ENVIRON

February 24, 2006

Mr. Rafat Abbasi
Senior Project Manager
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630

Via E-Mail and U.S. Mail

Re: Data Transmittal
Norco High School Science Building Indoor Air Quality Samples
Norco, California

Dear Mr. Abbasi:

Attached please find the results for indoor air quality (IAQ) and ambient air samples obtained at the Norco High School Science Building on January 21, 2006. This sampling was conducted according to ENVIRON's Technical Memorandum (TM) entitled "Revised Technical Memorandum for Indoor Air Quality (IAQ) Sampling Activities, Norco High School Science Building, Norco, California," dated December 19, 2005. The Department of Toxic Substances Control (DTSC) approved this TM in its letter dated December 29, 2005.

Table 1 summarizes the results for the volatile organic compounds (VOCs) measured: tetrachloroethene (PCE), trichlorothene (TCE), 1,1-dichloroethene (1,1-DCE), vinyl chloride, and cis- and trans-1,2-dichloroethene (1,2-DCE). Figures 1, 2, and 3 depict the approximate sample locations and the sample results. Charts 1, 2, 3, 4, and 5 summarize the sample results in bar chart format. The laboratory reports, as provided by Environmental Analytical Service (EAS), are included as an Attachment.

Based on the preliminary analysis completed at the time of this transmittal, the sample results appear to indicate that indoor air in the Science Building contains certain chlorinated compounds from an unknown source. The data do not clearly indicate that chlorinated compounds detected inside the building emanate from the subsurface through vapor intrusion. Further details on this initial analysis and a summary of the sample results are included in this letter.

Results

Five compounds were detected in both indoor and ambient air. PCE was detected in 8 of 88 samples taken; TCE was detected in 56 of 88 samples taken; vinyl chloride was detected in 47 of 88 samples taken; cis- and trans-1,2-DCE each were detected in one of 88 samples taken; and 1,1-DCE was not detected at all. PCE, TCE, and vinyl chloride all were detected indoors and outdoors; cis- and trans-1,2-DCE were not detected outdoors. TCE and vinyl chloride were detected on both the first and second floors. PCE, Cis- and trans-1,2-DCE were detected only on the first floors. Results of duplicate samples taken both inside and outside the building demonstrated that inherent sampling variation exists for each compound. The trip blanks contained 1,1-DCE and PCE. These results are discussed in detail below.

Discussion

Due to the complexity of the data, this discussion of the initial analysis has been segmented into separate topic groups, as discussed below:

Preferential Pathways and Indoor Air

On the first floor of the Science Building, IAQ samples were collected in all rooms. In five rooms, two indoor air samples were collected: one from a potential preferential pathway location and the second at a location to measure VOCs in indoor air in the room. These data pairs can be used to evaluate the existence of a subsurface pathway that may impact the indoor air in that room. If a vapor intrusion pathway exists, the preferential pathway sample should have a similar distribution of compounds as the indoor air sample but at higher concentrations. These data pairs were taken in Rooms 103 (sample ID 5 and 6), 109 (sample ID 12, 13, and 14), 110 (sample ID 15 and 16), 114 (sample ID 18 and 19), and 113 (sample ID 21 and 22).

The results from the preferential pathway and indoor air sample pairs do not show a conclusive correlation to suggest that there is preferential pathway impacting these rooms. As depicted in Figure 1 the distribution of compounds measured within each data pair are not consistent. The results for the preferential pathway samples also do not show higher concentrations than the indoor air samples within each data pair. These results suggest that either the the preferential pathway tested in these areas is not impacting the indoor air or that there may be additional indoor sources impacting either/both sample(s) within the data pair. In addition, samples from the heating, ventilation, air conditioning system (HVAC) on period often showed higher concentrations than those from the HVAC off period. Further discussion regarding the HVAC system is included below.

Spatial Variations

IAQ samples were taken in every room on the first floor and a subset of the rooms on the second floor. The high number of samples distributed across the building can be used to evaluate the spatial distribution of detected VOCs throughout the building. If vapor intrustion from subsurface sources is the dominant mechanism leading to indoor air impacts, the first floor concentrations should be higher than those on the second floor. Gradients also may exist on the first floor with higher concentrations in parts of the building with vapor intrusion pathways.

Of the five compounds measured, three (PCE, TCE, and vinyl chloride) contained enough detections to evaluate spatial variation (see Charts 1, 2, 3). PCE, TCE, and vinyl chloride were detected on both the first and second floor. TCE was detected at higher concentrations on the second floor than the first floor (see Chart 2). No clear trend was identified for PCE and vinyl chloride (See Charts 1 and 3). These results suggest that vapor intrusion is not the dominant source of the indoor air concentrations measured.

The sample results show that higher concentrations of the compounds are found in some rooms (Charts 4 and 5). The Chemistry Labs 110 and 112 showed higher concentrations of vinyl chloride. At this time, the source of vinyl chloride is unknown.

Variations Due to HVAC Operation

The two sample sets were taken back-to-back over the course of a day/night to try to evaluate the impact of the HVAC system on the indoor air concentrations. Sample set A (HVAC on) was taken from approximately 7am to 3pm. Sample set B (HVAC off) was taken from approximately 3pm to 12am. The HVAC system is semi-automated with an overide control within each room. Site personnel indicated that the HVAC typically is on during the school day and off in the evening. All of the HVAC systems were turned on manually as sample collection was started at 7am. At the end of the first sample set, the HVAC system was shut off. The hypothesis was that indoor air concentrations should be lower when the HVAC system is on due to the increase in circulation of fresh air, assuming that no sources of the compounds exist within the HVAC system or in the ambient air.

The HVAC system appears to have an inconsistent impact on the indoor air concentrations (see Charts 1, 2, and 3). For some compounds in some rooms, the concentrations are higher when the HVAC system was on than when the HVAC system was off (e.g., Room 110, Sample 15).

Historical measurements

IAQ samples were obtained in Room 101 in July 2005 and in Rooms 101, 104, 109, and 114 in September 2005. These samples were 24-hour integrated samples that were analyzed by Cal Science. Previous sampling results, along with the current results in these rooms, are presented in Table 2 below. Based on a review of data obtained from the three sampling dates, there is not a consistent pattern within locations over time.

Quality Assurance

A number of quality assurance and quality control steps were taken to ensure the integrity of air samples, and hence, the results. Two trip blanks, four duplicate samples per sample set, and individual canister and mass flow controller certifications were included as part of this sampling effort.

The duplicate samples demonstrated that inherent sampling variation exists for each compound. Duplicate samples were collected using a splitter that conveyed the same air stream into two separate containers. Specifically, samples 36B/37B for vinyl chloride, 36A/37A and 36B/37B for TCE, and 12A/13A, 41A/42A, and 41B/42B for PCE showed the greatest differences. The differences indicated by the duplicate samples should be used as an reference for the inherent sampling variation, and should be considered when evaluating sampling results.

The trip blanks showed that some low level contamination of the canisters may have occurred during transportation of the sampling equipment. 1,1-DCE was detected in one blank at 0.018 $\mu g/m^3$ and PCE was detected in both blank canisters at 0.038 $\mu g/m^3$ and 0.216 $\mu g/m^3$. These quality assurance samples will be used as reference points in the continuing analysis of the sample results. Based on chemical concentrations detected in the blanks and other laboratory quality assurance and quality control criteria, Laboratory Data Consultants (LDC)

of San Diego conducted the data validation and qualified some data as either "U" (the compound or analyte was analyzed for but not detected at or above the stated limit) or "UJ" (the compound or analyte was analyzed for but not detected, the sample detection limit is an estimated value.)

The pressure of each canister also was checked by EAS upon receipt. The pressure of the canister is used to confirm the integrity of the sample. If the pressure of the canister is too close to ambient, it is possible that the mass flow controller failed, indicating that the sample may not be integrated over the eight-hour period, or the canister valve failed during return transportation and the sample is contaminated with other air. Based on readings of the pressure gauges during the sampling effort, the samples with ambient pressures (Samples 4A, 5B, 6B, 8B, 17B, 21B, 25B, 36B) appeared to indicate this pressure problem occurred during the eight-hour sampling period.

Building Chemical and Material Inventory

A survey of the building materials and products stored in the rooms and a review of the Material Safety Data Sheets (MSDS's) was performed. Some products contained chlorinated compounds (Clorox: alkyl dimethyl benzyl ammonium chloride; miscellaneous inorganic chlorides in the chemistry stockroom; air freshener: trichloro-,2,2-trifluoroethane) were found in the Science Building. Numerous MSDS's were identified for products that contain various chlorinated compounds (1,1,1-trichloroethane, methylene chloride, PCE, vinylidene chloride polymer, poly vinyl chloride, chlorinated hydrocarbons). According to site personnel, the MSDS's may not be up-to-date and not all compounds are used in the Science Building. While these compounds may not be one of the six quantified, further analysis on potential degradation and atmospheric chemistry mechanisms is required.

At the time of this data transmittal, details regarding all building materials used to construct the Science Building were not available. Preliminary information indicated that vinyl tile flooring was used as well as various adhesives. Further analysis is required to evaluate the potential for these materials to have impacted the indoor air.

Concentrations Measured

The concentrations of the compounds measured indoors were evaluated in relationship to that measured outdoors and to human health risk-based levels.

Tetrachlorethene (PCE)

The outdoor sample detections ranged from non-detect to 4.057 $\mu g/m^3$. The indoor sample detections ranged from non-detect to 3.206 $\mu g/m^3$. Four indoor sample locations exceeded 1 $\mu g/m^3$ (Samples 5, 6, 13, and 21). Sample 13 is a duplicate of Sample 12, where PCE was non-detect. Based on the Office of Environmental Health Hazard Assessment (OEHHA) (*Guidance for Assessing Exposure And Health Risks At Existing and Proposed School Sites, Final Report, February 2004*) methodology, the maximum concentration detected would correspond to an estimated cancer risk of 0.1 in a million (1×10^{-7}) for students and five in a million (5×10^{-6}) for staff. In most locations, the PCE concentrations appear to be higher with the HVAC on than off.

Trichlorethene (TCE)
The outdoors samples ranged from non-detect to 0.44 $\mu g/m^3$. The indoor sample detections ranged from non-detect to 1.126 $\mu g/m^3$. In general, TCE concentrations appear to be higher when the HVAC is on. The detected concentrations are relatively low and do not represent a significant health risk to students and staff.

Vinyl Chloride
The outdoor sample detections ranged from non-detect to 0.137 $\mu g/m^3$. The indoor sample detections ranged from non-detect to 0.594 $\mu g/m^3$. Based on the OEHHA methodology, the maximum concentration detected would correspond to an estimated cancer risk of 0.3 in a million (3×10^{-7}) for students and 10 in a million (1×10^{-5}) for staff. In a number of locations, vinyl chloride concentrations appear higher when the HVAC is on.

The outdoor samples also contained detectable vinyl cloride, with the roof samples slightly higher than the outdoor ground level samples. The detection limit in this sampling effort ranged from 0.043 $\mu g/m^3$ to 0.068 $\mu g/m^3$. Previous studies at the high school had detection limits ranging from 0.064 $\mu g/m^3$ to 26 $\mu g/m^3$.[1] Therefore, vinyl chloride previously may have been present, but not detected in ambient outdoor air samples due to the detection limit achieved in previous studies.

Cis and Trans-1,2-Dichloroethene (Cis and Trans 1,2-DCE)
Cis-1,2-DCE was only measured once indoors at 0.077 $\mu g/m^3$ and trans-1,2-DCE was only measured once indoors at 0.289$\mu g/m^3$. Both were detected when the HVAC was off. The detected concentrations are relatively low and do not represent a significant health risk to students and staff.

The main compound of concern from a human health risk perspective appears to be vinyl chloride. TCE and cis- and trans-1,2-DCE are below risk-based concentrations and PCE was measured at higher concentrations outdoors than indoors.

Conclusions

Based on the preliminary analysis completed at the time of this transmittal, the sample results appear to indicate that indoor air in the Science Building contains certain chlorinated compounds from an unknown source. The data do not clearly indicate that chlorinated compounds detected inside the building emanate from the subsurface through vapor intrusion.

There appear to be three possible sources of chlorinated compounds that may be impacting the indoor air at the Science Building: 1) vapor intrusion; 2) indoor sources; 3) other outdoor sources. An initial review of the data collected as part of this sampling effort and other data collected previously (including site groundwater and soil gas data) suggests that vapor intrusion is not a significant contributor to the VOC concentrations measured in the indoor air.

[1] Data transmittal to DTSC dated October 24, 2005.

Over the next few weeks, ENVIRON will continue its evaluation of all site (Norco High School) data collected to date (ambient air, indoor air, soil gas and groundwater) to identify any potential sources contributing to indoor air concentrations. This continuing evaluation will include investigation into potential indoor sources (focusing on building materials) and into why the Science Building appears to be impacted differently than other buildings at the Norco High School (the Science building is the only building at the High School where vinyl chloride has been detected).

ENVIRON is also evaluating the feasibility to sample bulk materials at the Science Building and the benefit of taking additional samples (ambient air, indoor air, soil gas, and/or groundwater) samples in and around the Science Building. This may include permanent nested vapor wells, passive soil gas and/or sub-slab soil gas sampling, and installation of additional ground water monitoring wells. ENVIRON has been in contact with HVAC experts who are already conducting an evaluation of the HVAC system, including HVAC testing. If you should have any questions, please contact the undersigned at (949) 261-5151.

