blank equivalent to field blanks.
[c]Includes QA laboratory.

TABLE J-2. RELATIVE RESPONSE FACTOR (RRF) VALUES USED TO CALCULATE VOLATILE ORGANICS ON TENAX CARTRIDGES - WINTER SEASON

		Finnigan 3300				Finnigan 4021			
		2/26-3/18/87		3/25/-5/13/87		2/23-3/16/87		3/19-4/27/87	
Target Compound	m/z	RRF	% CV	RRF	% CV	RRF	% CV	RRF	% CV
Chloroform	83	1.355	17.0	1.199	19.0	1.715	17.4	1.559	25.0
	85	.909	16.9	.800	19.4	1.086	17.7	.980	25.5
1,2-Dichloroethane	62	.807	14.7	.715	13.1	1.479	5.6	1.186	11.2
	64	.250	16.8	.203	13.8	.456	5.8	.364	12.0
1,1,1-Trichloroethane	61	.293	17.4	.362	13.3	.697	5.4	.625	12.4
	97	.820	15.0	.903	14.3	.984	4.9	.890	12.7
Benzene	78	2.085	22.2	1.794	12.4	5.293	29.1	3.869	27.0
Carbon tetrachloride	117	.967	15.0	.715	9.0	.627	5.6	.567	8.2
	121	.328	14.9	.231	8.6	.191	5.3	.173	7.2
Trichloroethylene	95	.782	8.8	.577	13.5	.870	7.8	.678	7.4
	134	.230	7.0	.150	12.7	.241	11.8	.182	6.7
1,4-Dioxane	58	.191	14.1	.159	34.0	.386	23.1	.285	33.5
	88	.430	6.0	.280	32.5	.283	26.5	.241	32.0
1,2-Dibromoethane	93	.051	15.7	.040	10.0	.039	9.4	.035	8.6
	107	.690	18.7	.608	7.6	.696	7.4	.614	6.8
Tetrachloroethane	94	.410	15.8	.288	22.2	.285	6.5	.220	7.7
	166	.691	11.0	.474	15.2	.712	12.1	.502	9.6
n-Octane	57	.239	16.3	.202	10.9	1.133	11.7	.835	13.7
	114	.069	20.3	.044	11.4	.111	17.2	.082	12.0
Ethylbenzene	91	2.377	15.4	2.190	7.5	3.633	5.1	2.972	12.0
	106	.782	16.4	.726	7.0	1.117	17.9	.832	8.1
p-Xylene	91	1.940	16.3	1.319	8.1	2.335	22.9	1.708	13.8
	106	.711	12.0	.462	10.6	1.057	11.0	.770	13.2
Styrene	78	.698	14.0	.484	5.4	.882	9.2	.660	12.7
	104	1.236	12.9	.811	5.9	1.707	11.3	1.258	12.4
o-Xylene	91	1.906	15.8	1.291	6.4	2.081	11.0	1.581	11.8
	106	.640	16.9	.431	7.0	.939	12.7	.661	11.5
n-Nonane	57	.522	16.3	.481	9.4	2.390	9.5	1.757	13.7
	128	.074	16.2	.043	7.0	.099	13.0	.073	12.0
α-Pinene	93	.984	15.2	.604	9.4	1.284	11.3	.886	12.0
	136	.075	14.7	.043	9.3	.096	15.1	.067	12.1
m-Dichlorobenzene	111	.716	14.7	.557	7.9	.630	6.9	.493	8.6
	146	1.400	11.4	1.060	7.8	1.520	9.0	1.277	19.4
p-Dichlorobenzene	111	.692	18.4	.399	17.3	.501	10.1	.370	14.4
	146	1.368	17.1	.765	15.2	1.263	12.6	.899	12.6
n-Decane	57	.677	19.0	.610	11.5	2.986	13.8	2.284	22.7
	142	.083	19.3	.041	26.8	.100	8.6	.070	10.7
Limonene	93	.568	16.6	.334	11.1	.558	9.3	.374	12.3
	136	.143	14.0	.076	5.3	.153	11.0	.102	12.7
n-Undecane	57	.785	15.0	.708	7.8	3.263	19.4	2.400	19.3
	156	.079	19.0	.044	6.8	.096	9.8	.068	15.1
n-Dodecane	57	.812	13.3	.752	10.0	3.072	15.2	2.177	11.8
	170	.073	15.1	.041	7.3	.086	9.6	.060	12.9

TABLE J-3. DAILY CALIBRATION DATA FOR CANISTER ANALYSIS - CALIFORNIA TEAM - WINTER SEASON

Compound	Response Factor (Area/ppb/in. Hg)			
	Day 1	Day 2	Day 3	Day 4
Vinylidene chloride	6065	4036	4005	4111
Methylene chloride	1061	702	720	758
Allyl chloride	390	358	372	378
trans-1,2-Dichloroethylene	546	545	521	533
1,1-Dichloroethane	181	173	200	167
Chloroform	104865	97408	92238	99682
Carbon tetrachloride	557944	523944	441685	542963
1,1,1-Trichloroethane	318314	301331	267637	304372
cis-1,2-Dichloroethylene	408	393	377	401
Trichloroethylene	144947	142424	128166	144964
Tetrachloroethylene	548412	537551	410490	538000

TABLE J-4. RECOVERY OF ANALYTES FROM CONTROL SAMPLES (TENAX) - AIR MATRICES

Tenax Batch / Matrix	112 AV, IX, XV		114 AV, XV		115 AV, XV, IX		117 AV, XV		118 IX, XV		Overall Mean		
Target Compound	% Rec.[a]	CV[b]	% Rec.	CV	% Rec.	CV	% Rec.	CV	% Rec.	CV	% Rec.	CV	Objective % Rec.
Chloroform	100	21	76	9	122	29	116	16	93	9	102	26	100
1,2-Dichloroethane	92	15	74	13	111	27	152	19	124	1	113	31	100
1,1,1-Trichloroethane	112	4	117	6	177	9	126	25	121	20	129	22	100
Benzene	69	6	51	55	111	27	110	33	93	3	87	40	100
Carbon tetrachloride	83	4	61	9	107	25	117	18	101	6	94	27	93
Trichloroethylene	102	7	74	15	136	37	141	32	102	1	113	35	100
p-Dioxane	78	43	59	32	128	42	127	42	65	33	95	49	95
1,2-Dibromoethane	91	4	75	14	116	34	96	39	61	6	90	32	TBD[c]
n-Octane	91	3	64	22	112	44	105	49	72	11	90	41	95
Tetrachloroethylene	116	5	76	7	135	31	116	26	90	0	107	38	95
Ethylbenzene	91	4	75	15	119	34	97	39	62	9	91	33	90
p-Xylene	91	4	59	7	114	43	102	34	76	0	89	35	95
Styrene	90	6	72	29	114	35	103	27	83	11	98	15	90
o-Xylene	93	8	56	13	112	43	104	39	80	3	89	37	95
n-Nonane	91	8	68	23	102	44	105	44	82	4	90	35	TBD
α-Pinene	81	19	50	6	98	40	91	39	86	1	80	36	90
m-Dichlorobenzene	95	12	78	8	129	31	117	26	83	5	102	28	90
p-Dichlorobenzene	98	10	60	5	122	39	123	27	99	7	101	34	90
n-Decane	88	11	85	14	106	40	110	38	100	6	98	29	85
o-Dichlorobenzene	NA[d]	-	NA	-	NA	-	NA	-	NA	-	NA	-	90
Limonene	76	21	45	7	90	43	89	34	79	10	75	38	TBD
n-Undecane	81	15	78	18	109	40	107	34	87	11	94	30	85
n-Dodecane	88	15	79	16	93	44	113	40	89	0	94	32	85
Number Analyzed	3		4		3		5		2				

[a]% REC = % Recovery, corrected for background.

[b]CV = coefficient of variation.

[c]TBD = to be determined.

[d]NA = not included in control cartridges.

TABLE J-5. MEAN BACKGROUND FOUND IN FIELD BLANKS - AIR MATRICES (TENAX) - WINTER SEASON

	ng/cartridge				
	Tenax Batch:				
Target Compound	112	114	115	117	118
Chloroform	11	9	15	27	7
1,2-Dichloroethane	0	0	0	2	1
1,1,1-Trichloroethane	3	11	36	14	8
Benzene	8	13	33	10	5
Carbon tetrachloride	0	0	1	1	0
Trichloroethylene	0	1	1	2	0
p-Dioxane	2	0	0	0	1
1,2-Dibromoethane	0	0	0	0	0
n-Octane	0	0	0	1	0
Tetrachloroethylene	1	1	1	1	1
Ethylbenzene	1	1	1	1	0
p-Xylene	4	3	5	5	2
Styrene	3	3	4	10	2
o-Xylene	2	1	2	3	2
n-Nonane	1	1	0	1	0
α-Pinene	0	0	0	0	0
m-Dichlorobenzene	2	0	2	6	3
p-Dichlorobenzene	1	1	2	5	5
n-Decane	4	5	4	5	0
o-Dichlorobenzene	1	0	0	0	0
Limonene	4	0	2	4	2
n-Undecane	7	3	2	2	0
n-Dodecane	3	1	1	4	0
	n=3	n=5	n=3	n=5	n=2

TABLE J-6. FIELD BLANK BACKGROUND - CANISTERS (ECD)

Target Compound	grams/cubic meter found			
	CNFB1	CNFB2	CNOB3	Mean
Methyl chloride	NC[a]	NC	NC	-
Vinyl chloride	NC	NC	NC	-
Ethyl chloride	NC	NC	NC	-
Vinylidene chloride	ND[b]	ND	ND	ND
Methylene chloride	ND	ND	ND	ND
Allyl chloride	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND
Carbon tetrachloride	1.02E-07	7.61E-07	ND	2.88E-07
1,1,1-Trichloroethane	ND	2.88E-07	ND	0.96E-07
cis-1,2-Dichloroethylene	ND	ND	ND	ND
Trichloroethylene	ND	3.57E-07	ND	1.19E-07
Tetrachloroethylene	2.22E-06	4.22E-06	2.41E-07	2.23E-06

[a]NC = not calculated.

[b]ND = below limit of detection.

TABLE J-7. RECOVERY OF ANALYTES FROM CONTROL SAMPLES - CANISTERS (ECD)

Target Compound	% Recovery[a]			Mean	
	CNFC1	CNFC2	CNQC3	% Rec	CV
Methyl chloride	NC[b]	NC	NC		
Vinyl chloride	NC	NC	NC		
Ethyl chloride	NC	NC	NC		
Vinylidene chloride	102.0	57.9	168.0	109	41
Methylene chloride	93.0	53.9	97.5	81	24
Allyl chloride	86.0	72.4	ND[c]	53	71
trans-1,2-Dichloroethylene	83.0	74.8	104.0	87	14
1,1-Dichloroethane	ND	ND	ND		
Chloroform	NC	NC	NC		
Carbon tetrachloride	NC	NC	NC		
1,1,1-Trichloroethane	NC	NC	NC		
cis-1,2-Dichloroethylene	NA[d]	NA	NA		
Trichloroethylene	NC	NC	NC		
Tetrachloroethylene	NC	NC	NC		

[a] % Recovery = $\frac{\text{Concentration Loaded}}{\text{Concentration Found}}$ X 100; not corrected for background

[b] NC = not calculated.

[c] ND = concentration below quantifiable limit.

[d] NA = compound not present in control mixture.

TABLE J-8. RECOVERY DATA FOR CONTROL SAMPLES - AIR EXCHANGE[a]

Control Number	Quantity of Tracer, pL								
	PFT 2			PFT 3			PFT 8		
	Expected	Found	% Diff.	Expected	Found	% Diff.	Expected	Found	% Diff.
1	1.17	1.42	+21	-[b]	-	-	-	-	-
2	1.17	1.25	+6.8	-	-	-	-	-	-
3	1.17	1.73	+48	-	-	-	-	-	-
4	1.17	1.69	+44	-	-	-	-	-	-
5	2.92	3.38	+16	2.71	3.66	35	2.85	3.36	18.0
6	5.83	5.58	-4.3	5.42	6.40	18	5.70	5.65	0.9
7	5.83	6.36	+9.1	5.42	6.45	19	5.70	5.52	3.2
8	5.83	5.37	-7.9	-	-	-	-	-	-
9	2.92	3.98	-36	-	-	-	-	-	-
10	5.83	5.16	-13	-	-	-	-	-	-
11	2.92	3.73	+28	-	-	-	-	-	-
12	2.92	4.14	+42	2.71	3.69	36	2.85	2.72	4.6
Avg. of absolute % Diff.:			23 ± 16			27 ± 9.8			6.7 ± 7.7

[a]Results reported by Brookhaven National Laboratory.
[b]No data.

TABLE J-9. BACKGROUND DATA FOR BLANK SAMPLES - AIR EXCHANGE[a]

Blank No.	Equivalent 12-h Tracer Concentration (pL/L)		
	PFT-8	PFT-2	PFT-3
1	.22	0	.59
2	.10	0	.24
3	.03	0	.17
5	.09	0	0
6	0	0	.04
7	.33	0	.26
8	0	0	.30
9	0	0	.21
12	0	0	0
13	.24	0	0
14	0	0	0
16	0	0	0
17	0	0	0
18	.77	1.16	1.07

[a]Results reported by Brookhaven National Laboratory.

TABLE J-10. DUPLICATE SAMPLES (TENAX) PERCENT RELATIVE STANDARD DEVIATION (% RSD) FOR F/D RESULTS - WINTER SEASON

Analyte	Personal Air		Indoor Air		Outdoor Air	
	N[a]	Median (% RSD)	N	Median (% RSD)	N	Median (% RSD)
Chloroform	6	9.8	7	44.4	1	26.2
1,2-Dichloroethane	0	-	0	-	0	-
1,1,1-Trichloroethane	7	14.4	11	14.8	6	31.1
Benzene	7	11.9	7	18	6	20.0
Carbon tetrachloride	7	6.7	11	8.7	6	8.0
Trichloroethylene	3	3.0	0	-	1	24.0
Tetrachloroethylene	7	12.4	11	4.8	6	4.8
Chlorobenzene	0	-	0	-	0	-
Styrene	6	18.4	10	41.1	5	7.8
m-Dichlorobenzene	0	-	0	-	0	-
p-Dichlorobenzene	6	18.9	11	13.6	5	10.1
o-Dichlorobenzene	0	-	0	-	0	-
Ethylbenzene	7	15.6	11	6.3	6	5.1
o-Xylene	7	6.9	11	5.2	6	6.3
m-Xylene	0	-	0	-	0	-
p-Xylene	7	7.4	11	7.0	6	3.8
n-Decane	5	13.7	11	14.0	4	9.8
n-Dodecane	6	24.7	11	32.7	2	9.8
1,4-Dioxane	1	73.8	3	10.5	0	-
1,2-Dibromoethane	0	-	0	-	0	-
n-Octane	7	18.5	11	14.2	5	30.7
n-Undecane	7	18.9	11	15.0	5	11.3
1,1,2,2-Tetrachloroethane	0	-	0	-	0	-
α-Pinene	6	13.4	11	4.2	2	6.5
Limonene	7	4.4	11	4.7	6	30.8
n-Nonane	7	21.8	11	16.0	6	19.0
Number of pairs analyzed:	9		11		8	

[a]N = number of pairs with measurable data (both pairs above quantifiable limit).

TABLE J-11. DUPLICATE SAMPLES (TENAX) PERCENT RELATIVE STANDARD DEVIATION (% RSD) FOR F/Q RESULTS - WINTER SEASON

Analyte	Personal Air N[a]	Personal Air Median (% RSD)	Indoor Air N	Indoor Air Median (% RSD)	Outdoor Air N	Outdoor Air Median (% RSD)
Chloroform	3	26.0	2	19.8	0	-
1,2-Dichoroethane	0	-	0	-	0	-
1,1,1-Trichloroethane	8	33.5	4	14.4	6	15.4
Benzene	4	35.5	3	77.4	6	22.4
Carbon tetrachloride	4	68.1	1	74.0	1	125.1
Trichloroethylene	4	3.9	1	16.4	0	-
Tetrachloroethylene	8	17.4	4	7.4	6	12.3
Chlorobenzene	0	-	0	-	0	-
Styrene	8	57.2	4	64.1	4	47.3
m-Dichlorobenzene	0	-	0	-	0	-
p-Dichlorobenzene	8	32.6	4	19.4	5	14.9
o-Dichlorobenzene	0	-	0	-	0	-
Ethylbenzene	7	16.8	4	20.3	6	9.8
o-Xylene	8	21.1	4	4.8	6	17.0
m-Xylene	0	-	0	-	0	-
p-Xylene	8	27.7	4	36.9	6	12.0
n-Decane	8	47.2	4	57.6	5	69.0
n-Dodecane	6	27.8	4	26.6	1	4.4
1,4-Dioxane	0	-	1	43.3	1	10.4
1,2-Dibromoetane	0	-	0	-	0	-
n-Octane	7	20.2	4	33.6	6	47.3
n-Undecane	8	23.5	4	32.5	6	16.6
1,1,2,2-Tetrachloroethane	0	-	0	-	0	-
α-Pinene	7	43.6	3	51.8	1	64.6
Limonene	8	37.6	4	16.6	5	34.5
n-Nonane	8	37.2	4	21.7	6	36.2
Pairs Analyzed:	8		5		6	

[a]N = number of pairs with measurable data (both pairs above quantifiable limit).

TABLE J-12. DUPLICATE AIR EXCHANGE RATES PERCENT RELATIVE STANDARD DEVIATION (%RSD) FOR F/D RESULTS[a] - WINTER SEASON

Home	Type	Time	ACHT[b]	% RSD
1-Zone Homes				
1	F	1	0.76	3.6
	D	1	0.80	
1	F	2	0.55	1.3
	D	2	0.56	
2	F	1	1.09	31.8
	D	1	0.69	
2	F	2	1.64	33.0
	D	2	1.02	
3	F	1	1.78	17.4
	D	1	1.39	
3	F	2	2.80	21.2
	D	2	2.07	
3-Zone Home				
4	F	1	0.52	1.3
	D	1	0.53	
4	F	2	2.84	13.7
	D	2	3.45	

[a]Results reported by Brookhaven National Laboratory.
[b]Total air exchanges per hour.

TABLE J-13. PERFORMANCE EVALUATION SAMPLE RESULTS - TENAX - WINTER SEASON

Analyte	ng/cartridge Spiked	ng/cartridge recovered 117	119	203	205	207	Mean % Rec.[a]	CV[b]
Chloroform	54	63	68	65	170	44	152	61
1,2-Dichloroethane	184	200	243	136	127	149	93	29
1,1,1-Trichloroethane	146	2952[c]	1801[c]	119	160	160	100	16
Benzene	192	132	178	185	169	70	76	32
Carbon tetrachloride	116	103	106	89	87	92	82	9
Trichloroethylene	160	147	142	186	227	117	102	26
Tetrachloroethylene	177	197	198	234	231	155	115	16
Ethylbenzene	158	113	120	186	201	128	95	27
o-Xylene	192	222	238	358	356	180	141	30
	ng/cartridge Spiked	115	118	209	210			
Chloroform	72	136	78	64	86		126	34
1,2-Dichloroethane	244	371	295	200	218		111	29
1,1,1-Trichloroethane	194	6094[c]	2807[c]	219	189		105	10
Benzene	256	281	224	97	256		84	33
Carbon tetrachloride	155	172	140	118	136		91	14
Trichloroethylene	213	232	170	168	266		98	20
Tetrachloroethylene	236	308	246	213	335		117	18
Ethylbenzene	209	207	141	180	258		94	21
o-Xylene	256	407	282	247	496		140	28
	ng/cartridge Spiked	113	116	201	202	206		
Chloroform	108	148	133	106	86	91	104	21
1,2-Dichloroethane	366	417	550	371	347	285	108	22
1,1,1-Trichloroethane	292	3797[c]	2098[c]	314	260	214	90	16
Benzene	384	553	400	358	298	274	98	26
Carbon tetrachloride	233	280	239	222	129	143	87	28
Trichloroethylene	320	453	336	362	239	299	106	21
Tetrachloroethylene	354	613	450	500	344	489	135	18
Ethylbenzene	315	503	308	372	294	359	116	20
o-Xylene	385	756	611	731	-	699	182	8

[a]% Rec. = % recovery:ng cartridge found/ng cartridge spiked X 100.
[b]CV = coefficient of variation.
[c]Cartridge contaminated, not included in calculation.