Very truly yours,

PROFESSIONAL GEOLOGIST
CAROL L. SERLIN
No. 4840
STATE OF CALIFORNIA

Elizabeth Miesner, M.S.
Senior Manager

Carol L. Serlin, P.G.
Principal

Eric Lu, M.S.
Manager

EL:lmw
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Attachments: Tables 1 and 2
Figures 1, 2 and 3
Charts 1- 5
Attachment

cc: Distribution

T A B L E S

TABLE 1
Summary of Detected VOCs in Indoor Air - Norco High School Science Building
Wyle Laboratories, Norco, California
Results in micrograms per cubic meter (μg/m3)

		Compound					
Sample Number	**Date Sampled**	**1,1-DCE**	**cis-1,2-DCE**	**PCE**	**TCE**	**trans-1,2-DCE**	**Vinyl Chloride**
IAQ-HSSB-1A	1/21/06	<0.025	<0.031	0.353U	**0.050J**	<0.169	**0.065J**
IAQ-HSSB-1B	1/21/06	<0.027	<0.033	0.218U	<0.046	**0.289J**	0.271U
IAQ-HSSB-2A	1/21/06	0.051U	<0.030	0.208U	<0.042	<0.166	<0.059
IAQ-HSSB-2A	1/21/06	0.057UJ	*<0.034*	0.217U	***0.058J***	*<0.184*	0.136UJ
IAQ-HSSB-2B	1/21/06	0.055U	<0.033	0.275U	<0.045	<0.180	0.283U
IAQ-HSSB-2B	1/21/06	0.046U	*<0.027*	0.155U	*<0.038*	*<0.150*	0.179U
IAQ-HSSB-4A	1/21/06	<0.018	<0.022	0.162U	<0.031	<0.123	<0.043
IAQ-HSSB-4B	1/21/06	0.054U	<0.032	0.171U	**0.046J**	<0.176	0.267U
IAQ-HSSB-5A	1/21/06	0.051UJ	<0.030	**1.308**	**0.048J**	<0.165	0.121UJ
IAQ-HSSB-5B	1/21/06	0.039U	<0.023	0.257U	<0.032	<0.126	**0.088J**
IAQ-HSSB-6A	1/21/06	<0.024	<0.029	**2.351**	<0.040	<0.160	<0.057
IAQ-HSSB-6B	1/21/06	0.039U	<0.023	<0.033	<0.032	<0.125	**0.137**
IAQ-HSSB-7A	1/21/06	<0.025	<0.031	0.167U	**0.043J**	<0.168	<0.060
IAQ-HSSB-7B	1/21/06	<0.021	<0.027	0.348U	**0.058**	<0.146	**0.071J**
IAQ-HSSB-8A	1/21/06	<0.021	<0.026	0.211U	**0.350**	<0.142	**0.077J**
IAQ-HSSB-8B	1/21/06	<0.018	<0.022	0.158U	**0.090**	<0.122	**0.117**
IAQ-HSSB-9A	1/21/06	0.040UJ	<0.024	0.261U	**0.038J**	<0.130	0.123U
IAQ-HSSB-9B	1/21/06	<0.019	<0.024	0.110U	<0.033	<0.132	<0.047
IAQ-HSSB-10A	1/21/06	0.047UJ	<0.028	0.242U	**0.053J**	<0.153	0.191U
IAQ-HSSB-10B	1/21/06	<0.023	<0.028	0.203U	<0.039	<0.154	**0.058J**
IAQ-HSSB-11A	1/21/06	0.055UJ	<0.033	0.332U	**0.111**	<0.180	0.276U
IAQ-HSSB-11B	1/21/06	<0.020	<0.025	0.362U	**0.078**	<0.136	**0.070J**
IAQ-HSSB-12A	1/21/06	0.052UJ	<0.031	0.252U	**0.053J**	<0.169	0.125U
IAQ-HSSB-12A	1/21/06	0.056UJ	*<0.033*	***3.206***	***0.086***	*<0.181*	0.134U
IAQ-HSSB-12B	1/21/06	<0.025	<0.031	0.143U	<0.043	<0.171	<0.061
IAQ-HSSB-12B	1/21/06	0.066U	*<0.033*	0.470U	***0.045J***	*<0.178*	*<0.063*
IAQ-HSSB-14A	1/21/06	<0.025UJ	<0.031	0.278U	**0.117**	<0.172	0.127U
IAQ-HSSB-14B	1/21/06	0.041U	<0.024	0.128U	**0.045J**	<0.132	**0.106**
IAQ-HSSB-15A	1/21/06	<0.026UJ	<0.032	0.755U	**0.067J**	<0.177	0.457U
IAQ-HSSB-15B	1/21/06	0.058U	<0.028	0.652U	**0.058J**	<0.155	**0.398**
IAQ-HSSB-16A	1/21/06	0.059UJ	<0.031	0.255U	**0.057J**	<0.172	**0.594J**
IAQ-HSSB-16B	1/21/06	<0.026	<0.032	0.316U	<0.045	<0.177	**0.252**
IAQ-HSSB-17A	1/21/06	0.052UJ	<0.031	0.335U	**0.077**	<0.169	**0.493**
IAQ-HSSB-17B	1/21/06	<0.018	<0.023	0.245U	**0.040J**	<0.124	**0.270**
IAQ-HSSB-18A	1/21/06	0.058UJ	<0.035	0.747U	**0.086**	<0.190	**0.254**
IAQ-HSSB-18B	1/21/06	<0.028	<0.035	0.160U	<0.048	<0.191	**0.259**
IAQ-HSSB-19A	1/21/06	0.053UJ	<0.031	0.579U	**0.563**	<0.172	**0.299**

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Wyle Laboratories, Norco, California
Results in micrograms per cubic meter (μg/m3)

		Compound					
Sample Number	**Date Sampled**	**1,1-DCE**	**cis-1,2-DCE**	**PCE**	**TCE**	**trans-1,2-DCE**	**Vinyl Chloride**
IAQ-HSSB-19B	1/21/06	<0.026	<0.032	0.468U	**0.536**	<0.177	**0.188**
IAQ-HSSB-20A	1/21/06	0.050UJ	<0.030	0.985U	**0.138**	<0.164	**0.083J**
IAQ-HSSB-20B	1/21/06	0.054UJ	<0.029	**1.111**	**0.114J**	<0.160	0.189UJ
IAQ-HSSB-21A	1/21/06	0.050UJ	<0.030	**2.130**	**0.091**	<0.164	<0.058
IAQ-HSSB-21B	1/21/06	0.040UJ	<0.024	**1.355**	**0.040J**	<0.130	0.185UJ
IAQ-HSSB-22A	1/21/06	0.052UJ	<0.031	0.639U	**0.051J**	<0.168	**0.077J**
IAQ-HSSB-22B	1/21/06	0.051UJ	<0.030	0.618U	<0.042UJ	<0.166	0.180UJ
IAQ-HSSB-23A	1/21/06	0.053UJ	<0.031	<0.046	<0.043	<0.171	**0.215**
IAQ-HSSB-23B	1/21/06	0.054UJ	<0.032	0.615U	<0.044UJ	<0.177	0.266UJ
IAQ-HSSB-24A	1/21/06	0.052UJ	<0.031	0.382U	<0.043	<0.169	**0.185**
IAQ-HSSB-24B	1/21/06	0.054UJ	<0.032	0.419U	<0.044UJ	<0.175	0.221UJ
IAQ-HSSB-25A	1/21/06	<0.025	<0.031	0.484U	<0.042	<0.167	**0.224**
IAQ-HSSB-25B	1/21/06	0.040UJ	<0.024	0.108U	<0.033UJ	<0.129	0.241UJ
IAQ-HSSB-26A	1/21/06	<0.025	<0.031	0.508U	**0.117**	<0.169	**0.190**
IAQ-HSSB-26B	1/21/06	0.061UJ	<0.032	0.484U	**0.250J**	<0.176	0.189UJ
IAQ-HSSB-27A	1/21/06	<0.024	<0.029	0.229U	**0.051J**	<0.159	**0.130**
IAQ-HSSB-27B	1/21/06	0.051UJ	<0.030	0.182U	<0.042UJ	<0.167	0.201UJ
IAQ-HSSB-28A	1/21/06	<0.024	<0.030	1.014U	**0.042J**	<0.162	**0.163**
IAQ-HSSB-28B	1/21/06	<0.025	**0.077**	0.169U	<0.043	<0.172	<0.061
IAQ-HSSB-29A	1/21/06	<0.023	<0.028	0.474U	**0.051J**	<0.154	**0.097J**
IAQ-HSSB-29B	1/21/06	<0.027	<0.033	0.416U	<0.046	<0.183	<0.065
IAQ-HSSB-30A	1/21/06	<0.026	<0.032	0.609U	**0.087**	<0.173	**0.178**
IAQ-HSSB-30B	1/21/06	<0.027	<0.033	0.524U	**0.079**	<0.182	<0.064
IAQ-HSSB-31A	1/21/06	<0.024	<0.030	0.337U	**0.189**	<0.162	**0.215**
IAQ-HSSB-31B	1/21/06	<0.025	<0.031	0.310U	**0.173**	<0.167	**0.095J**
IAQ-HSSB-32A	1/21/06	<0.025	<0.031	0.317U	**0.052J**	<0.167	<0.059
IAQ-HSSB-32B	1/21/06	<0.026	<0.032	0.332U	**0.048J**	<0.174	**0.201**
IAQ-HSSB-33A	1/21/06	<0.026UJ	<0.032	0.211U	**0.070**	<0.173	**0.071J**
IAQ-HSSB-33B	1/21/06	<0.026	<0.032	0.262U	**0.063J**	<0.177	**0.199**
IAQ-HSSB-34A	1/21/06	<0.027UJ	<0.033	0.230U	<0.046	<0.181	**0.137**
IAQ-HSSB-34B	1/21/06	<0.027	<0.033	0.210U	<0.046	<0.183	**0.124J**
IAQ-HSSB-35A	1/21/06	<0.023	<0.029	0.272U	**0.346**	<0.158	<0.056
IAQ-HSSB-35B	1/21/06	<0.020	<0.025	0.436U	**0.243**	<0.138	**0.094J**
IAQ-HSSB-36A	1/21/06	<0.025UJ	<0.031	0.191U	**1.126**	<0.170	**0.104J**
IAQ-HSSB-36A	1/21/06	*<0.025UJ*	*<0.031*	0.184U	*<0.042*	*<0.168*	***0.078J***
IAQ-HSSB-36B	1/21/06	<0.018	<0.023	0.194U	<0.031	<0.125	**0.070J**
IAQ-HSSB-36B	1/21/06	*<0.024*	*<0.030*	0.249U	***0.884***	*<0.163*	***0.549***

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Wyle Laboratories, Norco, California
Results in micrograms per cubic meter (μg/m3)

		Compound					
Sample Number	**Date Sampled**	**1,1-DCE**	**cis-1,2-DCE**	**PCE**	**TCE**	**trans-1,2-DCE**	**Vinyl Chloride**
IAQ-HSSB-38A	1/21/06	<0.025	<0.031	0.304U	<0.043	<0.171	<0.061
IAQ-HSSB-38B	1/21/06	<0.025	<0.031	0.203U	<0.042	<0.168	**0.137**
IAQ-HSSB-39A	1/21/06	0.055U	<0.033	0.549U	**0.440**	<0.180	**0.066J**
IAQ-HSSB-39B	1/21/06	<0.025	<0.031	0.357U	**0.227**	<0.170	**0.130**
IAQ-HSSB-40A	1/21/06	0.054U	<0.032	0.585U	**0.246**	<0.175	<0.062
IAQ-HSSB-40B	1/21/06	0.047U	<0.028	0.575U	**0.145**	<0.154	**0.075J**
IAQ-HSSB-41A	1/21/06	<0.024	<0.030	**4.057**	**0.101**	<0.165	<0.059
IAQ-HSSB-41A	1/21/06	0.055U	*<0.032*	0.685U	***0.108***	*<0.177*	*<0.063*
IAQ-HSSB-41B	1/21/06	0.049U	<0.029	**3.783**	**0.063**	<0.159	**0.061J**
IAQ-HSSB-41B	1/21/06	0.052U	*<0.031*	0.730U	***0.089***	*<0.169*	***0.075J***
IAQ-HSSB-43A	1/21/06	<0.026	<0.032	0.327U	**0.062J**	<0.175	<0.062
IAQ-HSSB-43B	1/21/06	0.053U	<0.032	0.279U	<0.044	<0.174	**0.064J**
IAQ-HSSB-44A	1/21/06	<0.027	<0.033	0.814U	<0.046	<0.183	<0.065
IAQ-HSSB-44B	1/21/06	0.057U	<0.034	0.681U	<0.046	<0.185	<0.065

Abbreviations

cis-1,2-DCE = cis-1,2-Dichloroethylene
PCE = Tetrachloroethylene
trans-1,2-DCE = trans-1,2-Dichloroethene
TCE = Trichloroethylene

Duplicate results are shown in italics.