TABLE J-14. COMPLETENESS OF SAMPLE COLLECTION AND ANALYSIS OF CALIFORNIA TEAM - SUMMER SEASON[a]

	Personal Air	Fixed-Site Air		Canister Air		Breath	Drinking Water	Air Exchange	Central Fixed-Site	
		Outdoor	Indoor	Outdoor	Indoor				Canister	Tenax GC
Field Samples (scheduled/collected)[a]	90/86	90/86	135/129	16/16	16/16	135/129	14/14	270/258	10/10	20/20
Field Duplicates (scheduled/collected)[a]	8/8	8/8	12/12	0/0	0/0	12/12	2/2	24/24	2/2	2/2
Field QA Samples (scheduled/collected)[a]	4/4	4/4	6/6	0/0	0/0	6/6	2/2	0/0	--	--
Field Blanks (scheduled/utilized)[b]	5/5	5/5	9/9	3/3	3/3	--	4/4	12/12	2/2	2/2
Spirometer Blanks (scheduled/utilized)[b]	--	--	--	--	--	9/9	--	--	--	--
Field Controls (scheduled/utilized)[b]	5/5	5/5	9/9	3/3	3/3	9/9	4/4	9/9	2/2	2/2
Lab Blanks (scheduled/utilized)	3/3	3/3	5/5	--	--	5/5	4/4	--	--	--
Lab Controls (scheduled/utilized)	3/3	3/3	5/5	--	--	5/5	4/4	--	--	--
Field Samples (scheduled/analyzed)[c]	90/82	90/80	135/116	16/16	16/16	135/121	14/14	270/243	10/10	20/19
Field Duplicates (scheduled/analyzed)	8/5	8/8	12/11	0/0	0/0	12/11	2/2	24/24	2/1	2/2
Field QA Samples (scheduled/analyzed)	4/4	4/4	6/6	0/0	0/0	6/6	2/3	0/0	-	-
Field Blanks (scheduled/analyzed)[b]	5/4	5/5	9/9	3/3	3/3	-	4/3	12/12	2/2	2/2
Spirometer Blanks (scheduled/analyzed)[b]	-	-	-	-	-	9/9	-	-	-	-
Field Controls (scheduled/analyzed)[b]	5/4	5/5	9/9	3/3	3/3	9/9	4/3	9/9	2/2	2/2

[a]Based on 45 participants; there were 43 participants in the study.
[b]Includes blanks and controls sent to QA laboratory.
[c]Number analyzed includes only samples with data included in TEAM-California Database.

TABLE J-15. RELATIVE RESPONSE FACTOR (RRF) VALUES USED TO CALCULATE ON TENAX CARTRIDGES - SUMMER SEASON

Analyte	Ion	Finnigan 3300 GC/MS Database CF August 3 to August 14, 1987 RRF	CV	Database CC September 4 to October 8, 1987 RRF	CV	Database CN October 26 to November 20, 1987 RRF	CV	Finnigan 4021 GC/MS August 21 to September 8, 1987 RRF	CV
Chloroform	83	.958	17	1.186	29	.990	40	.878	22
	85	.586	18	.902	28	.682	42	.641	20
1,2-Dichloroethane	62	.420	17	.445	14	.555	11	.715	20
	64	.155	18	.170	19	.186	10	.259	16
1,1,1-Trichloroethane	61	.303	20	.258	18	.264	16	.412	13
	97	.799	10	.736	17	.573	15	.627	13
Benzene	78	2.806	38	1.208	9	2.056	50	3.553	25
Carbon Tetrachloride	117	.629	8	.507	14	.437	13	.487	23
	121	.175	13	.168	17	.129	15	.160	20
Trichloroethylene	95	1.039	14	.397	14	.660	37	.745	20
	134	.224	5	.154	16	.197	34	.250	23
1,4-Dioxane	58	.235	15	.036	64	.134	34	.558	48
	88	.310	18	.083	33	.201	20	.479	47
1,2-Dibromoethane	93	.029	40	.013	55	.028	18	1.024	27
	107	.782	7	.355	24	.490	9	.973	26
Octane	57	.505	17	.213	61	.364	12	1.406	34
	114	.064	13	.032	62	.038	10	.170	29
Tetrachloroethylene	94	.200	4	.148	33	.188	7	.283	19
	166	.607	8	.391	20	.540	12	.929	29
Chlorobenzene	77	1.442	8	.422	36	.758	8	1.812	25
	112	1.872	6	.914	25	1.219	7	2.676	26
Ethylbenzene	91	3.238	4	1.354	34	1.930	8	4.581	26
	106	1.097	7	.417	32	.652	8	1.344	26
p-Xylene	91	1.997	9	1.074	41	1.375	7	2.768	29
	106	.852	12	.508	43	.644	9	1.384	28
Styrene	78	.727	15	.372	46	.505	6	1.037	28
	104	1.613	17	.841	40	.972	7	2.365	29
o-Xylene	91	1.911	19	1.175	42	1.328	7	2.551	29
	106	.773	16	.518	44	.592	6	1.199	28
1,1,2,2-Tetrachloroethane	83	1.340	36	.475	48	.753	32	1.648	15
	168	.064	13	.040	48	.051	39	.120	17
n-Nonane	57	1.145	22	.502	61	.897	11	2.967	35
	128	.052	14	.036	56	.046	12	.155	30
α-Pinene	93	1.086	14	.596	46	.778	10	1.693	27
	136	.060	8	.042	50	.045	13	.158	27
m-Dichlorobenzene	146	1.616	26	1.085	10	1.071	5	2.128	28
	148	.818[a]	22	.770	10	.776	6	1.385	28
p-Dichlorobenzene	146	1.409	34	.991	24	.934	5	1.672	32
	148	.703[a]	32	.699	24	.677	5	1.090	32
n-Decane	57	1.288	29	.674	58	1.078	10	3.175	32
	142	.042	21	.036	50	.037	14	.144	30
o-Dichlorobenzene	146	1.318	37	.871	29	.866	6	1.577	29
	148	.676[a]	34	.612	30	.622	7	1.027	29
Limonene	93	.540	12	.333	44	.396	9	.742	27
	136	.109	7	.084	42	.078	14	.250	27
n-Undecane	57	1.444	30	.871	33	1.482	31	3.554	30
	156	.036	18	.045	36	.039	13	.143	27
n-Dodecane	57	1.497	32	.901	38	1.414	7	3.317	28
	170	.031	25	.036	42	.035	13	.131	23

[a] m/z 111 used in this database.

TABLE J-16. DAILY CALIBRATION DATA FOR CANISTER ANALYSIS CALIFORNIA TEAM - SUMMER SEASON

Compound	Response Factor (Area/ppb/mmHg)						
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Methyl chloride	0.110	0.116	0.121	0.124	0.138	0.132	0.134
Vinyl chloride	0.129	0.115	0.119	0.125	0.138	0.133	0.133
Ethyl chloride	0.269	0.222	0.240	0.242	0.274	0.263	0.274
1,1-Dichloroethylene	52.5	44.7	48.3	49.2	55.5	53.8	53.4
Methylene chloride	10.4	8.29	9.09	9.04	10.0	9.71	9.76
Allyl chloride	4.23	3.15	3.40	3.35	3.67	3.58	3.64
trans-1,2-Dichloroethylene	9.30	7.37	7.82	8.24	9.48	9.13	9.47
1,1-Dichloroethane	3.32	2.38	2.60	2.66	3.05	2.99	3.08
cis-1,2-Dichloroethylene	6.98	5.65	5.93	6.00	7.09	6.76	6.90
Chloroform	891	760	804	821	961	915	934
1,1,1-Trichloroethane	3145	2820	2894	3015	3513	3338	3412
Carbon tetrachloride	6791	6334	6379	6868	7558	7396	7202
Trichloroethylene	1007	898	942	970	1098	1062	1068
Tetrachloroethylene	4724	4135	3933	4656	5569	5376	5387

TABLE J-17. MEAN BACKGROUND FOUND IN FIELD BLANKS - AIR MATRICES (TENAX) - SUMMER SEASON

Target Compound	Tenax Batch:	ng/Cartridge			
		127	128F[a]	129	130
Chloroform		8	42	28	19
1,2-Dichloroethane		0	1	0	1
1,1,1-Trichloroethane		1	11	8	7
Benzene		5	10	7	6
Carbon tetrachloride		0	1	1	1
Trichloroethylene		0	0	1	1
Tetrachloroethylene		0	0	1	0
Chlorobenzene		1	0	1	0
Styrene		1	1	2	2
m-Dichlorobenzene		2	2	5	3
p-Dichlorobenzene		0	2	1	0
o-Dichlorobenzene		0	1	0	0
Ethylbenzene		0	1	0	0
o-Xylene		0	1	0	0
m-Xylene		0	0	0	0
p-Xylene		1	5	2	2
n-Decane		1	0	6	6
n-Dodecane		0	0	0	0
1,4-Dioxane		0	1	6	6
1,2-Dibromoethane		0	0	0	0
n-Octane		1	1	0	0
n-Undecane		0	0	0	2
1,1,2,2,-Tetrachloroethane		0	2	0	0
α-Pinene		0	2	0	0
Limonene		0	27	0	2
n-Nonane		2	0	0	0
Number analyzed:		6	2	5	6

[a]Used for central fixed site samples; subset of breath batch 128.

TABLE J-18. RECOVERY OF ANALYTES FROM CONTROL SAMPLES (TENAX) - AIR MATRICES - SUMMER SEASON

Tenax Batch / Matrix	127 IX, AV, XV		128F[a] CFS		129 IX, AV, XV		130 IX, AV, XV		
Target Compound	% Rec.[b]	CV[c]	% Rec.	CV	% Rec.	CV	% Rec.	CV	Objective % Rec.
Chloroform	98	27	35	4	82	7	94	14	100
1,2-Dichloroethane	118	34	107	14	110	8	108	10	100
1,1,1-Trichloroethane	97	28	53	65	95	36	116	7	100
Benzene	93	29	81	62	72	13	78	12	100
Carbon tetrachloride	115	25	79	54	107	30	120	6	93
Trichloroethylene	114	23	85	17	94	7	98	10	100
Tetrachloroethylene	88	23	84	11	103	6	101	6	90
Chlorobenzene	78	24	34	15	100	28	111	6	SS[f]
Styrene	84	24	37	11	98	25	104	8	90
m-Dichlorobenzene	79	24	39	18	93	27	97	6	90
p-Dichlorobenzene	102	25	40	22	98	26	95	10	90
o-Dichlorobenzene	81	25	39	21	99	28	99	10	90
Ethylbenzene	76	23	39	9	94	22	104	5	90
o-Xylene	91	24	55	4	105	15	104	9	95
m-Xylene	NA[d]	NA	NA	NA	NA	NA	NA	NA	NA
p-Xylene	86	25	41	2	101	19	103	7	95
n-Decane	91	24	49	--[e]	109	20	104	9	85
n-Dodecane	98	25	61	27	102	25	99	6	85
1,4-Dioxane	105	41	58	12	119	30	119	11	95
1,2-Dibromoethane	75	23	38	14	106	27	112	7	TBD[g]
n-Octane	82	24	49	--	110	23	108	9	95
n-Undecane	92	24	48	15	98	28	98	9	85
1,1,2,2-Tetrachloroethane	89	27	57	--	114	12	120	18	SS
α-Pinene	85	27	49	10	96	21	106	5	90
Limonene	88	28	39	16	93	22	102	6	TBD
n-Nonane	83	24	47	--	104	23	104	10	TBD
Number Analyzed	6		2		5		6		

[a]Used for central fixed-site samples; subset of breath batch 128.

[b]% REC = mean % recovery, corrected for background.

[c]CV = coefficient of variation.

[d]NA = not in control mixture.

[e]Only one value used.

[f]SS = summer season only; added to study after Winter Season.

[g]TBD = to be determined.

TABLE J-19. RECOVERY OF ANALYTES FROM CONTROL SAMPLES - CANISTERS (ECD)

Target Compound	% Recovery CXFC1	CXFC2	CXFC3	Mean % Rec.	CV
Methyl chloride	48.5	51.8	51.1	50.5	3.5
Vinyl chloride	53.9	53.6	52.7	53.4	1.2
Ethyl chloride	45.5	39.1	38.3	41.0	9.7
Vinylidene chloride	68.6	62.0	62.4	64.3	5.8
Methylene chloride	55.4	49.3	50.2	51.6	6.4
Allyl chloride	60.1	56.5	52.6	56.6	7.2
trans-1,2-Dichloroethylene	53.0	44.4	45.8	47.8	9.6
1,1-Dichloroethane	52.3	42.9	44.4	46.5	10.9
Chloroform	46.4	40.3	37.5	41.4	10.9
Carbon tetrachloride	36.9	57.8	2.4	32.4	86.4
1,1,1-Trichloroethane	45.4	41.8	39.2	42.2	7.4
cis-1,2-Dichloroethylene	44.9	33.3	39.7	39.3	14.9
Trichloroethylene	55.9	50.3	48.6	51.6	7.4
Tetrachloroethylene	59.8	47.4	43.9	50.4	16.6

TABLE J-20. FIELD BLANK BACKGROUND - CANISTERS (ECD)

Target Compound	grams/cubic meter found CXFB1	CXFB2	CXFB3	Mean
Methyl chloride	ND[a]	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND
Ethyl chloride	ND	ND	ND	ND
Vinylidene chloride	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND
Allyl chloride	ND	ND	ND	ND
trans-1,2-Dichloroethylene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND
Carbon tetrachloride	7.26E-09	ND	ND	2.42E-09
1,1,1-Trichloroethane	ND	1.76E-05	ND	5.87E-06
cis-1,2-Dichloroethylene	ND	ND	ND	0
Trichloroethylene	ND	ND	ND	0
Tetrachloroethylene	ND	ND	2.43E-08	8.10E-09

[a]ND = below limit of detection.

TABLE J-21. RECOVERY DATA FOR CONTROL SAMPLES - AIR EXCHANGE[a] - SUMMER SEASON

	Quantity of Tracer, pL								
	PFT2			PFT3			PFT8		
Control Number	Expected	Found	% Diff.	Expected	Found	% Diff.	Expected	Found	% Diff.
TC1	4.738	5.174	+9	4.850	4.852	0	4.510	4.650	+3
TC2	1.426	1.640	+15	1.460	1.591	+9	1.358	1.390	+2
TC3	0.477	0.554	+16	0.488	0.549	+12	0.454	0.441	-3
TC4	4.738	5.107	+8	4.850	4.007	-17	4.510	4.958	+10
TC5	1.426	1.629	+14	1.460	1.372	-6	1.358	1.396	+3
TC6	0.477	0.405	-15	0.488	0.253	-48	0.454	0.401	-12
TC7	4.738	5.455	+15	4.850	4.426	-9	4.510	5.042	+12
TC8	1.426	1.598	+12	1.460	1.312	-10	1.358	1.396	+3
TC9	0.477	0.521	+9	0.488	0.489	0	0.454	0.472	+4
Mean of absolute % diff. ± S.D.			12.6 ± 3.1			12.3 ± 14.4			5.8 ± 4.2

[a]Results reported by Brookhaven National Laboratory.

TABLE J-22. BACKGROUND DATA FOR BLANK SAMPLES - AIR EXCHANGE[a]

Blank Number	pL Found		
	PFT2	PFT3	PFT8
TB1	0.000	0.000	0.000
TB2	0.052	0.204	0.571
TB3	0.000	0.001	0.002
TB4	0.007	0.006	0.002
TB5	0.000	0.002	0.003
TB6	0.000	0.001	0.034
TB7	0.003	0.003	0.003
TB8	0.004	0.000	0.002
TB9	0.001	0.000	0.003
TB10	0.004	0.002	0.002
TB11	0.001	0.000	0.002
TB12	0.000	0.000	0.001

[a]Results reported by Brookhaven National Laboratory.

TABLE J-23. DUPLICATE SAMPLES (TENAX) PERCENT RELATIVE STANDARD DEVIATION (% RSD) FOR F/D RESULTS - SUMMER SEASON

Analyte	Personal Air N[a]	Personal Air Median (% RSD)	Indoor Air N	Indoor Air Median (% RSD)	Outdoor Air N	Outdoor Air Median (% RSD)
Chloroform	0	-	1	114.2	1	8.0
1,2-Dichloroethane	0	-	1	32.6	0	-
1,1,1-Trichloroethane	3	37.0	8	14.0	7	8.7
Benzene	4	27.8	9	4.9	8	9.9
Carbon tetrachloride	2	33.4	8	10.2	4	10.7
Trichloroethylene	2	40.5	0	-	0	-
Tetrachloroethylene	1	57.6	5	11.2	2	30.0
Chlorobenzene	0	-	0	-	0	-
Styrene	2	30.1	0	-	0	-
m-Dichlorobenzene	0	-	0	-	0	-
p-Dichlorobenzene	4	32.8	1	7.0	0	-
o-Dichlorobenzene	1	27.1	0	-	0	-
Ethylbenzene	4	34.0	9	12.1	8	12.0
o-Xylene	4	29.1	9	11.1	8	17.3
m-Xylene	0	-	0	-	0	-
p-Xylene	4	33.7	9	8.1	8	15.4
n-Decane	1	1.7	6	12.7	1	10.3
n-Dodecane	0	-	4	11.4	0	-
1,4-Dioxane	0	-	0	-	0	-
1,2-Dibromoethane	0	-	0	-	0	-
n-Octane	4	64.9	8	15.5	7	29.2
n-Undecane	1	54.1	4	17.8	0	-
1,1,2,2-Tetrachloroethane	0	-	0	-	0	-
α-Pinene	4	32.2	8	16.1	0	-
Limonene	4	25.6	8	15.8	0	-
n-Nonane	4	53.2	9	17.7	5	20.2
Pairs analyzed:	5		11		8	

[a]N = number of pairs both having measurable data.

TABLE J-24. DUPLICATE SAMPLES PERCENT RELATIVE STANDARD DEVIATION (% RSD) FOR F/D RESULTS, CENTRAL FIXED-SITE (TENAX)

Target Compound	N[a]	% RSD
Chloroform	0	-
1,2-Dichloroethylene	0	-
1,1,1-Trichloroethane	1	5.6
Benzene	2	8.7
Carbon tetrachloride	1	0.4
Trichloroethylene	0	-
Tetrachloroethylene	0	-
Chlorobenzene	0	-
Styrene	2	0
p-Dichlorobenzene	0	-
o-Dichlorobenzene	0	-
Ethylbenzene	0	-
o-Xylene	2	27.9
p-Xylene	2	19.6
n-Decane	0	-
n-Dodecane	0	-
1,4-Dioxane	0	-
1,2-Dibromoethane	0	-
n-Octane	1	29.4
n-Undecane	0	-
1,1,2,2-Tetrachloroethane	0	-
α-Pinene	0	-
Limonene	0	-
n-Nonane	0	-

[a]Number of pairs with measurable data; two pairs analyzed.

TABLE J-25. PERCENT RELATIVE STANDARD DEVIATION (% RSD) BETWEEN F AND Q RESULTS (TENAX) - SUMMER SEASON

Analyte	Personal Air		Indoor Air		Outdoor Air	
	N[a]	Median (% RSD)	N	Median (% RSD)	N	Median (% RSD)
Chloroform	0	-	3	27.0	0	-
1,2-Dichloroethane	0	-	0	-	0	-
1,1,1-Trichloroethane	3	11.6	6	17.1	4	26.6
Benzene	3	14.2	6	10.3	4	11.9
Carbon tetrachloride	0	-	0	-	0	-
Trichloroethylene	1	26.6	3	32.8	0	-
Tetrachloroethylene	3	38.0	5	14.6	3	31.2
Chlorobenzene	0	-	0	-	0	-
Styrene	3	37.8	5	17.6	2	9.4
m-Dichlorobenzene	0	-	0	-	0	-
p-Dichlorobenzene	2	48.5	5	18.7	2	10.0
o-Dichlorobenzene	0	-	0	-	0	-
Ethylbenzene	3	19.9	6	8.9	4	10.0
o-Xylene	3	39.0	5	15.4	4	18.2
m-Xylene	0	-	0	-	0	-
p-Xylene	3	23.9	6	4.1	4	12.6
n-Decane	3	34.8	6	14.7	2	33.2
n-Dodecane	2	24.1	1	1.6	0	-
1,4-Dioxane	0	-	0	-	0	-
1,2-Dibromoethane	0	-	0	-	0	-
n-Octane	2	19.4	5	31.4	2	14.1
n-Undecane	3	28.2	5	5.9	2	45.7
1,1,2,2-Tetrachloroethane	0	-	0	-	0	-
α-Pinene	1	34.7	5	9.0	0	-
Limonene	2	10.6	5	18.0	0	-
n-Nonane	3	23.6	5	15.0	4	31.8
Pairs analyzed:	4		6		4	

[a]N = number of pairs both having measurable data.

TABLE J-26. PERCENT RELATIVE STANDARD DEVIATION BETWEEN F AND D RESULTS (CANISTER) - SUMMER SEASON

Target Compound	N[a]	% RSD
Methyl chloride	0	-
Vinyl chloride	0	-
Ethyl chloride	0	-
Vinylidene chlodide	0	-
Methylene chloride	0	-
Allyl chloride	0	-
trans-1,2-Dichloroethylene	0	-
Chloroform	0	-
Carbon tetrachloride	2	1.6
1,1,1-Trichloroethane	2	2.1
cis-1,2-Dichloroethylene	0	-
Trichloroethylene	0	-
Tetrachloroethylene	0	-

[a]N = number of pairs, both having measurable data.

TABLE J-27. PERCENT RELATIVE STANDARD DEVIATION (%RSD) BETWEEN F AND D RESULTS[a] (AIR EXCHANGE) - SUMMER SEASON

Home	Sample Type	Time	ACHT[b]	% RSD
2-Zone Homes				
1	F	1	0.53	0
	D	1	0.53	
2	F	1	0.44	0
	D	1	0.44	
	F	2	0.26	2.7
	D	2	0.27	
3-Zone Homes				
1	F	2	0.17	34.6
	D	2	0.28	
3	F	1	0.32	2.2
	D	1	0.33	
	F	2	1.00	2.2
	D	2	0.97	
4	F	1	0.08	68.4
	D	1	0.23	
	F	2	0.10	6.7
	D	2	0.11	

[a]Results reported by Brookhaven National Laboratory.
[b]ACHT = total air exchanges per hour.