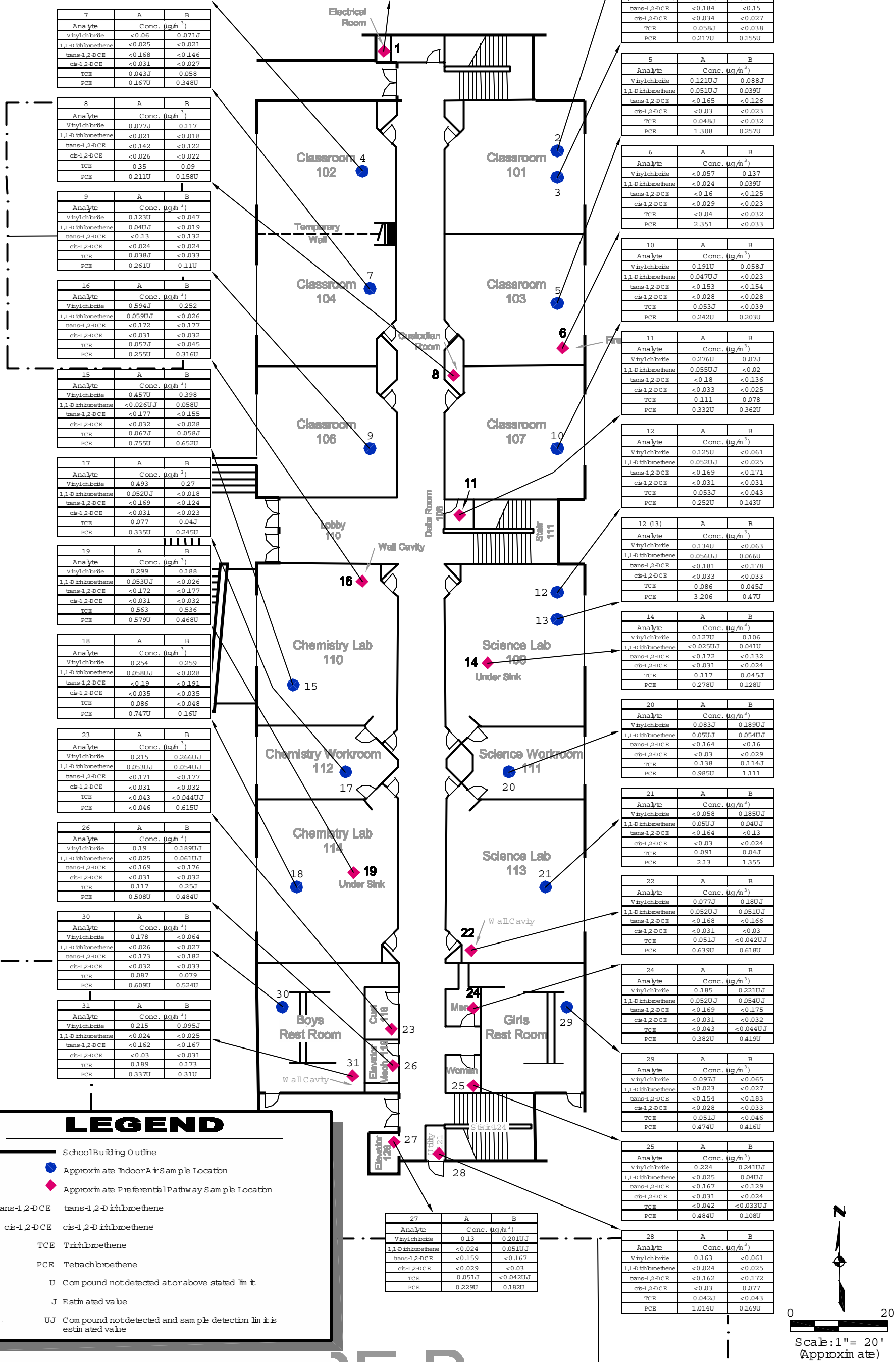
U = Compound or analyte not detected at or above stated limit
J = Estimated value
UJ = Compound or analyte not detected and sample detection limit estimated value

TABLE 2
Comparison with Previous Indoor Air Sample Results
Taken in the Science Building

Room	Sample ID	Date	Concentration (µg/m3) PCE	TCE	Vinyl Chloride
101	IAQ-HS-6	7/27/05	0.29	0.25	0.17
	IAQ-HS-9	9/1/05	1.1	5.1	<0.075
	IAQ-HS-9	9/1/05	2.6	0.6	<0.11
	2A	1/21/06	0.208 U	<0.042	<0.059
	2B	1/21/06	0.275 U	<0.045	0.283 U
	2A (3A)	1/21/06	0.217 U	0.058 J	0.136 UJ
	2B (3B)	1/21/06	0.155 U	<0.038	0.179 U
104	IAQ-HS-12	9/1/05	0.4	<0.13	<0.064
	7A	1/21/06	0.167 U	0.043 J	<0.06
	7B	1/21/06	0.348 U	0.058	0.071 J
109	IAQ-HS-10	9/1/05	0.54	0.18	0.28
	12A	1/21/06	0.252 U	0.053 J	0.125 U
	12B	1/21/06	0.143 U	<0.043	<0.061
	12A (13A)	1/21/06	3.206	0.086	0.134 U
	12 B (13B)	1/21/06	0.047 U	0.045 J	<0.063
114	IAQ-HS-11	9/1/05	0.47	<0.13	0.081
	18A	1/21/06	0.747 U	0.086	0.254
	18B	1/21/06	0.160 U	<0.048	0.259

Note: Sample results for July and September 2005 were reported previously in Wyle's data transmittal to DTSC, dated October 24, 2005. "U" indicates the compound was not detected at or above the stated limit. "J" indicates an estimated value. "UJ" indicates the compound was not detected at or above the stated limit and the detection limit is an estimated value.

F I G U R E S



1	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.065J	0.271U
1,1-Dichloroethene	<0.025	<0.027
trans-1,2-DCE	<0.169	0.289J
cis-1,2-DCE	<0.031	<0.033
TCE	0.05J	<0.046
PCE	0.353U	0.218U

2	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.059	0.283U
1,1-Dichloroethene	0.051U	0.055U
trans-1,2-DCE	<0.166	<0.18
cis-1,2-DCE	<0.03	<0.033
TCE	<0.042	<0.045
PCE	0.208U	0.275U

2 (3)	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.136UJ	0.179U
1,1-Dichloroethene	0.057UJ	0.046U
trans-1,2-DCE	<0.184	<0.15
cis-1,2-DCE	<0.034	<0.027
TCE	0.058J	<0.038
PCE	0.217U	0.155U

4	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.043	0.267U
1,1-Dichloroethene	<0.018	0.054U
trans-1,2-DCE	<0.123	<0.176
cis-1,2-DCE	<0.022	<0.032
TCE	<0.031	0.046J
PCE	0.162U	0.171U

5	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.121UJ	0.088J
1,1-Dichloroethene	0.051UJ	0.039U
trans-1,2-DCE	<0.165	<0.126
cis-1,2-DCE	<0.03	<0.023
TCE	0.048J	<0.032
PCE	1.308	0.257U

6	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.057	0.137
1,1-Dichloroethene	<0.024	0.039U
trans-1,2-DCE	<0.16	<0.125
cis-1,2-DCE	<0.029	<0.023
TCE	<0.04	<0.032
PCE	2.351	<0.033

7	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.06	0.071J
1,1-Dichloroethene	<0.025	<0.021
trans-1,2-DCE	<0.168	<0.146
cis-1,2-DCE	<0.031	<0.027
TCE	0.043J	0.058
PCE	0.167U	0.348U

8	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.077J	0.117
1,1-Dichloroethene	<0.021	<0.018
trans-1,2-DCE	<0.142	<0.122
cis-1,2-DCE	<0.026	<0.022
TCE	0.35	0.09
PCE	0.211U	0.158U

9	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.123U	<0.047
1,1-Dichloroethene	0.04UJ	<0.019
trans-1,2-DCE	<0.13	<0.132
cis-1,2-DCE	<0.024	<0.024
TCE	0.038J	<0.033
PCE	0.261U	0.11U

10	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.191U	0.058J
1,1-Dichloroethene	0.047UJ	<0.023
trans-1,2-DCE	<0.153	<0.154
cis-1,2-DCE	<0.028	<0.028
TCE	0.053J	<0.039
PCE	0.242U	0.203U

11	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.276U	0.07J
1,1-Dichloroethene	0.055UJ	<0.02
trans-1,2-DCE	<0.18	<0.136
cis-1,2-DCE	<0.033	<0.025
TCE	0.111	0.078
PCE	0.332U	0.362U

12	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.125U	<0.061
1,1-Dichloroethene	0.052UJ	<0.025
trans-1,2-DCE	<0.169	<0.171
cis-1,2-DCE	<0.031	<0.031
TCE	0.053J	<0.043
PCE	0.252U	0.143U

12 (13)	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.134U	<0.063
1,1-Dichloroethene	0.056UJ	0.066U
trans-1,2-DCE	<0.181	<0.178
cis-1,2-DCE	<0.033	<0.033
TCE	0.086	0.045J
PCE	3.206	0.47U

14	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.127U	0.106
1,1-Dichloroethene	<0.025UJ	0.041U
trans-1,2-DCE	<0.172	<0.132
cis-1,2-DCE	<0.031	<0.024
TCE	0.117	0.045J
PCE	0.278U	0.128U

15	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.457U	0.398
1,1-Dichloroethene	<0.026UJ	0.058U
trans-1,2-DCE	<0.177	<0.155
cis-1,2-DCE	<0.032	<0.028
TCE	0.067J	0.058J
PCE	0.755U	0.652U

16	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.594J	0.252
1,1-Dichloroethene	0.059UJ	<0.026
trans-1,2-DCE	<0.172	<0.177
cis-1,2-DCE	<0.031	<0.032
TCE	0.057J	<0.045
PCE	0.255U	0.316U

17	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.493	0.27
1,1-Dichloroethene	0.052UJ	<0.018
trans-1,2-DCE	<0.169	<0.124
cis-1,2-DCE	<0.031	<0.023
TCE	0.077	0.04J
PCE	0.335U	0.245U

18	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.254	0.259
1,1-Dichloroethene	0.058UJ	<0.028
trans-1,2-DCE	<0.19	<0.191
cis-1,2-DCE	<0.035	<0.035
TCE	0.086	<0.048
PCE	0.747U	0.16U

19	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.299	0.188
1,1-Dichloroethene	0.053UJ	<0.026
trans-1,2-DCE	<0.172	<0.177
cis-1,2-DCE	<0.031	<0.032
TCE	0.563	0.536
PCE	0.579U	0.468U

20	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.083J	0.189UJ
1,1-Dichloroethene	0.05UJ	0.054UJ
trans-1,2-DCE	<0.164	<0.16
cis-1,2-DCE	<0.03	<0.029
TCE	0.138	0.114J
PCE	0.985U	1.111

21	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.058	0.185UJ
1,1-Dichloroethene	0.05UJ	0.04UJ
trans-1,2-DCE	<0.164	<0.13
cis-1,2-DCE	<0.03	<0.024
TCE	0.091	0.04J
PCE	2.13	1.355

22	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.077J	0.18UJ
1,1-Dichloroethene	0.052UJ	0.051UJ
trans-1,2-DCE	<0.168	<0.166
cis-1,2-DCE	<0.031	<0.03
TCE	0.051J	<0.042UJ
PCE	0.639U	0.618U

23	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.215	0.266UJ
1,1-Dichloroethene	0.053UJ	0.054UJ
trans-1,2-DCE	<0.171	<0.177
cis-1,2-DCE	<0.031	<0.032
TCE	<0.043	<0.044UJ
PCE	<0.046	0.615U

24	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.185	0.221UJ
1,1-Dichloroethene	0.052UJ	0.054UJ
trans-1,2-DCE	<0.169	<0.175
cis-1,2-DCE	<0.031	<0.032
TCE	<0.043	<0.044UJ
PCE	0.382U	0.419U

25	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.224	0.241UJ
1,1-Dichloroethene	<0.025	0.04UJ
trans-1,2-DCE	<0.167	<0.129
cis-1,2-DCE	<0.031	<0.024
TCE	<0.042	<0.033UJ
PCE	0.484U	0.108U

26	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.19	0.189UJ
1,1-Dichloroethene	<0.025	0.061UJ
trans-1,2-DCE	<0.169	<0.176
cis-1,2-DCE	<0.031	<0.032
TCE	0.117	0.25J
PCE	0.508U	0.484U

27	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.13	0.201UJ
1,1-Dichloroethene	<0.024	0.051UJ
trans-1,2-DCE	<0.159	<0.167
cis-1,2-DCE	<0.029	<0.03
TCE	0.051J	<0.042UJ
PCE	0.229U	0.182U

28	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.163	<0.061
1,1-Dichloroethene	<0.024	<0.025
trans-1,2-DCE	<0.162	<0.172
cis-1,2-DCE	<0.03	0.077
TCE	0.042J	<0.043
PCE	1.014U	0.169U

29	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.097J	<0.065
1,1-Dichloroethene	<0.023	<0.027
trans-1,2-DCE	<0.154	<0.183
cis-1,2-DCE	<0.028	<0.033
TCE	0.051J	<0.046
PCE	0.474U	0.416U

30	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.178	<0.064
1,1-Dichloroethene	<0.026	<0.027
trans-1,2-DCE	<0.173	<0.182
cis-1,2-DCE	<0.032	<0.033
TCE	0.087	0.079
PCE	0.609U	0.524U

31	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.215	0.095J
1,1-Dichloroethene	<0.024	<0.025
trans-1,2-DCE	<0.162	<0.167
cis-1,2-DCE	<0.03	<0.031
TCE	0.189	0.173
PCE	0.337U	0.31U

LEGEND

School Building Outline

Approximate Indoor Air Sample Location

Approximate Preferential Pathway Sample Location

trans-1,2-DCE trans-1,2-Dichloroethene

cis-1,2-DCE cis-1,2-Dichloroethene

TCE Trichloroethene

PCE Tetrachloroethene

U Compound not detected at or above stated limit

J Estimated value

UJ Compound not detected and sample detection limit is estimated value

ENVIRON

DRAWN BY: JJC | DATE: 2/23/06 | REVISED:

Science Building Sample Locations

Norco High School - 1st Floor

2065 Temescal Avenue, Norco, California

PROJECT NO.: 04-8099P

Figure 1

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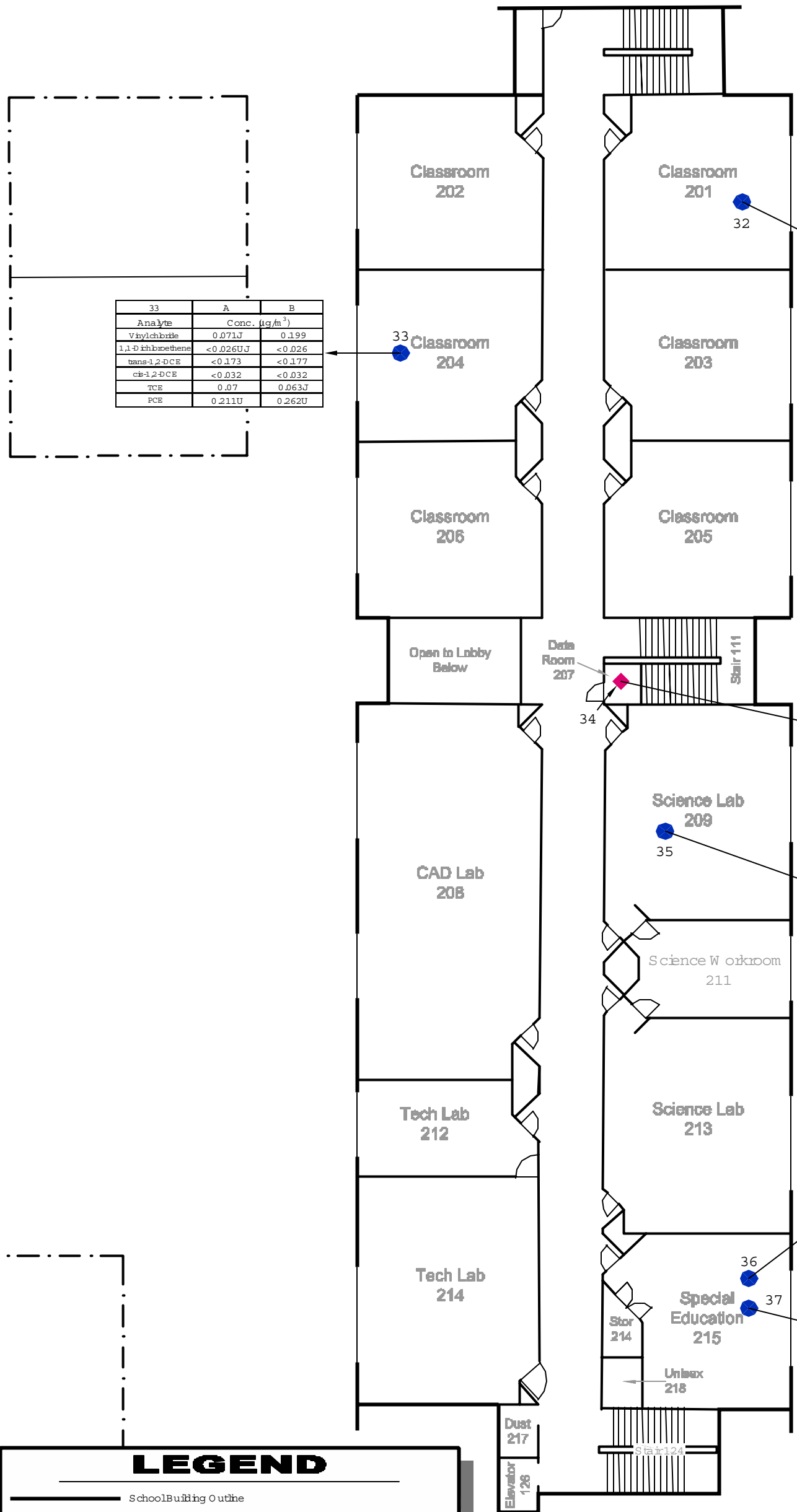


32	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.059	0.201
1,1-Dichloroethene	<0.025	<0.026
trans-1,2-DCE	<0.167	<0.174
cis-1,2-DCE	<0.031	<0.032
TCE	0.052J	0.048J
PCE	0.317U	0.332U

33	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.071J	0.199
1,1-Dichloroethene	<0.026UJ	<0.026
trans-1,2-DCE	<0.173	<0.177
cis-1,2-DCE	<0.032	<0.032
TCE	0.07	0.063J
PCE	0.211U	0.262U

34	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.137	0.124J
1,1-Dichloroethene	<0.027UJ	<0.027
trans-1,2-DCE	<0.181	<0.183
cis-1,2-DCE	<0.033	<0.033
TCE	<0.046	<0.046
PCE	0.23U	0.21U

35	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.056	0.094J
1,1-Dichloroethene	<0.023	<0.02
trans-1,2-DCE	<0.158	<0.138
cis-1,2-DCE	<0.029	<0.025
TCE	0.346	0.243
PCE	0.272U	0.436U

36	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.104J	0.07J
1,1-Dichloroethene	<0.025UJ	<0.018
trans-1,2-DCE	<0.17	<0.125
cis-1,2-DCE	<0.031	<0.023
TCE	1.126	<0.031
PCE	0.191U	0.194U

36 (37)	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.078J	0.549
1,1-Dichloroethene	<0.025UJ	<0.024
trans-1,2-DCE	<0.168	<0.163
cis-1,2-DCE	<0.031	<0.03
TCE	<0.042	0.884
PCE	0.184U	0.249U

LEGEND

School Building Outline

Approximate Indoor Air Sample Location

Approximate Preferential Pathway Sample Location

trans-1,2-DCE trans-1,2-Dichloroethene

cis-1,2-DCE cis-1,2-Dichloroethene

TCE Trichloroethene

PCE Tetrachloroethene

U Compound not detected at or above stated limit

J Estimated value

UJ Compound not detected and sample detection limit is estimated value

N

0 20

Scale: 1" = 20' (Approximate)

ENVIRON

DRAWN BY: JJC | DATE: 2/23/06 | REVISED:

Science Building Sample Locations

Norco High School - 2nd Floor

2065 Temescal Avenue, Norco, California

PROJECT NO.: 04-8099P

Figure 2

FILE: P:\Wye Labs\Drawings - DO NOT MOVE\8099P2E

41 42

41	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.059	0.061J
1,1-Dichloroethene	<0.024	0.049U
trans-1,2-DCE	<0.165	<0.159
cis-1,2-DCE	<0.03	<0.029
TCE	0.101	0.063
PCE	4.057	3.783

41 (42)	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.063	0.075J
1,1-Dichloroethene	0.055U	0.052U
trans-1,2-DCE	<0.177	<0.169
cis-1,2-DCE	<0.032	<0.031
TCE	0.108	0.089
PCE	0.685U	0.73U

38

38	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.061	0.137
1,1-Dichloroethene	<0.025	<0.025
trans-1,2-DCE	<0.171	<0.168
cis-1,2-DCE	<0.031	<0.031
TCE	<0.043	<0.042
PCE	0.304U	0.203U

40

40	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.062	0.075J
1,1-Dichloroethene	0.054U	0.047U
trans-1,2-DCE	<0.175	<0.154
cis-1,2-DCE	<0.032	<0.028
TCE	0.246	0.145
PCE	0.585U	0.575U

43

43	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.062	0.064J
1,1-Dichloroethene	<0.026	0.053U
trans-1,2-DCE	<0.175	<0.174
cis-1,2-DCE	<0.032	<0.032
TCE	0.062J	<0.044
PCE	0.327U	0.279U

39

39	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	0.066J	0.13
1,1-Dichloroethene	0.055U	<0.025
trans-1,2-DCE	<0.18	<0.17
cis-1,2-DCE	<0.033	<0.031
TCE	0.44	0.227
PCE	0.549U	0.357U

44

44	A	B
Analyte	Conc. (µg/m³)	
Vinylchloride	<0.065	<0.065
1,1-Dichloroethene	<0.027	0.057U
trans-1,2-DCE	<0.183	<0.185
cis-1,2-DCE	<0.033	<0.034
TCE	<0.046	<0.046
PCE	0.814U	0.681U

LEGEND

School Building Outline

Approximate Outdoor Air Sample Location

Approximate Preferential Pathway Sample Location

trans-1,2-DCE trans-1,2-Dichloroethene

cis-1,2-DCE cis-1,2-Dichloroethene

TCE Trichloroethene

PCE Tetrachloroethene

U Compound not detected at or above stated limit

J Estimated value

UJ Compound not detected and sample detection limit is estimated value

N

0 20

Scale: 1" = 20' (Approximate)

ENVIRON

Science Building Sample Locations

Norco High School - Roof and Outdoor

2065 Temescal Avenue, Norco, California

PROJECT NO.: 04-8099P

Figure 3

DRAWN BY: JJC | DATE: 2/23/06 | REVISED:

FILE: P:\WYB Labs\Drawings - DO NOT MOVE\8099F3D

C H A R T S

Chart 1
Summary of Tetrachloroethene (PCE) Sample Results

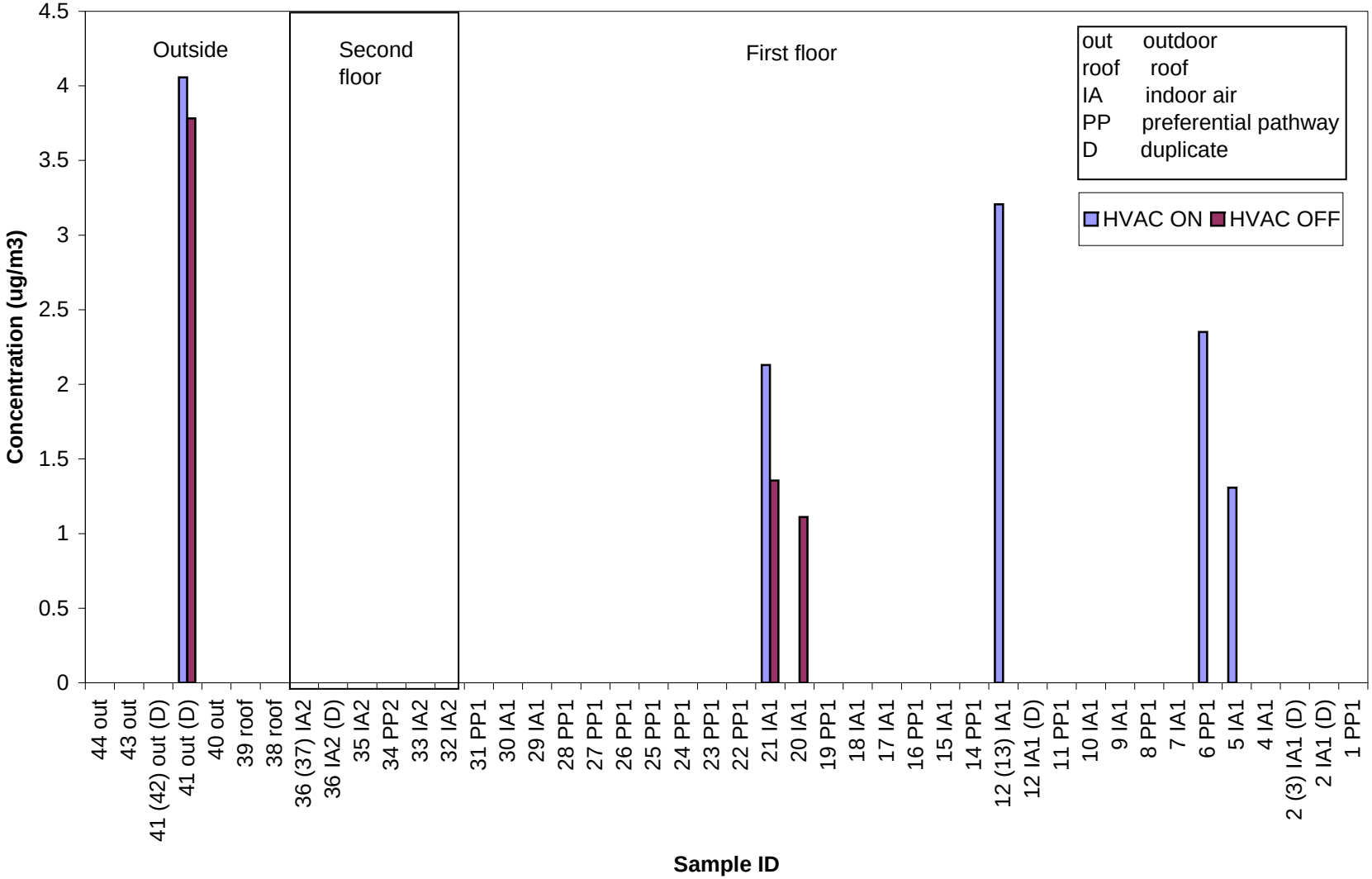


Chart 2
Summary of Trichloroethene (TCE) Sample Results

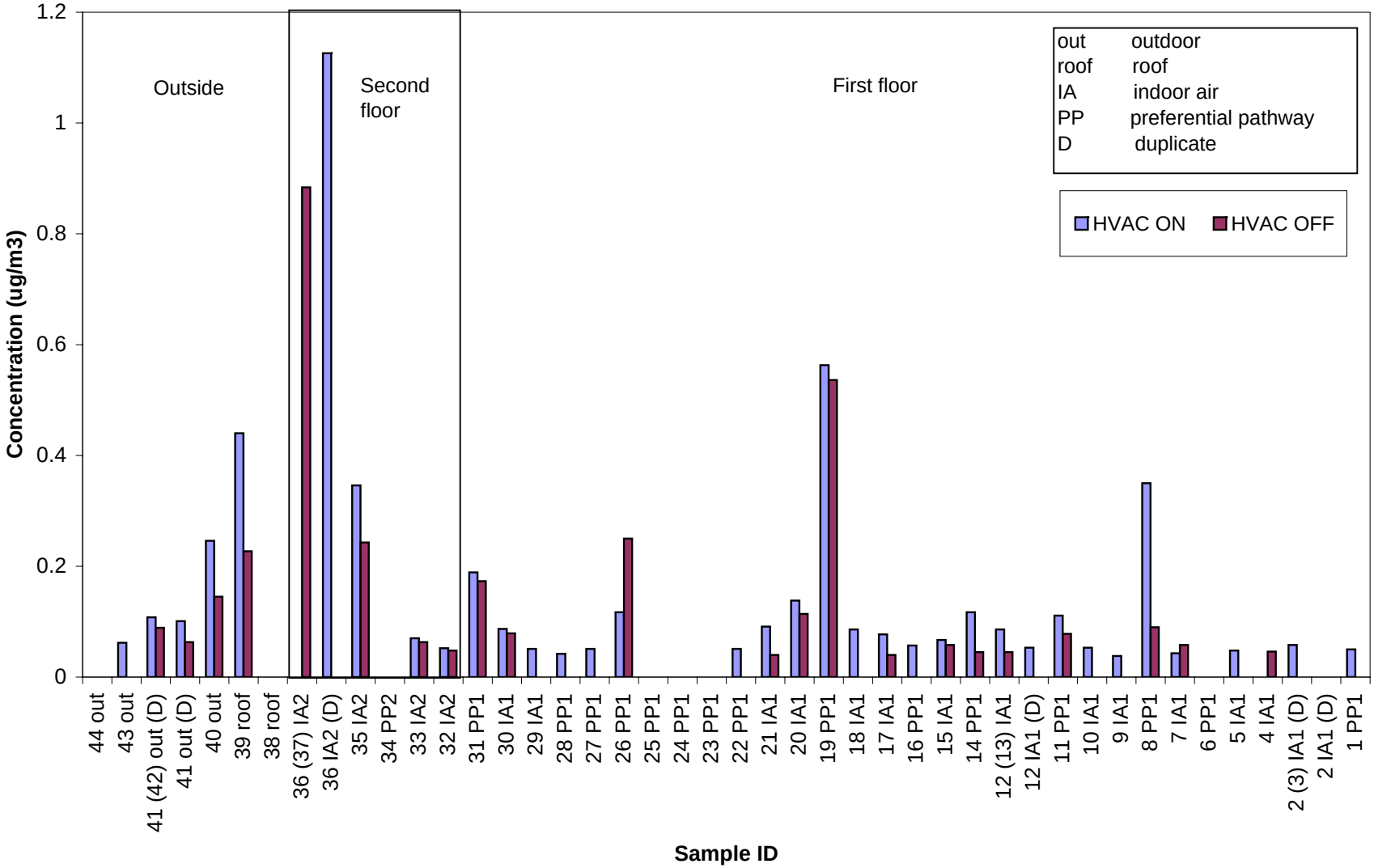


Chart 3
Summary of Vinyl Chloride (VC) Sample Results

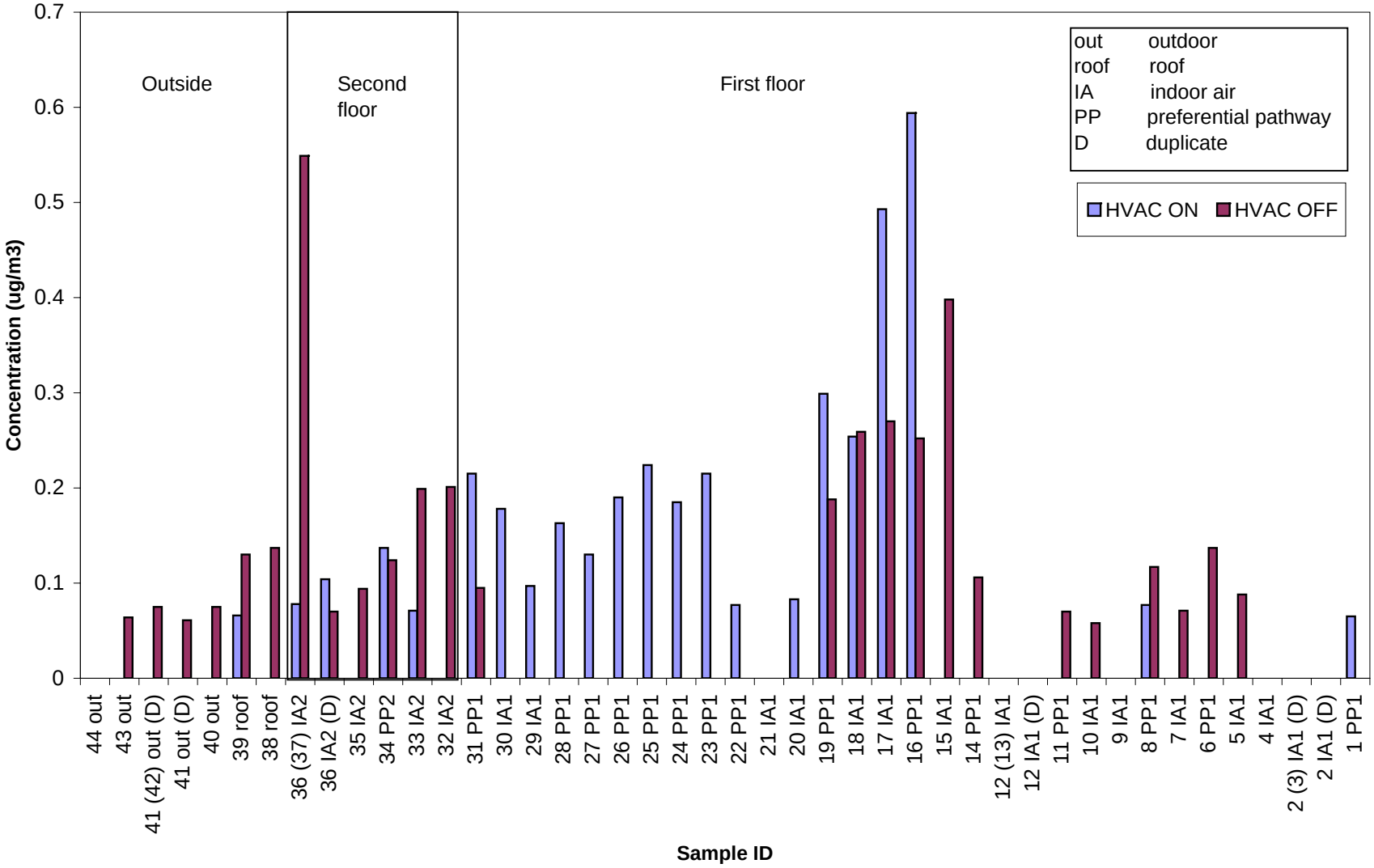
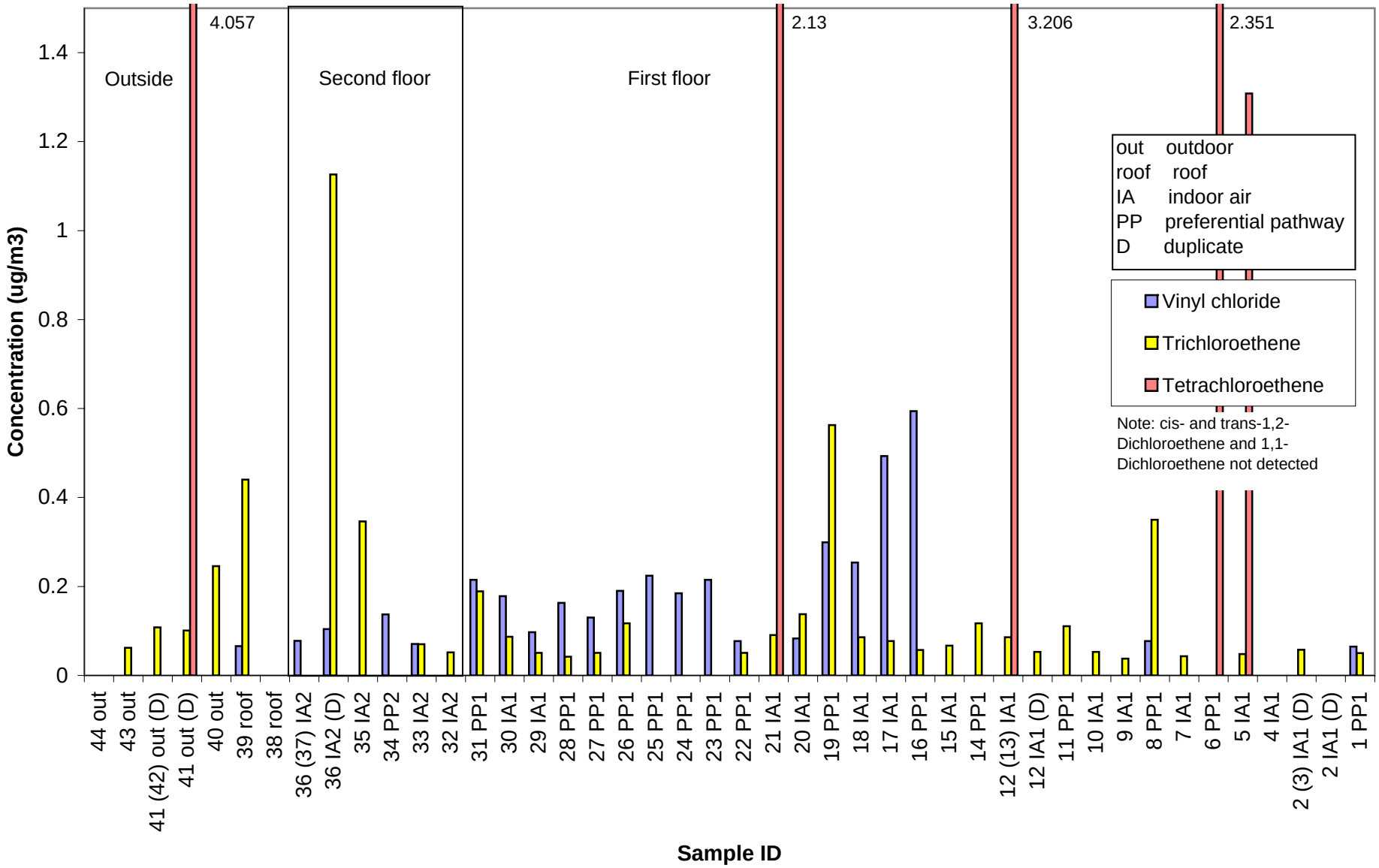
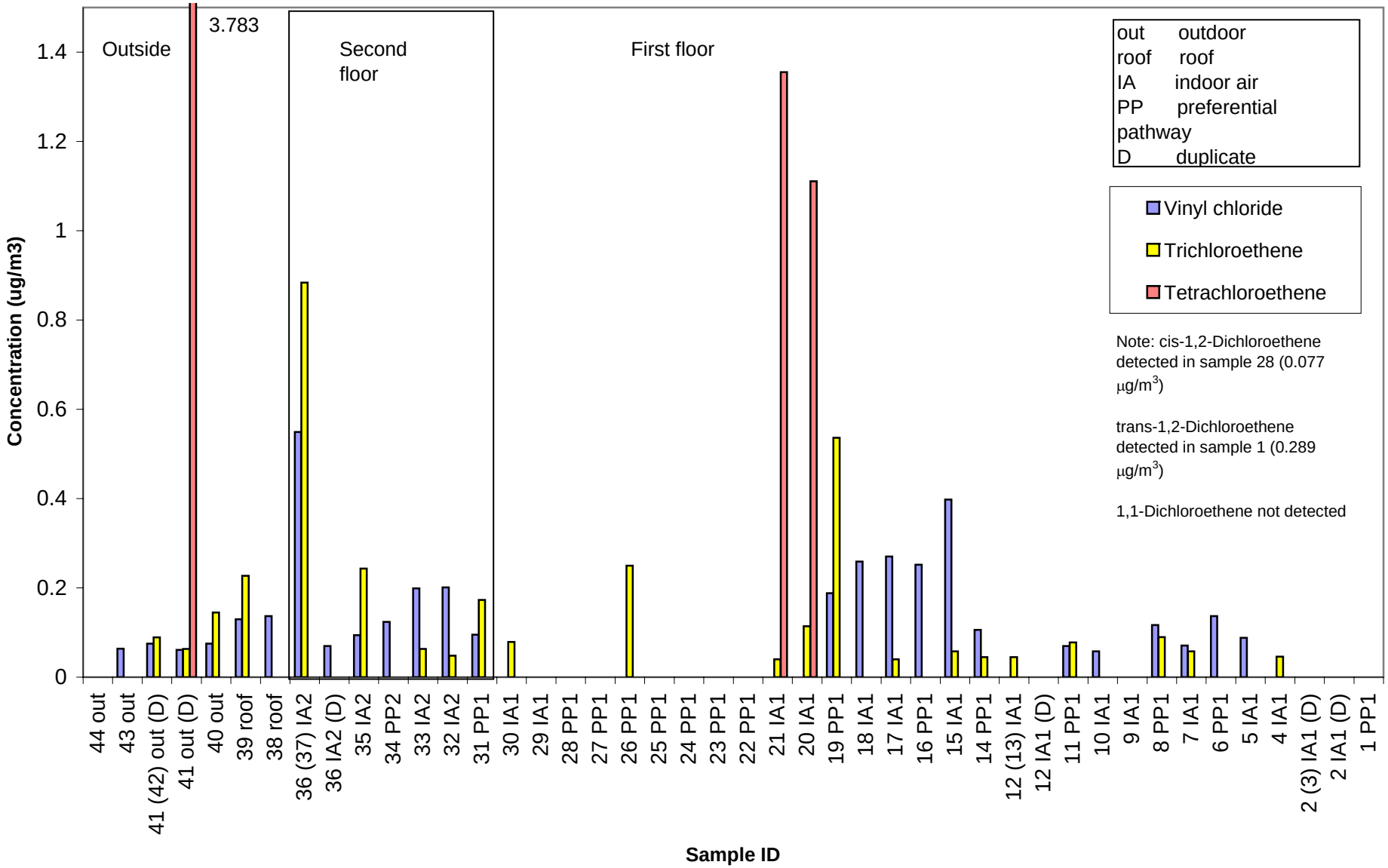


Chart 4
Summary of Measured Compounds Sample Set A (HVAC ON)



ENVIRON

Chart 5
Summary of Measured Compounds Sample Set B (HVAC OFF)



A T T A C H M E N T

ENVIRONMENTAL
Analytical Service, Inc.

February 8, 2006
Sample Delivery Groups (SDG): 206035

Eric Lu
Environ Corporation
707 Wilshire Blvd., Suite 4950
Los Angeles, CA 90017

Dear Eric:

Enclosed is the final analytical report for the sample(s) received and analyzed by Environmental Analytical Service, Inc. for the following project:

Project Name: Wyle Norco HS Science Bldg.
Project Number: 04-8099P

The report consists of the following sections:

I. Sample Description
II. Laboratory Narrative and Chain of Custody Forms
III. Laboratory Certification
IV. Quality Control Reports
V. Analytical Results

If you have any questions on the report or the analytical data please contact me at (805) 781-3585.