APPENDIX K

Response to Household Questionnaire - Winter Season

FREQUENCIES AND PERCENTAGES OF RESPONSES TO HOUSEHOLD QUESTIONNAIRE - WINTER SEASON

		Frequency	Percentage
Q.1	Presently Employed:		
	Yes	29	56.9
	No	22	43.1
Q.4	Status, if not employed:		
	Housewife	12	54.5
	Student	4	18.2
	Unemployed	0	
	Retired	6	27.3
	Disabled	0	
Q.6	Cigarette Smoking Status:		
	Current Smoker	11	21.6
	Ex-Smoker	13	25.5
	Never Smoked	27	52.9
Q.7A	Average Number of Cigarettes Smoked Per Day:		
	Less than 1/2 Pack	3	27.3
	1/2 Pack or More But Less Than 1 Pack	3	27.3
	1 Pack or More But Less Than 1-1/2 Packs	2	18.2
	1-1/2 Packs or More But Less Than 2 Packs	3	27.3
Q.7C	Usually Inhale the Smoke:		
	Yes	10	90.9
	No	1	9.1
Q.8A	Anyone Else in Household Smoke Cigarettes:		
	Yes	13	25.5
	No	38	74.5
Q.8B	Visitors or Guests Smoke in House:		
	Yes	30	58.8
	No	21	41.2
Q.8D	Rooms Smokers Smoke in Most Often Between 7:00 am and 6:00 pm:		
	None	23	45.1
	Living Room	6	11.8
	Dining Room	19	37.3
	Kitchen	10	19.6
	Den	16	31.4
	Master Bedroom	2	3.9
	Other Bedroom	0	
	Other Room	0	

(continued)

		Frequency	Percentage
Q.8E	Rooms Smokers Smoke in Most Often Between 6:00 pm and 7:00 am:		
	None	25	49.0
	Living Room	3	5.9
	Dining Room	22	43.1
	Kitchen	12	23.5
	Den	19	37.3
	Master Bedroom	2	3.9
	Other Bedroom	0	
	Other Room	0	
Q.9A	Smoke a Pipe on a Regular Basis:		
	Yes	0	
	No	51	100.
Q.9D	Smoke a Cigar on a Regular Basis:		
	Yes	0	
	No	51	100.
Q.9G	Use Snuff on a Regular Basis:		
	Yes	0	
	No	51	100.
Q.9J	Use Chewing Tobacco on a Regular Basis:		
	Yes	0	
	No	51	100.
Q.10	Respondent or Member of Household Pursue the Following Hobbies:		
	A. Painting:		
	Yes, Respondent	2	3.9
	Yes, Other Household Member	2	3.9
	Yes, Both	0	
	No	47	92.2
	B. Furniture Refinishing:		
	Yes, Respondent	4	7.8
	Yes, Other Household Member	1	2.0
	Yes, Both	0	
	No	46	90.2
	C. Scale Models:		
	Yes, Respondent	2	3.9
	Yes, Other Household Member	2	3.9
	Yes, Both	0	
	No	47	92.2

(continued)

		Frequency	Percentage
	D. Gardening:		
	Yes, Respondent	9	17.6
	Yes, Other Household Member	10	19.6
	Yes, Both	5	9.8
	No	27	52.9
	E. House Plants:		
	Yes, Respondent	21	41.2
	Yes, Other Household Member	12	23.5
	Yes, Both	4	7.8
	No	14	27.5
	F. Automobile or Bicycle Repair:		
	Yes, Respondent	6	11.8
	Yes, Other Household Member	6	11.8
	Yes, Both	2	3.9
	No	37	72.5
Q.11	Worked With or Used Pesticides or Herbicides Outdoors For More Than 1 Hour at a Time in the Last 6 Months:		
	Yes	4	7.8
	No	47	92.2
Q.12A	Respondent or Household Member Used Pesticides in Home in Past 6 Months:		
	Yes	12	23.5
	No	39	76.5
Q.12B	In Which Rooms:		
	Living Room	8	66.7
	Dining Room	1	8.3
	Kitchen	7	58.3
	Den	3	25.0
	Master Bedroom	5	41.7
	Other Bedroom	1	8.3
	Other Room	1	8.3
Q.13A	Pay Someone to Have Home Treated For Pests in Past 6 Months:		
	Yes	11	21.6
	No	40	78.4
Q.13B	Number of Times in Past 6 Months:		
	1	9	81.8
	2	1	9.1
	3	0	
	4	1	9.1

(continued)

		Frequency	Percentage
Q.13E	Drapes, Carpeting, or Furniture in Home Commercially Cleaned in Past 6 Months:		
	Yes	9	17.6
	No	42	82.4
Q.13F	Number of Times:		
	1	6	66.7
	2	2	22.2
	3	1	11.1
Q.14A	Areas of Home Household Members Spend Most of Waking Hours:		
	Living Room	34	66.7
	Dining Room	4	7.8
	Kitchen	38	74.5
	Den	20	39.2
	Master Bedroom	25	49.0
	Other Bedroom	5	9.8
	Other Room	1	2.0
Q.15	Any of the Following in Home:		
	A. Central Air Conditioning:		
	Yes	1	2.0
	No	50	98.0
	B. Window Air Conditioning:		
	Yes	1	2.0
	No	50	98.0
	C. Portable Circulating Fan:		
	Yes	20	39.2
	No	31	60.8
	D. Ceiling Exhaust Fan:		
	Yes	8	15.7
	No	43	84.3
	E. None of These:		
	Yes	26	51.0
	No	25	49.0
Q.16A	Fireplace in Home:		
	Yes	29	56.9
	No	22	43.1
Q.16B	Damper Open Now:		
	Yes	19	65.5
	No	10	34.5

(continued)

		Frequency	Percentage
Q.17A	Now Using Mothballs or Moth Crystals In Home:		
	Yes	1	2.0
	No	50	98.0
Q.18A	Use Indoor Air Fresheners:		
	Yes	36	70.6
	No	15	29.4
Q.19	Use Bathroom Deodorants Attached To Wall or Toilet Bowl:		
	Yes	11	21.6
	No	40	78.4
Q.20A	Water Supplied by a Municipality or Corporation:		
	Yes	49	96.1
	No	2	3.9
Q.20B	Use Water Supplied by Municipality or Corporation for Drinking and Drink Mixes at Home:		
	Always	33	67.3
	Usually	2	4.1
	Sometimes	7	14.3
	Never	7	14.3
Q.20C	Use Bottled Water:		
	Yes	17	33.3
	No	34	66.7
Q.20D	Drink Water From Sink or Refrigerator Tap:		
	Yes	41	80.4
	No	10	19.6
Q.20E	When Drinking Water From Tap, Does Water Run for a Time Before Filling Glass or Drink First Water Out of Tap:		
	Usually Run Water For A Time	25	61.0
	Usually Drink First Water Out of Tap	16	39.0
Q.20F	Have a Filter on Water Tap or Any Other Type of Filter That Purifies Water:		
	Yes	6	11.8
	No	45	88.2

(continued)

		Frequency	Percentage
Q.21A	Residential Garage Attached to or Contained in Same Building as Home:		
	Yes	28	54.9
	No	23	45.1
Q.21B	How Often Smell Gasoline or Automobile Odors in Adjacent Rooms:		
	Frequently	0	
	Sometimes	4	14.3
	Never	24	85.7
Q.22	Store Any of Following Items in any Structure Attached To or Part of Home:		
	A. Kerosene:		
	Yes	3	5.9
	No	48	94.1
	B. Gasoline:		
	Yes	8	15.7
	No	43	84.3
	C. Gasoline-Powered Lawn Mower:		
	Yes	10	19.6
	No	41	80.4
	D. Automobile:		
	Yes	22	43.1
	No	29	56.9
	E. Motorcycle:		
	Yes	4	7.8
	No	47	92.2
	F. Pesticides, Insecticides, or Lawn and Garden Chemicals:		
	Yes	11	21.6
	No	40	78.4
Q.23	Store Cleaning Supplies in Following Places:		
	A. Kitchen:		
	Yes	41	80.4
	No	10	19.6
	B. Kitchen Has Odor:		
	Usually	2	4.9
	Sometimes	8	19.5
	Never	31	75.6

(continued)

		Frequency	Percentage
	C. Utility Room:		
	Yes	13	25.5
	No	38	74.5
	D. Utility Room Has Odor:		
	Usually	1	7.7
	Sometimes	2	15.4
	Never	10	76.9
	E. Bathroom:		
	Yes	27	52.9
	No	24	47.1
	F. Bathroom Has Odor:		
	Usually	0	
	Sometimes	8	29.6
	Never	19	70.4
	G. Basement:		
	Yes	0	
	No	51	100.
Q.24	Store Paints, Varnishes, or Paint Thinner or Removers in the Following Places:		
	A. Attached Garage:		
	Yes	21	41.2
	No	11	21.6
	Not Applicable	19	37.3
	B. Odor Near These Materials:		
	Yes	1	4.8
	No	20	95.2
	C. Basement:		
	Yes	0	
	No	2	3.9
	Not Applicable	49	96.1
	E. Attic:		
	Yes	0	
	No	21	41.2
	Not applicable	30	58.8
	G. Attached Shop or Workroom		
	Yes	0	
	No	12	23.5
	Not applicable	39	76.5

(continued)

		Frequency	Percentage
	I. Any Other Area or Room:		
	Yes	4	7.8
	No	47	92.2
	J. Odor Near These Materials:		
	Yes	2	50.0
	No	2	50.0
Q.25	Sex:		
	Male	24	47.1
	Female	27	52.9
Q.26	Race:		
	Hispanic	4	7.8
	American Indian/Alaskan Native	1	2.0
	Black, not of Hispanic origin	4	7.8
	Asian/Pacific Islander	3	5.9
	White, not of Hispanic origin	39	76.5
Q.27	Age:		
	11-20	6	11.8
	21-30	11	21.6
	31-40	11	21.6
	41-50	7	13.7
	51-60	6	11.8
	61-70	6	11.8
	71-80	3	5.9
	81-90	1	2.0

APPENDIX L

Response to Exposure Activity Questionnaire - Winter Season

FREQUENCIES AND PERCENTAGES OF RESPONSES TO 24-HOUR RECALL EXPOSURE AND ACTIVITY QUESTIONNAIRE - WINTER SEASON

		Frequency	Percentage
Q.1A	Pumped Gas During Past 24 Hours:		
	Yes	6	11.8
	No	45	88.2
Q.1B	Vapor Lock Device in Use:		
	Yes	6	100.
	No	0	
Q.1C	Type of Gas:		
	Leaded	1	16.7
	Unleaded	5	83.3
Q.1D	What Time:		
	AM	1	20.0
	PM	4	80.0
Q.2A	Clothes in House That Have Been Dry Cleaned in Past Week:		
	Yes	9	17.6
	No	42	82.4
Q.2B	Wore Any of These Clothes in Past 24 Hours:		
	Yes	3	33.3
	No	6	66.7
Q.2C	How Long These Clothes Were Worn:		
	8 hours	1	33.3
	9 hours	1	33.3
	12 hours	1	33.3
Q.3A	Smoke Any Cigarettes During First Monitoring Period:		
	Yes	9	17.6
	No	42	82.4
Q.3B	How Many Cigarettes Smoked:		
	1-5	5	55.5
	6-10	4	44.4
Q.3C	Smoke Any Cigarettes During Second Monitoring Period:		
	Yes	12	24.0
	No	38	76.0

(continued)

		Frequency	Percentage
Q.3D	How Many Cigarettes Smoked:		
	1-5	6	50.0
	6-10	4	33.3
	11-15	0	
	16-20	2	16.7
Q.4	Used Any of the Following Tobacco Products in Past 24 Hours:		
	A. Pipes:		
	Yes	0	
	No	49	100.
	B. Cigars:		
	Yes	1	2.0
	No	48	98.0
	C. Snuff:		
	Yes	0	
	No	49	100.
	D. Chewing Tobacco:		
	Yes	0	
	No	49	100.
Q.5A	In The Same Room or Enclosed Area With Someone Smoking in Past 24 Hours:		
	Yes	26	51.0
	No	25	49.0
Q.5B	Time Exposed to Others' Smoke:		
	Less Than 1 Hour	7	26.9
	1 Hour or More but Less Than 2	5	19.2
	2 Hours or More but Less Than 3	3	11.5
	3 Hours or More but Less Than 4	2	7.7
	4 Hours or More but Less Than 5	3	11.5
	5 Hours or More but Less Than 6	2	7.7
	6 Hours or More but Less Than 7	2	7.7
	8 Hours or More but Less Than 9	1	3.8
	9 Hours or More	1	3.8
Q.5C	How Many People Were Smoking (Including Yourself):		
	1	13	50.0
	2	7	26.9
	3	3	11.5
	4	2	7.7
	16	1	3.8

(continued)

		Frequency	Percentage
Q.6	Used or Worked With Insecticides, Pesticides, or Herbicides in Past 24 Hours:		
	Yes	0	
	No	51	100.
Q.7A	Work Today in Regular Occupation:		
	Yes	11	21.6
	No	29	56.9
	Unemployed	11	21.6
Q.7B	Time Went to Work:		
	AM	10	90.0
	PM	1	9.1
Q.7C	Time Left Work:		
	AM	0	
	PM	11	100.
Q.8	Used or Been Near Paints/Solvents in Past 24 Hours:		
	Yes	8	15.7
	No	43	84.3
Q.8B	For How Long:		
	Less Than 1 Hour	6	75.0
	1-2 Hours	2	25.0
Q.9	Used or Been Near Odorous, Vaporizing Glues or Adhesives in Past 24 Hours:		
	Yes	5	9.8
	No	46	90.2
Q.9B	For How Long:		
	Less Than 1 Hour	3	75.0
	1-2 Hours	1	25.0
Q.10	Used or Been Near Moth Crystals, Room Air Fresheners or Bathroom Deodorizers In the Past 24 Hours:		
	Yes	14	27.5
	No	37	72.5
Q.10B	For How Long:		
	Less Than 1 Hour	10	83.3
	1-2 Hours	1	8.3
	Continuously	1	8.3

(continued)

		Frequency	Percentage
Q.11	Used or Been Near Petroleum Products (Excluding Pumping Own Gas) in Past 24 Hours:		
	Yes	9	17.6
	No	42	82.4
Q.11B	For How Long:		
	Less Than 1 Hour	8	88.8
	1-3 Hours	0	
	4-6 Hours	0	
	7-9 Hours	1	11.1
Q.12	Used or Been Near Auto/Truck/Lawn Mower Exhausts in Past 24 Hours:		
	Yes	11	21.6
	No	40	78.4
Q.12B	For How Long:		
	Less Than 1 Hour	5	50.0
	1 Hour or More but Less Than 2	3	30.0
	2 Hours or More but Less Than 3	1	10.0
	3 Hours or More but Less Than 4	0	
	4 Hours or More but Less Than 5	1	10.0
Q.13	Used or Been Near Cleaning Solutions In Past 24 Hours:		
	Yes	16	31.4
	No	35	68.6
Q.13B	For How Long:		
	Less Than 1 Hour	11	73.3
	1 Hour or More but Less Than 2	2	13.3
	2 Hours or More but Less Than 3	2	13.3
Q.14	Used or Been Near Flea Collars, Flea Powder, or Pet Shampoo in Past 24 Hours:		
	Yes	1	2.0
	No	50	98.0
Q.14B	For How Long:		
	Less Than 1 Hour	1	100.
Q.15	Used or Been Near Aerosol Sprays in Past 24 Hours:		
	Yes	24	47.1
	No	27	52.9
Q.15B	For How Long:		
	Less than 1 Hour	20	100.

(continued)

		Frequency	Percentage
Q.16	Used or Been Near Any Other Product That Involved Exposure to Chemicals:		
	Yes	9	17.6
	No	42	82.4
Q.16B	For How Long:		
	Less Than 1 Hour	2	25.0
	1 Hour or More but Less Than 2	3	37.5
	2 Hours or More but Less Than 3	1	12.5
	6 Hours or More but Less Than 7	1	12.5
	7 Hours or More but Less Than 8	1	12.5
Q.17A	Take a Shower or Bath in the House or Elsewhere in Past 24 Hours:		
	Yes	45	88.2
	No	6	11.8
A.17B	Bathroom Exhaust Fan On While Taking a Shower or Bath:		
	Yes	6	13.3
	No	39	86.7
Q.17C	How Long Did Water Run:		
	1-10 Minutes	25	56.8
	11-20 Minutes	17	38.6
	21-30 Minutes	2	4.5
Q.17D	In a Swimming Pool, Sauna, Spa, or Hot Tub in Past 24 Hours:		
	Yes	1	2.0
	No	48	98.0
Q.17E	For How Long:		
	2 Hours	1	100.
Q.18A	Anyone Else Take a Shower or Bath in the House in Past 24 Hours:		
	Yes	42	82.4
	No	9	17.6
Q.18B	How Many Baths and Showers Were Taken:		
	1	8	19.0
	2	19	45.2
	3	7	16.7
	4	7	16.7
	10	1	2.4

(continued)

		Frequency	Percentage
Q.19	Dishwasher in Use While Participant Was in House in Past 24 Hours:		
	Yes	7	13.7
	No	44	86.3
Q.20A	Clotheswasher in Use While Participant Was in House in Past 24 Hours:		
	Yes	13	25.5
	No	38	74.5
Q.20B1	How Many Loads Washed With Hot or Warm Water:		
	None	4	30.8
	1	7	53.8
	2	1	7.7
	3	1	7.7
Q.20B2	How Many Loads Washed With Cold Water:		
	None	6	46.2
	1	6	46.2
	2	1	7.7
Q.20C	Was Bleach Used:		
	Yes	1	7.7
	No	12	92.3
Q.21	Number of Hours Spent in the Following Environments During Past 24 Hours:		
	A. Indoors at Home:		
	0-4 Hours	0	
	5-9 Hours	4	7.8
	10-14 Hours	13	25.5
	15-19 Hours	12	23.5
	20-24 Hours	22	43.1
	B. Indoors, For Occupational Work:		
	None	42	82.4
	1-5 Hours	1	2.0
	6-10 Hours	8	15.7
	C. Indoors, For Other Activities:		
	None	24	47.1
	1-5 Hours	20	39.2
	6-10 Hours	4	7.8
	11-15 Hours	1	2.0
	16-20 Hours	2	3.9

(continued)

		Frequency	Percentage
D.	Outdoors, For Occupational Work:		
	None	45	88.2
	1-5 Hours	4	7.8
	6-10 Hours	2	3.9
E.	Outdoors, For Other Activities:		
	None	5	9.8
	1-5 Hours	40	78.4
	6-10 Hours	5	9.8
	11-15 Hours	0	
	16-20 Hours	1	2.0
Q.22A	In Past 24 Hours, Which of the Following Combustion Sources Did Participant Use In Home:		
A.	Gas Cooking Range or Oven:		
	Yes	27	52.9
	No	24	47.1
B.	Gas Water Heater:		
	Yes	23	45.1
	No	28	54.9
C.	Gas Clothes Dryer:		
	Yes	15	29.4
	No	36	70.6
D.	Gas or Kerosene Space Heater:		
	Yes	6	11.8
	No	45	88.2
E.	Fireplace:		
	Yes	4	7.8
	No	47	92.2
F.	Wood Stove:		
	Yes	0	
	No	51	100.
G.	Gas Furnace:		
	Yes	19	37.3
	No	32	62.7
H.	Other Combustion Appliances:		
	Yes	2	3.9
	No	49	96.1

(continued)

		Frequency	Percentage
Q.23	During Past 24 Hours, Was Any of the Following Drunk:		
	A. Cola Soft Drinks:		
	Yes	4	7.8
	No	47	92.2
	B. Non-Cola Soft Drinks:		
	Yes	14	27.5
	No	37	72.5
	C. Canned Juices:		
	Yes	21	41.2
	No	30	58.8
	D. Milk:		
	Yes	11	21.6
	No	40	78.4
	E. Beer:		
	Yes	6	11.8
	No	45	88.2
	F. Wine:		
	Yes	38	74.5
	No	13	25.5
	G. Coffee, Tea:		
	Yes	30	58.8
	No	21	41.2
	H. Tap Water and Tap Water Drinks:		
	Yes	10	19.6
	No	41	80.4
	I. Bottled Water:		
	Yes	0	
	No	51	100.
Q.24A	Usual Daytime Temperature in Home During Past 24 Hours:		
	60-65	6	11.8
	66-70	34	66.7
	71-75	10	19.6
	76-80	1	2.0

(continued)

		Frequency	Percentage
Q.24B	Usual Nighttime Temperature in Home During Past 24 Hours:		
	46-50	2	4.0
	51-55	1	2.0
	56-60	15	30.0
	61-65	16	32.0
	66-70	14	28.0
	71-75	2	4.0
Q.25	Use Any of the Following Cooling Appliances in House in Past 24 Hours:		
	A. Window Air Conditioner:		
	Yes	0	
	No	51	100.
	B. Portable Circulating Fan:		
	Yes	4	7.8
	No	47	92.2
	C. Ceiling Exhaust Fan:		
	Yes	4	7.8
	No	47	92.2
	D. Central Air Conditioning System:		
	Yes	1	2.0
	No	50	98.0
Q.26	Windows or Outside Doors Opened in Home During Past 24 Hours:		
	Yes	47	92.2
	No	4	7.8
Q.27	One-Way Trips Taken During Past 24 Hours:		
	A. Number:		
	By Truck	23	19.2
	By Auto/Van	96	80.0
	By Skateboard	1	0.8
	B. Length of Time:		
	1-15 Minutes	80	66.7
	16-30 Minutes	31	25.8
	31-45 Minutes	0	
	46-60 Minutes	7	5.8
	61-90 Minutes	1	0.8
	91-120 Minutes	0	
	121-150 Minutes	0	
	151-180 Minutes	1	0.8
	C. Traffic:		
	Heavy or Moderate	63	53.8
	Light	54	46.2