Sincerely,

Steven D. Hoyt, Ph.D.
Laboratory Director

SDH/lims

173 Cross Street
San Luis Obispo
CA
93401-7597
805.781.3585
Fax 805.541.4550

Analytical Report

SDG Number 206035

Client: Environ Corporation **Date Received:** 1/24/2006

I. SAMPLE DESCRIPTION AND ANALYSIS REQUESTED

Client Sample No.	EAS Lab No	Analysis Requested	Date Sample Rec	Pressure (torr)	Final
060121-IAQ-HSSB-1a	206035 1	EPA TO-15 SIM Special List	1/21/2006	542	926
060121-IAQ-HSSB-2a	206035 2	EPA TO-15 SIM Special List	1/21/2006	553	929
060121-IAQ-HSSB-3a	206035 3	EPA TO-15 SIM Special List	1/21/2006	532	925
060121-IAQ-HSSB-4a	206035 4	EPA TO-15 SIM Special List	1/21/2006	740	916
060121-IAQ-HSSB-5a	206035 5	EPA TO-15 SIM Special List	1/21/2006	557	911
060121-IAQ-HSSB-6a	206035 6	EPA TO-15 SIM Special List	1/21/2006	573	927
060121-IAQ-HSSB-7a	206035 7	EPA TO-15 SIM Special List	1/21/2006	540	920
060121-IAQ-HSSB-8a	206035 8	EPA TO-15 SIM Special List	1/21/2006	643	919
060121-IAQ-HSSB-9a	206035 9	EPA TO-15 SIM Special List	1/21/2006	693	980
060121-IAQ-HSSB-10a	206035 10	EPA TO-15 SIM Special List	1/21/2006	609	925
060121-IAQ-HSSB-11a	206035 11	EPA TO-15 SIM Special List	1/21/2006	513	914
060121-IAQ-HSSB-12a	206035 12	EPA TO-15 SIM Special List	1/21/2006	539	921
060121-IAQ-HSSB-13a	206035 13	EPA TO-15 SIM Special List	1/21/2006	506	927
060121-IAQ-HSSB-14a	206035 14	EPA TO-15 SIM Special List	1/21/2006	527	926
060121-IAQ-HSSB-15a	206035 15	EPA TO-15 SIM Special List	1/21/2006	518	914
060121-IAQ-HSSB-16a	206035 16	EPA TO-15 SIM Special List	1/21/2006	534	929
060121-IAQ-HSSB-17a	206035 17	EPA TO-15 SIM Special List	1/21/2006	548	908
060121-IAQ-HSSB-18a	206035 18	EPA TO-15 SIM Special List	1/21/2006	495	919
060121-IAQ-HSSB-19a	206035 19	EPA TO-15 SIM Special List	1/21/2006	534	948
060121-IAQ-HSSB-20a	206035 20	EPA TO-15 SIM Special List	1/21/2006	565	921
060121-IAQ-HSSB-21a	206035 21	EPA TO-15 SIM Special List	1/21/2006	559	908
060121-IAQ-HSSB-22a	206035 22	EPA TO-15 SIM Special List	1/21/2006	545	937
060121-IAQ-HSSB-23a	206035 23	EPA TO-15 SIM Special List	1/21/2006	539	936
060121-IAQ-HSSB-24a	206035 24	EPA TO-15 SIM Special List	1/21/2006	548	907
060121-IAQ-HSSB-25a	206035 25	EPA TO-15 SIM Special List	1/21/2006	543	919
060121-IAQ-HSSB-26a	206035 26	EPA TO-15 SIM Special List	1/21/2006	538	918
060121-IAQ-HSSB-27a	206035 27	EPA TO-15 SIM Special List	1/21/2006	574	922
060121-IAQ-HSSB-28a	206035 28	EPA TO-15 SIM Special List	1/21/2006	572	939
060121-IAQ-HSSB-29a	206035 29	EPA TO-15 SIM Special List	1/21/2006	596	924
060121-IAQ-HSSB-30a	206035 30	EPA TO-15 SIM Special List	1/21/2006	533	932
060121-IAQ-HSSB-31a	206035 31	EPA TO-15 SIM Special List	1/21/2006	566	926
060121-IAQ-HSSB-32a	206035 32	EPA TO-15 SIM Special List	1/21/2006	542	917
060121-IAQ-HSSB-33a	206035 33	EPA TO-15 SIM Special List	1/21/2006	540	930
060121-IAQ-HSSB-34a	206035 34	EPA TO-15 SIM Special List	1/21/2006	511	937
060121-IAQ-HSSB-35a	206035 35	EPA TO-15 SIM Special List	1/21/2006	571	914
060121-IAQ-HSSB-36a	206035 36	EPA TO-15 SIM Special List	1/21/2006	542	932
060121-IAQ-HSSB-37a	206035 37	EPA TO-15 SIM Special List	1/21/2006	547	931
060121-IAQ-HSSB-38a	206035 38	EPA TO-15 SIM Special List	1/21/2006	533	923
060121-IAQ-HSSB-39a	206035 39	EPA TO-15 SIM Special List	1/21/2006	510	985

Client Sample No.	EAS Lab No	Analysis Requested	Date Sample	Pressure (torr) Rec	Pressure (torr) Final
060121-IAQ-HSSB-40a	206035 40	EPA TO-15 SIM Special List	1/21/2006	535	929
060121-IAQ-HSSB-41a	206035 41	EPA TO-15 SIM Special List	1/21/2006	556	927
060121-IAQ-HSSB-42a	206035 42	EPA TO-15 SIM Special List	1/21/2006	514	921
060121-IAQ-HSSB-43a	206035 43	EPA TO-15 SIM Special List	1/21/2006	537	948
060121-IAQ-HSSB-44a	206035 44	EPA TO-15 SIM Special List	1/21/2006	501	925
Trip Blank #1	206035 45	EPA TO-15 SIM Special List	1/21/2006	933	
060121-IAQ-HSSB-1b	206035 46	EPA TO-15 SIM Special List	1/21/2006	509	915
060121-IAQ-HSSB-2b	206035 47	EPA TO-15 SIM Special List	1/21/2006	518	947
060121-IAQ-HSSB-3b	206035 48	EPA TO-15 SIM Special List	1/21/2006	624	928
060121-IAQ-HSSB-4b	206035 49	EPA TO-15 SIM Special List	1/21/2006	518	923
060121-IAQ-HSSB-5b	206035 50	EPA TO-15 SIM Special List	1/21/2006	750	926
060121-IAQ-HSSB-6b	206035 51	EPA TO-15 SIM Special List	1/21/2006	752	922
060121-IAQ-HSSB-7b	206035 52	EPA TO-15 SIM Special List	1/21/2006	626	923
060121-IAQ-HSSB-8b	206035 53	EPA TO-15 SIM Special List	1/21/2006	753	928
060121-IAQ-HSSB-9b	206035 54	EPA TO-15 SIM Special List	1/21/2006	696	926
060121-IAQ-HSSB-10b	206035 55	EPA TO-15 SIM Special List	1/21/2006	604	935
060121-IAQ-HSSB-11b	206035 56	EPA TO-15 SIM Special List	1/21/2006	681	933
060121-IAQ-HSSB-12b	206035 57	EPA TO-15 SIM Special List	1/21/2006	531	918
060121-IAQ-HSSB-13b	206035 58	EPA TO-15 SIM Special List	1/21/2006	510	918
060121-IAQ-HSSB-14b	206035 59	EPA TO-15 SIM Special List	1/21/2006	690	916
060121-IAQ-HSSB-15b	206035 60	EPA TO-15 SIM Special List	1/21/2006	589	924
060121-IAQ-HSSB-16b	206035 61	EPA TO-15 SIM Special List	1/21/2006	514	920
060121-IAQ-HSSB-17b	206035 62	EPA TO-15 SIM Special List	1/21/2006	743	931
060121-IAQ-HSSB-18b	206035 63	EPA TO-15 SIM Special List	1/21/2006	484	933
060121-IAQ-HSSB-19b	206035 64	EPA TO-15 SIM Special List	1/21/2006	521	933
060121-IAQ-HSSB-20b	206035 65	EPA TO-15 SIM Special List	1/21/2006	566	953
060121-IAQ-HSSB-21b	206035 66	EPA TO-15 SIM Special List	1/21/2006	723	925
060121-IAQ-HSSB-22b	206035 67	EPA TO-15 SIM Special List	1/21/2006	563	923
060121-IAQ-HSSB-23b	206035 68	EPA TO-15 SIM Special List	1/21/2006	526	924
060121-IAQ-HSSB-24b	206035 69	EPA TO-15 SIM Special List	1/21/2006	533	925
060121-IAQ-HSSB-25b	206035 70	EPA TO-15 SIM Special List	1/21/2006	730	921
060121-IAQ-HSSB-26b	206035 71	EPA TO-15 SIM Special List	1/21/2006	536	926
060121-IAQ-HSSB-27b	206035 72	EPA TO-15 SIM Special List	1/21/2006	554	925
060121-IAQ-HSSB-28b	206035 73	EPA TO-15 SIM Special List	1/21/2006	527	919
060121-IAQ-HSSB-29b	206035 74	EPA TO-15 SIM Special List	1/21/2006	496	917
060121-IAQ-HSSB-30b	206035 75	EPA TO-15 SIM Special List	1/21/2006	503	928
060121-IAQ-HSSB-31b	206035 76	EPA TO-15 SIM Special List	1/21/2006	548	926
060121-IAQ-HSSB-32b	206035 77	EPA TO-15 SIM Special List	1/21/2006	523	923
060121-IAQ-HSSB-33b	206035 78	EPA TO-15 SIM Special List	1/21/2006	514	918
060121-IAQ-HSSB-34b	206035 79	EPA TO-15 SIM Special List	1/21/2006	502	928
060121-IAQ-HSSB-35b	206035 80	EPA TO-15 SIM Special List	1/21/2006	669	929
060121-IAQ-HSSB-36b	206035 81	EPA TO-15 SIM Special List	1/21/2006	742	937
060121-IAQ-HSSB-37b	206035 82	EPA TO-15 SIM Special List	1/21/2006	559	922
060121-IAQ-HSSB-38b	206035 83	EPA TO-15 SIM Special List	1/21/2006	540	929
060121-IAQ-HSSB-39b	206035 84	EPA TO-15 SIM Special List	1/21/2006	532	942
060121-IAQ-HSSB-40b	206035 85	EPA TO-15 SIM Special List	1/21/2006	604	922
060121-IAQ-HSSB-41b	206035 86	EPA TO-15 SIM Special List	1/21/2006	563	929
060121-IAQ-HSSB-42b	206035 87	EPA TO-15 SIM Special List	1/21/2006	560	931

Client Sample No.	EAS Lab No	Analysis Requested	Date Sample	Pressure (torr) Rec	Final
060121-IAQ-HSSB-43b	206035 88	EPA TO-15 SIM Special List	1/21/2006	537	927
060121-IAQ-HSSB-44b	206035 89	EPA TO-15 SIM Special List	1/21/2006	498	921
Trip Blank #2	206035 90	EPA TO-15 SIM Special List	1/21/2006	898	925

II. LABORATORY CASE NARRATIVE and CHAIN OF CUSTODY FORMS

EAS SDG Number 206035

Client: Environ Corporation

All analysis met the QC requirements for the method except on 1/25/06 vinyl chloride, 1,1-dichloroethene, and trichloroethene exceed QC limits for % recovery on the laboratory control spike. 1,1-dichloroethene exceeds QC limits for % recovery on the laboratory control spike duplicate. The QC limit for % recovery on the laboratory control spike and duplicate is 70-130%. The % recovery of vinyl chloride was 63%. The % recovery of 1,1-dichloroethene was 52% and 62%. The % recovery of trichloroethene was 64%.

On 1/26/06, 1,1-dichloroethene exceeds QC limits for % recovery on the laboratory control spike. The % recovery of 1,1-dichloroethene was 65%.

The initial calibration exceeds QC limits for % RSD of 1,1-dichloroethene. The QC limit for % RSD of 1,1-dichloroethene is +/- 30%. The % RSD of 1,1-dichloroethene was 46%.

The above does not affect data quality.

III. LABORATORY CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness other than the condition noted above.

Steven D. Hoyt, Ph.D.
Laboratory Director

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number 04-8099P
Project Name: Wyle Norco HS Science Bldg
Quote Number: 12614

REPORT TO:

Company ENVIRON
Address 707 Wilshire Blvd Suite 4950
City/State/Zip Los Angeles CA 90017
Phone 213-943-6338 (FAX) 213-943-6302
ATTENTION Eric Lu

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO-15 SIM for: Cis/trans DCE, 1,1-DCE, PCE, TCE, Vinyl Chloride (5 day Turnaround, 10% Level II, balance Level I)	REMARKS
060121-1AQ-HSSB-1a	1/21/06	~8 hr	600	X			X			~~55~~ 542	926	606035-1	X	
-2a		~8 hr	680	X			X			553	929	-2	X	
-3a		~8 hr	512	X			X			532	925	-3	X	
-4a		~8 hr	178	X			X			740	916	-4	X	
-5a		~8 hr	519	X			X			557	911	-5	X	
-6a		~8 hr	668	X			X			573	927	-6	X	
-7a		~8 hr	510	X			X			540	920	-7	X	
-8a		~8 hr	699	X			X			643	919	-8	X	

N2

SHELF-AA

COMMENTS Returned can # 686, 786, 696, 536, 763

BILLING INFORMATION

Company Same as above
Address
City/State/Zip
ATTENTION
Purchase Order/Billing Reference 04-8099P

SAMPLED BY: [signature] Date 1/23/06 Time
Relinquished By: [signature] Date Time
Relinquished By: Date Time
Relinquished By: Date Time

Received by: Date Time
Received by: Date Time
Received by: Date Time
Received for lab by: [signature] Date 1/24/06 Time 1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: same as pg 1
Address
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO-15 SIM	SAME AS PG 1	SHELF-B	REMARKS
060121-1AG-HSSB-9a	1/21/06	~8 hr	703	X			X			693	980	206035-9	X			
-10a		~8 hr	792	X			X			609	925	-10	X			
-11a		~8 hr	712	X			X			513	914	-11	X			
-12a		~8 hr	710	X			X			539	921	-12	X			
-13a		~8 hr	409	X			X			506	927	-13	X			
-14a		~8 hr	408	X			X			527	926	-14	X			
-15a		~8 hr	817	X			X			518	914	-15	X			
-16a		~8 hr	655	X			X			534	929	-16	X			

COMMENTS

BILLING INFORMATION

Company: same as pg 1
Address
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

SAMPLED BY: [signature] Date 1/23/06 Time
Relinquished By: [signature] Date Time
Relinquished By: Date Time
Relinquished By: Date Time

Received by: Date Time
Received by: Date Time
Received by: Date Time
Received for lab by: [signature] Date 1/24/06 Time 1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: Same as
Address: Pg 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15 SIM					REMARKS
060121-HQ-HSSB-17a	1/21/06	~8 hr	533	X			X			548	908	206035-17	X					
-18a		~8 hr	516	X			X			495	919	-18	X					
-19a		~8 hr	645	X			X			534	948	-19	X					
-20a		~8 hr	520	X			X			565	921	-20	X					
-21a		~8 hr	661	X			X			TW ~~545~~	~~937~~ TW	-21	X					559/908
-22a		~8 hr	647	X			X			545	937	-22	X					
-23a		~8 hr	784	X			X			539	936	-23	X					
-24a		~8 hr	511	X			X			548	907	-24	X					