APPENDIX M

Response to Household Questionnaire - Summer Season

FREQUENCIES AND PERCENTAGES OF RESPONSES TO HOUSEHOLD QUESTIONNAIRE - SUMMER SEASON

		Frequency	Percentage
Q.1A	Presently Employed:		
	Yes	25	58.1
	No	18	41.9
Q.3	Status, if not employed:		
	Housewife	8	44.4
	Student	3	16.7
	Unemployed	0	
	Retired	7	38.9
	Disabled	0	
Q.5	Cigarette Smoking Status:		
	Current Smoker	10	23.3
	Ex-Smoker	13	30.2
	Never Smoked	20	46.5
Q.6A	Average Number of Cigarettes Smoked Per Day:		
	Less than 1/2 Pack	4	40.0
	1/2 Pack or More But Less Than 1 Pack	2	20.0
	1 Pack or More But Less Than 1-1/2 Packs	3	30.0
	1-1/2 Packs or More But Less Than 2 Packs	1	10.0
Q.6C	Usually Inhale the Smoke:		
	Yes	9	90.0
	No	1	10.0
Q.7A	Anyone Else in Household Smoke Cigarettes:		
	Yes	10	23.3
	No	33	76.7
Q.7B	Number of People in Household Who Smoke Cigarettes:		
	1	6	66.7
	2	1	11.1
	3	2	22.2
Q.8A	Rooms Smokers Smoke in Most Often Between 7:00 am and 6:00 pm:		
	None	20	46.5
	Living Room	6	14.0
	Dining Room	15	34.9
	Kitchen	7	16.3
	Den	14	32.6
	Master Bedroom	2	4.7

(continued)

		Frequency	Percentage
Q.8B	Rooms Smokers Smoke in Most Often Between 6:00 pm and 7:00 am:		
	None	20	46.5
	Living Room	3	7.0
	Dining Room	16	37.2
	Kitchen	8	18.6
	Den	15	34.9
	Master Bedroom	2	4.7
Q.9A	Smoke a Pipe on a Regular Basis:		
	Yes	0	
	No	43	100.
Q.9D	Smoke a Cigar on a Regular Basis:		
	Yes	0	
	No	43	100.
Q.9G	Use Snuff on a Regular Basis:		
	Yes	0	
	No	43	100.
Q.9J	Use Chewing Tobacco on a Regular Basis:		
	Yes	0	
	No	43	100.
Q.10	Respondent or Member of Household Pursue the Following Hobbies:		
	A. Painting:		
	Yes, Respondent	1	2.3
	Yes, Other Household Member	2	4.7
	Yes, Both	0	
	No	40	93.0
	B. Furniture Refinishing:		
	Yes, Respondent	3	7.0
	Yes, Other Household Member	0	
	Yes, Both	0	
	No	40	93.0
	C. Scale Models:		
	Yes, Respondent	2	4.7
	Yes, Other Household Member	1	2.3
	Yes, Both	1	2.3
	No	39	90.7
	D. Gardening:		
	Yes, Respondent	9	20.9
	Yes, Other Household Member	9	20.9
	Yes, Both	6	14.0
	No	19	44.2

(continued)

		Frequency	Percentage
	E. House Plants:		
	Yes, Respondent	18	41.9
	Yes, Other Household Member	12	27.9
	Yes, Both	2	4.7
	No	11	25.6
	F. Automobile or Bicycle Repair:		
	Yes, Respondent	5	11.6
	Yes, Other Household Member	5	11.6
	Yes, Both	1	2.3
	No	32	74.4
Q.11	Worked With or Used Pesticides or Herbicides Outdoors For More Than 1 Hour at a Time in the Last 6 Months:		
	Yes	3	7.0
	No	40	93.0
Q.12A	Respondent or Household Member Used Pesticides in Home in Past 6 Months:		
	Yes	11	25.6
	No	32	74.4
Q.12B	In Which Rooms:		
	Living Room	8	72.7
	Dining Room	2	18.2
	Kitchen	8	72.7
	Den	2	18.2
	Master Bedroom	4	36.4
	Other Bedroom	1	9.1
	Other Room	1	9.1
Q.13A	Pay Someone to Have Home Treated For Pests in Past 6 Months:		
	Yes	8	18.6
	No	35	81.4
Q.13B	Number of Times in Past 6 Months:		
	1	7	87.5
	2	1	12.5
Q.13E	Drapes, Carpeting, or Furniture in Home Commercially Cleaned in Past 6 Months:		
	Yes	9	20.9
	No	34	79.1

(continued)

		Frequency	Percentage
Q.13F	Number of Times:		
	1	6	66.7
	2	2	22.2
	3	1	11.1
Q.14	In the Past 6 Months, Respondent or Someone Else Done Any of the Following Inside Home:		
	A. Painted:		
	Yes	8	18.6
	No	35	81.4
	B. Obtained New Furniture:		
	Yes	8	18.6
	No	35	81.4
	C. Obtained New Carpeting or Other Floor Covering:		
	Yes	4	9.3
	No	39	90.7
	D. Shampooed a Wool or Woolbased Carpet:		
	Yes	5	11.6
	No	38	88.4
	E. Refinished Furniture:		
	Yes	0	
	No	43	100.
	F. Reupholstered Furniture:		
	Yes	1	2.3
	No	42	97.7
	G. Paneled Walls:		
	Yes	0	
	No	43	100.
	H. Plastered Walls:		
	Yes	2	4.7
	No	41	95.3
	I. Remodeled Any Rooms:		
	Yes	3	7.0
	No	40	93.0

(continued)

		Frequency	Percentage
	J. Caulked Bathtubs, Sinks, or Showed Stalls:		
	Yes	3	7.0
	No	40	93.0
	K. Installed New Insulation:		
	Yes	0	
	No	43	100.
	L. Done Anything Else Inside Home In Past 6 Months:		
	Yes	10	23.3
	No	33	76.7
Q.15	Areas of Home Household Members Spend Most of Waking Hours:		
	Living Room	28	65.1
	Dining Room	2	4.7
	Kitchen	27	62.8
	Den	15	34.9
	Master Bedroom	21	48.8
	Other Bedroom	3	7.0
Q.16A	Now Using Mothballs or Moth Crystals In Home:		
	Yes	0	
	No	42	100.
Q.17A	Use Indoor Air Fresheners:		
	Yes	28	66.7
	No	14	33.3
Q.18	Use Bathroom Deodorants Attached To Wall or Toilet Bowl:		
	Yes	11	26.2
	No	31	73.8
Q.19A	Water Supplied by a Municipality or Corporation:		
	Yes	41	97.6
	No	1	2.4

(continued)

		Frequency	Percentage
Q.19B	Use Water Supplied by Municipality or Corporation for Drinking and Drink Mixes at Home:		
	Always	32	78.0
	Usually	2	4.9
	Sometimes	3	7.3
	Never	4	9.8
Q.19C	Use Bottled Water:		
	Yes	12	28.6
	No	30	71.4
Q.19D	Drink Water From Sink or Refrigerator Tap:		
	Yes	36	85.7
	No	6	14.3
Q.19E	When Drinking Water From Tap, Does Water Run for a Time Before Filling Glass or Drink First Water Out of Tap:		
	Usually Run Water For A Time	23	63.9
	Usually Drink First Water Out of Tap	13	36.1
Q.19F	Have a Filter on Water Tap or Any Other Type of Filter That Purifies Water:		
	Yes	3	7.3
	No	38	92.7
Q.20A	Residential Garage Attached to or Contained in Same Building as Home:		
	Yes	22	52.4
	No	20	47.6
Q.20B	How Often Smell Gasoline or Automobile Odors in Adjacent Rooms:		
	Frequently	0	
	Sometimes	3	13.6
	Never	19	86.4
Q.21	Store Any of Following Items in any Structure Attached To or Part of Home:		
	A. Kerosene:		
	Yes	2	4.8
	No	40	95.2
	B. Gasoline:		
	Yes	7	16.7
	No	35	83.3

(continued)

		Frequency	Percentage
	C. Gasoline-Powered Lawn Mower:		
	Yes	8	19.0
	No	34	81.0
	D. Automobile:		
	Yes	18	42.9
	No	24	57.1
	E. Motorcycle:		
	Yes	4	9.5
	No	38	90.5
	F. Pesticides, Insecticides, or Lawn and Garden Chemicals:		
	Yes	7	16.7
	No	35	83.3
Q.22	Store Cleaning Supplies in Following Places:		
	A. Kitchen:		
	Yes	33	78.6
	No	9	21.4
	B. Kitchen Has Odor:		
	Usually	1	3.0
	Sometimes	5	15.2
	Never	27	81.8
	C. Utility Room:		
	Yes	10	23.8
	No	32	76.2
	D. Utility Room Has Odor:		
	Usually	1	10.0
	Sometimes	1	10.0
	Never	8	80.0
	E. Bathroom:		
	Yes	23	54.8
	No	19	45.2
	F. Bathroom Has Odor:		
	Usually	0	
	Sometimes	5	21.7
	Never	18	78.3
	G. Basement:		
	Yes	0	
	No	41	100.

(continued)

		Frequency	Percentage
Q.23	Store Paints, Varnishes, or Paint Thinner or Removers in the Following Places:		
	A. Attached Garage:		
	Yes	17	40.5
	No	10	23.8
	Not Applicable	15	35.7
	B. Odor Near These Materials:		
	Yes	1	5.9
	No	16	94.1
	C. Basement:		
	Yes	0	
	No	2	4.9
	Not Applicable	39	95.1
	E. Attic:		
	Yes	0	
	No	16	39.0
	Not applicable	25	61.0
	G. Attached Shop or Workroom		
	Yes	0	
	No	10	24.4
	Not applicable	31	75.6
	I. Any Other Area or Room:		
	Yes	4	9.8
	No	37	90.2
	J. Odor Near These Materials:		
	Yes	2	50.0
	No	2	50.0
Q.24	Sex:		
	Male	25	58.1
	Female	18	41.9
Q.25	Race:		
	Hispanic	5	11.9
	American Indian/Alaskan Native	1	2.4
	Black, not of Hispanic origin	3	7.1
	Asian/Pacific Islander	1	2.4
	White, not of Hispanic origin	32	76.2

(continued)

		Frequency	Percentage
Q.26	Age:		
	11-20	5	11.6
	21-30	8	18.6
	31-40	9	20.9
	41-50	5	11.6
	51-60	7	16.3
	61-70	6	14.0
	71-80	2	4.7
	81-90	1	2.3

APPENDIX N

Questionnaire - Summer Season

FREQUENCIES AND PERCENTAGES OF RESPONSES TO 24-HOUR RECALL EXPOSURE AND ACTIVITY QUESTIONNAIRE - SUMMER SEASON

		Frequency	Percentage
Q.1A	Pumped Gas During Past 24 Hours:		
	Yes	5	11.6
	No	38	88.4
Q.1B	Vapor Lock Device in Use:		
	Yes	5	100.
	No	0	
Q.1C	Type of Gas:		
	Leaded	1	20.0
	Unleaded	4	80.0
Q.1D	What Time:		
	AM	2	40.0
	PM	3	60.0
Q.2A	Clothes in House That Have Been Dry Cleaned in Past Week:		
	Yes	3	7.0
	No	40	93.0
Q.2B	Wore Any of These Clothes in Past 24 Hours:		
	Yes	0	
	No	3	100.
Q.3A	Smoke Any Cigarettes During First Monitoring Period:		
	Yes	9	20.9
	No	34	79.1
Q.3B	How Many Cigarettes Smoked:		
	1-5	4	40.0
	6-10	5	50.0
	10-15	0	
	16-20	1	10.0
Q.3C	Smoke Any Cigarettes During Second Monitoring Period:		
	Yes	10	23.3
	No	33	76.7
Q.3D	How Many Cigarettes Smoked:		
	1-5	6	60.0
	6-10	4	40.0

(continued)

		Frequency	Percentage
Q.4	Used Any of the Following Tobacco Products in Past 24 Hours:		
	A. Pipes:		
	Yes	0	
	No	43	100.
	B. Cigars:		
	Yes	1	2.3
	No	42	97.7
	C. Snuff:		
	Yes	1	2.3
	No	42	97.7
	D. Chewing Tobacco:		
	Yes	0	
	No	49	100.
Q.5A	In The Same Room or Enclosed Area With Someone Smoking in Past 24 Hours:		
	Yes	23	53.5
	No	20	46.5
Q.5B	Time Exposed to Others' Smoke:		
	Less Than 1 Hour	5	21.7
	1 Hour or More but Less Than 2	6	26.1
	2 Hours or More but Less Than 3	5	21.7
	3 Hours or More but Less Than 4	2	8.7
	4 Hours or More but Less Than 5	1	4.3
	5 Hours or More but Less Than 6	1	4.3
	6 Hours or More but Less Than 7	0	
	7 Hours or More but Less Than 8	0	
	8 Hours or More	3	13.0
Q.5C	How Many People Were Smoking (Including Yourself):		
	1	11	47.8
	2	6	26.1
	3-5	3	13.0
	6-10	0	
	11-20	2	8.7
	21-30	1	4.3
Q.6	Used or Worked With Insecticides, Pesticides, or Herbicides in Past 24 Hours:		
	Yes	2	4.7
	No	41	95.3

(continued)

		Frequency	Percentage
Q.7A	Work Today in Regular Occupation:		
	Yes	8	18.6
	No	17	39.5
	Unemployed	18	41.9
Q.7B	Time Went to Work:		
	AM	8	100.
	PM	0	
Q.7C	Time Left Work:		
	AM	0	
	PM	8	100.
Q.8	Used or Been Near Paints/Solvents in Past 24 Hours:		
	Yes	8	18.6
	No	35	81.4
Q.8B	For How Long:		
	Less Than 1 Hour	3	37.5
	1-5 Hours	3	37.5
	6-10 Hours	0	
	More Than 10 Hours	2	25.0
Q.9	Used or Been Near Odorous, Vaporizing Glues or Adhesives in Past 24 Hours:		
	Yes	1	2.3
	No	42	97.7
Q.9B	For How Long:		
	Less Than 1 Hour	1	100.
Q.10	Used or Been Near Moth Crystals, Room Air Fresheners or Bathroom Deodorizers In the Past 24 Hours:		
	Yes	17	39.5
	No	26	60.5
Q.10B	For How Long:		
	Less Than 1 Hour	14	82.4
	1 Hour or More but Less Than 2	1	5.9
	2 Hours or More but Less Than 3	1	5.9
	3 Hours or More but Less Than 4	0	
	4 Hours or More but Less Than 5	0	
	5 Hours or More but Less Than 6	0	
	6 Hours or More but Less Than 7	1	5.9

(continued)

		Frequency	Percentage
Q.11	Used or Been Near Petroleum Products (Excluding Pumping Own Gas) in Past 24 Hours:		
	Yes	3	7.0
	No	40	93.0
Q.11B	For How Long:		
	Less Than 1 Hour	3	100.
Q.12	Used or Been Near Auto/Truck/Lawn Mower Exhausts in Past 24 Hours:		
	Yes	5	11.6
	No	38	88.4
Q.12B	For How Long:		
	Less Than 1 Hour	2	40.0
	1 Hour or More but Less Than 2	2	40.0
	2 Hours or More but Less Than 3	0	
	3 Hours or More but Less Than 4	0	
	4 Hours or More but Less Than 5	0	
	5 Hours or More but Less Than 6	1	20.0
Q.13	Used or Been Near Cleaning Solutions In Past 24 Hours:		
	Yes	14	32.6
	No	29	67.4
Q.13B	For How Long:		
	Less Than 1 Hour	14	100.
Q.14	Used or Been Near Flea Collars, Flea Powder, or Pet Shampoo in Past 24 Hours:		
	Yes	5	11.6
	No	38	88.4
Q.14B	For How Long:		
	Less Than 1 Hour	4	100.
Q.15	Used or Been Near Aerosol Sprays in Past 24 Hours:		
	Yes	12	27.9
	No	31	72.1
Q.15B	For How Long:		
	Less than 1 Hour	11	91.7
	1-2 Hours	1	8.3

(continued)

		Frequency	Percentage
Q.16	Used or Been Near Any Other Product That Involved Exposure to Chemicals:		
	Yes	6	14.0
	No	37	86.0
Q.16B	For How Long:		
	Less Than 1 Hour	4	80.0
	1-2 Hours	1	20.0
Q.17A	Take a Shower or Bath in the House or Elsewhere in Past 24 Hours:		
	Yes	37	86.0
	No	6	14.0
A.17B	Bathroom Exhaust Fan On While Taking a Shower or Bath:		
	Yes	4	10.8
	No	33	89.2
Q.17C	How Long Did Water Run:		
	1-10 Minutes	20	57.1
	11-20 Minutes	14	40.0
	21-30 Minutes	1	2.9
Q.17D	In a Swimming Pool, Sauna, Spa, or Hot Tub in Past 24 Hours:		
	Yes	2	5.7
	No	33	94.3
Q.17E	For How Long:		
	Less Than 1 Hour	1	50.0
	1 Hours or More but Less than 2	0	
	2 Hours or More but Less Than 3	1	50.0
Q.18A	Anyone Else Take a Shower or Bath in the House in Past 24 Hours:		
	Yes	36	83.7
	No	7	16.3
Q.18B	How Many Baths and Showers Were Taken:		
	1-2	21	58.3
	3-4	9	25.0
	5-6	4	11.1
	7-8	1	2.8
	9-10	1	2.8
Q.19	Dishwasher in Use While Participant Was in House in Past 24 Hours:		
	Yes	9	20.9
	No	34	79.1

(continued)

		Frequency	Percentage
Q.20A	Clotheswasher in Use While Participant Was in House in Past 24 Hours:		
	Yes	14	32.6
	No	29	67.4
Q.20B1	How Many Loads Washed With Hot or Warm Water:		
	None	4	28.6
	1	7	50.0
	2	3	21.4
Q.20B2	How Many Loads Washed With Cold Water:		
	None	8	57.1
	1	2	14.3
	2	2	14.3
	3	2	14.3
Q.20C	Was Bleach Used:		
	Yes	6	42.9
	No	8	57.1
Q.21	Number of Hours Spent in the Following Environments During Past 24 Hours:		
	A. Indoors at Home:		
	0-4 Hours	0	
	5-9 Hours	4	9.3
	10-14 Hours	7	16.3
	15-19 Hours	13	30.2
	20-24 Hours	19	44.2
	B. Indoors, For Occupational Work:		
	None	34	79.1
	1-5 Hours	3	7.0
	6-10 Hours	6	14.0
	C. Indoors, For Other Activities:		
	None	18	41.9
	1-5 Hours	23	53.5
	6-10 Hours	2	4.7
	D. Outdoors, For Occupational Work:		
	None	38	88.4
	1-5 Hours	4	9.3
	6-10 Hours	1	2.3

(continued)

		Frequency	Percentage
	E. Outdoors, For Other Activities:		
	None	4	9.3
	1-5 Hours	27	62.8
	6-10 Hours	11	25.6
	11-15 Hours	0	
	16-20 Hours	0	
	21-24 Hours	1	2.3
Q.22A	In Past 24 Hours, Which of the Following Combustion Sources Did Participant Use In Home:		
	A. Gas Cooking Range or Oven:		
	Yes	18	41.9
	No	25	58.1
	B. Gas Water Heater:		
	Yes	19	44.2
	No	24	55.8
	C. Gas Clothes Dryer:		
	Yes	15	34.9
	No	28	65.1
	D. Gas or Kerosene Space Heater:		
	Yes	1	2.3
	No	42	97.7
	E. Fireplace:		
	Yes	0	
	No	43	100.
	F. Wood Stove:		
	Yes	0	
	No	43	100.
	G. Gas Furnace:		
	Yes	1	2.3
	No	42	97.7
	H. Other Combustion Appliances:		
	Yes	0	
	No	43	100.
Q.23	During Past 24 Hours, Was Any of the Following Drunk:		
	A. Cola Soft Drinks:		
	Yes	14	32.6
	No	29	67.4

(continued)

		Frequency	Percentage
	B. Non-Cola Soft Drinks:		
	Yes	7	16.3
	No	36	83.7
	C. Canned Juices:		
	Yes	23	53.5
	No	20	46.5
	D. Milk:		
	Yes	8	18.6
	No	35	81.4
	E. Beer:		
	Yes	7	16.3
	No	36	83.7
	F. Wine:		
	Yes	33	76.7
	No	10	23.3
	G. Coffee, Tea:		
	Yes	24	55.8
	No	19	44.2
	H. Tap Water and Tap Water Drinks:		
	Yes	8	18.6
	No	35	81.4
	I. Bottled Water:		
	Yes	0	
	No	43	100.
Q.24A	Usual Daytime Temperature in Home During Past 24 Hours:		
	60-65	1	2.6
	66-70	13	33.3
	71-75	17	43.6
	76-80	8	20.5
Q.24B	Usual Nighttime Temperature in Home During Past 24 Hours:		
	46-50	1	2.6
	51-55	1	2.6
	56-60	7	17.9
	61-65	8	20.5
	66-70	16	41.0
	71-75	5	12.8
	76-80	1	2.6

(continued)

		Frequency	Percentage
Q.25	Use Any of the Following Cooling Appliances in House in Past 24 Hours:		
	A. Window Air Conditioner:		
	Yes	0	
	No	43	100.
	B. Portable Circulating Fan:		
	Yes	9	20.9
	No	34	79.1
	C. Ceiling Exhaust Fan:		
	Yes	4	9.3
	No	39	90.7
	D. Central Air Conditioning System:		
	Yes	0	
	No	43	100.
Q.26	Windows or Outside Doors Opened in Home During Past 24 Hours:		
	Yes	42	97.7
	No	1	2.3
Q.27	One-Way Trips Taken During Past 24 Hours:		
	A. Number:		
	By Truck	7	5.3
	By Auto/Van	115	87.1
	By Walking	6	4.5
	By Bicycle	3	2.3
	By Bus	1	0.8
	B. Length of Time:		
	1-15 Minutes	94	71.2
	16-30 Minutes	28	21.2
	31-45 Minutes	7	5.3
	46-60 Minutes	1	0.8
	61-90 Minutes	0	
	91-120 Minutes	0	
	121-150 Minutes	2	1.5
	C. Traffic:		
	Heavy or Moderate	61	46.2
	Light	71	53.8

APPENDIX O

Regression of Concentrations for Various Collection/Analysis Techniques

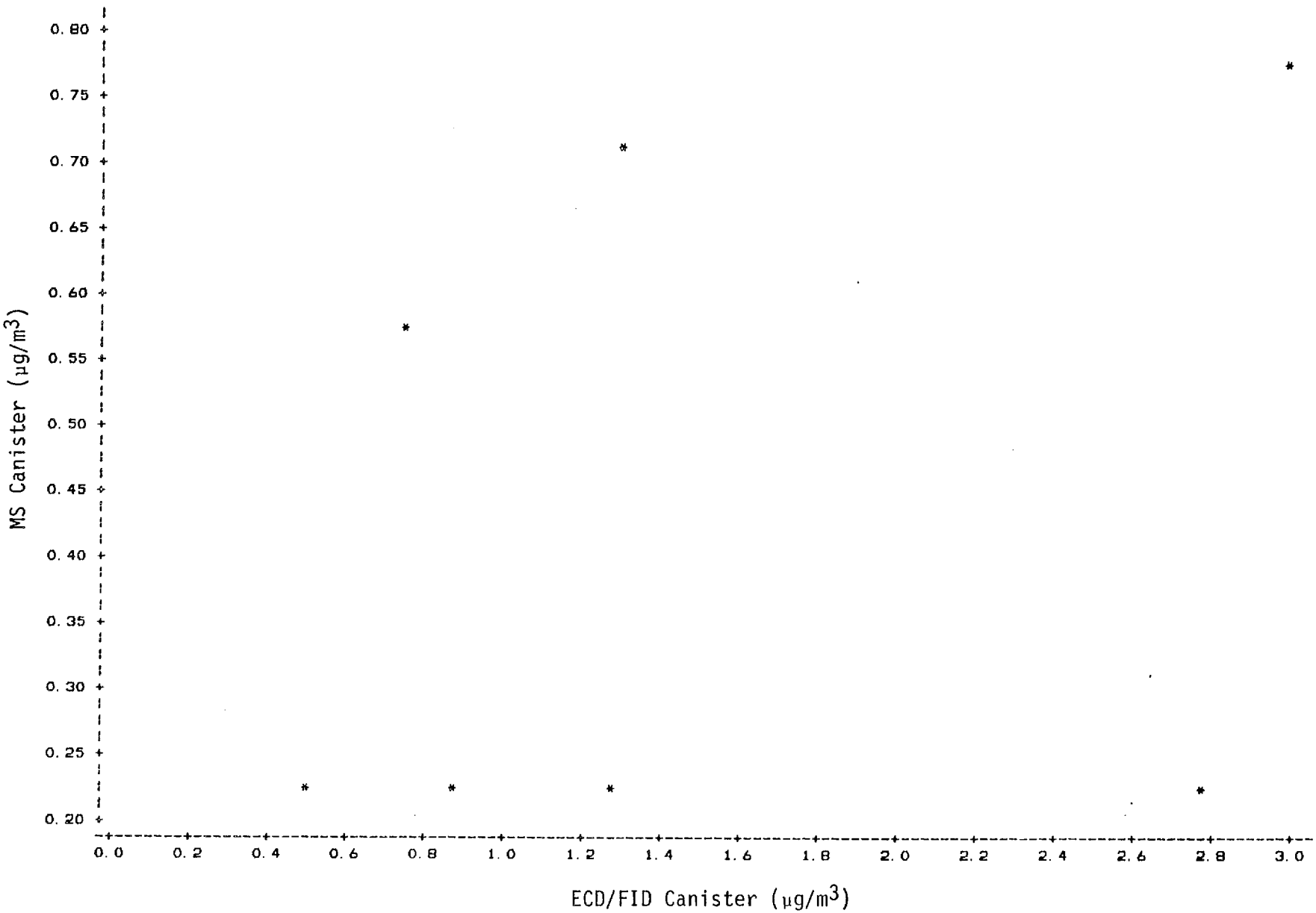


Figure O-1. Regression of MS versus ECD/FID canister concentrations for chloroform in overnight indoor air.

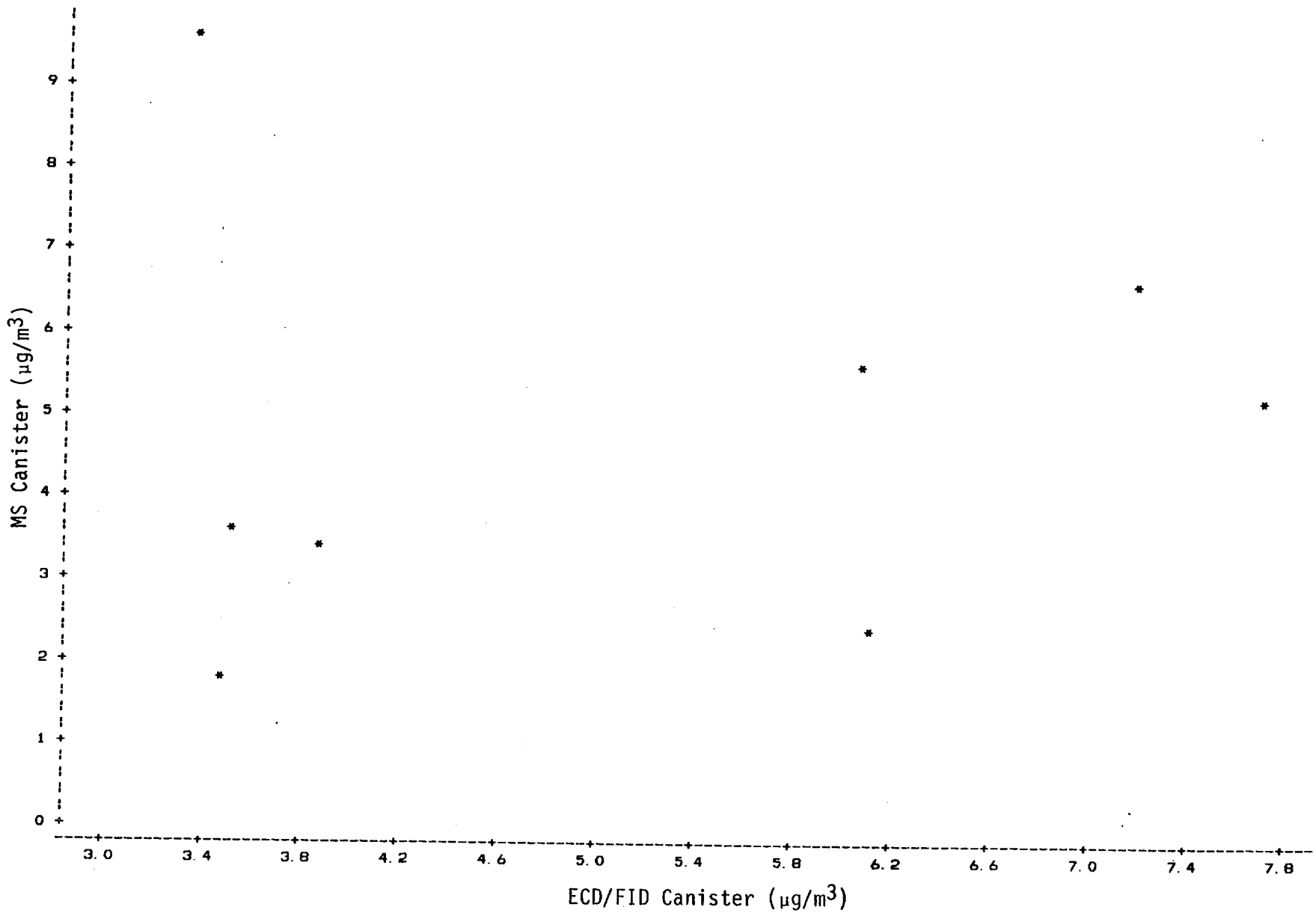


Figure O-2. Regression of MS versus ECD/FID canister concentrations for 1,1,1-trichloroethane in overnight indoor air.

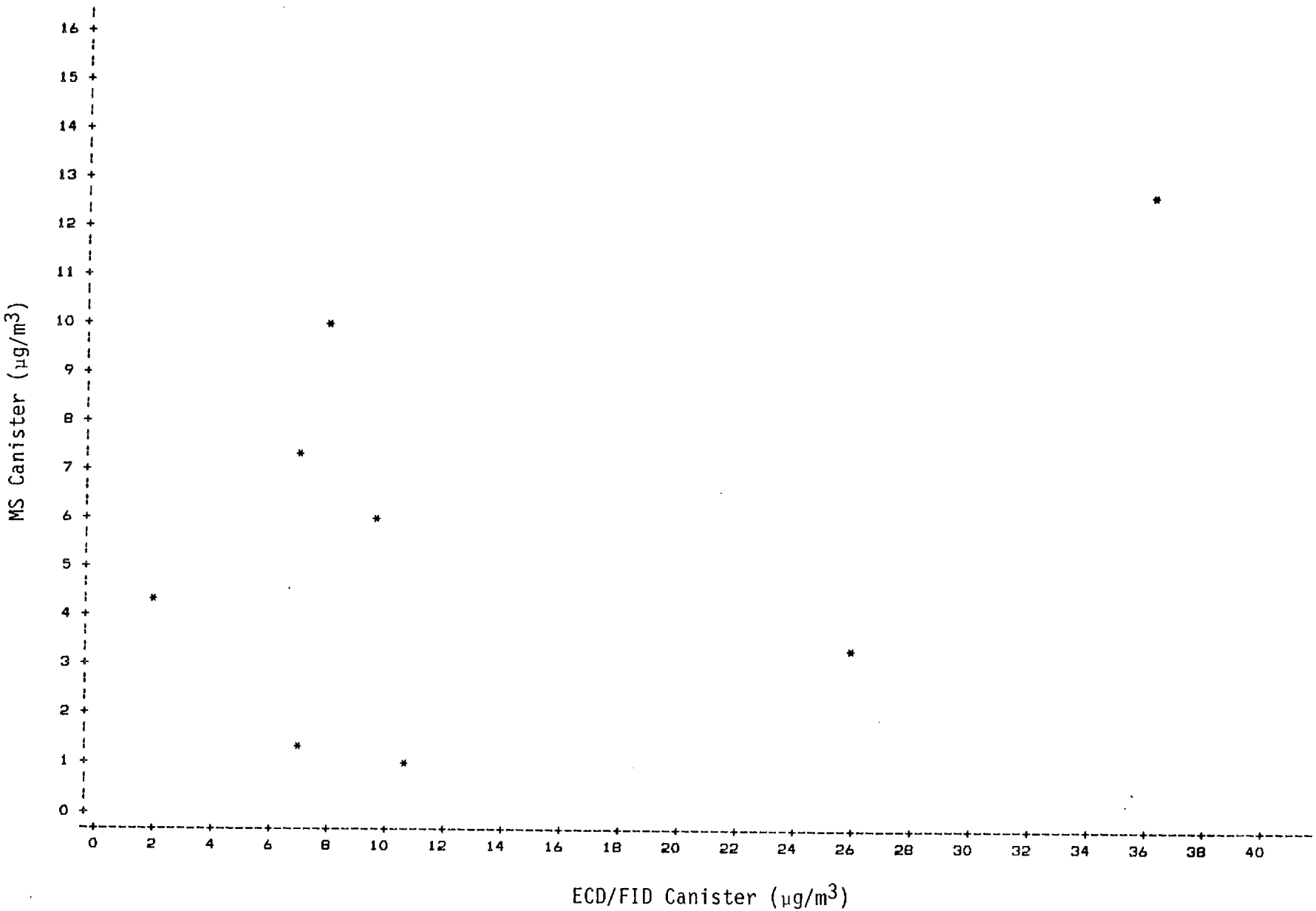


Figure O-3. Regression of MS versus ECD/FID canister concentrations for methylene chloride in overnight indoor air.

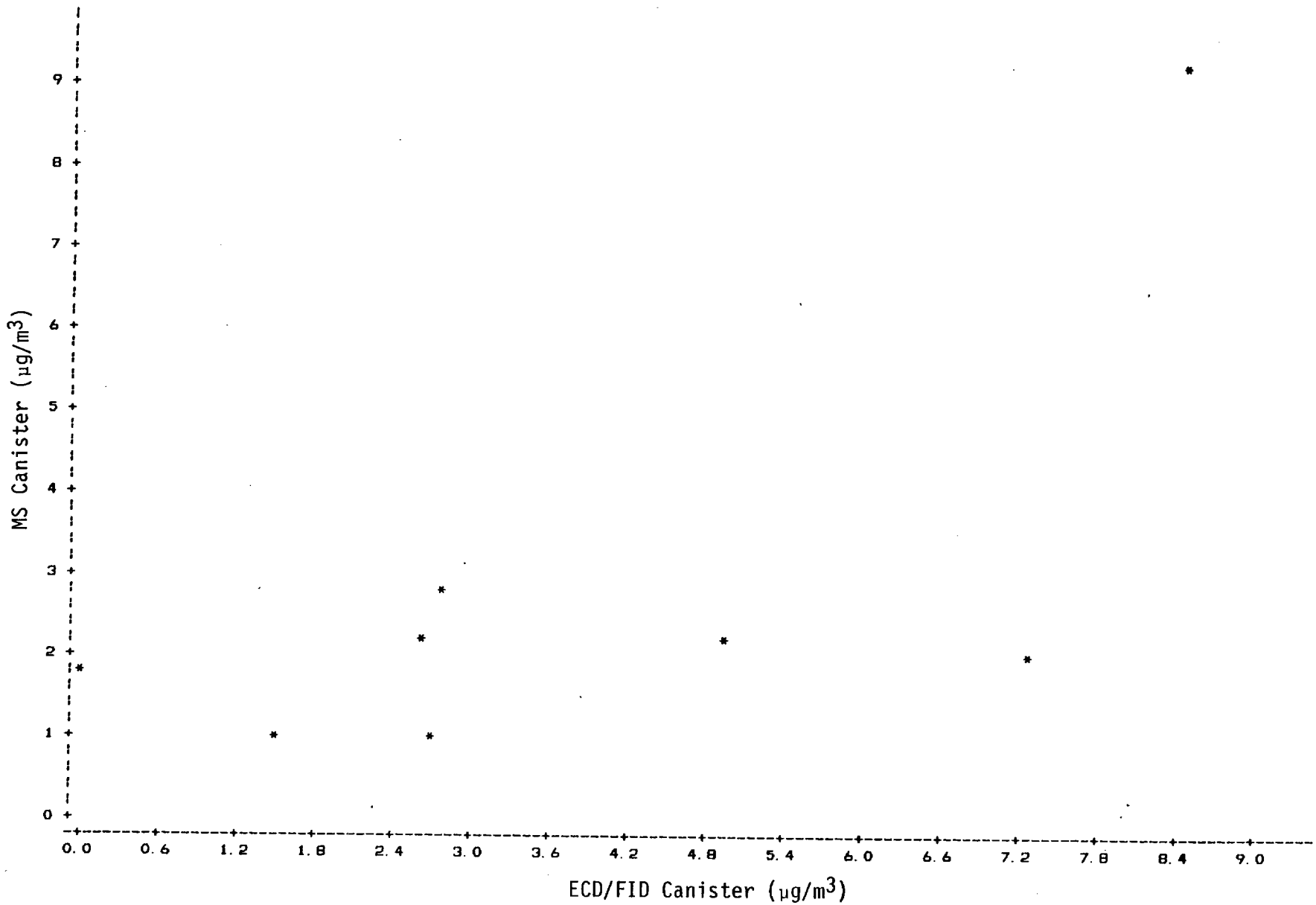


Figure O-4. Regression of MS versus ECD/FID canister concentrations fo 1,1,1-trichloroethane in overnight outdoor air.

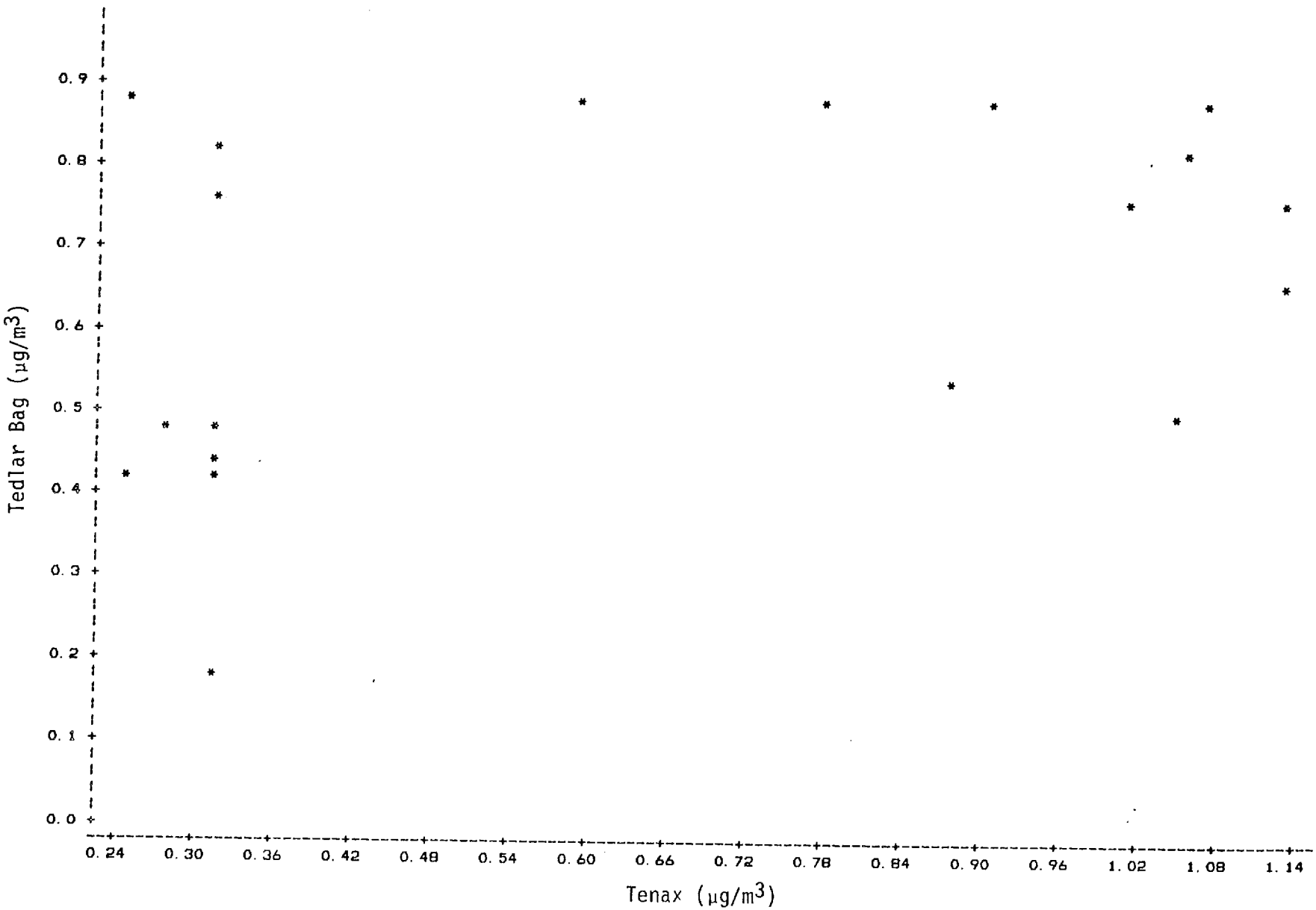


Figure O-5. Regression of central fixed-site Tedlar bag versus Tenax concentrations for carbon tetrachloride.