Same as Pg 1

N2

SHELF-Y

COMMENTS

BILLING INFORMATION

Company: Same as
Address: Pg 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

		Date	Time		Date	Time
SAMPLED BY: Kent Jaeger		1/23/06		Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received for lab by:	1/24/06	1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: Same as
Address: Pg 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15 SIM	Same as Pg 1					REMARKS
060121-IAQ-HSSB-25a	1/21/06	~8 hr	609	X			X			543	919	606035-25	X						
-26a		~8 hr	35	X			X			538	918	-26	X						
-27a		~8 hr	745	X			X			574	922	-27	X						
-28a		~8 hr	781	X			X			572	939	-28	X						
-29a		~8 hr	773	X			X			596	924	-29	X						
-30a		~8 hr	644	X			X			533	932	-30	X						
-31a		~8 hr	191	X			X			566	926	-31	X						
-32a		~8 hr	690	X			X			542	917	-32	X						

N2 SHELF-C

COMMENTS

BILLING INFORMATION

Company: Same as
Address: Pg 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

SAMPLED BY: [signature] Date 1/23/06 Time
Relinquished By: [signature] Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Received for lab by: [signature] Date 1/24/06 Time 1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: Same as
Address: Pg 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15 SIM	Same as	Pg 1				REMARKS
060121-1AG-HSIB-33a	1/21/06	~8hr	735	X			X			540	930	206035-33	X						
-34a		~8hr	664	X			X			511	937	-34	X						
-35a		~8hr	413	X			X			571	914	-35	X						
-36a		~8hr	670	X			X			542	932	-36	X						
-37a		~8hr	193	X			X			547	931	-37	X						
-38a		~8hr	764	X		X				533	923	-38	X						
-39a		~8hr	702	X		X				510	985	-39	X						
-40a		~8hr	636	X		X				535	929	-40	X						

N2 SHELF-T

COMMENTS

BILLING INFORMATION

Company: Same as
Address: Pg 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

		Date	Time		Date	Time
SAMPLED BY:	[signature]	1/23/06		Received by:		
Relinquished By:	[signature]			Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received for lab by:	1/24/06	12:00

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: same as
Address: pg 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15SIM	same as pg 1					REMARKS
060121-IAQ-HSSB-41a	1/21/06	~8hr	758	X		X				556	927	206035-41	X						SHELF-W
-42a		~8hr	630	X		X				514	921	-42	X						
-43a		~8hr	966	X		X				537	948	-43	X						
-44a		~8hr	108	X		X				501	925	-44	X						
Trip Blank #1	NA	NA	728							933		-45	X						
060121-IAQ-TSSB-1b	1/21/06	~8hr	513	X			X			509	915	-46	X						SHELF-O
-2b		~8hr	606	X			X			518	947	-47	X						
-3b		~8hr	654	X			X			624	928	-48	X						

COMMENTS

BILLING INFORMATION

Company: same as
Address: pg 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

SAMPLED BY: [signature] Date 1/23/06 Time
Relinquished By: [signature] Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Received for lab by: [signature] Date 1/24/06 Time 1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: Same as
Address: PO
City/State/Zip:
Phone: (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15 SIM	Same as PO					REMARKS
060121-1AG-HSSB-4b	1/21/06	~8hr	517	X			X			518	923	206035-49	X						
-5b		~8hr	181	X			X			750	926	-50	X						
-6b		~8hr	700	X			X			752	922	-51	X						
-7b		~8hr	759	X			X			626	923	-52	X						
-8b		~8hr	175	X			X			753	928	-53	X						
-9b		~8hr	407	X			X			696	926	-54	X						
-10b		~8hr	725	X			X			604	935	-55	X						
-11b		~8hr	602	X			X			681	933	-56	X						

N2
SHELF-Z

COMMENTS

BILLING INFORMATION

Company: Same as
Address: PO
City/State/Zip:
ATTENTION:
Purchase Order/Billing Reference

SAMPLED BY: [signature] Date 1/23/06 Time
Relinquished By: [signature] Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Received for lab by: [signature] Date 1/24/06 Time 1200

ENVIRONMENTAL
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805.781.3585
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CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: same as
Address: PG1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15 SIM	same as PG1					REMARKS
060121-IAQ-HSB-12b	1/21/06	~8 hr	754	X			X			531	918	206035-57	X						
-13b		~8 hr	404	X			X			510	918	-58	X						
-14b		~8 hr	775	X			X			690	916	-59	X						
-15b		~8 hr	718	X			X			589	924	-60	X						
-16b		~8 hr	417	X			X			514	920	-61	X						
-17b		~8 hr	705	X			X			743	931	-62	X						
-18b		~8 hr	160	X			X			484	933	-63	X						
-19b		~8 hr	418	X			X			521	922	-64	X						

N2

SHELF-V

COMMENTS

BILLING INFORMATION

Company: same as
Address: PG1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

		Date	Time		Date	Time
SAMPLED BY:	[signature]	1/23/06		Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received for lab by: [signature]	1/24/06	1200

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CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: Same as
Address: Pg 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO15 SIM	Same as Pg 1					REMARKS
060121-1AG-HSSB-20b	1/21/06	~8hr	790	X			X			566	953	2006035-65	X						
-21b		~8hr	770	X			X			723	925	-66	X						
-22b		~8hr	684	X			X			563	923	-67	X						
-23b		~8hr	697	X			X			526	924	-68	X						
-24b		~8hr	526	X			X			533	925	-69	X						
-25b		~8hr	183	X			X			730	921	-70	X						
-26b		~8hr	708	X			X			536	926	-71	X						
-27b		~8hr	750	X			X			554	925	-72	X						

N2 SHELF-X

COMMENTS

BILLING INFORMATION

Company: Same as
Address: Pg 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

		Date	Time		Date	Time
SAMPLED BY:	Kendra Kagan	1/23/06		Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received by:		
Relinquished By:				Received for lab by:	1/24/06	1200

ENVIRONMENTAL
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93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: same as
Address: pg. 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	TO 15 SIM	same as pg 1					REMARKS
060121-IAD-HSB-28b	4/21/06	~8 hr	184	X			X			527	919	2006035-73	X						SHELF-M
-29b		~8 hr	53	X			X			496	917	-74	X						
-30b		~8 hr	717	X			X			503	928	-75	X						
-31b		~8 hr	521	X			X			548	926	-76	X						
-32b		~8 hr	674	X			X			523	923	-77	X						
-33b		~8 hr	910	X			X			514	918	-78	X						
-34b		~8 hr	671	X			X			502	928	-79	X						SHELF-N
-35b		~8 hr	610	X			X			669	929	-80	X						

COMMENTS

BILLING INFORMATION

Company: same as
Address: pg. 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

SAMPLED BY: [signature] Date 4/23/06 Time
Relinquished By: [signature] Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Received for lab by: [signature] Date 4/24/06 Time 1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
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93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: same as
Address:
City/State/Zip: pg. 1
Phone: (FAX)
ATTENTION:

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	LAB LABORATORY ID	TO-15 SIM	same as pg. 1					REMARKS
60121-IAQ-HSSB-36b	1/21/06	~8hr	738	X			X			742	937	206035-81	X						
-37b		~8hr	701	X			X			559	922	-82	X						
-38b		~8hr	161	X		X				540	929	-83	X						
-39b		~8hr	412	X		X				532	942	-84	X						
-40b		~8hr	640	X		X				604	922	-85	X						
-41b		~8hr	980	X		X				563	929	-86	X						
-42b		~8hr	603	X		X				560	931	-87	X						
-43b		~8hr	42	X		X				537	927	-88	X						

N2

TOP SHELF IN SAMPLE CONTROL

COMMENTS

BILLING INFORMATION

Company:
Address: same as
City/State/Zip: pg. 1
ATTENTION:
Purchase Order/Billing Reference:

SAMPLED BY: Kenda Fagan — Date/Time: 1/23/06
Relinquished By: — Date/Time:
Relinquished By: — Date/Time:
Relinquished By: — Date/Time:

Received by: — Date/Time:
Received by: — Date/Time:
Received by: — Date/Time:
Received for lab by: — Date/Time: 1/24/06 1200

ENVIRONMENTAL
Analytical Service, Inc.

173 Cross Street
San Luis Obispo, CA
93401 - 7597
805.781.3585
Fax 805.541.4550

CHAIN OF CUSTODY RECORD

Project Number | Project Name: | Quote Number:

REPORT TO:

Company: Same as
Address: Pg 1
City/State/Zip
Phone (FAX)
ATTENTION

MATRIX LEGEND
A - Ambient Air, Low Level
I - Indoor Air
S - Source Air, High Level
G - Gas/Product

SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	CANISTER NUMBER	COMP	GRAB	MATRIX A	MATRIX I	MATRIX S	MATRIX G	INITIAL PRESSURE	FINAL PRESSURE	EAS LABORATORY ID	ANALYTICAL TESTS: TO15 SIM	same as Pg 1	N2 SHELF-U	REMARKS
060121-IAA-HSSB-44b	1/21/06	~8 hr	25			X				498	921	206035-89				
Trip blank 2	NA	NA	772							898	925	-90				

COMMENTS

BILLING INFORMATION

Company: Same as
Address: Pg 1
City/State/Zip
ATTENTION
Purchase Order/Billing Reference

SAMPLED BY: [signature] Date 1/23/06 Time
Relinquished By: [signature] Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Relinquished By: Date Time
Received by: Date Time
Received for lab by: [signature] Date 1/24/06 Time 1200

IV. QUALITY CONTROL REPORT

SDG Numbers: 206035
Client: Environ Corporation

LABORATORY QC REPORT

QC NARRATIVE

Unless project specific QC was specified, these samples were analyzed with the standard EAS QC for the method as defined in the EAS Quality Manual.

STANDARD LABORATORY QC REPORT

Unless project specific QC reporting was requested, this Section contains the standard laboratory QC supplied with the analytical reports, which includes the daily method blank and the daily duplicate control samples as described below. Each day that samples are analyzed comprises a Daily Analytical Batch for a particular instrument. A Daily Analytical Batch QC report will be supplied for each method and each day samples from this SDG Group were analyzed.

METHOD BLANK

A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples. A copy of each batch Method Blank is included with the report. If a compound is detected in the Method Blank between the RL and MDL, it will be flagged with a "J". If a compound is above the RL, it will be flagged with a "B"

DUPLICATE CONTROL SAMPLES

A duplicate or duplicate control sample (DCS) was analyzed as part of each daily analytical batch. A DCS is a well-characterized matrix (blank water, ambient air, or actual sample) which may or may not be spiked and run in duplicate with your sample batch. The results are on the attached Duplicate Sample/Spike results. Precision is measured in a duplicate test by Relative Percent Difference (RPD) as in:

$$RPD = \frac{[\%\ \text{Recovery Test 1} - \%\ \text{Recovery Test 2}] \times 100}{(\text{Recovery Test 1} + \text{Recovery Test 2}) / 2}$$

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01246**

File: 0602202A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012406-MS1
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/24/06 **Time:** 14:53
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.013	0.035	0.073	0.069	J
75-35-4	1,1-Dichloroethene	0.007	0.014	0.009	0.015	0.030	0.020	J
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.006	0.026	0.083	0.033	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.185	93	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01256**

File: B01256A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012506-MS3
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/25/06 **Time:** 12:54
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	U
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.009	0.026	0.083	0.055	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.226	113	70-130	

Notes: 1) Reported results are to be interpreted to two *significant figures.*
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01266**

File: B01266A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012606-MS1
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/26/06 **Time:** 11:08
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.009	0.015	0.030	0.020	J
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.005	0.026	0.083	0.026	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.167	84	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01266**

File: B01266A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012606-MS3
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/26/06 **Time:** 11:40
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	U
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.007	0.026	0.083	0.042	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.200	100	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01276**

File: B01276A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012706-MS3
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/27/06 **Time:** 11:34
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	U
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.009	0.026	0.083	0.051	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.203	101	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01296**

File: B01296A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012906-MS1
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/29/06 **Time:** 13:27
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	J
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.005	0.026	0.083	0.026	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.174	87	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01296**

File: B01296A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 012906-MS3
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/29/06 **Time:** 13:39
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	U
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.005	0.026	0.083	0.027	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.200	100	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01306**

File: B01306A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 013006-MS1
Air Volume: *700 ml*

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/30/06 **Time:** 13:55
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.009	0.035	0.073	0.046	J
75-35-4	1,1-Dichloroethene	0.007	0.014	0.028	0.015	0.030	0.060	
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.005	0.026	0.083	0.026	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.184	92	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: **LABQC**
Laboratory Number: **B01306**

File: B01306A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 013006-MS3
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/30/06 **Time:** 13:41
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	U
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.005	0.026	0.083	0.026	U

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.188	94	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated *assuming conditions* at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

METHOD BLANK REPORT

ENVIRONMENTAL
Analytical Service, Inc.