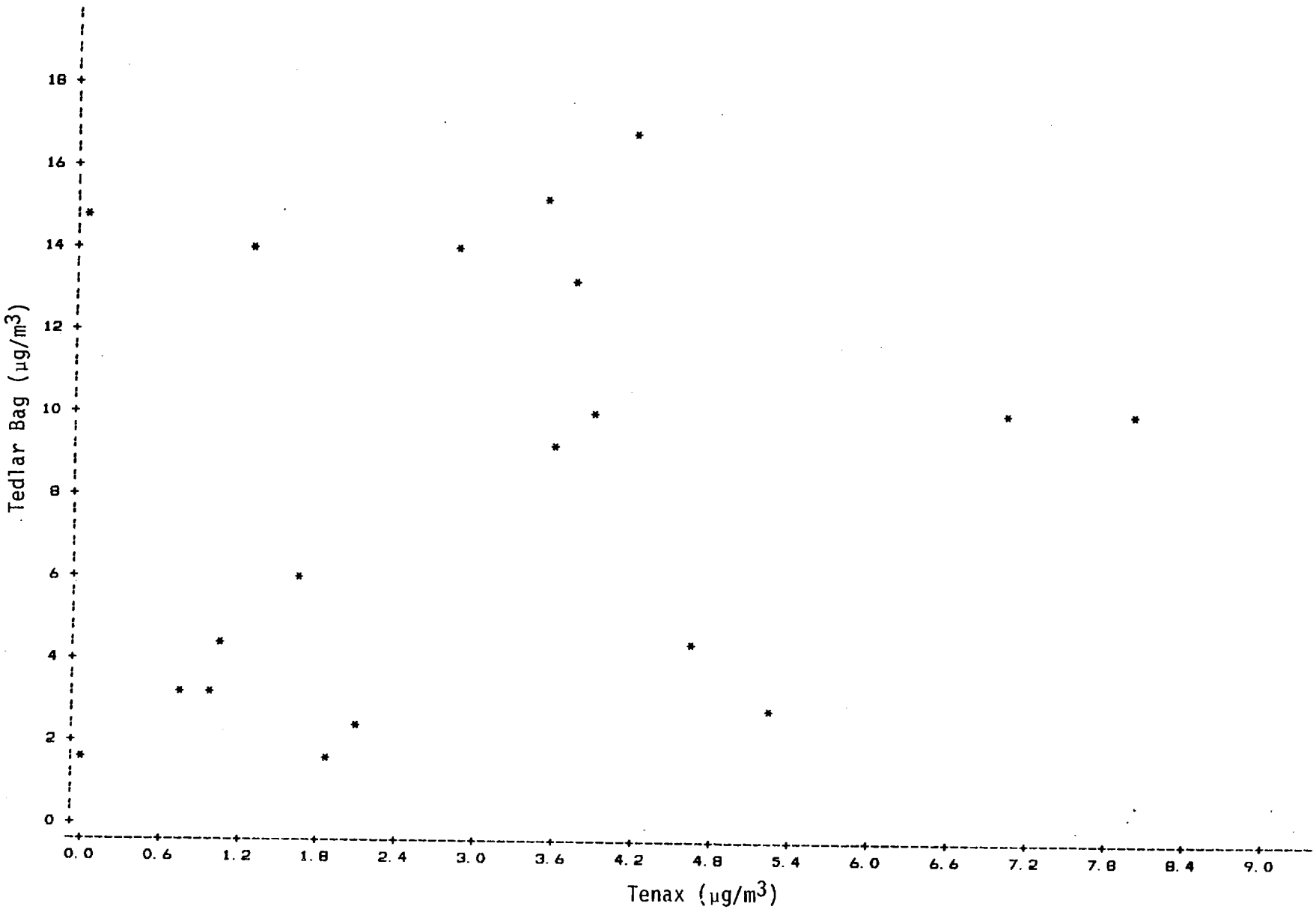


Figure 0-6. Fixed-site Tedlar bag versus Tenax concentrations for 1,1,1-trichloride.

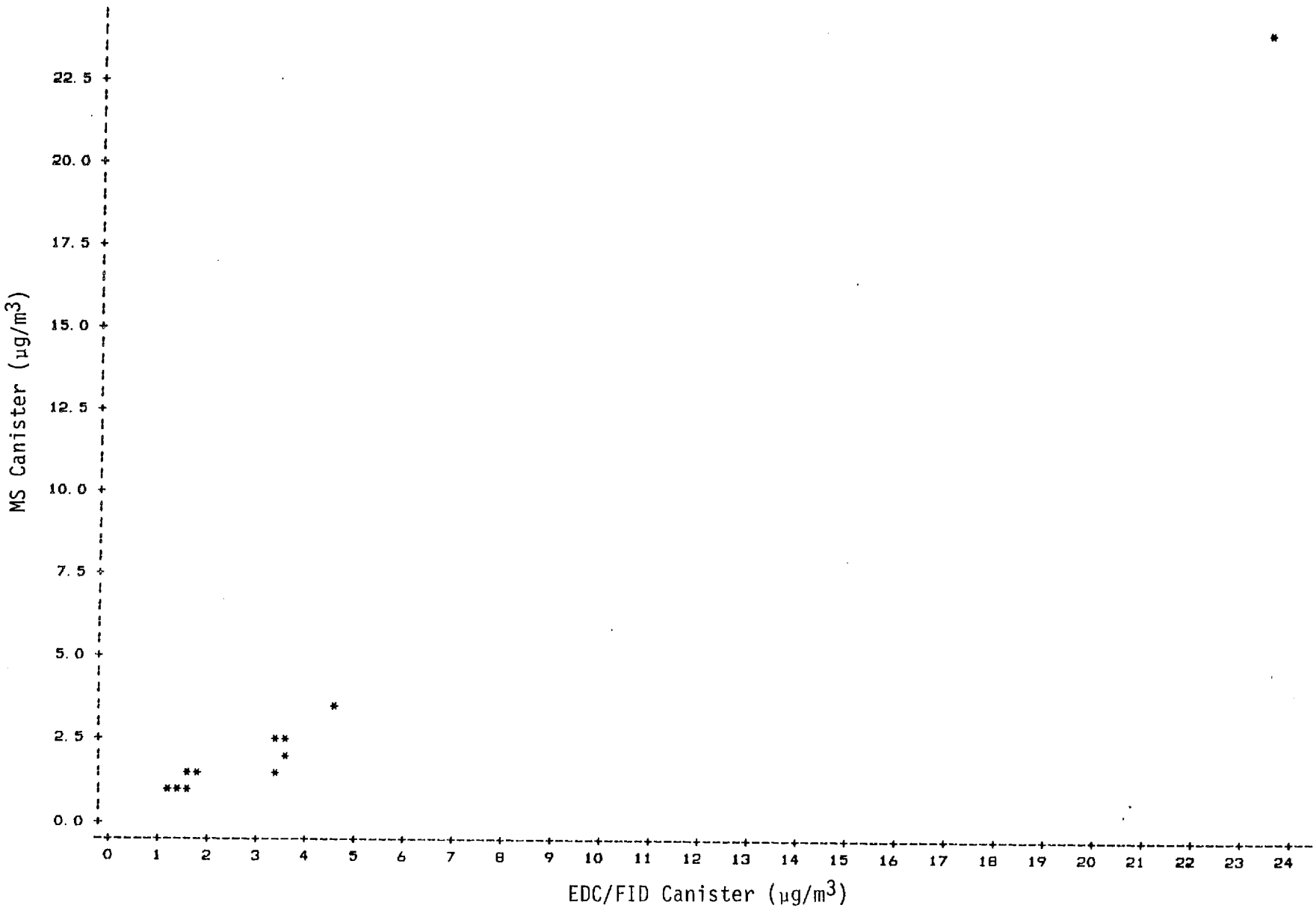


Figure 0-7. Regression of central fixed-site versus CD/FID canister concentrations for 1,1,1-trichloroethane.

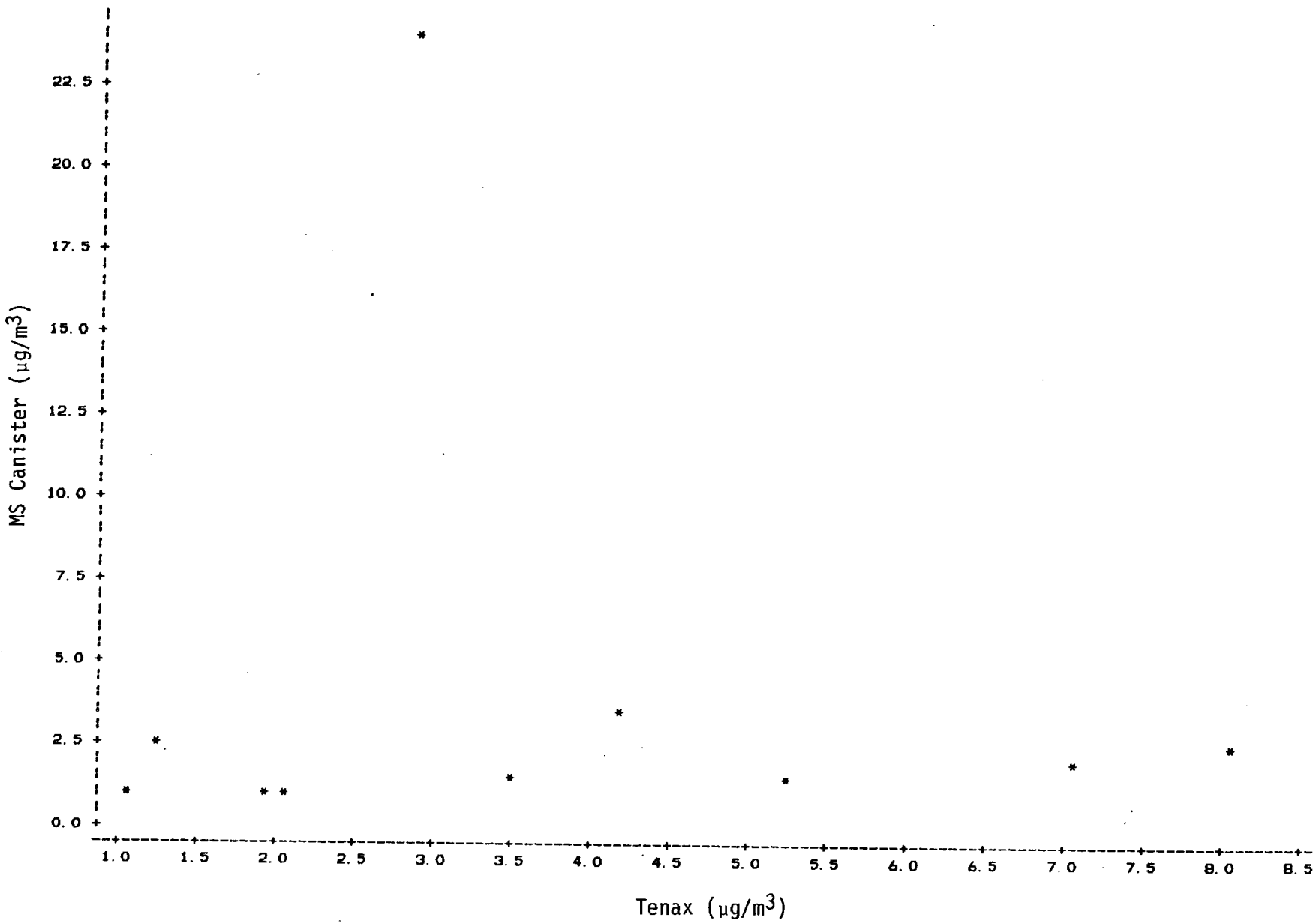


Figure O-8. Regression of central fixed-site MS canister versus Tenax concentrations for 1,1,1-trichloroethane.

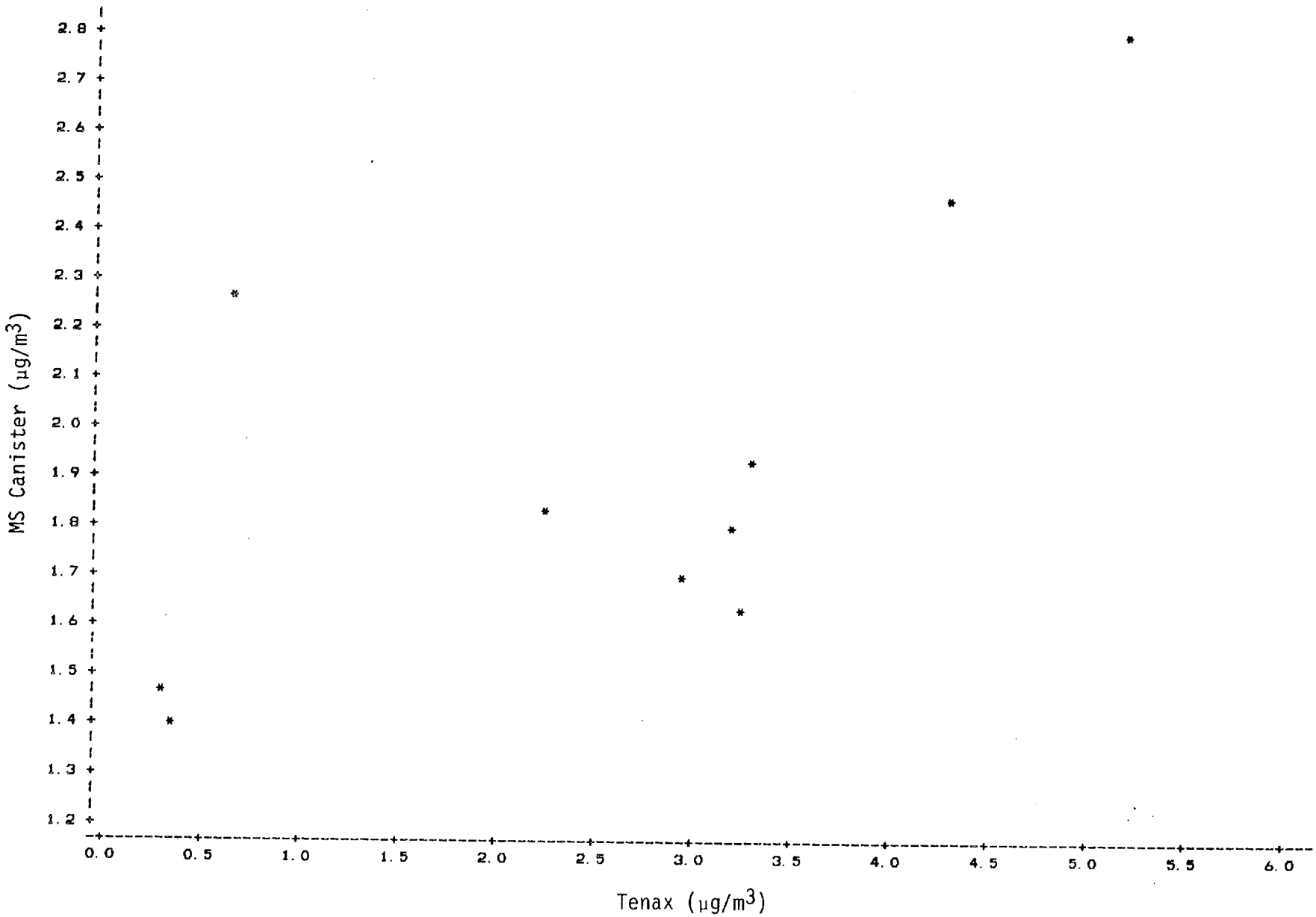


Figure 0-9. Regression of central fixed-site MS canister versus Tenax concentrations for benzene.

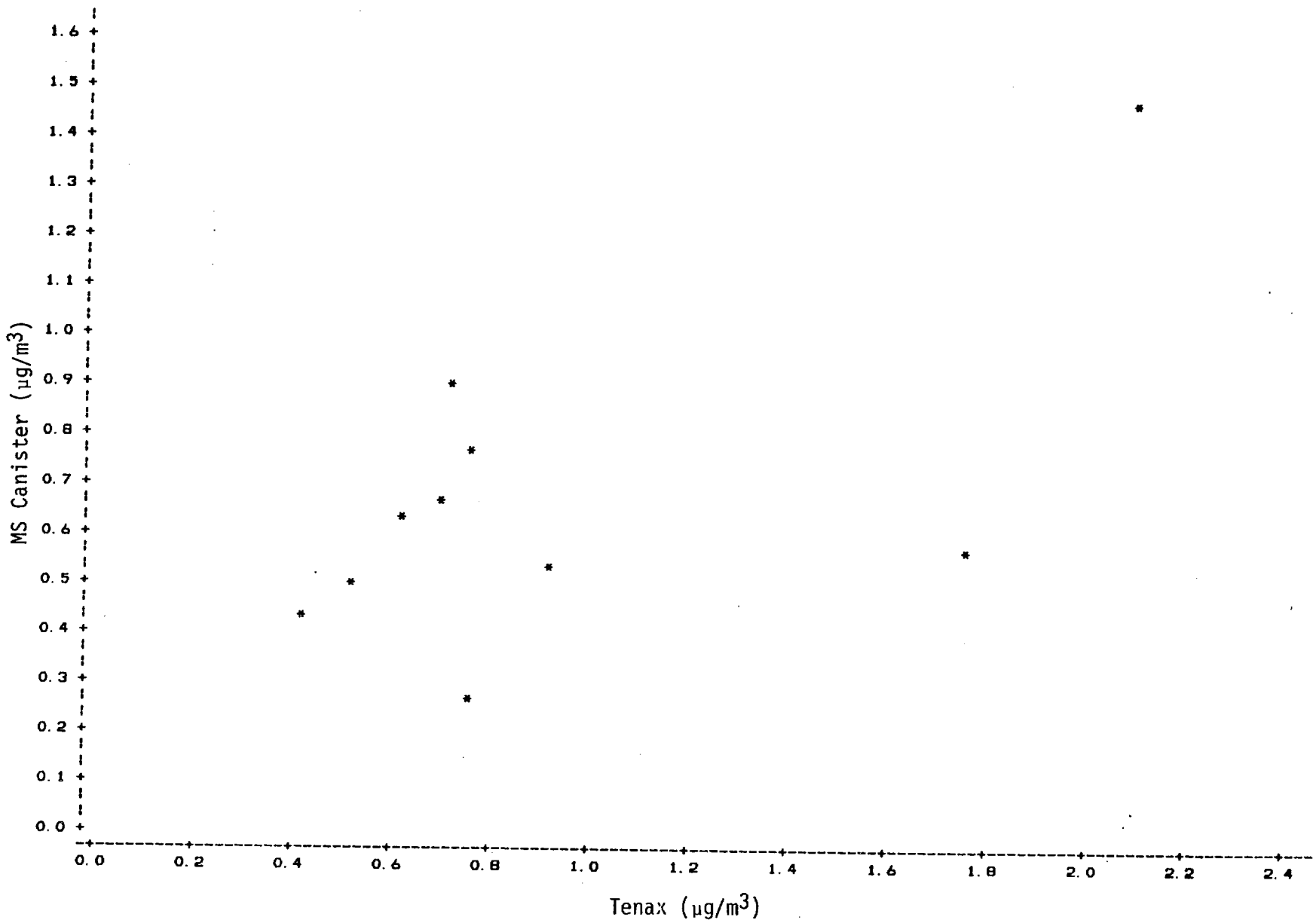


Figure 0-1Ø. Regression of central fixed-site canister versus Tenax concentrations for ethylbenzene.

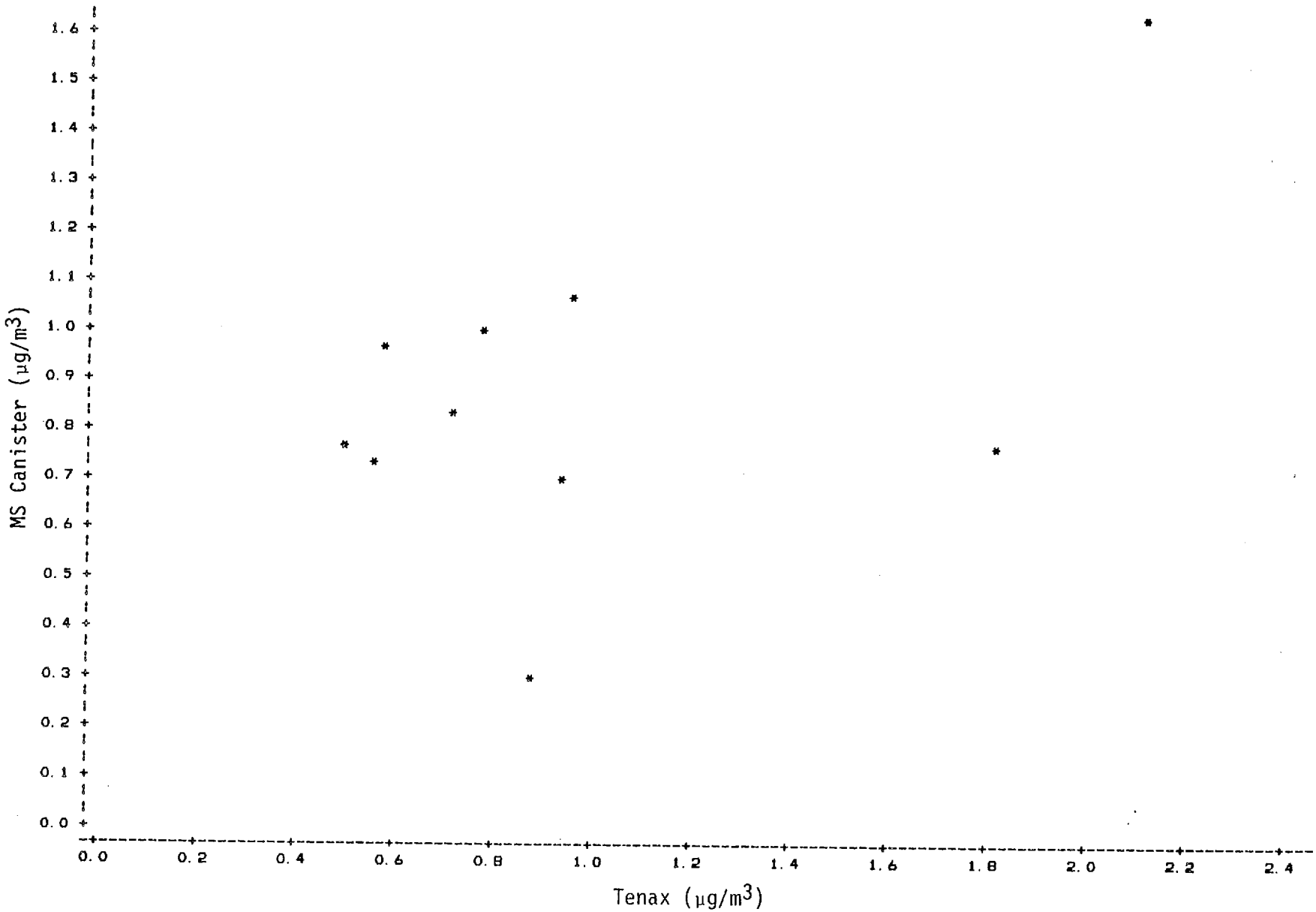


Figure O-11. Regression of central fixed-site MS canister versus Tenax concentrations for o-xylene.

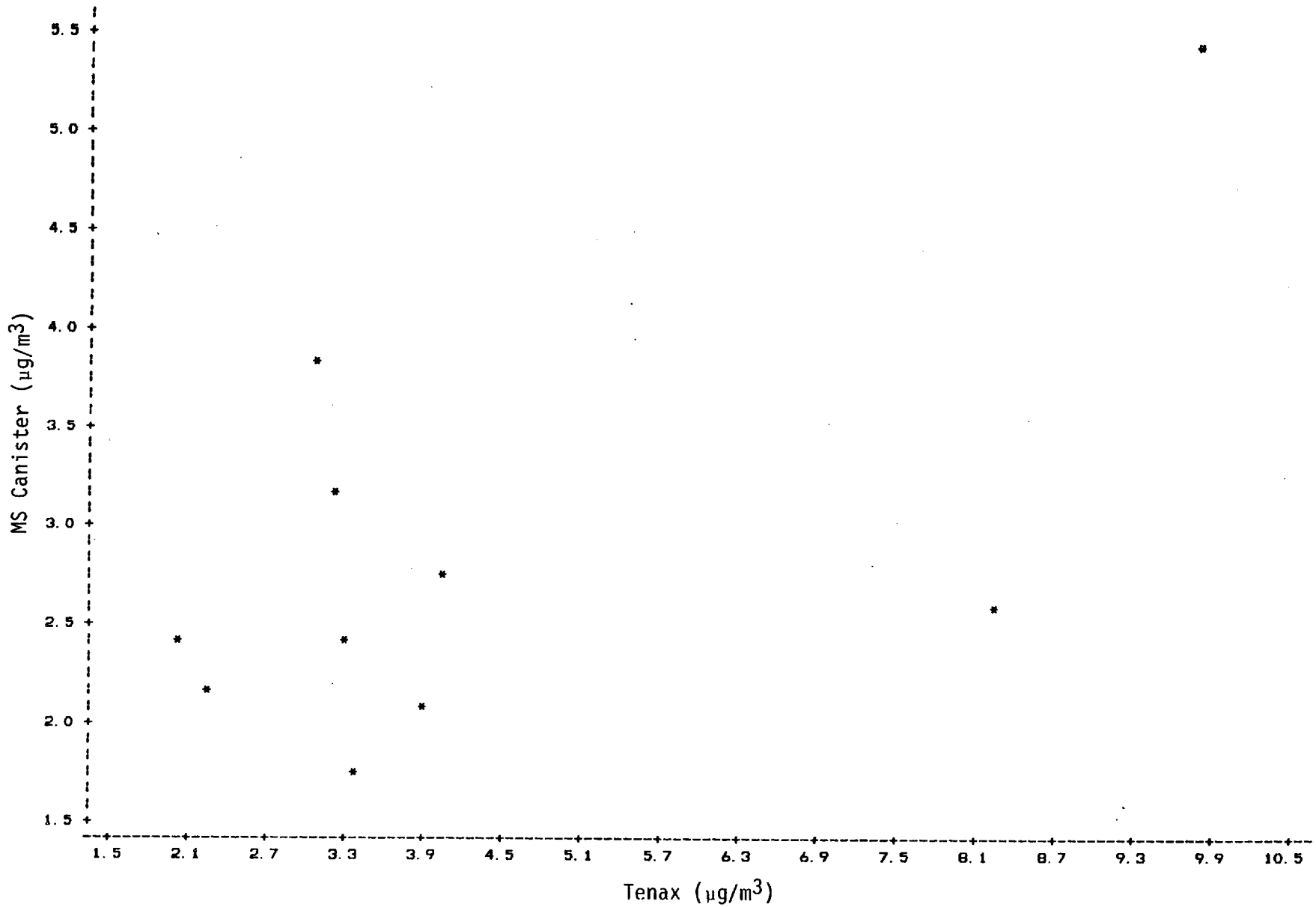


Figure O-12. Regression of central fixed-site canister versus Tenax concentrations for m,p-xylene.

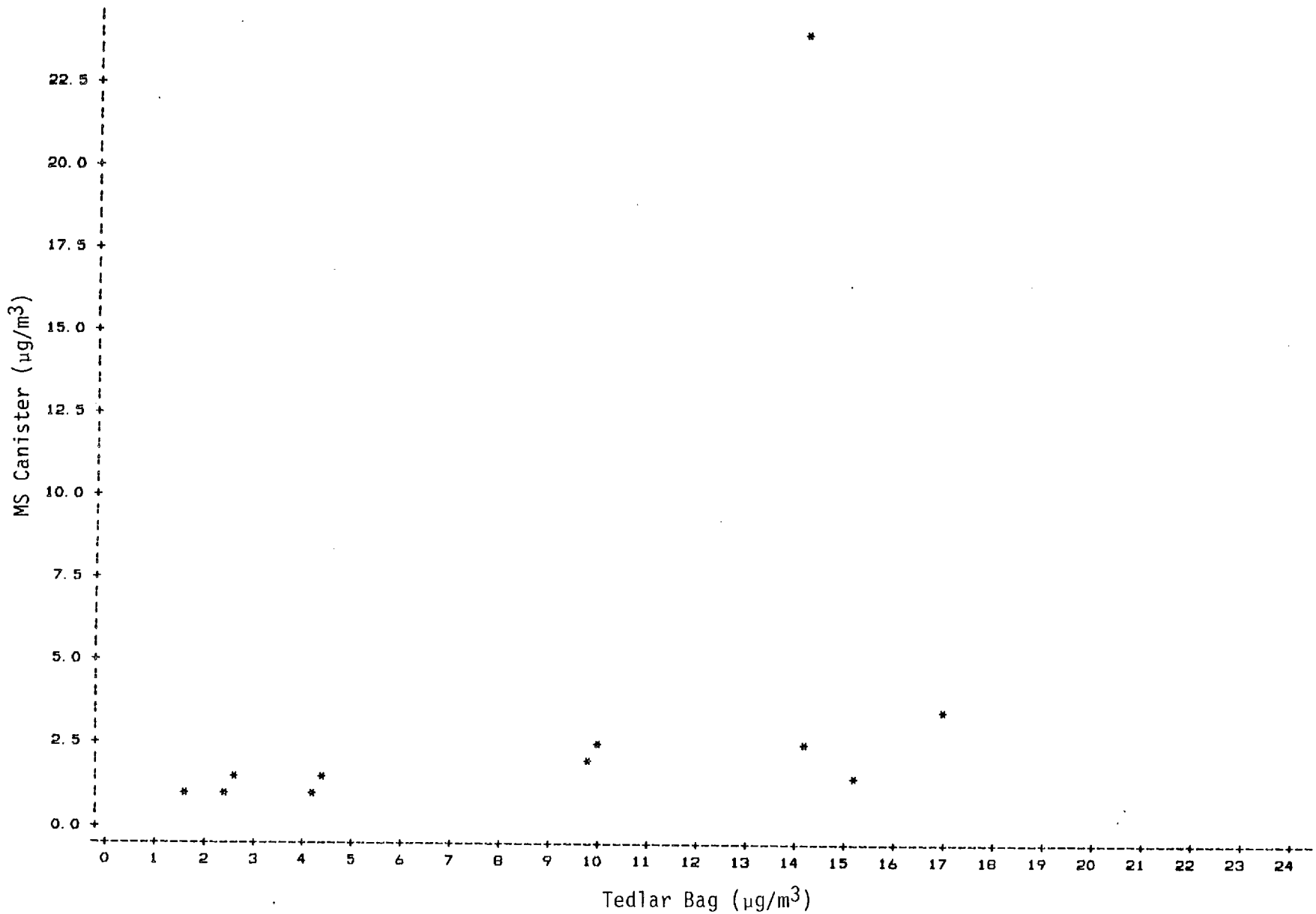


Figure 0-13. Regression of central fixed-site MS canister versus Tedlar bag concentrations for 1,1,1-trichloroethane.

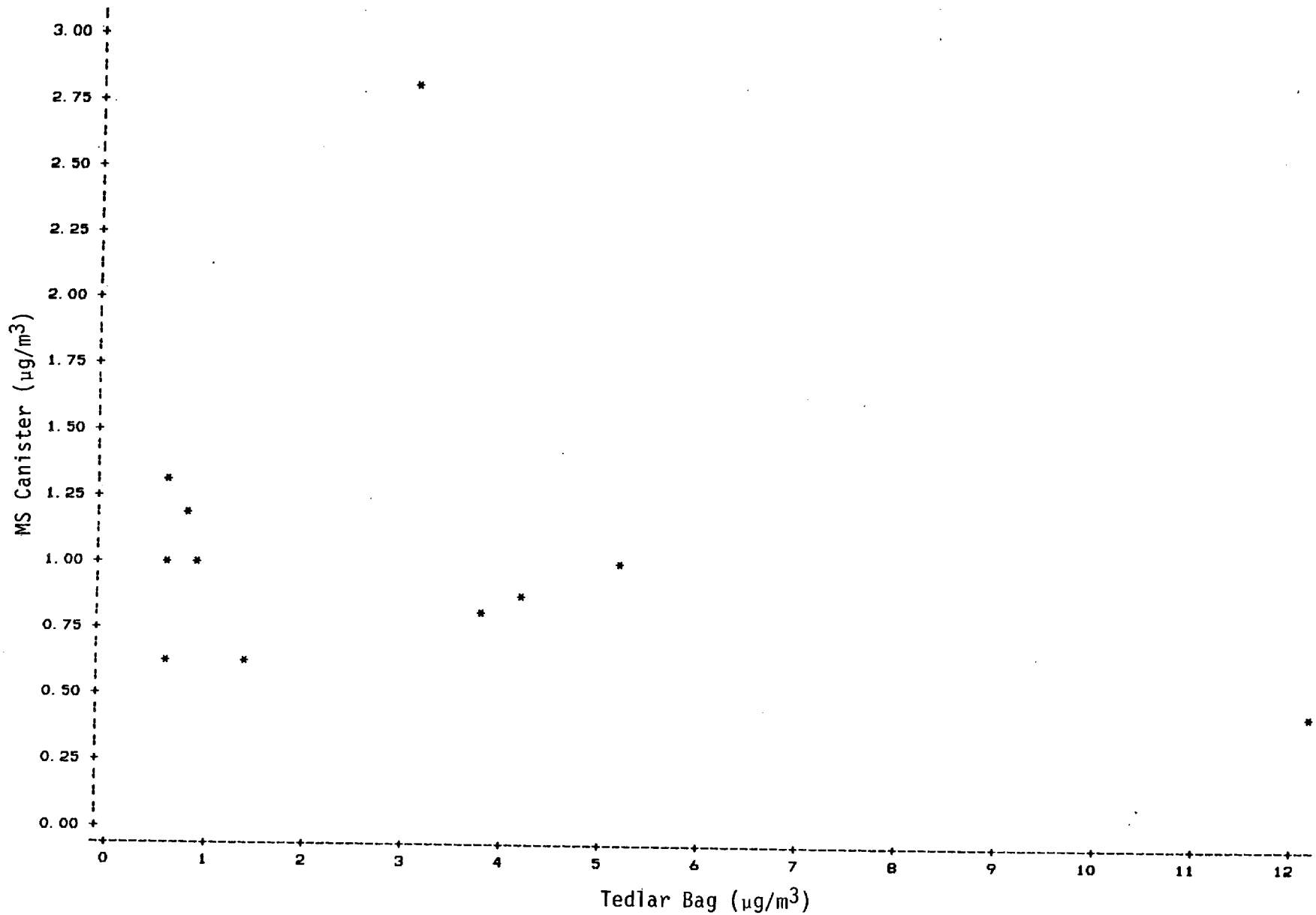


Figure O-14. Regression of central fixed-site MS canister Tedlar bag concentrations for methylene chloride.

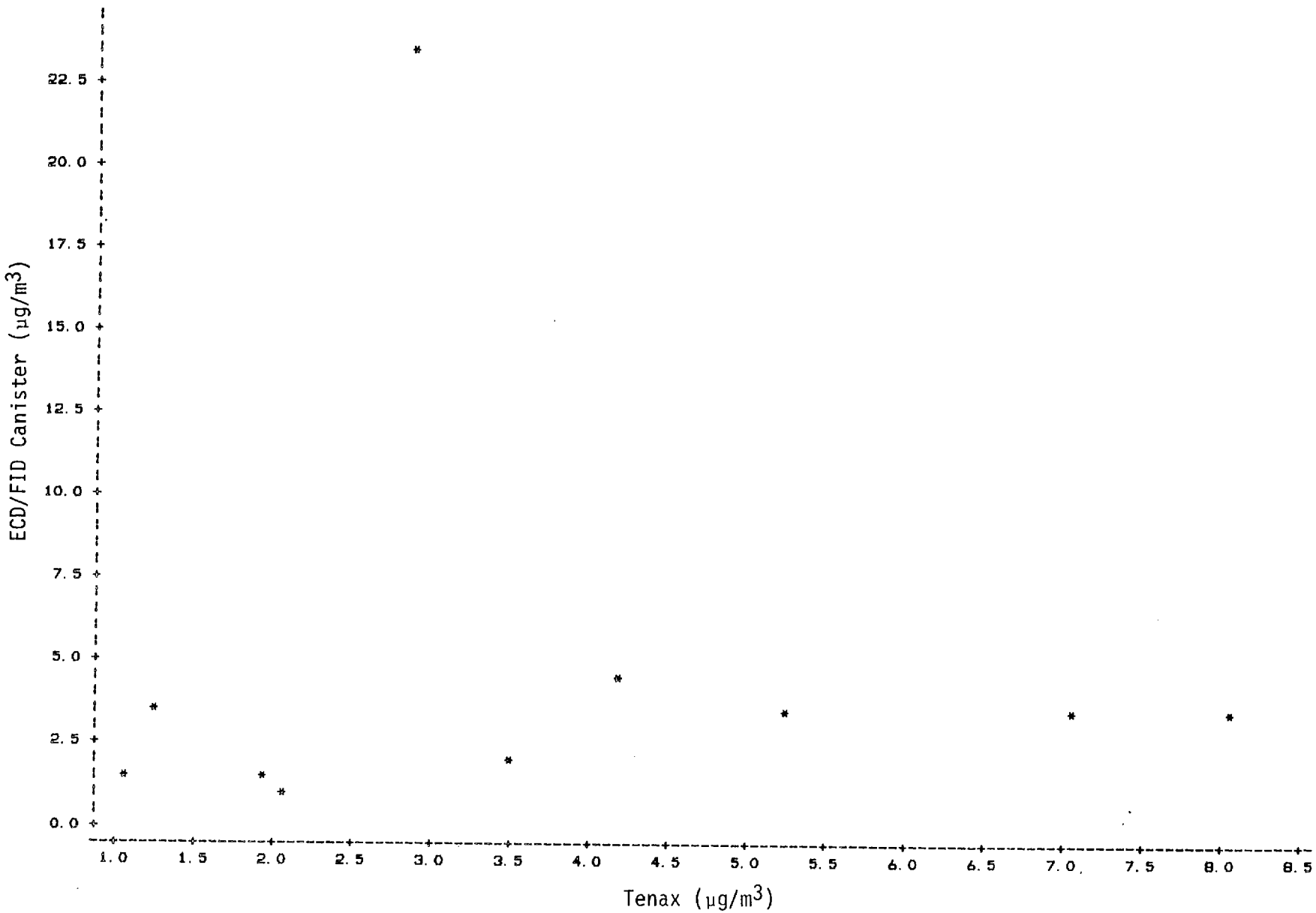


Figure 0-15. Regression of central fixed-site ECD/FID canister versus Tenax concentrations for 1,1,1-trichloroethane.

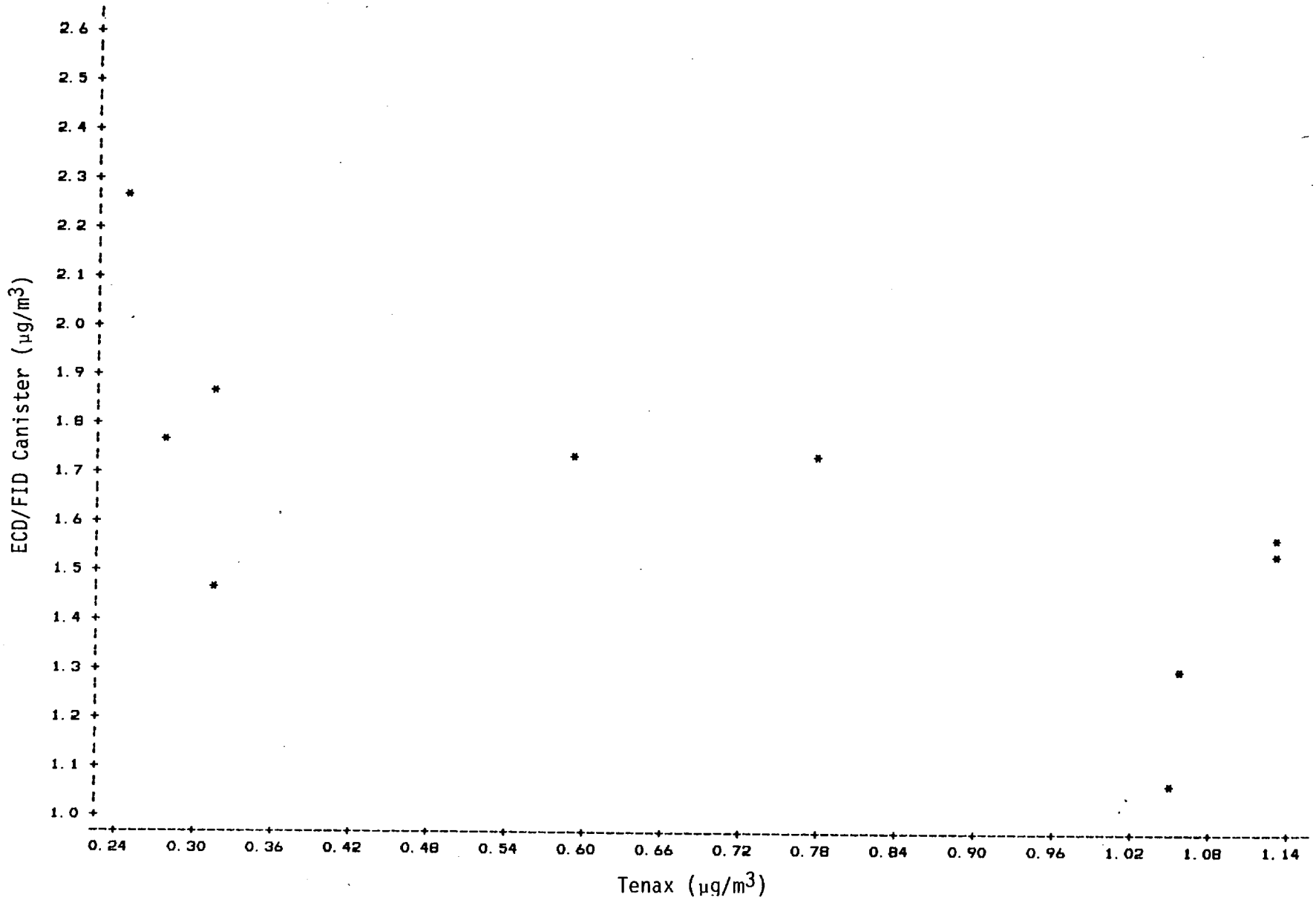


Figure O-16. Regression of central fixed-site ECD/FID canister versus Tenax concentrations for carbon tetrachloride.