EPA Method TO-15 SIM GC/MS
Analytical Method: *TO-15 SIM*

SDG: LABQC
Laboratory Number: B01316

File: B01316A.D
Description: METHOD BLANK
Can/Tube#:
Sam_Type: MB
QC_Batch: 013106-MS3
Air Volume: 700 ml

Date Sampled: **Time:**
Date Received:
Date Extracted:
Date Analyzed: 01/31/06 **Time:** 17:17
Can Dilution Factor: 1.00 3
Not Detected Flag: U

CAS#	Compound	MDL ppbv	RL ppbv	Amount ppbv	MDL ug/m3	RL ug/m3	Amount ug/m3	Flag
75-01-4	Vinyl chloride	0.007	0.014	0.007	0.035	0.073	0.035	U
75-35-4	1,1-Dichloroethene	0.007	0.014	0.007	0.015	0.030	0.015	U
156-60-5	trans-1,2-Dichloroethene	0.014	0.124	0.014	0.099	0.898	0.099	U
156-59-2	cis-1,2-Dichloroethene	0.007	0.014	0.007	0.018	0.038	0.018	U
79-01-6	Trichloroethene	0.009	0.014	0.009	0.025	0.039	0.025	U
127-18-4	Tetrachloroethene	0.005	0.014	0.009	0.026	0.083	0.053	J

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.185	92	70-130	

Notes: 1) Reported results are to be interpreted to two significant figures.
2) ug/m3 = ppbV*FW/23.68 calculated assuming conditions at 60 F and 1 atm.
3) MDL and RL are adjusted for sample volume and can dilution.
4) U and ND are Flags used for Not Detected
5) J is a flag for a result between the MDL and the RL (or lower quantitation limit, LQL)

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: LABQC

Dup File: QC01246B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012406-MS1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.111	0.106	5	30	
75-35-4	1,1-Dichloroethene	0.111	0.080	30	30	*
156-59-2	cis-1,2-Dichloroethene	0.107	0.105	2	30	
79-01-6	Trichloroethene	0.078	0.077	1	30	
127-18-4	Tetrachloroethene	0.107	0.103	4	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**

Analytical Method: **TO-15 SIM**

File: QC01246A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012406-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/24/06 **Time:** 9:54
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.106	0.000	0.106	103	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.080	0.000	0.080	78	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.105	0.000	0.105	102	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.077	0.000	0.077	75	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.103	0.000	0.103	100	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.183	92	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01246B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012406-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/24/06 **Time:** 11:55
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.111	0.000	0.111	108	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.111	0.000	0.111	108	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.107	0.000	0.107	104	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.078	0.000	0.078	76	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.107	0.000	0.107	104	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.178	89	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: LABQC

Dup File: QC01256B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012506-MS3

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.098	0.085	13	30	
75-35-4	1,1-Dichloroethene	0.088	0.075	13	30	
156-59-2	cis-1,2-Dichloroethene	0.106	0.097	9	30	
79-01-6	Trichloroethene	0.082	0.076	6	30	
127-18-4	Tetrachloroethene	0.098	0.094	4	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01256A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012506-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/25/06 **Time:** 11:14
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.085	0.000	0.085	83	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.075	0.000	0.075	73	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.097	0.000	0.097	94	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.076	0.000	0.076	74	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.094	0.000	0.094	91	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.202	101	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01256B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012506-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/25/06 **Time:** 12:01
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.098	0.000	0.098	95	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.088	0.000	0.088	85	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.106	0.000	0.106	103	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.082	0.000	0.082	80	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.098	0.000	0.098	95	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.205	103	70-130	

Notes: *Reported results are to be interpreted to two significant figures.*
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: LABQC

Dup File: QC01256C.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012506-MS1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.081	0.065	16	30	
75-35-4	1,1-Dichloroethene	0.064	0.054	10	30	
156-59-2	cis-1,2-Dichloroethene	0.093	0.078	15	30	
79-01-6	Trichloroethene	0.081	0.066	15	30	
127-18-4	Tetrachloroethene	0.107	0.091	16	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: LABQC

File: QC01256B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012506-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/25/06 Time: 11:05
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.065	0.000	0.065	63	70	130	*
75-35-4	1,1-Dichloroethene	0.005	0.103	0.054	0.000	0.054	52	70	130	*
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.078	0.000	0.078	76	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.066	0.000	0.066	64	70	130	*
127-18-4	Tetrachloroethene	0.003	0.103	0.091	0.000	0.091	88	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.171	85	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS — SDG: LABQC

Analytical Method: TO-15 SIM

File: QC01256C.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012506-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/25/06 Time: 11:47
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.081	0.000	0.081	79	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.064	0.000	0.064	62	70	130	*
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.093	0.000	0.093	90	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.081	0.000	0.081	79	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.107	0.000	0.107	104	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.165	83	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

Dup File: QC01266B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012606-MS1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.082	0.076	6	30	
75-35-4	1,1-Dichloroethene	0.075	0.067	8	30	
156-59-2	cis-1,2-Dichloroethene	0.089	0.092	3	30	
79-01-6	Trichloroethene	0.078	0.077	1	30	
127-18-4	Tetrachloroethene	0.103	0.101	2	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01266A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012606-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/26/06 **Time:** 9:39
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.076	0.000	0.076	74	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.067	0.000	0.067	65	70	130	*
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.092	0.000	0.092	89	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.077	0.000	0.077	75	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.101	0.000	0.101	98	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.187	94	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01266B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012606-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/26/06 **Time:** 10:21
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.082	0.000	0.082	80	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.075	0.000	0.075	73	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.089	0.000	0.089	86	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.078	0.000	0.078	76	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.103	0.000	0.103	100	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.194	97	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

Dup File: QC01266B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012606-MS3

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.098	0.088	10	30	
75-35-4	1,1-Dichloroethene	0.085	0.078	7	30	
156-59-2	cis-1,2-Dichloroethene	0.104	0.101	3	30	
79-01-6	Trichloroethene	0.086	0.077	9	30	
127-18-4	Tetrachloroethene	0.102	0.095	7	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01266A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012606-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/26/06 **Time:** 10:05
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.088	0.000	0.088	85	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.078	0.000	0.078	76	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.101	0.000	0.101	98	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.077	0.000	0.077	75	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.095	0.000	0.095	92	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.201	100	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01266B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012606-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/26/06 **Time:** 10:50
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.098	0.000	0.098	95	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.085	0.000	0.085	83	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.104	0.000	0.104	101	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.086	0.000	0.086	83	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.102	0.000	0.102	99	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.198	99	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: LABQC

Dup File: QC01276B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012706-MS3

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.091	0.093	2	30	
75-35-4	1,1-Dichloroethene	0.080	0.077	3	30	
156-59-2	cis-1,2-Dichloroethene	0.096	0.099	3	30	
79-01-6	Trichloroethene	0.081	0.078	3	30	
127-18-4	Tetrachloroethene	0.107	0.102	5	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01276A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012706-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/27/06 **Time:** 9:38
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.093	0.000	0.093	90	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.077	0.000	0.077	75	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.099	0.000	0.099	96	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.078	0.000	0.078	76	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.102	0.000	0.102	99	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.208	104	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01276B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012706-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/27/06 **Time:** 10:40
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.091	0.000	0.091	88	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.080	0.000	0.080	78	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.096	0.000	0.096	93	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.081	0.000	0.081	79	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.107	0.000	0.107	104	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.197	99	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

Dup File: QC01296B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012906-MS1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.082	0.078	4	30	
75-35-4	1,1-Dichloroethene	0.075	0.076	1	30	
156-59-2	cis-1,2-Dichloroethene	0.090	0.087	3	30	
79-01-6	Trichloroethene	0.082	0.078	4	30	
127-18-4	Tetrachloroethene	0.097	0.092	5	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01296A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012906-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/29/06 **Time:** 12:16
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.078	0.000	0.078	76	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.076	0.000	0.076	74	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.087	0.000	0.087	84	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.078	0.000	0.078	76	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.092	0.000	0.092	89	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.198	99	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**

Analytical Method: ***TO-15 SIM***

File: QC01296B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012906-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/29/06 **Time:** 12:51
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.082	0.000	0.082	80	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.075	0.000	0.075	73	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.090	0.000	0.090	87	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.082	0.000	0.082	80	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.097	0.000	0.097	94	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.193	96	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: TO-15 SIM

SDG: LABQC

Dup File: QC01296B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 012906-MS3

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.085	0.089	4	30	
75-35-4	1,1-Dichloroethene	0.075	0.077	2	30	
156-59-2	cis-1,2-Dichloroethene	0.108	0.102	6	30	
79-01-6	Trichloroethene	0.090	0.077	13	30	
127-18-4	Tetrachloroethene	0.110	0.098	12	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01296A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 012906-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/29/06 **Time:** 12:12
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.089	0.000	0.089	86	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.077	0.000	0.077	75	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.102	0.000	0.102	99	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.077	0.000	0.077	75	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.098	0.000	0.098	95	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.194	97	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**

Analytical Method: **TO-15 SIM**

File: QC01296B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 012906-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/29/06 **Time:** 12:55
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.085	0.000	0.085	83	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.075	0.000	0.075	73	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.108	0.000	0.108	105	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.090	0.000	0.090	87	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.110	0.000	0.110	107	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.190	95	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

Dup File: QC01206B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 013006-MS1

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.078	0.077	1	30	
75-35-4	1,1-Dichloroethene	0.077	0.084	7	30	
156-59-2	cis-1,2-Dichloroethene	0.089	0.084	5	30	
79-01-6	Trichloroethene	0.088	0.082	6	30	
127-18-4	Tetrachloroethene	0.101	0.091	10	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01306A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 013006-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/30/06 **Time:** 11:17
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.077	0.000	0.077	75	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.084	0.000	0.084	82	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.084	0.000	0.084	82	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.082	0.000	0.082	80	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.091	0.000	0.091	88	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.169	85	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01306B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 013006-MS1
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/30/06 **Time:** 11:52
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.078	0.000	0.078	76	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.077	0.000	0.077	75	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.089	0.000	0.089	86	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.088	0.000	0.088	85	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.101	0.000	0.101	98	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.167	83	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: LABQC

Dup File: QC01306C.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 013006-MS3

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.090	0.097	7	30	
75-35-4	1,1-Dichloroethene	0.083	0.083	0	30	
156-59-2	cis-1,2-Dichloroethene	0.102	0.114	12	30	
79-01-6	Trichloroethene	0.081	0.085	4	30	
127-18-4	Tetrachloroethene	0.102	0.109	7	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01306B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 013006-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/30/06 **Time:** 11:03
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.097	0.000	0.097	94	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.083	0.000	0.083	81	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.114	0.000	0.114	111	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.085	0.000	0.085	83	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.109	0.000	0.109	106	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.208	104	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01306C.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 013006-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/30/06 **Time:** 11:48
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.090	0.000	0.090	87	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.083	0.000	0.083	81	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.102	0.000	0.102	99	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.081	0.000	0.081	79	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.102	0.000	0.102	99	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.216	108	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL DUPLICATE

ENVIRONMENTAL
Analytical Service, Inc.

Duplicate of QC Sample

EPA Method TO-15 SIM GC/MS
Analytical Method: **TO-15 SIM**

SDG: LABQC

Dup File: QC01316B.D
Description: ST-071105-2
Can/Tube#:
QC_Batch: 013106-MS3

CAS#	Compound	LCD ppbv	LCS ppbv	RPD %D	Limit %	Flag * = Out
75-01-4	Vinyl chloride	0.111	0.106	5	30	
75-35-4	1,1-Dichloroethene	0.094	0.093	1	30	
156-59-2	cis-1,2-Dichloroethene	0.111	0.111	0	30	
79-01-6	Trichloroethene	0.094	0.076	17	30	
127-18-4	Tetrachloroethene	0.114	0.086	27	30	

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL SPIKE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01316A.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCS
QC_Batch: 013106-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/31/06 **Time:** 15:44
Can Dilution Factor: 1.00 3
QC Duplicate: No

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.106	0.000	0.106	103	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.093	0.000	0.093	90	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.111	0.000	0.111	108	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.076	0.000	0.076	74	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.086	0.000	0.086	83	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.188	94	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

QUALITY CONTROL REPORT

ENVIRONMENTAL
Analytical Service, Inc.

LABORATORY CONTROL DUPLICATE

EPA Method TO-15 SIM GC/MS **SDG: LABQC**
Analytical Method: **TO-15 SIM**

File: QC01316B.D
Description: ST-071105-2
Can/Tube#:
Sam_Type: LCD
QC_Batch: 013106-MS3
Air Volume: 1000 ml

Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 01/31/06 **Time:** 16:27
Can Dilution Factor: 1.00 3
QC Duplicate: Yes

CAS#	Compound	MDL ppbv	Spike Conc ppbv	Amount ppbv	Matrix Amt ppbv	Spk Amt ppbv	Percent Recovery	LCL %	UCL %	Flag
75-01-4	Vinyl chloride	0.005	0.103	0.111	0.000	0.111	108	70	130	
75-35-4	1,1-Dichloroethene	0.005	0.103	0.094	0.000	0.094	91	70	130	
156-59-2	cis-1,2-Dichloroethene	0.005	0.103	0.111	0.000	0.111	108	70	130	
79-01-6	Trichloroethene	0.006	0.103	0.094	0.000	0.094	91	70	130	
127-18-4	Tetrachloroethene	0.003	0.103	0.114	0.000	0.114	111	70	130	

Surrogate Recovery	Spike Amt. ppbV	Amount ppbV	% Rec.	QC Limits	Flag * = Out
Toluene-d8	0.200	0.190	95	70-130	

Notes: Reported results are to be interpreted to two significant figures.
*ug/m3 calculated assuming conditions at 60 F and 1 atm.

V. ANALYTICAL RESULTS

SDG Numbers: 206035
Client: Environ Corporation

The following pages contain the certified reports for the analytical methods and the compounds requested. The reports are in order of analytical method then EAS ID number. A brief description of the units that appear on the reports is given below:

ppbV, ppmV, Percent

Parts per billion by volume (also known as mole ratio) and other related units. This is the primary reporting unit for all volatile organic compound analysis except the hydrocarbon speciation and total hydrocarbons. This unit is independent of temperature and pressure.

$$\text{ppbV} = \frac{\text{nanomoles of compound}}{\text{moles of air}}$$

ug/m3, mg/m3

Micrograms of compound per cubic meter of air and other related units. This is the primary reporting unit for semi volatile organic compounds. It is not a primary reporting unit for volatile organic compounds because it is temperature and pressure dependent, so the result will vary depending on the conditions when the sample was collected. EAS provides the units on its analytical reports as a convenience to the client, but they should be used with caution. The following equation can be used to convert from ppbV to ug/m3.

$$\text{ug/m3} = \frac{\text{ppbV x MW compound}}{23.68}$$

23.68 is the molar volume of a gas at 60 F and 1 atm pressure

ppbC, ppmC

Parts per billion by volume as carbon (methane) and other related units. This unit is the primary reporting unit for hydrocarbon analysis, even if it does not appear on the report. This unit is used because the flame ionization detector response is proportional to the number of carbons in the compound, so an accurate concentration can be reported even if the identification of the compound is not known.

$$\text{ppbC} = \text{ppbV x number of carbons in compound}$$