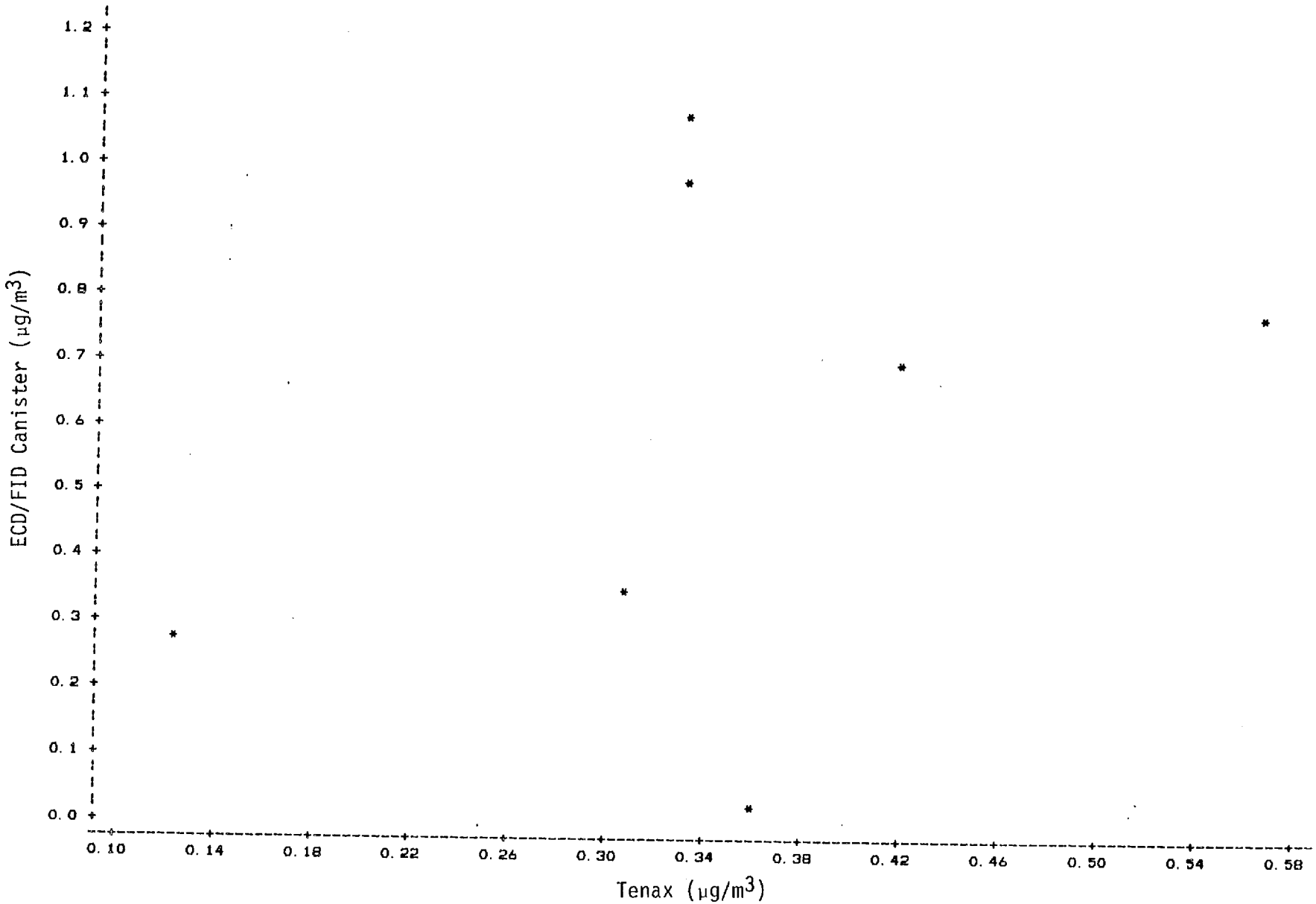


Figure 0-17. Regression of central fixed-site ECD/FID canister versus Tenax concentrations for tetrachloroethylene.

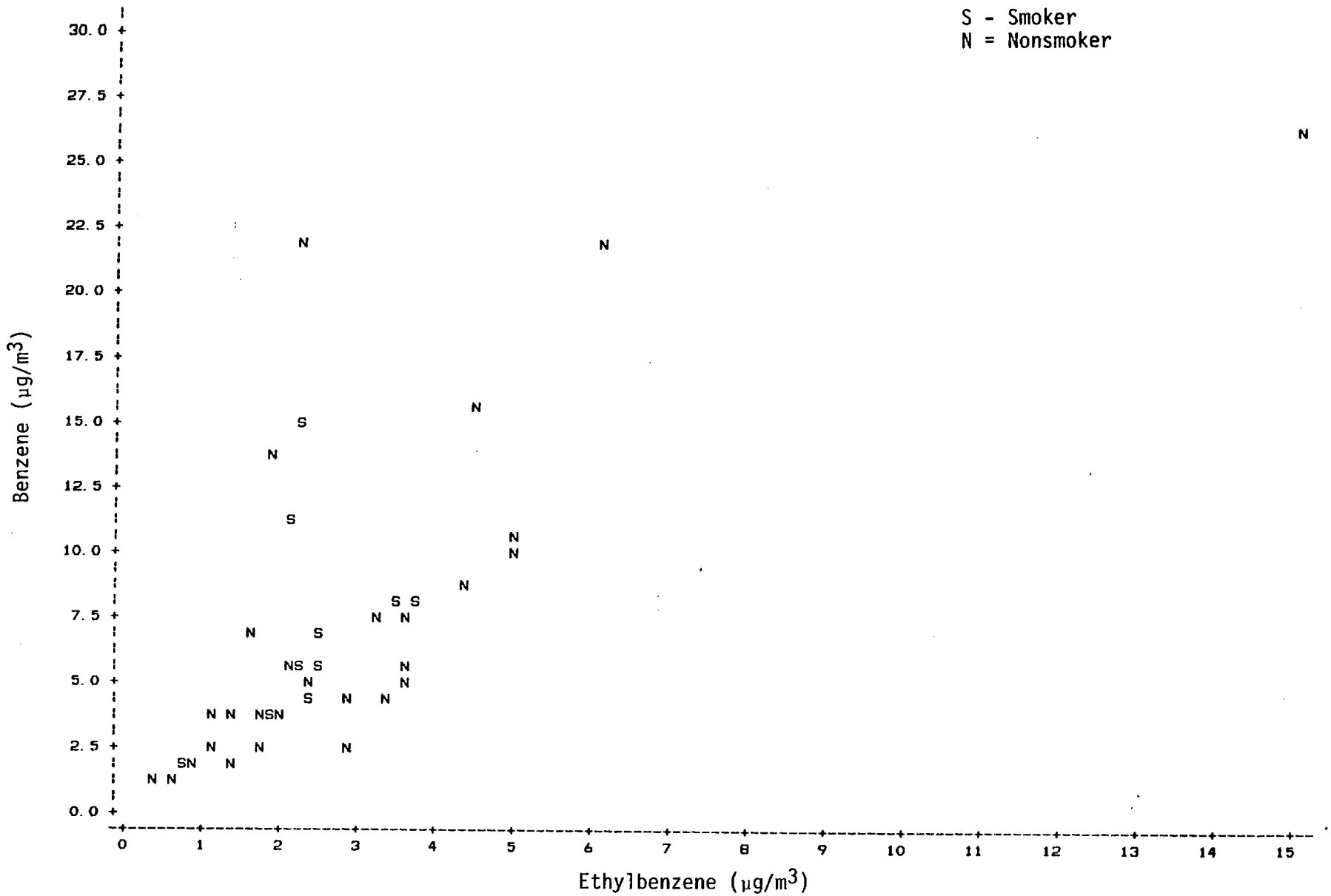


Figure 0-18. Regression of benzene versus ethylbenzene concentrations in overnight personal air - summer season.

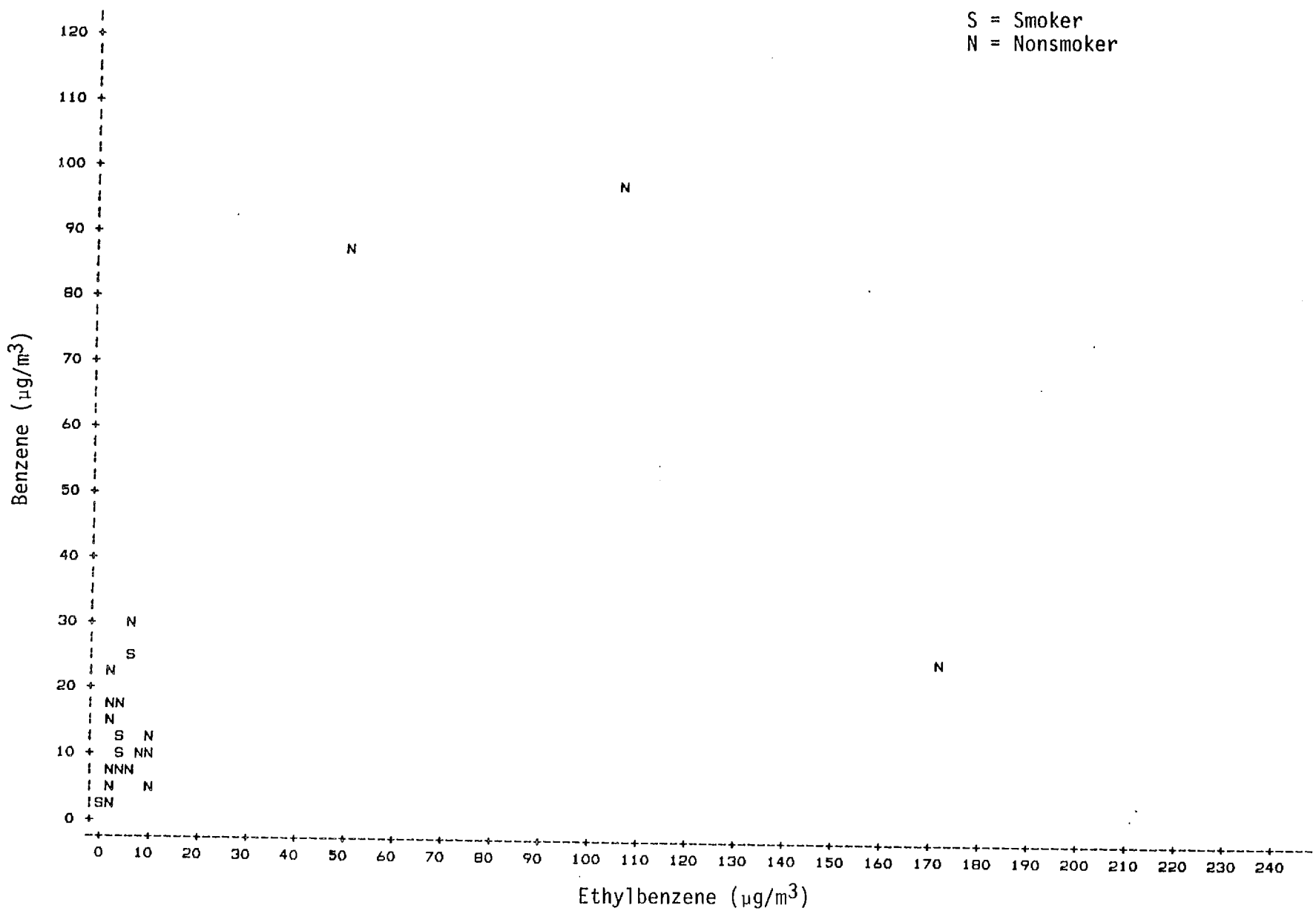


Figure 0-19. Regression of benzene versus ethylbenzene concentrations in daytime personal air - summer season.

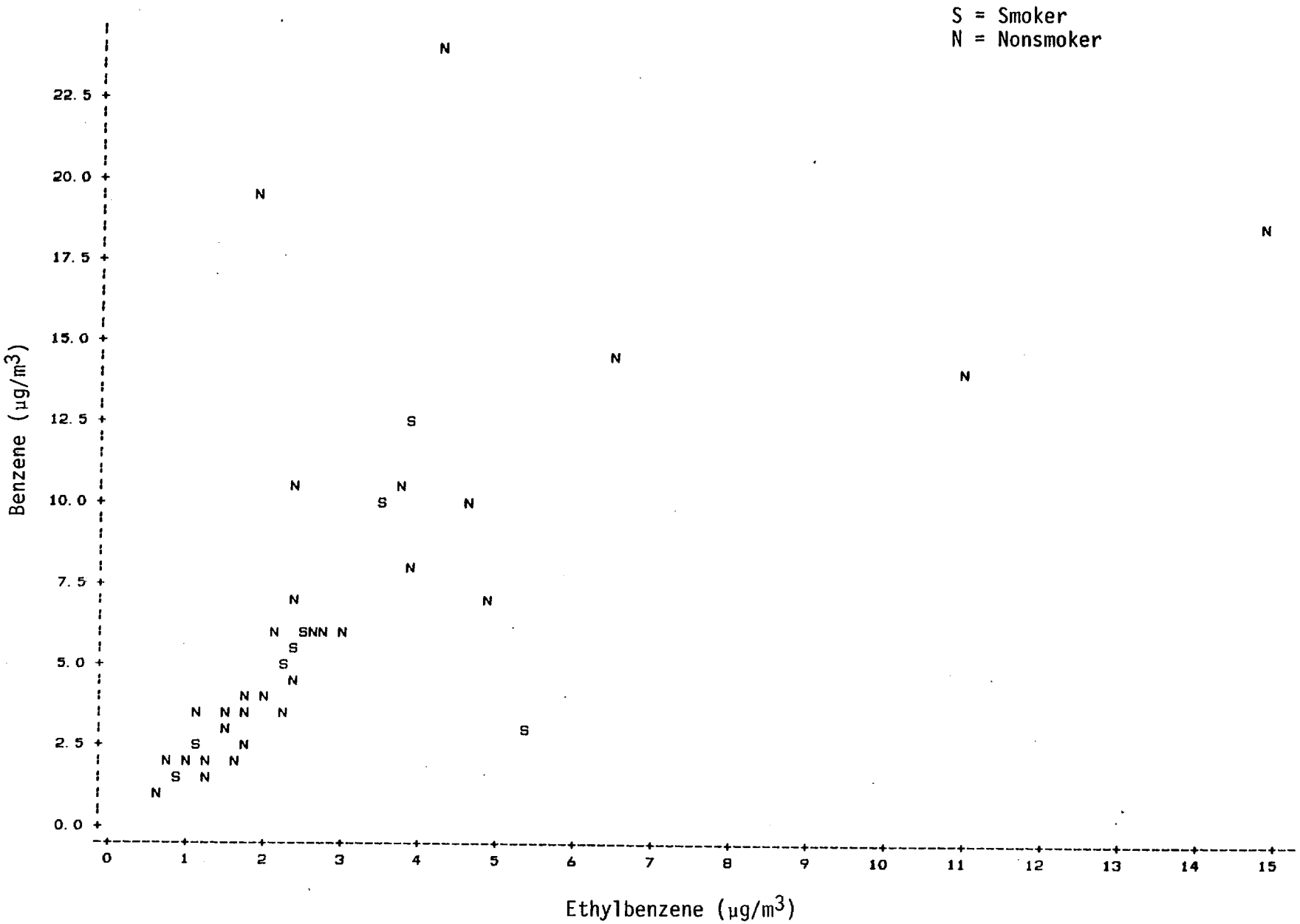


Figure 0-20. Regression of benzene versus ethylbenzene concentrations in overnight kitchen air - summer season.

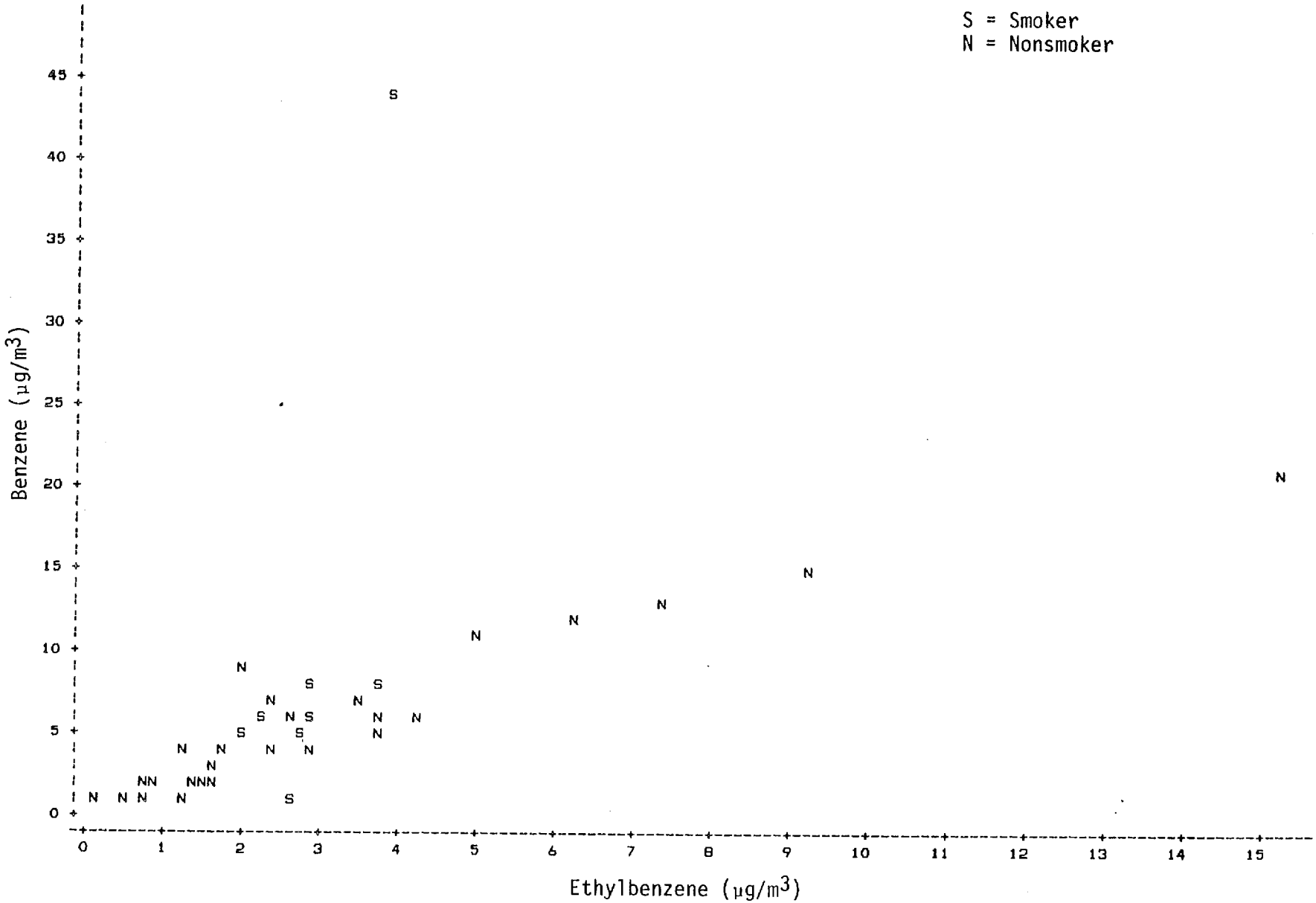


Figure O-21. Regression of benzene versus ethylbenzene concentrations in overnight kitchen air - summer season.

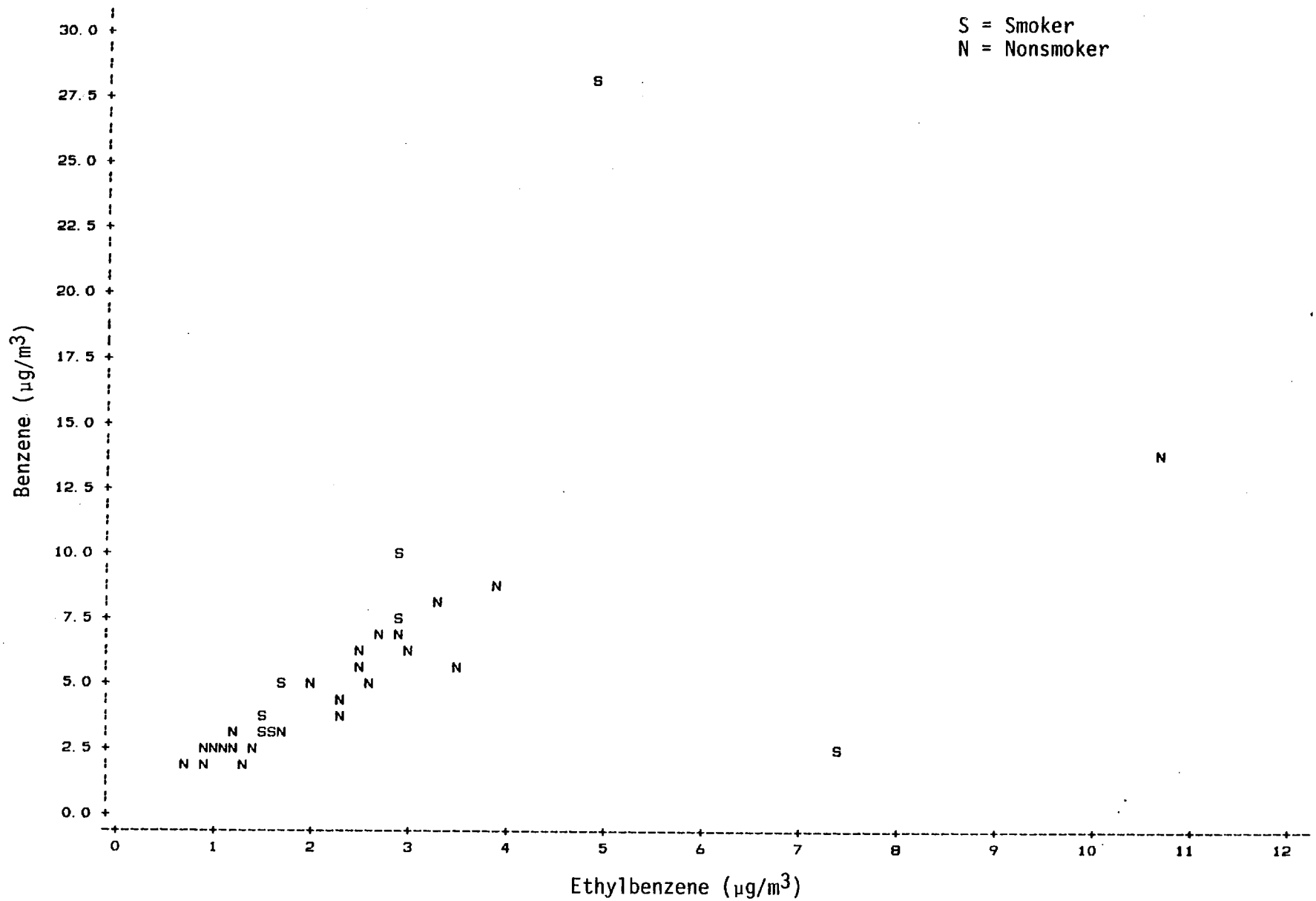


Figure 0-22. Regression of benzene versus ethylbenzene concentrations in daytime kitchen air - summer season.

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